



DREXEL UNIVERSITY  
School of  
Public Health

# CATALOG

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# About the School of Public Health

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## About the School

Drexel University's School of Public Health promotes the health of communities through an integrated program of education, research, service and practice. The School is committed to identifying societal conditions required for people to be healthy, and to advancing practices that improve the health of vulnerable populations. The School enhances the health of communities by creating partnerships based on community values, strengths and assets. Its curriculum, stresses the importance of understanding and addressing the connection between human rights and health status.

The mission of the School of Public Health (<http://publichealth.drexel.edu>) is to promote health and quality of life through graduate education, applied research, and community service in the prevention and control of disease, injury, and disability. The curriculum combines knowledge of the disciplines of public health and practical applications of that knowledge. By working collaboratively with community groups, agencies, and populations, professionals are prepared to effectively address today's most pressing public health problems.

## Preparation and Partnership

The School believes that professionals can best meet the needs of today and tomorrow with expertise in the integration and practical application of all disciplines of public health. The School of Public Health's educational and research programs are built upon partnerships with communities and the organizations that serve them.

The School prepares professionals to assess population health; to ensure appropriate services through programmatic, economic, and organizational interventions; and to develop and evaluate policy interventions.

## Majors

- Biostatistics (MS) (p. 2)
- Community Health and Prevention (DrPH) (p. 3)
- Epidemiology (PhD) (p. 4)
- Health Policy and Social Justice (DrPH) (p. 6)
- Public Health (MPH) (p. 7)
- Public Health - Executive Program (MPH) (p. 9)

## Certificates

- Epidemiology and Biostatistics (p. 12)
- Global Health (p. 12)
- Lesbian, Gay, Bisexual and Transgender Health (LGBT) (p. 12)

## Minor

- Public Health (UG) (p. 14)

## Master of Science in Biostatistics

### About the Program

*Master of Science: 48.0 quarter credits*

Biostatistics applies statistical, mathematical and computational techniques to scientific research in health-related fields, including medicine, epidemiology, and public health. Biostatistics has been an integral and indispensable tool in improving health and reducing illness. Biostatisticians play essential roles in designing studies and analyzing research data. Graduates with degrees in biostatistics are employed in public health research and service organizations, university research groups, hospitals, pharmaceutical companies, health-related industries and government. The demand for biostatisticians in the job market has been consistently strong. New high throughput technologies such as gene microarray are generating an unprecedented amount of data and present exciting new opportunities for biostatisticians with strong computational skills.

The goal of Drexel University's MS Program in Biostatistics is to provide students with a thorough understanding of biostatistical methods, strong computational skills, and the ability to apply this knowledge to research focusing on health related problems. The program prepares students for handling the quantitative and computational aspects of a research project, ranging from study design, data collection and management, developing analysis plans, and conducting analyses and reporting findings. The program provides students with knowledge in statistical theory and computational methods as applied to biomedical and public health research.

Upon graduation MS students will attain competencies in the following three areas: general public health knowledge; biostatistics knowledge; data management and computing skills.

For additional information about the program, visit Drexel's School of Public Health (<http://publichealth.drexel.edu/1>) web site.

## Admission Requirements

Applicants to the MS in Biostatistics must meet the following requirements, having:

- a baccalaureate degree, ideally in a quantitative field such as mathematics, economics and computer science or a scientific area such as natural, biological, medical and environmental sciences.
- at least two semesters of calculus in college.
- knowledge and experience in computing such as operating system, office software and Internet. Familiarity with a programming language or a statistical package is desirable.

The application package will include:

- undergraduate and graduate transcripts
- three letters of recommendation from faculty or professionals who can evaluate the applicant's promise as a graduate student
- Graduate Record Examination (GRE) scores
- a written statement of career and educational goals.

## Degree Requirements

Completion of the MS in Biostatistics requires: (1) a minimum of 48 credit hours of course work; (2) a cumulative grade point average of 3.0 or higher; (3) a substantial data analysis project (9 credit hours) with a written report (30-50 pages) and oral presentation.

**Required Public Health Courses** 10.0

PBHL 516	Introduction to Public Health
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In addition, students select two of the following Public Health courses:

PBHL 540	Prevention Principles and Practices
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PBHL 550	Community Based Prevention Practices
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PBHL 640	Environmental Health
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PBHL 650	Public Policy and Advocacy
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PBHL 660	Occupational Health
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**Required Biostatistics Courses** 25.0

PBHL 520	Principles of Biostatistics
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PBHL 620	Intermediate Biostatistics I
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PBHL 621	Intermediate Biostatistics II
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PBHL 622	Statistical Inference I
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PBHL 623	Introduction to Statistical Computing
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PBHL 628	Survival Data Analysis
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PBHL 625	Longitudinal Data Analysis
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PBHL 629	Design & Analysis of Clinical Trials
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**Required Epidemiology Courses** 7.0

PBHL 530	Principles of Epidemiology
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PBHL 630	Intermediate Epidemiology
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**Suggested Electives** 6.0

BIO 631	Bioinformatics I
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BIO 640	Biometry
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MATH 510	Applied Probability and Statistics I
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MATH 511	Applied Probability and Statistics II
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PBHL 632	Applied Survey Research in Epidemiology
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PBHL 804	Research Methods for Community Health and Prevention
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PBHL 830	Advanced Epidemiology
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STAT 628	Applied Regression Analysis
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Total Credits	48.0
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# Doctor of Public Health in Community Health and Prevention

## About the Program

*Doctor of Public Health (DrPH): 60.0 quarter credits*

Drexel University's School of Public Health (<http://publichealth.drexel.edu/1>) offers a doctoral program in Community Health and Prevention, leading to the doctor of public health (DrPH) degree. The mission of the School of Public Health is to promote health and quality of life through graduate education, applied research, and community service in the prevention and control of disease, injury, and disability. The DrPH program in Community Health and Prevention builds upon the unique strengths of the School of Public Health, including the master's program in public health, a multidisciplinary faculty, and institutional resources.

The goal of the DrPH program in Community Health and Prevention is to produce doctoral-level public health graduates who exhibit a broad-based, systemic understanding of public health and are committed to effecting meaningful change in public and/or community health systems. Integrating applied research, education, service, and advocacy, the program emphasizes the application of interdisciplinary, theoretical, and

applied research paradigms to the understanding and prevention of public health problems.

The DrPH program in Community Health and Prevention is structured as follows: *required courses*, which build core competencies in community health and prevention; *elective courses*, which develop specific areas of expertise; the *comprehensive exam* which reassures student understanding and application of core public health competencies; the *practicum*, which structures the application of concepts and methods to solving public health problems; and the *dissertation*, which showcases the student's competency in applied research. This general framework is infused with community public health practice, rigorous qualitative and quantitative applied research methods, and skilled advocacy.

### Developing Core Competencies for Understanding and Solving Public Health Problems

Students in the DrPH program in Community Health and Prevention are expected to attain five core competencies for understanding and solving specific public health problems. The core competencies for the DrPH program integrate public health competencies developed by the Council on Linkages between Academia and Public Health Practice\* with the unique characteristics of the faculty of the Department of Community Health and Prevention and the practice community.

The five core competencies are as follows:

- Understand the mission, goals, and strategies of community health and prevention
- Understand and assess community health status and needs
- Understand and assess individual and environmental determinants of health
- Design, implement, and evaluate public health programs and policies
- Translate findings into policy recommendations and advocate for change

\*The Council on Linkages between Academia and Public Health Practice represents national public health academic and practice organizations including the American Public Health Association, the Association of Schools of Public Health, and the Centers for Disease Control and Prevention. Over the past decade, the council has developed a list of public health competencies to guide curriculum development in public health education.

For more information, visit the Drexel University School of Public Health (<http://publichealth.drexel.edu>) website.

## Admission Requirements

Admission to the doctor of public health program in Community Health and Prevention is competitive. Students who demonstrate an ability to integrate public health competencies and skills into public health practice are preferred.

Applicants to the DrPH program must meet the following requirements:

- A master's of public health degree (MPH) or a master's degree in a related field
- Documented evidence of applied research
- Potential for a high level of performance in the DrPH program and for significant contributions to the field of public health.

To qualify for admission, the applicant must present a portfolio that includes:

- Undergraduate and graduate transcripts;
- GRE General Test (verbal, quantitative, analytical writing);
- Evidence of applied research skills (master's thesis, master's research paper, or publication);
- Three letters of recommendation, including one from a public health practitioner; and
- A written statement of career and educational goals, professional experience, and area of interest for the dissertation.
- An in-person or telephone interview is required of all finalists.

For more information, contact the Academic Coordinator for the School of Public Health/DrPH Program, Drexel University, 245 N. 15th Street, MS 660, Philadelphia, PA 19102-1192, 215-762-2572

Forms, details about requirements, and information about application deadlines are all available on the DrPH Community Health and Prevention ([http://www.drexel.edu/grad/programs/pubhealth/apply/requirements/p\\_phdr](http://www.drexel.edu/grad/programs/pubhealth/apply/requirements/p_phdr)) page of Drexel's Graduate Admissions website.

## Degree Requirements

Completion of the DrPH program requires the following:

- 60 quarter credit hours of coursework beyond the master's degree (30 credits of required coursework; 9 credits of elective courses; a 3 credit practicum; and 12 credits for the dissertation). Coursework covers the theory and practice of community health and prevention, health and human rights, community health interventions, qualitative research methods, community epidemiology, statistical methods for prevention research, program evaluation, health policy development and analysis, and leadership and advocacy;
- a minimum cumulative grade point average of 3.3;
- completion of the a practicum experience;
- passage of the doctoral comprehensive/candidacy examination; and
- completion of a dissertation that is highly relevant to community health practice and involves applied research, policy analysis, or management analysis.

All coursework is designed to develop the five core competencies of community health and prevention.

## Electives

The 9 credits of elective coursework enable doctoral students to expand and enhance skills within specific areas of competency. New courses are developed and added regularly, based on interests of faculty and students. Three electives (indicated by an \*) are highly recommended.

Note: Students are not limited to the electives offered by the DrPH program. Each student is encouraged to choose electives that maximize the fit between the student's educational objectives and opportunities throughout the University.

School Required Courses		15.0
PBHL 620	Intermediate Biostatistics I	
PBHL 630	Intermediate Epidemiology	
PBHL 632	Applied Survey Research in Epidemiology	
PBHL 802	Health and Human Rights	

PBHL 804	Research Methods for Community Health and Prevention	
Department Required Courses		21.0
PBHL 801	Theory & Practice of Community Health & Preventions I	
PBHL 803	Theory & Practice of Community Health and Preventions II	
PBHL 805	Qualitative Research in Community Health	
PBHL 808	Community Program Evaluation	
PBHL 824	Public Health Ethics	
PBHL 825	Measuring Health	
PBHL 814	Community Based Participatory Research	
<b>Practicum</b>		3.0
PBHL 810	Practicum in Community Health and Prevention	
<b>Dissertation Sequence (12 credits minimum)</b>		12.0
PBHL 901	Dissertation Seminar I	
PBHL 902	Dissertation Seminar II	
PBHL 998	Dissertation Guidance	
<b>Electives</b>		9.0
PBHL 822	Independent Study in Community Health and Prevention (Leadership) *	
PBHL 822	Independent Study in Community Health and Prevention (Public Health Ethics) *	
PBHL 670	Multicultural Competence in Community Health and Prevention	
PBHL 671	Theory and Practice of Community Health and Prevention	
PBHL 672	Theory and Practice in Health Communication	
PBHL 673	Outcomes Assessment of Community Health and Prevention	
PBHL 806	Community Health Research Methods	
PBHL 807	Analytic Methods for Community Health and Prevention	
PBHL 814	Community Based Participatory Research	
PBHL 817	Economic Evaluation Methods for Community Health and Prevention	
PBHL 818	Community Nutrition and Food Politics	
PBHL 819	Understanding and Preventing Domestic Violence	
PBHL 820	Adolescent Risk Behavior in a Developmental Context	
PBHL 821	Public Health Practice in and with Latino Communities	
PBHL 822	Independent Study in Community Health and Prevention	
<b>Total Credits</b>		<b>60.0</b>

\* This is a highly recommended elective.

## PhD in Epidemiology

### About the Program

*Doctor of Philosophy: 69.0 quarter credits*

The PhD in Epidemiology prepares students to approach problems with the critical analytic skills necessary for the generation of substantial and significant epidemiologic questions, and to utilize the most rigorous and parsimonious research strategies to answer such questions. Additionally, integral values of the Department and School will infuse students with the commitment to pursue important and innovative topics of inquiry even when faced with methodological challenges, and to undertake studies that generate knowledge applicable to diverse social, ethnic, and geographically defined populations.

Graduates will develop the skill and expertise necessary to initiate and direct the scientifically rigorous research necessary to generate the knowledge upon which to base public health and medical care policies and procedures designed to foster the maintenance and improvement of the health and well being of populations.

For additional information about the program, visit Drexel's School of Public Health (<http://publichealth.drexel.edu/Academics/Degrees/PhD-Degree-in-Epidemiology/540>) web site.

## Admission Requirements

Applicants to the PhD program in Epidemiology must meet the following requirements:

- MPH degree or master's degree in epidemiology or a related field.
- Potential for high level of performance in the PhD program and subsequent contributions to the field of epidemiology.

The application package will include:

- undergraduate and graduate transcripts,
- three letters of recommendation from faculty or professionals who can evaluate the applicant's promise as a graduate student
- official Graduate Record Examination scores (no other standardized test accepted for this program),
- a written statement of career and educational goals, professional experience, and area of research interest.

An in-person or telephone interview is required of all finalists.

All entering students are expected to have already completed introductory and intermediate level epidemiology and biostatistics courses (equivalents of PBHL 520, PBHL 530, PBHL 620, PBHL 630) as part of their Master's program or must enroll in these courses, or their equivalents, as additional requirements.

Forms, details about requirements, and information about application deadlines are all available on the PhD in Epidemiology ([http://www.drexel.edu/grad/programs/pubhealth/apply/requirements/p\\_phd\\_epi](http://www.drexel.edu/grad/programs/pubhealth/apply/requirements/p_phd_epi)) page of Drexel's Graduate Admissions website.

## Degree Requirements

Completion of the PhD in Epidemiology requires: (1) a minimum of 69.0 quarter credit hours of course work beyond the master's degree; (2) a minimum cumulative grade point average of 3.3; (3) passing the doctoral comprehensive examination; (4) passing the candidacy oral examination; (5) completing a dissertation of publishable quality; and (6) passing the final defense.

A student in the PhD degree program shall have five calendar years from the date of initial registration to complete and successfully defend a dissertation.

## Electives

All students must complete two epidemiology area electives, two biostatistics area electives, and two additional electives. For their additional electives, students can choose from many different epidemiology or biostatistics courses, or from other graduate-level courses across the university which have been identified as possible electives.

### School of Public Health Core Courses

PBHL 620	Intermediate Biostatistics I	3.0
PBHL 630	Intermediate Epidemiology	3.0
PBHL 802	Health and Human Rights	3.0
PBHL 824	Public Health Ethics	3.0

### Departmental Required Courses

PBHL 621	Intermediate Biostatistics II	3.0
PBHL 636	Infectious Disease Epidemiology	3.0
PBHL 826	Causal Inference in Epidemiology	3.0
PBHL 830	Advanced Epidemiology	4.0
PBHL 831	Epidemiology PhD Seminar I	1.0
PBHL 833	Epidemiology PhD Seminar II	3.0
PBHL 833	Epidemiology PhD Seminar II	3.0
PBHL 834	Methodological Challenges	3.0
PBHL 835	Proposal Writing Seminar	3.0

### Dissertation

PBHL 999	Thesis Research: Dissertation Guidance and Epidemiology	12.0
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### University Required Course

EDUC 531	College Teaching & Communication Skills	1.0
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### A minimum of two Epidemiology Area electives: 6.0

PBHL 633	Epidemiology of Cancer	
PBHL 634	Epidemiology for Public Health Practice	
PBHL 635	Social Epidemiology and Psychiatric Epidemiology	
PBHL 638	Perinatal Epidemiology	
PBHL 639	Cardiovascular Disease Epidemiology & Prevention	

### A minimum of two Biostatistics Area electives: 6.0

PBHL 622	Statistical Inference I	
PBHL 623	Introduction to Statistical Computing	
PBHL 625	Longitudinal Data Analysis	
PBHL 628	Survival Data Analysis	
PBHL 629	Design & Analysis of Clinical Trials	

### Additional electives 6.0

Students select other epidemiology or biostatistics courses, or electives from other graduate-level courses across the university which have been identified as possible electives.

Total Credits		69.0
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See the PhD Program Guide (<http://publichealth.drexel.edu/Academics/Degrees/PhD-Degree-in-Epidemiology/540>) for additional information.



\*

\*\* Number of credits taken each quarter is variable depending on stage of the project and other credit load. May be taken for additional credits if necessary.

## Doctor of Public Health in Health Policy and Social Justice

### About the Program

*Doctor of Public Health (DrPH): 60.0 quarter credits*

Drexel University's School of Public Health (<http://publichealth.drexel.edu/1>) offers a doctoral program in Health Policy and Social Justice, leading to the doctor of public health (DrPH) degree. The Doctor of Public Health in Health Policy and Social Justice is designed to prepare students to play strong professional roles in developing and implementing policies that improve public health by focusing on those in the community who are most vulnerable.

The mission of the School of Public Health is to promote health and quality of life through graduate education, population-based research, and community service in the prevention and control of disease, injury and disability and the maintenance of health and quality of life. Effective public health practice is built on a foundation of effective programs and health policy and necessitates long-term partnerships with community, organizations and regulatory bodies.

Inequities based on social group memberships, including race, ethnicity, gender, sexual orientation and class, are well documented in the scientific literature. Equally alarming are disparities in access to health care and health outcomes based on race, ethnicity and other social indicators. Graduates of the DrPH in Health Policy and Social Justice will generate new knowledge about social justice and will use this knowledge in the analysis, evaluation and modification of existing policy as well as the design and delivery of new policy affecting public health practice.

The DrPH in Health Policy and Social Justice will prepare students to play strong professional roles in developing and implementing policies that improve public health by focusing on those who are most vulnerable. By studying important racial and ethnic, social class and gender differences within the larger social justice framework, students will emerge from the program with a sound theoretical and practical foundation for critical scholarship in health disparities, cultural competency and social justice. Furthermore, they will gain the tools to implement effective policies in both public and private health sectors.

#### Developing Core Competencies for Understanding and Solving Public Health Problems

The core competencies of the DrPH were developed in response to the proposed core competencies of the Council on Linkages between Academia and Public Health Practice. These competencies include the ability to:

1. Identify health system problems and health policy opportunities
2. Analyze structural, economic and political forces that affect the health of populations
3. Evaluate the social justice implications of policy formulation, analysis and implementation
4. Inform and education leaders and policy-makers about public health issues and opportunities

5. Develop policies and plans that support the health of the public
6. Apply sound health economics principals and methods to health policy analyses
7. Evaluate effectiveness, accessibility, outcomes and quality of health services
8. Research for new insights and innovative approaches to public health policy
9. Apply social justice and human rights principles when addressing health system and health policy problems and opportunities
10. Conduct policy and health services research to improve health and health services in diverse populations
11. Develop public health policies and strategies based upon well-articulated problem statements and an understanding of the values of the communities involved
12. Use appropriate methods of policy analysis, economic evaluation, measurement and statistical approaches to reach sound and defensible conclusions
13. Disseminate findings, analyses and effective models to the lay public, leaders and policy makers across disciplines.

### Additional Information

For more information about the program, contact:

Mr. Solomon Evans  
School of Public Health/DrPH Program  
Drexel University  
Friends Center  
1501 Cherry Street, 2nd Floor  
Philadelphia PA 19102-1403  
215.571.4011

Additional information can be found on the Drexel University School of Public Health (<http://publichealth.drexel.edu>) website.

### Admission Requirements

Applicants to the DrPH Program in Health Policy and Social Justice must meet the following requirements:

- Completed MPH degree or other health-related master's degree program.\*
- Potential for high level of performance in the DrPH Program and subsequent contributions to the field of Public Health Policy.

\*Must be completed at least 1-year in advance of Fall enrollment for the DrPh Program.

Students will be admitted on a competitive basis, and those with a demonstrated ability to integrate public health competencies and skills into public health practice will be preferred. The admission portfolio will include: undergraduate and graduate transcript, three letters of recommendation from faculty or professionals who can evaluate the applicant's promise as a graduate student, official Graduate Record Examination scores, documented evidence of applied research or a writing sample, and a written statement of career and educational goals, professional experience, and area of research interest. For international students or applicants who earned a degree outside of the U.S., an international transcript evaluation is required. For more information regarding international applicant requirements, view the International

Students Admissions Information (<http://drexel.edu/iss/NewStudent.html>) page.

An in-person or telephone interview is required of all finalists.

## Additional Information

For more information about Admissions, contact:

Mr. Solomon Evans  
School of Public Health/DrPH Program  
Drexel University  
Friends Center  
1501 Cherry Street, 2nd Floor  
Philadelphia PA 19102-1403  
215.571.4011

Forms, details about requirements, and information about application deadlines are all available on the DrPH in Health Policy and Social Justice ([http://www.drexel.edu/grad/programs/pubhealth/apply/requirements/p\\_phdr\\_psj](http://www.drexel.edu/grad/programs/pubhealth/apply/requirements/p_phdr_psj)) page of Drexel's Graduate Admissions website.

## Degree Requirements

Completion of the DrPH in Health Policy and Social Justice requires the following:

- 60 quarter credit hours of coursework beyond the master's degree (33 credits of required coursework; 12 credits of elective course; a 3 credit practicum; and 12 credits for the dissertation).
- a minimum cumulative grade point average of 3.3;
- completion of a practicum experience;
- passage of the doctoral comprehensive/candidacy examination; and
- completion of a dissertation that involves applied research, policy analysis, or management analysis.

All coursework is designed to develop the core competencies of health policy and social justice.

## Electives

The 12 credits of elective coursework enable doctoral students to expand and enhance skills within specific areas of competency. New courses are developed and added regularly, based on interests of faculty and students. Students are not limited to the electives offered by the DrPH program. Each student is encouraged to choose electives that maximize the fit between the student's educational objectives and opportunities throughout the University.

## Curriculum

Required Courses (Doctoral Core)	15.0
PBHL 620 Intermediate Biostatistics I	
PBHL 630 Intermediate Epidemiology	
PBHL 632 Applied Survey Research in Epidemiology	
PBHL 802 Health and Human Rights	
PBHL 804 Research Methods for Community Health and Prevention	
<b>Department Required Courses</b>	<b>18.0</b>
PBHL 615 Perspectives on Gender, Race, Ethnicity, and Social Class	

PBHL 617	Health Disparities: Systemic, Structural, Environmental & Economic	
PBHL 618	Historical and Contemporary Developments in Social Justice	
PBHL 851	Health Systems Policy Analysis	
PBHL 853	Applied Health Economics: Technology Assessment and Economic Evaluation	
PBHL 805 or PBHL 855	Qualitative Research in Community Health or Health Services Research	
<b>Practicum</b>		<b>3.0</b>
PBHL 850	Practicum in Health Policy & Social Justice	
<b>Dissertation (12 credits minimum)</b>		<b>12.0</b>
PBHL 998	Dissertation Guidance	
PBHL 998	Dissertation Guidance	
PBHL 998	Dissertation Guidance	
<b>Electives</b>		<b>12.0</b>
In consultation with their advisors, students select elective courses appropriate for their educational goals. These courses may be from the School of Public Health or may be offered by other schools and colleges at Drexel University.		
<b>Total Credits</b>		<b>60.0</b>

## Master of Public Health

### About the Full-time Program

*Master of Public Health (MPH): 64.0 quarter credits*

The Master of Public Health full-time program is intended for individuals interested in careers as community educators; population health planners; policy analysts, evaluators, researchers; and managers of health service delivery organizations and systems, managed-care programs, and other population-based organizations.

The program is interdisciplinary and requires students to complete a community-based master's project. It prepares students to enter an array of fields related to public health or a range of doctoral programs.

Drexel University's Master of Public Health (MPH) program provides practical skills and experience, with a unique focus on relevant community issues, challenges, and priorities.

The 64 quarter-credit program is interdisciplinary and requires students to complete a comprehensive, community-based master's project. The program prepares students to enter an array of fields related to public health or a range of doctoral programs.

### Program Highlights

The first year of the program covers the five core disciplines offered within the context of culture and community. These include environmental and occupational health; health care systems organization, management, and policy; social and behavioral sciences for population health; epidemiology; biostatistics. During the second year of the program, students select one of five following concentrations from the school's four academic departments:

- Biostatistics
- Epidemiology



- Community Health and Prevention
- Environmental and Occupational Health
- Health Management and Policy

Throughout the program, group case discussion sessions, case-related activities and didactic sessions are integrated into the experience. These include:

- Skill development labs and workshops (year two);
- Public health grand rounds (for all faculty, students, and community partners) provide access to scholars and their cutting-edge research and initiatives in public health.

## Curriculum

The MPH full-time educational program is structured on a quarter-term basis, with a total 64 credit hours required. This is generally taken as a two-year program; all coursework must be completed within seven years of the date of matriculation for the full-time program.

The second-year curriculum is composed of four courses in the chosen area of concentration (Biostatistics; Epidemiology; Community Health and Prevention; Environmental and Occupational Health; Health Management and Policy), three elective courses, and the Community-Based Master's Project (CBMP), the culminating experience required of full-time Drexel MPH students.

Students spend approximately 12 hours each week working on a community-oriented, health-related project, often working as an integral part of a community-based organization. This can be in the areas of government, healthcare and social services, among others. In preparation for developing their final paper, students are required to identify an issue or problem of significance to the target community or agency, synthesize the literature, develop an approach or methodology to address the issue, and either implement and test the validity of a proposed approach or set out a detailed prescription for addressing the problem. Students may also work with faculty in specific research areas.

## Joint Doctor of Medicine and Master of Public Health Degree (MD/MPH)

Students wishing to complete a course of study earning the joint MD/MPH degree can complete such a program in 5 years. They must apply for the joint program and be accepted by both the Drexel University School of Medicine and the School of Public Health.

Students in this program have enriched public health content in their first two years of medical school and spend their third year of study full time in the School of Public Health. Students are able to enter clinical rotations and residency selection having obtained the MPH degree.

## Additional Information

For additional information about this program, contact:

Stephanie Johnson  
snj22@drexel.edu  
215.762.3935

## Admission Requirements

The School of Public Health seeks students with intellectual and interpersonal competencies as well as those with potential for leadership. The school has set a high priority on establishing a student body that is

representative of the nation's population. We strive to recruit and to admit applicants from underrepresented minority groups who can contribute to the richness of our student population and to that of the nation's public health professionals.

## Admissions Process

- The Admissions Committee carefully reviews applications and gives personal essays and letters of recommendation particular attention.
- The selection process weighs prior academic and personal accomplishments, emphasizing demonstrated leadership.
- Diversity of background and outside interests, depth of self-appraisal, commitment to public health, and working with individuals are highly valued.
- Prior work experience in a field related to public health is highly recommended.

Applicants Should Have:

- Satisfactorily completed an undergraduate bachelor degree program in an accredited U.S. college or university, or its equivalent in another country
- A course in Statistics is highly recommended
- Six undergraduate or graduate credits in the social or behavioral sciences and three in the biological sciences are preferred, but not required
- Satisfactory results from one of the following taken within the past five years (the GRE or GMAT is preferred):
  - Graduate Record Examination (GRE)
  - Graduate Management Admission Test (GMAT)
  - Medical College Admission Test (MCAT)
  - Law School Admission Test (LSAT)
- Test of English as a Foreign Language (TOEFL) for applicants whose first language is not English

Please note: Drexel University's School code for submitting GRE scores is 2194.

The Application Process also requires:

- Completion of the Schools of Public Health Common Application ([www.sophas.org](http://www.sophas.org))
- A personal essay describing what you perceive to be pressing public health issues, why a career in the field appeals to you, and how it will use your strengths and commitment
- Three letters of recommendation
- Resume or CV

Applicants to the joint MD/MPH program must be accepted to both the Drexel College of Medicine and the School of Public Health. (<http://www.drexel.edu/med>)

## Degree Requirements

The full-time educational program is structured on a quarter term basis, with a total credit hour requirement of 64 quarter credit hours. This is generally taken as a two-year program; all course work must be completed within four years of the date of matriculation for the full-time program.

**Required core courses** 28.0

PBHL 516	Introduction to Public Health
PBHL 520	Principles of Biostatistics
PBHL 530	Principles of Epidemiology
PBHL 540	Prevention Principles and Practices
PBHL 550	Community Based Prevention Practices
PBHL 600	Management, Leadership, Assurance and Health Services
PBHL 640	Environmental Health
PBHL 650	Public Policy and Advocacy

**Required community-based Master's project courses** 12.0

PBHL 680	Community Based Master's Project I
PBHL 681	Community Based Master's Project II
PBHL 682	Community Based Master's Project III

**Required Courses by Concentration** 12.0

Near the end of their first year, students select a concentration area and complete four courses for a total of 12.0 credits.

**Biostatistics**

PBHL 620	Intermediate Biostatistics I
PBHL 621	Intermediate Biostatistics II
PBHL 622	Statistical Inference I
PBHL 630	Intermediate Epidemiology

**Community Health and Prevention**

PBHL 670	Multicultural Competence in Community Health and Prevention
PBHL 671	Theory and Practice of Community Health and Prevention
PBHL 672	Theory and Practice in Health Communication
PBHL 673	Outcomes Assessment of Community Health and Prevention

**Environmental and Occupational Health**

PBHL 641	Environmental Hazard Assessment
PBHL 643	Environmental and Occupational Toxicology
PBHL 647	Occupational and Environmental Epidemiology
PBHL 662	Environmental and Occupational Policy

**Epidemiology**

PBHL 620	Intermediate Biostatistics I
PBHL 630	Intermediate Epidemiology
PBHL 632	Applied Survey Research in Epidemiology
PBHL 634	Epidemiology for Public Health Practice

**Health Management and Policy**

Students in this concentration must choose two courses from each of the following two categories of courses:

Macro Theory and Practice	
PBHL 609	Issues in United States Health Policy
PBHL 611	Race, Ethnicity and Health
PBHL 651	Legal Aspects of Public Health

**Micro Theory and Practice**

PBHL 601	Management Health Care Systems
PBHL 603	Advanced Healthcare Financial Management
PBHL 605	Change Management in Public Health

**Electives** 12.0

Students are required to successfully complete four electives (12.0 credits). These courses may be within the School of Public Health, or from other academic units within the University. Students must meet with their Academic Advisor in selecting their electives. It is the responsibility of the student to determine course restrictions and the registration process for campus electives taken at the Main Campus. The following is a sample of some of the School of Public Health electives offered by department:

**Biostatistics Electives**

PBHL 623	Introduction to Statistical Computing
PBHL 628	Survival Data Analysis
PBHL 629	Design & Analysis of Clinical Trials
PBHL 684	Statistical Theory II
PBHL 686	Advanced Statistical Computing

**Community Health and Prevention Electives**

PBHL 805	Qualitative Research in Community Health
PBHL 809	Community Health Policy Development and Analysis

**Environmental and Occupational Health Electives**

PBHL 648	Public Health and Disaster Preparedness
PBHL 649	Occupational and Environmental Cancers
PBHL 661	Occupational and Environmental Diseases

**Epidemiology Electives**

PBHL 633	Epidemiology of Cancer
PBHL 636	Infectious Disease Epidemiology
PBHL 638	Perinatal Epidemiology
PBHL 639	Cardiovascular Disease Epidemiology & Prevention

**Health Management and Policy Electives**

COM 675	Grant Writing for the Arts and Humanities
PBHL 602	HMP Problem Conceptualization
PBHL 604	Public Health Advocacy and Activism
PBHL 606	Vaccines and Public Health Policy
PBHL 607	Evolution of United States Health Policy
PBHL 615	Perspectives on Gender, Race, Ethnicity, and Social Class
PBHL 617	Health Disparities: Systemic, Structural, Environmental & Economic
PBHL 618	Historical and Contemporary Developments in Social Justice
PBHL 802	Health and Human Rights
PBHL 817	Economic Evaluation Methods for Community Health and Prevention
PBHL 851	Health Systems Policy Analysis
PBHL 852	Economics of Social Justice
PBHL 854	The Politics of Food & Gender
PBHL 856	Violence, Trauma and Adversity in Public Health

Total Credits 64.0

## Executive Master of Public Health

### About the Program

*Master of Public Health (MPH) 42.0 credits semester credits*

The Executive Master of Public Health (MPH) program is designed for working professionals, whether in public health or considering a career change to public health, who wish to accelerate or redirect their career.

Modeled on the highly successful full-time MPH program offered by the School of Public Health since 1996, the executive program is designed for working professionals, whether in public health or considering a career change to public health, who wish to accelerate or redirect their career. The program is tailored for individuals who are committed to advancing their careers and acquiring the knowledge and tools to advance to leadership roles in public health. The program is fast-paced, intensive and demanding but builds on each individual's former education, work experience and skills.

The MPH Executive program is designed to enable individuals to acquire a generalist MPH in 21 months with a convenient class schedule and intensive utilization of the internet. The class meets one Friday and one Saturday each month. Between class sessions, students utilize web-based technologies to interact with facilitators and other students with whom they may be collaborating in preparation for the next class.

Like the full-time MPH program, the Executive program covers the major disciplines of public health, including community health and prevention, environmental and occupational health, epidemiology, biostatistics, and health management and policy. It is case-based and built upon the problem based learning (PBL) model in which the student becomes a self-directed learner as well as a collaborator in learning with her/his peers, assisted by the faculty facilitator. The PBL model develops in the student a set of skills designed to effectively address the increasingly dynamic, uncertain world in which we live and work and prepares each individual to be an effective life-long learner.

## Additional Information

For more information, about this program, contact:

Colleen Baillie  
Director of Enrollment  
MPH Program  
cpb32@drexel.edu

William Hickey, PhD  
Executive MPH Program Director  
4h34@drexel.edu

Or visit the School of Public Health's Executive Master of Public Health Degree ([http://publichealth.drexel.edu/Academics/Degrees/Executive\\_MPH\\_Degree/189](http://publichealth.drexel.edu/Academics/Degrees/Executive_MPH_Degree/189)) page.

## Admission Requirements

The School of Public Health seeks students with intellectual and interpersonal competencies as well as those with potential for leadership. The school has set a high priority on establishing a student body that is representative of the nation's population. We strive to recruit and to admit applicants from underrepresented minority groups who can contribute to the richness of our student population and to that of the nation's public health professionals.

While most of the students in the Executive MPH program are from the Philadelphia area, the format of the program does not limit students from outside of the Philadelphia region from attending.

Admissions process:

- The Admissions Committee carefully reviews applications and gives personal essays and letters of recommendation particular attention.
- The selection process weighs prior academic and personal accomplishments, emphasizing demonstrated leadership.
- Diversity of background and outside interests, depth of self-appraisal, commitment to public health, and working with individuals are highly valued.
- A minimum of 3 years of professional work experience is required.

Applicants should have:

- Satisfactorily completed an undergraduate bachelor degree program in an accredited U.S. college or university, or its equivalent in another country
- A course in Statistics is highly recommended
- Six undergraduate or graduate credits in the social or behavioral sciences and three in the biological sciences are preferred, but not required.
- Satisfactory results from one of the following taken within the past five years (the GRE or GMAT is preferred):
  - Graduate Record Examination (GRE)
  - Graduate Management Admission Test (GMAT)
  - Medical College Admission Test (MCAT)
  - Law School Admission Test (LSAT)
- Test of English as a Foreign Language (TOEFL) for applicants whose first language is not English

## The Application Process also requires:

- Completion of the School's application
- A personal essay describing what you perceive to be pressing public health issues, why a career in the field appeals to you, and how it will use your strengths and commitment
- Two letters of recommendation, preferably from individuals who can assess the applicant's ability to handle a rigorous graduate curriculum (for example, faculty, supervisor *etc.*)
- Resume or CV.

Forms, details about requirements, and information about application deadlines are all available on the Executive MPH ([http://www.drexel.edu/grad/programs/pubhealth/apply/requirements/p\\_mph\\_phex](http://www.drexel.edu/grad/programs/pubhealth/apply/requirements/p_mph_phex)) page of Drexel's Graduate Admissions website.

## Degree Requirements

The Executive Program is designed for working professionals, whether in public health or considering a career change to public health. The program is tailored for individuals who are committed to advancing their careers and acquiring the knowledge and tools to advance to leadership roles in public health.

The Executive MPH program requires a minimum of 42.0 credits. All degree requirements must be completed within seven years of the date of matriculation. A minimum of five consecutive academic semesters is required for the degree. Enrollment must be continuous unless academic leaves are granted. A minimum overall GPA of 3.0 is required for graduation.

The sequential blocks of courses are as follows:



**Block I****Introduction to Public Health**

Introduction to Public Health introduces the mission, roles, issues, and context of public health, community health, and health systems. Topics include the history and mission of public health as well as a comprehensive exploration of the definition of public health including the essential services and core functions of public health. In addition, the relationships between public health, social justice, and human rights are examined.

Block I introduces and explores the five disciplines of public health: Epidemiology and Biostatistics, Community Health and Prevention, Environmental and Occupational Health, and Health Management and Policy.

**Block II****Biostatistics**

Introduces and applies the biostatistics tools and analytical base required for population-based and community health assessment and evaluation. The focus is on providing a broad and basic understanding of biostatistics, with more advanced methods included as appropriate.

**Block III****Epidemiology**

Introduces and applies the principles of epidemiology and study design needed to support population-based and community-health assessment and evaluation. Basic and more advanced methods are covered as appropriate, with applications to public health and community contexts.

**Block IV****Behavioral Assessment**

Behavioral Assessment is an interdisciplinary block that focuses on how individuals and groups approach issues of health behavior, health communication, and health promotion. The goal is to acquire basic knowledge of social and behavioral science theories, models, and research methods. Developmental theories and concepts are also introduced as an important component to understanding and analyzing behavior change models and program design. The concept of social determinants of health and the human rights framework will be introduced to analyze and develop public health interventions and policies.

**Block V****Community Assessment**

Examines concepts and theories regarding planned change, including models of community organization for health promotion. Presents critical appraisal of community-wide health communication campaigns.

**Block VI****Health Management and Leadership**

Explores critical elements of the assurance role of public health, beginning from the premise that effectiveness of program delivery and of the assurance role itself requires an understanding of organizations, leadership, and change in economic, strategic & systemic context. Applies management concepts and theories through an integrated model of the management process. In the latter portion of the block it extends, applies, and integrates previously developed concepts and theories with those of strategy, planning, accounting, financial management, and information systems

**Block VII****Program Planning and Evaluation**

The block content is built on the premise that the health-assurance role of public health begins with program planning, development, implementation and evidence-based practice. Examines concepts and theories underlying program planning, development, and evaluation. Emphasizes program application in context of specific problems and community context.

**Block VIII****Public Health Independent Study**

Allows students to develop in-depth knowledge of concepts and theories, and competencies in an area of public health that is of special interest to the student through preparation of a major paper under the guidance of a faculty member.

**Block IX****Environmental and Occupational Health**

Introduces concepts, theories, and programmatic applications within the fields of environmental and occupational health.

**Block X****Health Policy and Advocacy**

Introduces the fundamentals of public health law and the concepts and theories of health policy development, adoption, and evaluation. Also introduces the advocacy process and its importance to development of sound public health policy. Emphasizes systemic integration and the integration of the assessment, assurance and policy development roles of public health in problem, population, and political context.

**Block XI****Capstone: Integrated Public Health Case Analysis**

This course has been designed to fulfill the requirement that all Master of Public Health degree candidates have the opportunity, as described by the Council on Education for Public Health, "to synthesize and integrate knowledge acquired in course work and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice". This is accomplished through student engagement with multidisciplinary cases, including the preparation of an original case.

Students interested in the Executive Public Health program in Sacramento students should visit the Public Health, Executive MPH (<http://sacramento.drexel.edu/programs/masters-public-health/curriculum>) page on the Center for Graduate Studies, Sacramento web site.

## Certificate in Epidemiology and Biostatistics

The certificate program is supervised by the School of Public Health's director of eLearning and the department chair. The program is administered through Drexel eLearning. Applications to the certificate program are managed by

Drexel eLearning. For the most current admission information, please visit [www.drexel.com](http://www.drexel.com) (<https://nextcatalog.drexel.edu/graduate/schoolofpublichealth/epidemiologyandbiostatisticscert/www.drexel.com>).

### About the Curriculum

The certificate program provides research-oriented training in the theory and tools of core public health disciplines. Students build the statistical background needed to conduct research, develop hypotheses, analyze data, and interpret and communicate results.

The certificate program consists of three sequential 3-credit courses. Each course is taught over a 10-week period, allowing completion of the certificate within a 30-week period. The curriculum reflects core epidemiological and biostatistical concepts and practices in a similar manner to the full-time and Executive MPH programs. Contact between faculty and students creates an intense experience over this exclusively online format. The online format allows asynchronous learning while providing flexibility for adult learners constrained by physical and time limitations.

#### Requirements

PBHL 701	Introduction to Descriptive Epidemiology and Biostatistics	3.0
PBHL 702	Introduction to Analytic Epidemiology and Biostatistics	3.0
PBHL 703	Design and Analysis Epidemiological Studies	3.0

### Additional information

For more information about the program, visit the Certificate in Epidemiology & Biostatistics (<http://www.drexel.com/online-degrees/public-health-degrees/cert-epi-bio>) on the Drexel Online web site.

The Certificate in Epidemiological and Biostatistical Principles and Methods for Public Health in the Twenty-First Century, offered by Drexel University's School of Public Health, is an interdisciplinary program designed for working professionals of diverse backgrounds, including public health administrators, physicians, nurses, clinical research professionals, health educators, and policy experts.

Never before has disease prevention and health promotion been more important. As world events develop, with the added threat of bioterrorism and other emerging public health issues, those who can apply knowledge gained through research to real-world problems are in great demand across all sectors: health care, pharmaceuticals, governmental and non-governmental agencies, business, and academia.

## Certificate in Global Health

This online Certificate in Global Health program is designed to train post-baccalaureate students and public health professionals for a career in global health and development, including in international settings. The program stresses the development of analytic and technical skills

required for pursuing further work in the growing areas of global health and international development. The curriculum focuses on designing, implementing, and evaluating programs in under-served communities in the US and international/developing countries. Students will learn to translate theory into practical applications to current global health and developmental challenges. Course materials are designed for the adult-learner in an online, distributed format.

### Admissions

Admission requirements to the program include:

- a bachelor's degree
- completion of Certificate Program Application Form
- working knowledge of and access to a PC or Mac with DVD/CD-ROM drive, high speed connection to the Internet as well as MS Office.
- the ability to download free versions of Adobe Acrobat Reader, Skype, and/or VSee video teleconferencing applications.

#### Required Courses

PBHL 704	Proseminar in Global Health Ethics (Offered as a series of three 1-credit seminar courses.)	3.0
PBHL 705	Public Health in Developing Countries	3.0
PBHL 706	Globalization, Development and Comparative Health Systems	3.0
PBHL 707	Monitoring and Evaluation in Global Health	6.0
Global Health Practicum (in development for summer 2013)		

## Certificate in Lesbian, Gay, Bisexual and Transgender Health (LGBT)

The Certificate in Lesbian, Gay, Bisexual and Transgender (LGBT) Health is designed to address the complex issues confronting the health disparities and health seeking behaviors of LGBT people. The sequence of courses examines health disparities, research, sampling and measurement methodologies involved in the study of LGBT populations, and the intersections of social identities/inequalities (such as those based on ethnicity, sexual orientation and sex/gender among others).

The program is offered entirely online, and in a flexible format to provide qualified students and health professionals with an opportunity to acquire these credentials regardless of restrictions in time and physical location. Those who successfully complete the certificate program and wish to broaden their scope of public health education could pursue an MPH degree program.

#### Required Courses

PBHL 674	Studying Rare or Hidden Groups	3.0
PBHL 675	LGBT Health Disparities	3.0
PBHL 676	Intersectional Perspectives	3.0
Total Credits		9.0

### Additional Information

For additional information about this program, contact:

Randall L. Sell, ScD  
Department of Community Health and Prevention  
School of Public Health, Drexel University

randy@drexel.edu



## Minor in Public Health

The Drexel University School of Public Health trains new leaders to tackle society's current and future health challenges. The Public Health minor is designed to provide students with a broad overview of the field's diversity. Reflecting the interdisciplinary approach of the School, students are required to take courses originating from various public health disciplines, which include: epidemiology; community health and prevention; environmental and occupational health; and health management and policy.

This minor will be a relevant course of study for students pursuing pre-med, pre-law, biology and business curricula as well as students interested in population-based applications of psychology, sociology and communications theory. Completion of the minor will provide students with an exposure to the breadth and depth of topics within public health, population-level challenges and solutions, as well as possible career options.

### Additional Information

For more information about this program, please contact the Program Director:

Jennifer Breaux, DrPH, MPH  
 Director, Undergraduate Public Health Education  
 Drexel University School of Public Health  
 jrb43@drexel.edu

### Required Courses

PBHL 301	Epidemiology in Public Health	3.0
PBHL 302	Introduction to the History of Public Health	3.0
PBHL 303	Overview of Issues in Global Health	3.0
PBHL 304	Introduction to Health & Human Rights	3.0
Select two courses from the following category:		6.0
ENVP 345	Sociology of the Environment	
PSCI 353	International Human Rights	
PSCI 370	Topics in Public Policy	
PSY 368	Critical Psychology	
PBHL 305	Women and Children: Health & Society	
SOC 210	Race and Ethnic Relations	
SOC 235	Sociology of Health	
WMST 275	Women's Health & Human Rights	
Select two courses from the following category:		6.0
BIO 318	Biology of Cancer	
ECON 240	Economics of Health Care Systems	
ENVP 346	Environmental Justice	
ENVS 321	Environmental Health	
PHIL 321	Biomedical Ethics	
PSY 355	Health Psychology	
SOC 220	Wealth and Power	
SOC 275	Issues in Domestic Violence	
Total Credits		24.0

# Undergraduate Course Descriptions

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## Public Health

### Courses

#### **PBHL 101 Introduction to Public Health 3.0 Credits**

Introduction to Public Health is a broad overview class designed to give an introduction to the core tenets of Public Health. Basic concepts covered in the class are the basic definitions and concepts related to public health. Specific areas that will be further explored in the class include, what it means to be healthy, what is public health, what are social determinants of health, what is disease prevention and health promotion and what are health inequalities among others.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 301 Epidemiology in Public Health 3.0 Credits**

This is an introductory course designed to teach undergraduate students the basic principles and concepts of epidemiology. The course highlights the approaches used in the field of epidemiology to study disease in populations, incorporating concepts of disease causation and control.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

#### **PBHL 302 Introduction to the History of Public Health 3.0 Credits**

This course considers the origins of contemporary public health by examining major currents in the history of public health in the United States from Colonial times to the present, with an emphasis on the 20th century.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

#### **PBHL 303 Overview of Issues in Global Health 3.0 Credits**

This introductory course will cover the major issues and considerations involved in global health. It is a survey course that is designed to familiarize students with the major topics in the global health. The goal of the course is to provide students with an overview of concepts such as the determinants of health, the measurements of health status and global burden of the disease.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

#### **PBHL 304 Introduction to Health & Human Rights 3.0 Credits**

This introductory course highlights the intrinsic link between one's health and his/her fundamental human rights. When such rights (access to medical care, housing, food, standard of living) are violated, this can lead to adverse health outcomes.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

#### **PBHL 305 Women and Children: Health & Society 3.0 Credits**

This course is designed to give students a broad overview of pertinent issues surrounding the health and well being of mothers and children. The course emphasizes the inter-relationship among women's health, reproductive health and child health.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 306 Introduction to Community Health 3.0 Credits**

This three credit course will provide the foundation for studying the root causes affecting community health in the United States, as well as broad efforts to improve world health. This course is designed to enhance oral and written communications on public health issues, advocacy, and public policy, while enhancing content, process skills, and other essential competencies.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

#### **PBHL 307 Injury Prevention and Control 3.0 Credits**

This course examines the history of injury as one of the core public health problems in the United States. The subsequent costs and burdens to the healthcare system are explored using current information from the academic literature, local and national interest groups, and government agencies. Policy and behavioral interventions are addressed. Where possible, extensions to international settings are made.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 308 The U.S. Public Health System 3.0 Credits**

This course will provide students with an understanding of the organizational components of the public health system in the United States. Among the topics covered are the roles of different levels of government in the financing, delivery, and regulation of public health services and the complementary private, non-profit components of the public health system. The course addresses several current, critical public health policy issues and how different political and economic interests and actors interact in shaping public policy on these issues.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

#### **PBHL 309 Public Health Ethics 3.0 Credits**

This course will explore the emergence of the public health field, its philosophical, historical, and political development, its relationship to the field of human rights and its future. Emphasis will be placed on developing a mastery of the current literature on the subject and on formulating novel approaches in public health ethics. This is a reading and writing intensive course, and students should be prepared to engage in serious dialogue each week in class.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

**PBHL 310 Burden of Disease 3.0 Credits**

This course will cover selected topics of the burden of disease with critical review of the current public health literature. Students will have the opportunity to learn the basic concepts and methods of exploring risk factors and assessing the burden of disease at regional, national and global levels, through class lectures, group exercise and individual projects.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 311 Public Health Biology 3.0 Credits**

This course is designed to introduce students to the biologic basics of the causes, natural history, and prevention of diseases of public health importance. An integrated perspective will be used to demonstrate the connection between exposures and cellular effects, disease processes in individuals, and population impacts. Coverage will include infectious disease transmission and prevention; cancer biology regarding etiology, prevention, and treatment; nutritional influences in obesity, diabetes and heart disease.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** BIO 107 [Min Grade: C] and BIO 108 [Min Grade: C] and PBHL 101 [Min Grade: C]

**PBHL 312 Making Sense of Public Health Data 3.0 Credits**

This course will introduce students to the basic concepts and methods of biostatistics as they relate to applications in public health practice and research.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

**PBHL 313 The Social Determinants of Health and Well-Being 3.0 Credits**

The goal of this course is to introduce students to the patterning of health and well-being among social groups within and between societies, and how a social science approach can improve our understanding of health and illness at a population level, and identify possible public health strategies for reducing health disparities.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

**PBHL 314 Environmental and Occupational Health 3.0 Credits**

The goal of this course is to provide students with basic knowledge of EOH as it applies to the practice of public health from individual, community and political perspectives. Students will also gain skills needed to understand and conduct scientific research related to EOH. Students will be expected to critically analyze EOH issues and explore appropriate responses.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

**PBHL 315 Public Health Leadership 3.0 Credits**

This course provides students with an introduction to the environment and organizations in public health leadership. This course introduces leadership skills to lead changes in public health organizations. The cases and lectures throughout the course have been designed to develop leadership approaches for public health agencies.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

**PBHL 316 Drugs, Society, and Public Health 3.0 Credits**

This course will examine problems associated with drug use through the prism of public health. The first half of the course will be devoted to understanding biological, psychological, social, and cultural aspects of key licit and illicit substances. The second half will focus on relevant public health aspects of drug use, including preventions, intervention, treatment, and policy. Intersecting issues include homelessness, HIV/AIDS, mental health & violence. Students will be exposed to key books and peer-reviewed articles that address these issues from a range of theoretical & analytical approaches.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 317 The World's Water 3.0 Credits**

This course will discuss the approaches that may be taken to improve access to water and sanitation and improve public health. The course will also cover water remediation and safeguard techniques for the improvement of water quality, as well as gender and development perspectives.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 101 [Min Grade: C]

**PBHL 318 Violence and Trauma in Public Health 3.0 Credits**

This course will focus on the public health policy and practice aspects of trauma violence and adversity. The course will begin by laying a foundation of trauma theory and then will examine the impact of emerging knowledge on individuals, communities and systems. The course will examine trauma informed models, which have been applied to individuals, communities and systems and will analyze the policy and practice implications of these models as well as the translation from research to practice.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit



**PBHL 497 Capstone Experience I 3.0 Credits**

The senior capstone is a progressive 3-quarter experience with cross cutting competencies for graduating public health major seniors to provide them with an individualized learning experience of breadth and depth. Students will work with faculty members to design a project that will fulfill both his/her public health interests as well as the broader capstone objectives. Students will participate in in-class learning with other public health majors to acquire foundational concepts, which they can apply to their individualized project.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if classification is Senior.

**Prerequisites:** PBHL 301 [Min Grade: C-] and PBHL 302 [Min Grade: C-] and PBHL 303 [Min Grade: C-] and PBHL 304 [Min Grade: C-] and PBHL 306 [Min Grade: C-] and PBHL 308 [Min Grade: C-] and PBHL 309 [Min Grade: C-] and PBHL 311 [Min Grade: C-] and PBHL 312 [Min Grade: C-] and PBHL 313 [Min Grade: C-] and PBHL 314 [Min Grade: C-] and PBHL 315 [Min Grade: C-] and PBHL 317 [Min Grade: C-]

**PBHL 498 Capstone Experience II 3.0 Credits**

The senior capstone is a progressive 3-quarter experience with cross cutting competencies for graduating public health major seniors to provide them with an individualized learning experience of breadth and depth. Students will work with faculty members to design a project that will fulfill both his/her public health interests as well as the broader capstone objectives. Students will participate in in-class learning with other public health majors to acquire foundational concepts, which they can apply to their individualized project.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if classification is Senior.

**Prerequisites:** PBHL 301 [Min Grade: C-] and PBHL 302 [Min Grade: C-] and PBHL 303 [Min Grade: C-] and PBHL 304 [Min Grade: C-] and PBHL 306 [Min Grade: C-] and PBHL 308 [Min Grade: C-] and PBHL 309 [Min Grade: C-] and PBHL 311 [Min Grade: C-] and PBHL 312 [Min Grade: C-] and PBHL 313 [Min Grade: C-] and PBHL 314 [Min Grade: C-] and PBHL 315 [Min Grade: C-] and PBHL 317 [Min Grade: C-]

**PBHL 499 Capstone Experience III 3.0 Credits**

The senior capstone is a progressive 3-quarter experience with cross cutting competencies for graduating public health major seniors to provide them with an individualized learning experience of breadth and depth. Students will work with faculty members to design a project that will fulfill both his/her public health interests as well as the broader capstone objectives. Students will participate in in-class learning with other public health majors to acquire foundational concepts, which they can apply to their individualized project.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if classification is Senior.

**Prerequisites:** PBHL 301 [Min Grade: C-] and PBHL 302 [Min Grade: C-] and PBHL 303 [Min Grade: C-] and PBHL 304 [Min Grade: C-] and PBHL 306 [Min Grade: C-] and PBHL 308 [Min Grade: C-] and PBHL 309 [Min Grade: C-] and PBHL 311 [Min Grade: C-] and PBHL 312 [Min Grade: C-] and PBHL 313 [Min Grade: C-] and PBHL 314 [Min Grade: C-] and PBHL 315 [Min Grade: C-] and PBHL 317 [Min Grade: C-]

# Graduate Course Descriptions

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## Public Health

### Courses

#### **PBHL 503 Public Health Independent Study 1.0-3.0 Credit**

An independent study course designed to cover special topics relevant to public health and one or more of the core disciplines of biostatistics, epidemiology, environmental and occupational health, health behavior and promotion and health management. Students will work independently with the guidance of appropriate public health faculty.

**College/Department:** School of Public Health

**Repeat Status:** Can be repeated 6 times for 9 credits

**Restrictions:** Can enroll if major is PH.

#### **PBHL 505 Community Health & Prevention 3.0 Credits**

This course integrates knowledge about individual health behavior and decision-making with the rich ecological context found in communities. Coverage of basic knowledge and behavior science theories, models and research methods will be provided as well as modern human rights framework to analyze and create public health interventions and policies.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 507 Health Policy and Management 3.0 Credits**

Health management and policy is a multidisciplinary field of inquiry and practice concerned with the delivery, quality and costs of health care for individuals and populations. This area of study has both an organizational management and a public policy focus and it especially addresses issues involving the accessibility, organization, costs, financing and outcomes of health services.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 509 Environmental and Occupational Health 3.0 Credits**

The goal of this course is to provide students with basic knowledge of environmental and occupational health as it applies to the practice of public health from individual, community and political perspectives. Students will also gain skills needed to understand and conduct scientific research related to environmental and occupational health.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 510ES Block I-Introduction to Public Health 2.0 Credits**

This course presents an overview of the principles of public health and the concepts and foci of each of its core disciplines. It is a required course for the Executive MPH students.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if major is PHEX.

#### **PBHL 516 Introduction to Public Health 2.0 Credits**

This course introduces and investigates the history, issues, function and context of public health, community health and health systems.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 520 Principles of Biostatistics 4.0 Credits**

Introduces and applies the biostatistics and analytical base required for population-based and community health assessment and evaluation. The focus is on providing a broad and basic understanding of biostatistics, with more advanced methods included as appropriate.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 520ES BIOSTATISTICS 4.0 Credits**

Introduces and applies the biostatistics and analytical base required for population-based and community health assessment and evaluation. The focus is on providing a broad and basic understanding of biostatistics, with more advanced methods included as appropriate.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 530 Principles of Epidemiology 4.0 Credits**

Introduces and applies the principles of epidemiology and study design needed to support population-based and community health assessment/evaluation. Basic and more advanced methods are covered as appropriate with applications to public health and community contexts, and integration with the biostatistics.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 530ES Epidemiology 4.0 Credits**

Introduces and applies the principles of epidemiology and study design needed to support population-based and community health assessment and evaluation. Basic and more advanced methods are covered as appropriate with applications to public health and community contexts, and integration with the biostatistics taught in Block II.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 540 Prevention Principles and Practices 4.0 Credits**

Focuses on how individuals and groups approach issues of health behavior, health communication, and health promotion. The goal of this course is to provide basic knowledge of social and behavioral science theories, models, and research methods.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

#### **PBHL 540ES MPH Block IV-Behav Assessment 4.0 Credits**

Introduces principles of health behavior in context of the human life-cycle and covers their application to prevention and health promotion programs in a community context.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 550 Community Based Prevention Practices 4.0 Credits**

Provides an interdisciplinary foundation that is focused on strategies designed to enhance the health of the community. Also, to focus on the role of community capacity building, community empowerment, action-oriented community diagnosis and the central role of community residents in the identification of local issues, goals, and priorities affecting their lives and neighborhoods.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 540 [Min Grade: C]

**PBHL 550ES Community Based Prevention Practices 4.0 Credits**

Provides an interdisciplinary foundation that is focused on strategies designed to enhance the health of the community. Also, to focus on the role of community capacity building community empowerment, action-oriented community diagnosis and the central role of community residents in the identification of local issues, goals, and priorities affecting their lives and neighborhoods.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 540ES [Min Grade: C]

**PBHL 560 Issues in Global Health 3.0 Credits**

This course provides an overview of critical global health issues and the disproportionate effect on vulnerable populations, and will show how to apply the principles of human rights and environmental justice to those global health concerns.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 560ES MPH BLOCK VIIIA-COMM BASED MP 1.0 Credit**

**College/Department:** School of Public Health

**PBHL 570ES Block XI- Integrated Public Health Case Analysis 4.0 Credits**

This is the capstone course of the Executive MPH. Students will work in small groups to conduct a case analysis and a case development focusing on current public health issues which are multidisciplinary. All core disciplines will be examined as influences for the problem and possible solutions.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if major is PHEX.

**PBHL 600 Management, Leadership, Assurance and Health Services 3.0 Credits**

This course explores critical elements of assurance in public health organizations by understanding overarching public health principles in leadership and through an integrated management model.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 600ES MPH Blk-Mgmt Leadr Assur HS 4.0 Credits**

Explores critical elements of the assurance role of public health, beginning from the premise that effectiveness of program delivery and of the assurance role itself requires an understanding of organizations, leadership, and change, in economic, strategic and systematic context. Applies management concepts and theories through an integrated model of the management process. In the latter portion of the block, extends, applies, and integrates previously developed concepts and theories with those of strategy, planning, accounting, financial management, and information systems.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 601 Management Health Care Systems 3.0 Credits**

This course addresses the management of healthcare outcomes from several perspectives: patient, patient care and health systems. It explores how absolute clinical outcomes are impacted by intermediate outcomes in healthcare delivery and how these are evaluated from an economic outcomes perspective. It also addresses disparities observed in achieving health outcomes.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 600 [Min Grade: B] and PBHL 650 [Min Grade: B]

**PBHL 602 HMP Problem Conceptualization 3.0 Credits**

This course addresses current and transforming issues in public health policy and management, examines the history of each issue and analyzes forces that have led to new policy or management approaches. A key goal of the course is to build critical thinking, effective management approaches and creativity skills.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 650 [Min Grade: C]

**PBHL 603 Advanced Healthcare Financial Management 3.0 Credits**

The Business of Healthcare: Advanced Healthcare Financial Management is a course designed for non-financial health care managers. Using the case study approach, it offers an introduction to the most-used tools and techniques of health care financial management. There is a particular focus on fundamental.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 600 [Min Grade: B] and PBHL 650 [Min Grade: B]

**PBHL 604 Public Health Advocacy and Activism 3.0 Credits**

The elective course will provide distinct, specialized training in the leadership skills, tools and techniques needed to develop effective advocacy skills. Additionally, students will learn to integrate research-based data in order to strengthen advocacy initiatives.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 650 [Min Grade: C]

**PBHL 605 Change Management in Public Health 3.0 Credits**

Strategy, Innovation and Change Management is a required course for the Master of Public Health (MPH) program of study, concentration in Health Management and Policy. This course prepares students for management responsibilities in delivering new health services. The course focuses on developing strategies to adopt innovative services and management technique.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 600 [Min Grade: B] and PBHL 650 [Min Grade: B]

**PBHL 606 Vaccines and Public Health Policy 3.0 Credits**

This course examines the history and development of S Vaccine policy and the implementation of policy in the public health setting. The course will examine the history and ethics of this broad public health intervention and examine policy challenges.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 607 Evolution of United States Health Policy 3.0 Credits**

This is a reading intensive seminar in the evolution of the US health system and history of 20th century US health policy: how it adapted to internal and external forces with an emphasis on the cyclic interest - and disinterest - in universal health care coverage.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 600 [Min Grade: B] and PBHL 650 [Min Grade: B]

**PBHL 608 Fundamentals of Disaster Management 3.0 Credits**

Fundamentals of Disaster Management is an elective course for the Master of Public Health (MPH) program of study, concentration in Health Management and Policy. This course provides an understanding of the broad range of disaster management issues, and study strategies used to help a community prepare.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 600 [Min Grade: B] and PBHL 650 [Min Grade: B]

**PBHL 609 Issues in United States Health Policy 3.0 Credits**

This course introduces students to a selected set of health policy issues facing the US today, and that will challenge the nation in the foreseeable future. Emphasis is placed on effective problem definition and the identification of politically feasible solution to the policy issues being studied.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 600 [Min Grade: B] and PBHL 650 [Min Grade: B]

**PBHL 611 Race, Ethnicity and Health 3.0 Credits**

Race, Ethnicity and Health is a required course for the Master of Public Health (MPH) program of study, concentration in Health Management and Policy. This course explores racial and ethnic disparities in health status and access to healthcare, and examines intervention approaches to eliminate them.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 600 [Min Grade: B] and PBHL 650 [Min Grade: B]

**PBHL 612ES MPH BLK VII-PRGM PLAN & EVAL 4.0 Credits**

Beginning from the premise that the health-assurance role of public health begins with program planning, development, and evidence-based practice, this block examines concepts and theories underlying program planning, development, and evaluation. Emphasizes program application in context of specific problems and community context.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 615 Perspectives on Gender, Race, Ethnicity, and Social Class 3.0 Credits**

This course will explore the history of concepts of gender, race, ethnicity and social class and probe the biology, sociology and constructed meanings of these deeply situated ideas.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 617 Health Disparities: Systemic, Structural, Environmental & Economic 3.0 Credits**

This course explores racial and ethnic disparities in health status and access to health and examines interventions to eliminate them. Students learn to define and describe racial, ethnic and gender-related disparities, discuss underlying mechanisms, think critically about existing research on health disparities and develop proposals for reducing them.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 618 Historical and Contemporary Developments in Social Justice 3.0 Credits**

Courses will cover direct and indirect links between public health policies, political circumstances, social and economic conditions and effects on health of individuals and populations using the human rights framework.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 619 Decision Analysis in Public Health and Medicine 3.0 Credits**

A survey course of decision analysis and its relevance and use in public health and public policy decisions. Focus will be directed towards population health data, decision-making in conditions of uncertainty, and health policy.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 620 Intermediate Biostatistics I 3.0 Credits**

This course focuses on an overview of the linear modeling methods most commonly used in epidemiological and public health studies. Models include simple/multivariate linear regression, analysis of variance, logistic/conditional regression, Poisson regression and models for survival data. Focus is on implementing models and interpreting results.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B]



**PBHL 621 Intermediate Biostatistics II 3.0 Credits**

The course reinforces and builds upon the concepts in PHBL 620. It adds theoretical background on various linear model assumptions and multivariable model-building strategies. Approaches to model diagnostics (e.g., goodness of fit, residual analysis) are also covered.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: C]

**PBHL 622 Statistical Inference I 3.0 Credits**

This course introduces probability and biostatistics theory. Topics include the basic concepts of probability including Bayes theorem; probability distributions of both discrete and continuous types of variables along with their properties; and the underlying theoretical foundation of the statistical inference including parameter estimation, hypothesis testing, hierarchical models and Bayesian inference.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B]

**PBHL 623 Introduction to Statistical Computing 3.0 Credits**

Provides the students with sufficient data management and computing skills enabling them to manage small to intermediate size public health projects. Students will learn basic data management and analytic programming in the SAS statistical software.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B]

**PBHL 624 Regression Methods 3.0 Credits**

Regression Methods is a required course for the Master of Public Health (MPH) program of study, concentration in Biostatistics. It covers topics in linear regression, logistic regression and time until event analysis methods.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B] and PBHL 530 [Min Grade: B] and PBHL 620 [Min Grade: B]

**PBHL 625 Longitudinal Data Analysis 3.0 Credits**

Course covers modern statistical techniques for longitudinal data from an applied perspective. Suitable for doctoral and master students in biostatistics and doctoral students in epidemiology, clinical trials and social science analyzing longitudinal data.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: A] and PBHL 621 [Min Grade: A]

**PBHL 626 Multivariate Linear Models 3.0 Credits**

Multivariate Linear Models is an elective course for the Master of Public Health (MPH) program of study, especially for students concentrating in Epidemiology or Biostatistics, but open to students in other concentrations as well. It covers topics in analysis of variance and covariance, repeated measures analysis, factor analysis and path analysis.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B] and PBHL 530 [Min Grade: B] and PBHL 620 [Min Grade: B]

**PBHL 627 Categorical Data Analysis Methods 3.0 Credits**

Categorical Data Analysis Methods is an elective course for the Master of Public Health (MPH) program of study, concentration in Biostatistics. This course discusses some of the specialized methods to model data from specific studies with categorical data as an outcome.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B] and PBHL 530 [Min Grade: B] and PBHL 624 [Min Grade: B]

**PBHL 628 Survival Data Analysis 3.0 Credits**

This course covers the basic techniques of survival analysis. These approaches are useful in analyzing cohort data, which are common in health studies, when the main interest outcome is the onset of even and time to event is known.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: C]

**PBHL 629 Design & Analysis of Clinical Trials 3.0 Credits**

The purpose of this course is to cover the design and conduct of clinical trials. The course will also cover how to evaluate the scientific rigor of studies of clinical trials published in the scientific literature. Topics which will include power and sample size, study design, randomization methods, recruitment, missing data, ethical issues and statistical analysis methods.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: C] and PBHL 530 [Min Grade: C]

**PBHL 630 Intermediate Epidemiology 3.0 Credits**

This course expands on basic methods used in epidemiologic thinking and research - with a focus on observational studies of disease risk factors. Topics covered include: basic principles of causal inference; observational study designs; bias; confounding; effect modification; stratified analysis; and the epidemiologic approach to multivariable modeling. An emphasis is also placed on critically reading epidemiologic literature.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B] and PBHL 530 [Min Grade: B]

**PBHL 630ES MPH BLOCK VIIIB-COMM BASED MP 1.0 Credit**

Independent Study.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 631 Applied Multivariate Analysis 3.0 Credits**

This course introduces students to statistical methods for describing and analyzing multivariate data. Topics to be covered include basic matrix algebra, multivariate normal distribution; linear models with multivariate response, multivariate analysis of variance; profile analysis, dimension reduction techniques, including principle component analysis, factor analysis, canonical correlation, multidimensional scaling; discriminate/cluster analysis; and classification/regression trees.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: C]

**PBHL 632 Applied Survey Research in Epidemiology 3.0 Credits**

Applied Survey Research in Epidemiology is a required course for the Master of Public Health (MPH) program of study, concentration in Epidemiology and Biostatistics. This course addresses theoretical and practical aspects to the conduct of survey research in human populations. Practical requirements for research proposal development is covered.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B] and PBHL 530 [Min Grade: B]

**PBHL 633 Epidemiology of Cancer 3.0 Credits**

This course will provide students with training in the methods and topics specific to the epidemiology of cancer. Students will learn about cancer surveillance, etiologic studies, therapy trials, and prevention/screening studies of cancer.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 530 [Min Grade: C]

**PBHL 634 Epidemiology for Public Health Practice 3.0 Credits**

This course is designed to enable the student to understand epidemiology as a health discipline and how epidemiology provides information for infectious/non-infectious disease prevention and control. Topics cover public health surveillance, outcomes research, health services research, principles of cancer registration, and a variety of practice-related exercises.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 630 [Min Grade: B] and PBHL 632 [Min Grade: B]

**PBHL 635 Social Epidemiology and Psychiatric Epidemiology 3.0 Credits**

This course focuses on the content and methods of social epidemiology and the clinical, methodologic, and epidemiologic aspects of psychiatric illness. In focusing on social and psychiatric/psychological issues, students are required to explore theoretical and empirical aspects of disease etiology and disease course that extends beyond a biomedical model.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: C] and PBHL 630 [Min Grade: C] and PBHL 632 [Min Grade: C]

**PBHL 635ES MPH BLOCK VIIIC-COMM BASED MP 2.0 Credits**

Independent Study.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 636 Infectious Disease Epidemiology 3.0 Credits**

Course will provide training in the methods specific to infectious disease epidemiology within the context of the study of several major classes of infectious diseases with global impact on public health. Students will learn about population-level data sources and surveillance methods and techniques in outbreak investigations.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if major is PH.

**Prerequisites:** PBHL 530

**PBHL 637 Chronic Disease Epidemiology 3.0 Credits**

Chronic Disease Epidemiology/Social Epidemiology is an elective course for the Master of Public Health (MPH) program of study, concentration in Epidemiology. This course addresses the general disciplines of chronic disease epidemiology and social epidemiology.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B] and PBHL 530 [Min Grade: B]

**PBHL 638 Perinatal Epidemiology 3.0 Credits**

Introduces topical issues and methodological approaches to studying maternal and child health outcomes during the perinatal period. Focus is on study designs and data sources most relevant to perinatal epidemiology and examples of epidemiology research on common perinatal health issues. Current research in perinatal epidemiology and directions for research are also presented.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: C] and PBHL 530 [Min Grade: C]

**PBHL 639 Cardiovascular Disease Epidemiology & Prevention 3.0 Credits**

This course provides a forum for in-depth discussions of one of the main public health issues. Topics include the pathophysiology of atherosclerosis and cardiovascular disease (CVD), trends in coronary heart disease, stroke, hypertension and heart failure mortality/morbidity, well-established and emerging CVD risk factors, and major strategies for CVD prevention/control.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 530 [Min Grade: C]

**PBHL 640 Environmental Health 4.0 Credits**

Introduces concepts, theories, and programmatic application within the field of environmental health.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 640ES MPH Block IX-Envir&Occup Hlth 4.0 Credits**

Introduces concepts, theories, and programmatic applications within the fields of environmental and occupational health.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 641 Environmental Hazard Assessment 3.0 Credits**

This course provides students with a general understanding of the recognition and evaluation of chemical, physical and biological hazards. Particular emphasis is placed on airborne hazard evaluation theory and methods. Students become familiar with commonly used industrial hygiene equipment through participation in laboratory and field exercise.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 640 [Min Grade: B] and PBHL 660 [Min Grade: B]

**PBHL 642 Healthy Housing & Built Environment 3.0 Credits**

Course provides students with understanding of connection between health and housing specifically the impact factors of both built environment and indoor environment has on the health status of residents, especially those at risk for allergic and respiratory diseases.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 640 [Min Grade: C]

**PBHL 643 Environmental and Occupational Toxicology 3.0 Credits**

This course will provide students with a basic understanding of the recognition and evaluation of chemical, physical and biological hazards in the environment and workplace. The course addresses fundamentals of toxicology, legal implications of exposure and prevention strategies. Topics will include: general toxicology principles, metals, chemical and dust exposures and physical agents.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 640 [Min Grade: B]

**PBHL 644 Environmental Health for Public Health Practitioners 3.0 Credits**

This course will provide students with an understanding of the fundamental knowledge and basic practices necessary for environmental health professionals who practice at the municipal and state levels.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 640 [Min Grade: C]

**PBHL 646 Environmental Health in Vulnerable Populations 3.0 Credits**

Policy instruments and tools in place to protect the health of vulnerable populations will be critically examined as well as issues related to equity and justice. A number of case studies will be examined to exemplify why certain populations are vulnerable to various environmental hazards.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 647 Occupational and Environmental Epidemiology 3.0 Credits**

Occupational and Environmental Epidemiology for Public Health is a required course for the Master of Public Health (MPH) program of study, concentration in Environmental and Occupational Health. Students are familiarized with commonly used industrial hygiene equipment through participation in laboratory and field exercises.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 530 [Min Grade: B] and PBHL 640 [Min Grade: B] and PBHL 660 [Min Grade: B]

**PBHL 648 Public Health and Disaster Preparedness 3.0 Credits**

Public Health Readiness and Disaster Preparedness is an elective course. This course provides students with an understanding of the recognition and evaluation of chemical, physical and biological hazards related to terror attacks, and other man-made/natural disasters.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 640 [Min Grade: B] and PBHL 660 [Min Grade: B]

**PBHL 649 Occupational and Environmental Cancers 3.0 Credits**

Occupational and Environmental Cancers is an elective course for the Master of Public Health (MPH) program of study, concentration in Environmental and Occupational Health. It covers topics in courses of cancer, the prevention of cancer, and public policy regarding cancer.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 640 [Min Grade: B] and PBHL 660 [Min Grade: B]

**PBHL 650 Public Policy and Advocacy 3.0 Credits**

This course introduces students to a selected set of health policy issues facing the US today, and that will challenge the nation in the foreseeable future. Emphasis is placed on effective problem definition and the identification of politically feasible solution to the policy issues being studied.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 650ES MPH BLOCK X-POLICY&ADVOCACY 4.0 Credits**

Introduces the fundamentals of public-health law and the concepts and theories of health-policy development, adoption, and evaluation. Also introduces the advocacy process and its importance to development of sound public health policy. Students complete the M.P.H. program by exploring major public health topics in some depth. Emphasizes systemic integration and the integration of the assessment, assurance, and policy development roles of public health in problem, population, and political context.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 651 Legal Aspects of Public Health 3.0 Credits**

This course covers legal and policy issues in the implementation of public health programs. It emphasizes underlying themes that frame these efforts.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if major is LAW or major is PH or major is PHFT.

**Prerequisites:** PBHL 650 [Min Grade: C]

**PBHL 660 Occupational Health 4.0 Credits**

Introduces concepts, theories, and programmatic applications within the field of occupational health.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 661 Occupational and Environmental Diseases 3.0 Credits**

Occupational and Environmental Diseases is an elective course for the Master of Public Health (MPH) program of study, concentration in Environmental and Occupational Health. It covers topics related to lung diseases caused by occupational and or environmental exposures.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 640 [Min Grade: B] and PBHL 660 [Min Grade: B]

**PBHL 662 Environmental and Occupational Policy 3.0 Credits**

This course provides an overview of the origins and development of environmental and occupational health policies in the United States. It utilizes an evidenced-based framework to assess the effectiveness of these policies within a context of a political climate towards public health.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 663 Injury Prevention and Control 3.0 Credits**

A survey course examining the history, burden and cost of injury at the population level and its impact on health care systems. Lectures and readings will focus on critical analysis of incidence, risk, policy and prevention.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 664 Safety in Healthcare 3.0 Credits**

This course examines the history of healthcare safety as an emerging public health problem in the US. Topics such as patient safety, nurse injury and other outcomes will be studied. Effects of safety climate, organizational culture, and clinical knowledge on patients, healthcare workers and the healthcare system are discussed.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 670 Multicultural Competence in Community Health and Prevention 3.0 Credits**

The goal of this course is to equip students already versed in the fundamentals of public health principles with additional practice skills and knowledge in cultural competency. Implicit in the terms cultural competence is a set of congruent behaviors, attitudes, beliefs and values enabling people to work effectively across cultures.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 540 [Min Grade: C] and PBHL 550 [Min Grade: C]

**PBHL 671 Theory and Practice of Community Health and Prevention 3.0 Credits**

This course introduces public health students to the theoretical foundation of community and population-based health promotion. The course emphasizes theories and models for individual and planned social and community change designed to improve health; and the application and impact of theoretical constructs in designing intervention strategies.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 540 [Min Grade: C] and PBHL 550 [Min Grade: C]

**PBHL 672 Theory and Practice in Health Communication 3.0 Credits**

The practice of public health is complete and competent with a strong set of communication skills and a working knowledge of communication theory. This course is designed to train public health practitioners in the steps required in developing, implementing and evaluating health communication interventions.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 540 [Min Grade: C] and PBHL 550 [Min Grade: C]

**PBHL 673 Outcomes Assessment of Community Health and Prevention 3.0 Credits**

This course is designed to review the principles of identifying short-term, mid-term and long-term outcomes and how these are linked to program goals, objectives, mission and vision. Topics include selecting outcomes in conjunction with the community, and strategies for design, data collection, analysis and interpretation.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 540 [Min Grade: C] and PBHL 550 [Min Grade: C]

**PBHL 674 Studying Rare or Hidden Groups 3.0 Credits**

Target audience for this course is those intending to conduct research or evaluate programs designed for rare, stigmatized and/or hidden populations and for consumers of such programs. The course seeks to help students understand the ethics of research/evaluation in such programs, analyze health outcome measures and appropriately store data collected.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 675 LGBT Health Disparities 3.0 Credits**

LGBT community ranging from HIV/AIDS to intimate partner violence.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 676 Intersectional Perspectives 3.0 Credits**

This health focuses on health among gay, lesbian, bisexual and transgender (LGBT) populations from the perspective and theoretical framework of intersectionality. This course explores how the intersections of various identities such as race, ethnicity, socio-economic status result in different health outcomes.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 678 Drug Use in Public Health 3.0 Credits**

In the past several decades drug use has emerged as a major public health issue. The course will focus on biological, psychological, social, and cultural aspects of key licit and illicit substances. Additionally, students will learn relevant public health aspects of drug use, including prevention, intervention, and policy.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 680 Community Based Master's Project I 4.0 Credits**

This course is the first of 3 CBMP courses and will encompass the first stages of the year long process of producing a final master's project. Activities will include selection of CBMP site, CBMP workshops, student logs, IRB and HIPAA training. A learning agreement, community site profile and project proposal will be expected as end-products of student's first 10 weeks at site and aforementioned activities.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit



**PBHL 681 Community Based Master's Project II 4.0 Credits**

This course is the second of 3 CBMP courses and will encompass the intermediate stages of the CBMP process. Activities will include CBMP workshops, IRB submission (if applicable) and regular attendance at community site. Student's progress at site and on final project will be assessed through Community Site Preceptor Mid-Year Report and assessment by Faculty Advisor.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 682 Community Based Master's Project III 4.0 Credits**

This is the third of 3 CBMP courses and represents the final stage of the CBMP process. Draft of final project will be previewed through short presentation to SPH community. Final oral defense, presentation of CBMP Poster and submission of final project paper for binding are the major activities of this course.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 683 Advanced Clinical Trials & Experiment Design 3.0 Credits**

Course prepares students to design & conduct clinical trials and other health related experiments. It will cover the development of a study protocol for a clinical trial, selection of the study population, sample size, and treatment assignment methods. Advanced experimental designs will also be covered.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: C] and PBHL 621 [Min Grade: C]

**PBHL 684 Statistical Theory II 4.0 Credits**

This course is a continuation of Statistical Inference I: focusing on concepts and methods of statistical inference. Topics include point/interval estimation, methods of moments, maximum likelihood estimation, Bayes estimates, hypothesis testing, Neyman-Pearson lemma, likelihood ratio tests and large sample approximation, Bayesian analysis.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 622 [Min Grade: C]

**PBHL 685 Data Analysis Project 6.0 Credits**

Provides the student with experience completing a substantive data analysis in either an academic or applied setting. The project will be performed over a full term under the supervision of the advisor. Projects based in settings outside the Department are jointly-supervised by the advisor and a doctorally-prepared host organization researcher.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if major is BIOS and program is MS.

**PBHL 686 Advanced Statistical Computing 3.0 Credits**

This course expands on computational methods used in biostatistics. It covers numerical techniques, programming, and simulations and will connect these to fundamental concepts in probability and statistics. The course will use the statistical software, R, to apply these concepts and enable the practical application of biostatistical models to real-world problems.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 622 [Min Grade: B]

**PBHL 687 Readings in Biostatistics 1.0 Credit**

Guided readings course designed to introduce MS Biostatistics students (and other interested students) to classic papers in Biostatistics. Provides students with exposure to classic biostatistics papers and practice critically reading statistics literature. Also exposes students to some issues relevant to the practice of biostatistics that are not covered in coursework.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 688 Statistical Inference I Lab 1.0 Credit**

This course is a continuation of Statistical Inference I: In the sense that statistical concepts and methods will be developed in a mathematical framework and also additional topics will be developed in a mathematical framework and also additional topics will be discussed as time permits. Topics tentatively selected include distributions, conditional distributions and expectation, probability inequalities/identities, limit theorems, and Bayesian methods.

**College/Department:** School of Public Health

**Repeat Status:** Can be repeated 1 times for 2 credits

**PBHL 690 Applied time Series Analysis 3.0 Credits**

Introduces students to a variety of statistical methods for modeling and analysis of time series data, with emphasis on application. Topics include Theory of stationary random processes; Non-stationary time series models; Model identification, parameter estimation, diagnostics checking and model selection; spectral analysis; and Introduction to contemporary modeling topics.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 622 [Min Grade: B]

**PBHL 691 Pathophysiology Basis of Epidemiologic Research 3.0 Credits**

This course will examine the causes of many human diseases at a molecular level, paying particular attention to the role of inflammation in disease processes and examining the role of cell cycle dysregulation in the etiology of many human cancers. In order to understand the pathologic basis for disease, the course will also cover the normal structure and function of many body systems, that when compromised lead to diseases of public health importance.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 530 [Min Grade: B]

**PBHL 692 Public Health Obesity Prevention Research 3.0 Credits**

This class will provide students with a foundation in obesity assessment, interpretation of obesity research and study designs used to examine population level obesity interventions. The substantive focus of this class is on environmental contexts (physical environment, economic and social environments) that influence obesity risk. The methodological focus of this class is on designing and evaluating population-level / macro level policies that may affect diet, physical activity, and obesity.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: B]

**PBHL 693 Applied Bayesian Analysis 3.0 Credits**

The course provides a practical introduction to Bayesian statistical inference, which is now at the core of many advanced methods. The course will compare traditional frequentist estimation, which relies on maximization methods, to Bayesian estimation of the posterior distribution. Students will learn numerical integration methods, such as Markov Chain Monte Carlo, to obtain these various distributions and ultimately make inference in a Bayesian framework. The course will also use the freely available statistical software, R (<http://cran.r-project.org/>).

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 625 [Min Grade: B] (Can be taken Concurrently) PBHL 684 [Min Grade: B] and PBHL 686 [Min Grade: B]

**PBHL 694 Biostatistical Literature Review 1.0 Credit**

This course is designed to train students on how to conduct a systematic literature review. The final literature review produced will then be included in the student's data analysis project written report. The course will draw on the skills and experience of biostatistics faculty in the Department of Epidemiology & Biostatistics.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B]

**PBHL 695 Statistical Consulting 2.0 Credits**

The objective of this course is to introduce biostatistics graduate students to the fundamental aspects of statistical consulting and to provide training for being an effective statistical consultant. Topics tentatively selected include: Roles and responsibilities of biostatisticians in collaboration with scientists and other clients, oral and written communication skills, sample size and power calculations, study design, how to help researchers formulate their scientific questions in quantifiable terms, how to deal with missing data, how to write statistical analysis.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B]

**PBHL 696 Nonparametric and Semiparametric Models 3.0 Credits**

The objective of this course is to introduce students to the fundamental concepts and applicable techniques of non-parametric and semi-parametric models, in particular, nonlinear functional relationships in regression analyses. Topics tentatively selected include: Density estimation, smoothing, non-parametric regression, additive models, semi-parametric mixed models, and generalized additive models.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B]

**PBHL 697 Generalized Linear Model 3.0 Credits**

The objective of this course is to introduce students to generalized linear regression models (theoretical properties, model interpretation and application). Topics include: 1) Review of categorical data and related sampling distributions; 2) Two/Three-way contingency tables; 3) logistic regression and poisson regression ;4) loglinear models for contingency tables; 5) generalized linear mixed models for categorical responses.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 698 [Min Grade: B]

**PBHL 698 Linear Statistical Models 3.0 Credits**

The objective of this course is to introduce students to linear regression models (computation, theoretical properties, model interpretation and application). Topics include: 1) Review of basic concepts of matrix algebra that are particularly useful in linear regression, and basic R programming features; 2) (weighted) least square estimation, inference and testing; 3) regression diagnostics, outlier influence; 4) variable selection and robust regression.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: B]

**PBHL 699 Biostatistical Computing with Stata 3.0 Credits**

Public health research often involves the management, manipulation and analysis of complicated sets of data with standard statistical software packages. This course is designed to introduce the student to practical issues in the management and analysis of public health and biomedical data using the Stata programming language. This course is designed to give students a basic introduction to the Stata computing programming and is intended for students with limited or no previous experiences with Stata. The focuses on simple data analysis such as creating data sets, combining and modifying data, preparing data for analyses, working with Stata commands and do-files, and approaches data structure. The course will also present the conventions used for statistical analysis commands in Stata, and will illustrate these through review of limited set example commands. After taking this course, students will be comfortable using Stata to manage and manipulate data in classes and basic research projects.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: B]

**PBHL 701 Introduction to Descriptive Epidemiology and Biostatistics 3.0 Credits**

Introduction to Descriptive Epidemiology and Biostatistics. Epidemiology and biostatistical concepts and methods to be covered include techniques for describing and summarizing observations, for assessing associations among variables, and for determining the extent to which chance may be explaining and or/or influencing the observed results.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 702 Introduction to Analytic Epidemiology and Biostatistics 3.0 Credits**

Introduction to Analytic Epidemiology and Biostatistics. Key biostatistics methods and epidemiologic concepts covered during course include types of rates, rate calculations, rate adjustments, data display and interpretation, two-way ANOVA and Kaplan Meier survival curves.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 701 [Min Grade: B]

**PBHL 703 Design and Analysis Epidemiological Studies 3.0 Credits**

Design and Analysis of Epidemiological Studies. This course will demonstrate the applicability of the goals and approaches from descriptive and analytical methods in biostatistics and epidemiology courses to real world problems. The project will provide the student with the opportunity to use methods in an area of their choice.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 701 [Min Grade: B] and PBHL 702 [Min Grade: B]

**PBHL 704 Proseminar in Global Health Ethics 1.0 Credit**

The Proseminar in Global Health Ethics has been designed to afford maximum learning opportunities to: understand ethical concerns in global health; analyze social and cultural factors for better understanding of global health issues; tackle global health questions in relation to "hard to reach groups"; develop cross-cutting skills and competencies in global health. With this in mind, using global health case studies, the proseminar will also integrate student-directed problem based learning (PBL) in the review of health ethics. This focuses on providing structured learning activities to develop learner autonomy in a constructive and collaborative educational process.

**College/Department:** School of Public Health

**Repeat Status:** Can be repeated 3 times for 3 credits

**PBHL 705 Public Health in Developing Countries 3.0 Credits**

This course is designed to provide students with an overview of public health issues specific to low and middle income countries and introduce students to the core concepts of public health. The course is divided into four parts: principles and goals of international health and health services in developing countries; cross-cutting global health issues; the burden of disease in developing countries; and cooperating to improve health and human rights in developing countries.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 706 Globalization, Development and Comparative Health Systems 3.0 Credits**

This course presents a survey of comprehensive examinations of the structure of health systems in selected countries worldwide and provides an understanding of ways that health systems work in other countries (and thereby to better analyze policy issues affecting health and examine both global health issues and health systems from a comparative perspective). This course also explores country-level debates on issues such as access to care and funding and will note how a country's history has influenced the development of its health system. Specific attention is paid to the development of the national health system, financing, and delivery infrastructure, the impact of globalizations, development, and international relations is also examined.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 707 Monitoring and Evaluation in Global Health 3.0 Credits**

This course is designed to provide students with a systematic approach to planning, implementing, monitoring, and evaluating global health programs. Students will learn the general principles of monitoring and evaluation (M&E) as well as criteria for selecting indicators and metrics, and various tools/models will be introduced to offer students an overview of the program planning and M&E process. Utilizing knowledge and skills from this course, students will be able to: apply scientific evidence throughout the program planning, implementation, and M&E process; design program work plans based on logic models; develop a proposal to secure donor and stakeholder support - and a plan implementing, monitoring, and evaluating a global health program or intervention; plan evidence based interventions to meet internationally established health targets; develop and M&E framework to assess organizations; utilize project management techniques throughout the program planning, implementation and M&E process; and develop context-specific implementation strategies for scaling up best-practice interventions.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 708 Global Health Integration Module and Field Practicum Experience 6.0 Credits**

This course will provide students with a distributed and evaluated global health training experience that requires students to synthesize and integrate knowledge acquired in coursework and other learning experiences and apply theory and principles in a situation that approximates some aspect of professional practice in global health and international development. Students will be mentored through the experience by faculty members, and will complete online modules as well as a 2-3 week field practicum (80-120 hours as part of a "summer institute") working closely with preceptors from partnering NGOs, international agencies, Ministries of Health and foreign institutions in the global health practice setting. Geographic focus will rotate between the Americas, Middle East, Asia Pacific, Australia, Africa, and Europe – based on site availability, participating faculty, and collaborative institutions in the US and abroad. Potential themes include health equity and social justice, MCH, HIV/AIDS, disparities and vulnerable sub-population, rural and agricultural health, food security, WASH, non-communicable disease, disasters and complex emergencies, EPI, IMCI, etc. Site and theme specific cross-cultural training and formal pre-departure orientation will be required in the integration module.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 801 Theory & Practice of Community Health & Preventions I 3.0 Credits**

This course introduces the student to the principles, scientific methods, and major research issues in community health and prevention. The history, concepts and methods of prevention science are presented and major theoretical contributions to prevention are discussed. Course concludes with a discussion about using theoretical-empirical frameworks to guide intervention design.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 802 Health and Human Rights 3.0 Credits**

Health and wellbeing are intricately associated with fundamental human rights. This course will cover direct links between public health policies, political circumstances, and social and economic conditions and their affects on health of individuals and populations using the human rights framework.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 803 Theory & Practice of Community Health and Preventions II 3.0 Credits**

Course focuses on public health interventions. Discusses individual and environmental theories of change, home, school, worksite, and community-based interventions, harm reduction, and multilevel intervention. Process and outcome of intervention research is investigated.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 804 Research Methods for Community Health and Prevention 3.0 Credits**

Research Methods for Community Health and Prevention. Public health leaders must understand and use diverse research methods to make significant contributions to community health and prevention. This course integrates foundations of research methodology with use of appropriate statistical procedures to prepare students to apply rigorous scientific methods to understand and solve major public health problems.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 805 Qualitative Research in Community Health 3.0 Credits**

Qualitative Research in Community Health. Students will study and use a variety of qualitative methods suited for public health practice and research. Methods include case study analysis, individual interviews, focus groups, ethnography, and observation.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 806 Community Health Research Methods 3.0 Credits**

This course covers key principles and methods of community epidemiology. Topics include the epidemiologic perspective on health, epidemiologic study designs, surveillance databases, and survey design. Students will design and implement a community survey, analyze and interpret results, and discuss the contributions of epidemiology to prevention and policy formulation.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 807 Analytic Methods for Community Health and Prevention 3.0 Credits**

Analytical Methods for Community Health and Prevention. This will cover advanced design issues, methods for exploring data, traditional statistical techniques, and techniques for prevention research. This course integrates the foundations of research methodology with the use of computers and appropriate statistical procedures to prepare students to meet the increasing demands for conducting applied research.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 808 Community Program Evaluation 3.0 Credits**

Much of public health is about developing programs for individual and behavioral change. Therefore, public health practitioners must be able to understand the importance of developing, implementing, and evaluating public health programs. This course highlights the natural interweaving of three program elements.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 809 Community Health Policy Development and Analysis 3.0 Credits**

Community Health Policy Development Analysis. Health policy is integral to the prevention of death, illness, disability, and the promotion of health. Course participants will learn about federal, state, and local roles in policymaking, roles of public opinion and interest groups, and methods for policy development and analysis.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 901 [Min Grade: C]

**PBHL 810 Practicum in Community Health and Prevention 3.0 Credits**

Practicum in Community Health and Prevention. 480 hours of supervised experience applying concepts and methods to ongoing community health programs or policy development.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 813 Theory and Practice of Health Communication 3.0 Credits**

Theory and Practice of Health Communication. The practice of public health is complete and competent with a strong set of communication skills and a working knowledge of communication theory. This course is designed to train public health practitioners the steps required in developing, implementing, and evaluating health communication interventions.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit



**PBHL 814 Community Based Participatory Research 3.0 Credits**

Community Based Participatory Research. Participatory Action Research acknowledges that every human being has the capacity to be a change agent. This is accomplished through an alternate view of the research world in which collaboration is emphasized. This course provides theory and skills necessary to plan, implement and evaluate community-based Participatory Action Research initiatives.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 815 Community Participation in Decision Making 3.0 Credits**

Community Participation in Decision Making. This course examines how communities accomplish planned change. We will consider a number of models including community development, social planning, social action and public advocacy using historical and contemporary examples.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 817 Economic Evaluation Methods for Community Health and Prevention 3.0 Credits**

Economic Evaluation Methods for Community Health and Prevention. Understanding and applying economic concepts and methods is critical for analyzing and solving health system problems. Topics include and overview of economic theory to healthcare, and major economic evaluation methods of cost-effectiveness analysis, cost-utility analysis, and cost-benefit analysis.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 818 Community Nutrition and Food Politics 3.0 Credits**

Community Nutrition and Food Politics. The purpose of this course is to allow students to learn about and discuss the social, economic, cultural and political influences of obesity and hunger involves understanding the multi-layered influences of food production, distribution and consumption.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 819 Understanding and Preventing Domestic Violence 3.0 Credits**

Understanding and Preventing Domestic Violence. Domestic violence is endemic in the United States. This course is designed to define and describe the problem as well as critically evaluate programs designed to intervene and prevent. Major topics include systems, advocacy, policy, economic, socio-political, and psychological phenomena.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 820 Adolescent Risk Behavior in a Developmental Context 3.0 Credits**

Adolescent Risk Behavior in a Developmental Context. This course uses a developmental perspective to focus on key problems and issues that affect the health of adolescents. The course highlights adolescents as protagonists in a life drama as puberty raises questions about relationships, questions about fairness, equality and justice, about connection and care and ultimately about their behaviors.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 821 Public Health Practice in and with Latino Communities 3.0 Credits**

Public Health Practice in and with Latino Communities. The goal of this course is to prepare students for genuine engagement in a cultural diverse experience in Latino populations within the U.S. using an interdisciplinary approach in the context of public health practice. Attention will be given to various Latino subgroups, and ways to work within and across these.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 822 Independent Study in Community Health and Prevention 1.0-3.0 Credit**

Independent Study in Community Health and Prevention. Independent study concerning concepts, methods, or specific health issues in community health and prevention. May be repeated six times for credit.

**College/Department:** School of Public Health

**Repeat Status:** Can be repeated 6 times for 18 credits

**PBHL 823 Faith, Religion, Spirituality, and Health 3.0 Credits**

This course focuses on the roles that "faith", "religion", and "spirituality" play in individual and community health. The course will focus on understanding the multiplicity of definitions of these terms (particularly spirituality and religion) and how these terms relate to health across time and cultures.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 824 Public Health Ethics 3.0 Credits**

Course explores emergence, philosophical, historical, political development, relationship to human rights, and future of Public Health. Emphasis will be placed on developing a mastery of the current literature on the subject and on formulating novel approaches in public health ethics.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 801 [Min Grade: C]

**PBHL 825 Measuring Health 3.0 Credits**

Course for students using health measurement scales, and constructing measures of health for evaluation, research, population monitoring, or policy purposes. Methods will be explored for measuring health in individuals and populations. Reviews fundamental theories of measurement including classical test theory, item response theory, and qualitative and quantitative approaches.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 520 [Min Grade: C] and PBHL 530 [Min Grade: C]

**PBHL 826 Causal Inference in Epidemiology 3.0 Credits**

Provides an in-depth theoretical foundation on epistemology and models of disease causation in epidemiology. Students will be expected to answer the question how can we know that A causes B from diverse perspectives ranging from theoretical models, statistical conventions around identifying causation, and mitigating bias.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 630 [Min Grade: B]

**PBHL 827 Advanced Topics in Qualitative Analysis 3.0 Credits**

This course teaches students how to analyze an existing qualitative dataset. The course is structured in a seminar/workshop format. A key feature of the course involves students reviewing and critiquing each other's manuscripts. Students may be first author on their manuscript and will be expected to submit their manuscript to a peer-review journal.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 805 [Min Grade: C]

**PBHL 830 Advanced Epidemiology 4.0 Credits**

This course covers more advanced methodologic issues in analytic epidemiology including: in-depth discussions of cohort, case-control, and case-cohort studies, missing data and methods of single/multiple imputation, theoretical basis of and analytic methods for using intermediate endpoints/surrogate markers, repeated measures analysis, the use of DAGs, and propensity scores to mitigate confounding.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 630 [Min Grade: B] and PBHL 620 [Min Grade: B]

**PBHL 831 Epidemiology PhD Seminar I 1.0 Credit**

This seminar provides the opportunity for entering epidemiology PhD students to review intermediate-to-advanced level concepts in Epidemiology. The weekly one-hour seminar will quickly review basic concepts of epidemiology and discuss conceptual underpinnings of core concepts in epidemiologic research in more detail.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if major is EPID.

**PBHL 833 Epidemiology PhD Seminar II 3.0 Credits**

This course is a doctoral level seminar designed to introduce students to epidemiologic methods and substantive courses not covered and offers practical skills for funding and conducting their own research.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if major is EPID.

**PBHL 834 Methodological Challenges 3.0 Credits**

This course is designed to provide a theoretical foundation and the practical tools necessary for addressing challenges to causal inference in epidemiological research.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 835 Proposal Writing Seminar 3.0 Credits**

Designed to provide students with an understanding of the methodologic and logistic problems involved in designing and conducting epidemiologic studies. The course also offers students opportunities to critically evaluate the adequacy and scientific merit of research protocols.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Prerequisites:** PBHL 620 [Min Grade: C] and PBHL 630 [Min Grade: C]

**PBHL 850 Practicum in Health Policy & Social Justice 10.0 Credits**

The practicum is required, involved supervised practical experience applying concepts and methods to new health policy development and/or modification of existing policy. The student will identify a health policy and social justice problem and analyze the problem through using the appropriate complement of methods.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if major is HPSJ and classification is PhD.

**PBHL 851 Health Systems Policy Analysis 3.0 Credits**

This course examines alternative approaches to structuring a nation's health system and reforming existing systems. Development of an analytic framework to explore health systems of different nations and performance evaluation of those systems.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 852 Economics of Social Justice 3.0 Credits**

The course provides an overview of the evolution of economic thought from Aristotle to the present with special emphasis on health and public health. 18th and 19th century moral philosophers and more recent work by economists is read and discussed. Unethical or unjust behaviors in contemporary markets are examined.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 853 Applied Health Economics: Technology Assessment and Economic Evaluation 3.0 Credits**

This course reviews issues and methods of assessing health care technologies and programs, with an emphasis on economic evaluation and applications to clinical and public policy.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 854 The Politics of Food & Gender 3.0 Credits**

This course will examine the global food crisis & community nutrition in context of maternal & child health. Using current events & news stories, students will be introduced to the complex & diverse nature of the politics of food and agriculture, & how these dynamics manifest in the health and wellbeing of young children & their families.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 855 Health Services Research 3.0 Credits**

Course provides an introduction to basic and "state of the art" methods for undertaking research and program evaluation within health services organizations and systems.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 856 Violence, Trauma and Adversity in Public Health 3.0 Credits**

This course will focus on the public health policy and practice aspects of trauma violence and adversity. The course will begin by laying a foundation of trauma theory and then will examine the impact of emerging knowledge on individuals, communities and systems.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**PBHL 901 Dissertation Seminar I 5.0 Credits**

This is a required doctoral course to develop the dissertation proposal. Students will select and develop a research question, establish evidence of the significance, define assumptions and limitations, complete a critical analysis of literature, select and justify research methods.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if program is DRPH.

**PBHL 902 Dissertation Seminar II 5.0 Credits**

This is a required doctoral course to finalize the dissertation proposal. Students will complete the Drexel University Internal Review Board (IRB) protocol for their research. Students will prepare for the oral defense of the proposal including proposal presentation.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if program is DRPH.

**Prerequisites:** PBHL 901 [Min Grade: C]

**PBHL 995 Ph.D. Dissertation Companion 1.0-9.0 Credit**

**College/Department:** School of Public Health

**PBHL 998 Dissertation Guidance 1.0-12.0 Credit**

Directed guidance of dissertation research including base-building and consent, data collection and intervention, analysis and interpretation of data and implications for future research, policy and practice. Guidance will include preparation for presenting dissertation research and preparation for the final defense.

**College/Department:** School of Public Health

**Repeat Status:** Can be repeated 8 times for 12 credits

**Restrictions:** Can enroll if program is DRPH.

**Prerequisites:** PBHL 901 [Min Grade: C] and PBHL 902 [Min Grade: C]

**PBHL 999 Thesis Research: Dissertation Guidance and Epidemiology 1.0-12.0 Credit**

Directed guidance of dissertation research, preparation for presenting dissertation research to colleagues at the dissertation seminar and preparation for the final defense.

**College/Department:** School of Public Health

**Repeat Status:** Not repeatable for credit

**Restrictions:** Can enroll if program is DRPH.

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