JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH
1st TERM 2009-10
East Baltimore - Distance Education

SCHEDULE INFORMATION
This schedule includes all courses expected to be offered by the Johns Hopkins Bloomberg School of Public Health during the 1st term of academic year 2009-10. The listing is based on data supplied by the academic departments and approved by the subcommittee of the Committee on Academic Standards as of June 15, 2009. Courses are listed in numerical order within departments. The second three digits represent the department or division. The three digits to the right of the period represent the course number.

COURSE INFORMATION
Included in the listing for each course are class meeting dates, times, instructor, and prerequisites. Classes designated as TBA will have times arranged at a later date by the department offering the course; students must check with the department for this information. Classroom assignments will be made available immediately prior to the beginning of the term. The most recent course descriptions are included at the following website:

Visit the JHSPH Course Search site for current course information:
http://commprojects.jhsph.edu/courses/

You can access links to comprehensive course information: http://www.jhsph.edu/student_affairs/registrar/

REGISTRATION INFORMATION
Continuing students may register for 1st term through **August 14, 2009** by logging on to ISIS Self Services at https://isis.jhu.edu/sswf . To register via the web, students must use their JHED LID (logon user ID) and password for authentication. **1st term tuition payments are due via the web (**https://isis.jhu.edu/sswf **) by Friday, September 18, 2009.** Changes to 1st term registration may be processed via the web during the published Add/Drop period for 1st term: **Thursday, August 27 – Wednesday, September 9, 2009.** Special Students Limited and School of Medicine Post Doctoral Fellows may not register via the web; they must register in person, prior to the August 14th deadline. Special Students Limited must submit all registration materials (registration/student data from, instructor's permission and payment information) to the Business Office (W1101). SOM Post Docs must complete the paper registration form in E1002 (SOM Post Docs must adhere to all course restrictions and required permissions).

Tuition is assessed at a rate of **$815** per credit unit. Students **receive a 100% tuition refund for any withdrawals made prior to the end of the Add/Drop period; however, there is no tuition refund after the Add/Drop period**. A fee of $100 will be assessed for registering after the August 14th deadline and a fee of $50 will be assessed for making changes after the Add/Drop deadline for each academic term. No changes will be accepted during the last two weeks of a term.

REQUIRED APPROVALS
All students in the School (with the exception of Special Students Limited and SOM Post Docs) are expected to have their registration selections approved by their academic advisors. **It is the student's responsibility to have his/her registration, including grading options and registration changes, reviewed and approved by an advisor. Additionally, if a course is noted as requiring instructor's consent, it is the student's responsibility to obtain such consent. This consent may be obtained in person or by e-mail and it is in the student's best interest to maintain documentation of such approvals. Additionally, all special studies (.800 series) and all courses taken for audit must have the instructor's consent.** All Special Students Limited must have each of their course registrations signed by the instructor or submit e-mail approvals with their registrations.

COURSE LISTING CODES
Course listings consist of the following: a three character department code—the second two characters identify the department in which the course is offered, the third character may be used to indicate a division or cluster within the department. Refer to the list below for department/division codes.

DEPARTMENT/DIVISION CODES
120. Biochemistry and Molecular Biology
    Division of Reproductive Biology
140. Biostatistics
180. Environmental Health Sciences
182. Environmental Health Engineering
    183. Physiology
    186. Radiation Health Sciences
    187. Toxicological Sciences
    188. Occupational and Environmental Health
220. International Health
260. Molecular Microbiology and Immunology
300. Health Policy and Management
330. Mental Health
340. Epidemiology
380. Population and Family Health Sciences
390. Clinical Investigation
410. Health Behavior and Society
550. Adjunct Studies

A course number—the three character course number will be used to indicate the level, format, and the sequence of the course. Since the School of Public Health is a graduate division, courses will be numbered within the following range.

A. 600-699: Formal Courses normally offered in the second year of graduate study.
B. 700-799: Formal Courses normally offered in the second or last year of graduate study.
C. 800-899: Repeatable courses offered in a variety of informal (i.e., non-lecture) formats that can be distinguished by the following sub designations:
    810 series Field Placement
    820 series Thesis Research (master's and doctoral)
    830 series Postdoctoral Research
    840 series Special Studies and Research
    850 series Laboratory rotation courses
    860 series Informal seminars (e.g., journal or research clubs) that vary in content each quarter of each year and address current topics

Examples
    182.820 Thesis Research in Environmental Health Engineering
    340.840 Special Studies and Research Epidemiology
    260.851 Laboratory Rotations
    187.861 Toxicological Sciences Seminar

INTERDIVISIONAL CODES
Some School of Public Health courses may have prerequisites from other divisions of the University. Also, other divisions may jointly offer courses with the School of Public Health. To denote courses offered by other University divisions, the following system is used:

AS School of Arts and Sciences (SAS)
EN School of Engineering
ME School of Medicine (SOM)
NR School of Nursing (SON)
BU Business Carey School
ED Education

(Example: ME 330.702 denotes a School of Medicine course, in the Department of Pharmacology and Molecular Sciences)

FIRST TERM
COURSE SCHEDULE 2009-2010
AUGUST 27 - OCTOBER 21, 2009

Please check extradepartmental listing for courses in individual departments.

Biochemistry and Molecular Biology

120.600.01 **BIOCHEMISTRY -- AN INTRODUCTORY COURSE I**
(5 units)
Bryant, Randy
Explores the structures of the principal cellular macromolecules and their roles in cellular processes. Emphasizes the forces that underlie specific recognition processes. Considers the mechanisms of enzyme action and biochemistry of nucleic acids.
Email: fbryant@jhsph.edu
Lecture: M W F 10:30 - 11:50
Prerequisite: Introductory organic chemistry.

120.602.01 **INTRODUCTION TO MOLECULAR BIOLOGY**
(4 units)
Matunis, Michael
Discusses synthesis of macromolecules, the genetic code, regulation of gene expression, and recent advances in biotechnology, emphasizing special contributions from microbial studies and cell-free systems.
Email: mmatunis@jhsph.edu
Lecture: T Th 1:30 - 2:50
Prerequisite: Introductory biochemistry or consent of instructor

120.620.01 **FUNDAMENTALS OF REPRODUCTIVE BIOLOGY**
(3 units)
Evans, Janice
Addresses the basic biological mechanisms that underlie male and female reproduction and that pertain to reproductive health issues, such as contraception, infertility, sexually transmitted diseases, and reproductive aging. Suitable for students with limited backgrounds in the biological sciences.
Email: jpevans@jhsph.edu
Lecture: T Th 3:30 - 4:50

120.800.01 **MPH CAPSTONE: BIOCHEMISTRY AND MOLECULAR BIOLOGY**
(variable units)
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Lecture: TBA
Pass/fail only
Consent of instructor required
Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the Capstone project.

120.820.01 **THESIS RESEARCH BIOCHEMISTRY**

120.830.01 **POSTDOCTORAL RESEARCH BIOCHEMISTRY**

120.840.01 **SPECIAL STUDIES AND RESEARCH BIOCHEMISTRY**

120.850.01 **BIOCHEMICAL TECHNIQUES**
(6 units)
Departmental Faculty
All departmental students spend seven weeks participating in the research activities of a faculty member's laboratory. During the academic year each student rotates through five laboratories.
Lecture: TBA
Pass/fail only

120.852.01 **CORE RESEARCH LITERATURE**
(variable units)
Hardwick, J.-Marie and Bryant, Randy
Provides a complement to the BCMB core curriculum. Student reads research papers relating to a core lecture topic. Discussions are led by a student while a faculty member from Biochemistry or MMI act as facilitator. Helps students to develop skills in reading the primary literature and provides an introduction to the experimental paradigms underlying the concepts presented in the core course.
Email: pbazemor@jhsph.edu
Lecture: T 1:30 - 2:50
Consent of instructor required
Jointly offered with MMI
Requirement for students in the Departments of Biochemistry & Molecular Biology, and Molecular Microbiology & Immunology enrolled in core curriculum

120.895.01 **MPH PRACTICUM: BIOCHEMISTRY AND MOLECULAR BIOLOGY**
(variable units)
Departmental Faculty
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Pass/fail only
Consent of instructor required
Student must receive faculty advisor approval

Biostatistics

1st term information is correct as of August 21, 2009. The most current version of this booklet is available at www.jhsph.edu/Student_Affairs/registrar/. For the most up-to-date information, please use Course Search at www.jhsph.edu.

140.611.01 **STATISTICAL REASONING IN PUBLIC HEALTH I**

(3 units)

McGready, John

Provides a broad overview of biostatistical methods and concepts used in the public health sciences, emphasizing interpretation and concepts rather than calculations or mathematical details. Develops ability to read the scientific literature to critically evaluate study designs and methods of data analysis. Introduces basic concepts of statistical inference, including hypothesis testing, p-values, and confidence intervals. Topics include comparisons of means and proportions; the normal distribution; regression and correlation; confounding; concepts of study design, including randomization, sample size, and power considerations; logistic regression; and an overview of some methods in survival analysis. Draws examples of the use and abuse of statistical methods from the current biomedical literature.

Email: jmcgread@jhsph.edu

Lecture: T Th 10:30 - 11:50

Enrollment minimum of 9

Limited to degree candidates in SPH and students in the joint MSN/MPH program

Course materials fee is $30.00.

140.621.01 **STATISTICAL METHODS IN PUBLIC HEALTH I**

(4 units)

Diener-West, Marie and Bandeen-Roche, Karen

Introduces the basic concepts and methods of statistics as applied to diverse problems in public health and medicine. Demonstrates methods of exploring, organizing, and presenting data, and introduces fundamentals of probability, including probability distributions and conditional probability, with applications to 2x2 tables. Presents the foundations of statistical inference, including concepts of population, sample parameter, and estimate; and approaches to inferences using the likelihood function, confidence intervals, and hypothesis tests. Introduces and employs the statistical computing package, STATA, to manipulate data and prepare students for remaining course work in this sequence.

Lecture: T Th 10:30 - 11:50

Lab: M T W Th F 1:30 - 3:00 or M T W Th F 3:30 - 5:00

For MPH, DrPH, and "special students" only

Consent of instructor required

Consent Required for non-PH students

One 90-minute lab per week, lab is 140.921. As soon as you register for the course, please also register for one section of 140.921. Course Materials Fee is $40.00.

140.621.02 **STATISTICAL METHODS IN PUBLIC HEALTH I**

(4 units)

Bandeen-Roche, Karen and Diener-West, Marie

Introduces the basic concepts and methods of statistics as applied to diverse problems in public health and medicine. Demonstrates methods of exploring, organizing, and presenting data, and introduces fundamentals of probability, including probability distributions and conditional probability, with applications to 2x2 tables. Presents the foundations of statistical inference, including concepts of population, sample parameter, and estimate; and approaches to inferences using the likelihood function, confidence intervals, and hypothesis tests. Introduces and employs the statistical computing package, STATA, to manipulate data and prepare students for remaining course work in this sequence.

Lecture: T Th 10:30 - 11:50

Lab: M T W Th F 1:30 - 3:00 or M T W Th F 3:30 - 5:00

For PhD, ScM and MHS degree candidates

Consent of instructor required

Consent of instructor required for non-PH students

One 90-minute lab per week, lab is 140.921. As soon as you register for the course, please also register for one section of 140.921. Course Materials Fee is $40.00.

140.636.01 **PERL FOR BIOINFORMATICS**

(4 units)

Pineda, Fernando

Uses the PERL programming language to introduce skills and concepts needed to process and interpret data from high-throughput technologies in the biological sciences. Key concepts are introduced and reinforced through lectures with live computer demonstrations, weekly readings, and programming exercises. Excercises and examples draw heavily from biological sequency analysis as welll as real-world problems in proteomics and genetics. Guest lecturers present case studies of PERL and UNIX usage in scientific investigations. Students are introduced to bioinformatics software-development resources available online and to necessary computer science fundamentals.

Email: fpineda@jhsph.edu

Lecture: M W F 1:30 - 2:20

Lab: F 10:30 - 11:50

Enrollment minimum of 5

Enrollment maximum of 16

Consent of instructor required

Prerequisite: Required course for planned degree program (MHS) in bioinformatics.

140.642.01 **DESIGN OF CLINICAL EXPERIMENTS**

(3 units)

Tonascia, James and Zeger, Scott

Introduces the application of traditional experimental design theory to biomedical control experiments, including event time studies. Stresses methods of bias and variability, particularly randomization, blocking, factorial designs, stratification, and adequate sample size. Emphasizes clinical trials and other types of medical experiments likely to be encountered by biometric researchers. Discusses elements of analysis when they relate to the design principles.

Email: jtonasci@jhsph.edu

Lecture: T Th 3:00 - 4:20

Prerequisite: 140.621-23 or 140.611-14

140.646.01 **ESSENTIALS OF PROBABILITY AND STATISTICAL INFERENCE I: PROBABILITY**

(4 units)

Wang, Mei-Cheng

Provides a modern introduction to the theory of probability, the formal language of uncertainty. Includes the basic concepts of probability; random variables and their distributions; expectations; moment generating functions; probability and expectation inequalities; convergence concepts and limit theorems; transformations of random variables; order statistics. De-emphasizes proofs and replaces them with extended discussion of interpretation of results and simulation for illustration.

Email: mcwang@jhsph.edu

Lecture: T Th 3:30 - 4:50
Lab: TBA

Consent of instructor required

Consent required for anyone who is not a Biostatistics MHS or ScM candidate

Prerequisite: Working knowledge of calculus.

140.651.01 **METHODS IN BIOSTATISTICS I**

(4 units)

Caffo, Brian

Presents fundamental concepts in applied probability, exploratory data analysis, and statistical inference, focusing on probability and analysis of one and two samples. Topics include discrete and continuous probability models; expectation and variance; central limit theorem; inference, including hypothesis testing and confidence for means, proportions, and counts; maximum likelihood estimation; sample size determinations; elementary non-parametric methods; graphical displays; and data transformations.

Email: margo@jhsph.edu

Lecture: T Th 10:30 - 11:50
Lab: T 1:30 - 2:20 or W 3:00 - 3:50

Prerequisite: Working knowledge of calculus and linear algebra

Students will choose one lab time: Tuesday 1:30-2:20 OR Wednesday 3-3:50.

140.751.01 **ADVANCED METHODS IN BIOSTATISTICS I**

(3 units)

Irizarry, Rafael

Introduces students to applied statistics for biomedical sciences. Illustrates the motivations behind many of the methods explained in 140.752-756. Focuses on analyzing data and interpreting results relevant to scientific questions of interest. Presents various case studies in detail and provides students with hands-on experience in analyzing data. Requires students to present results in both written and oral form, which in turn requires them to learn the software package R and a handful of statistical methods. General topics covered include descriptive statistics, basic probability, chance variability, sampling, chance models, inference, and regression.

Email: ririzarr@jhsph.edu

Lecture: T Th 10:30 - 11:50

Biostatistics 1st-year PhD students.

Consent of instructor required

Consent required for students other than Biostatistics 1st-year PhD students.

Prerequisite: 140.673-674 & elementary course in matrix algebra; students must also register for 140.752

140.755.01 **ADVANCED METHODS IN BIOSTATISTICS V**

(4 units)

Crainiceanu, Ciprian and Liang, Kung-Yee

Reviews the extension of linear models to generalized linear models. Includes exponential family models, link functions, and over-dispersion. Also introduces models and inferential methods for polytomous outcomes. Describes extension of models to account for clustering using explicit modeling via mixed effects framework and generalized estimating equations (GEE). Introduces methods and models for regression with covariates subject to measurement error. Describes and implements advanced computational algorithms, such as Markov Chain Monte Carlo (MCMC) and expectation maximization (EM).

Lecture: T Th 10:30 - 11:50
Lab: T Th 10:00 - 10:20

Prerequisite: 140.751-4

140.771.01 **ADVANCED STATISTICAL THEORY I**

(4 units)

Scharfstein, Daniel

Examines statistics as a discipline along the path towards making decisions. First examines the justification of statistics from axioms on informed preferences and its close connection to Bayesian theory, and then examines the role of standardizing intermediate steps, through various additional restrictions on estimation, and studies the properties of the resulting methods.

Email: dscharf@jhsph.edu

Lecture: T Th 1:30 - 2:50
Lab: TBA

Enrollment minimum of 2

Prerequisite: 140.673-674, 140.692-694, and knowledge of laws of large numbers and central limit theorem

Multi-term with 140.772 - ADVANCED STATISTICAL THEORY II

Grade for 140.771 and 772 given at completion of 140.772.

140.776.01 **STATISTICAL COMPUTING**

(3 units)

Ji, Hongkai

Covers practical issues in statistical computing. Includes programming in R, calling complied code from R, accessing R libraries, creating R packages with documentation, programming in C, debugging, organizing and commenting code, working in Emacs, LATEX typesetting, literate programming, using computer algebra packages, and high-performance computing in UNIX and LATEX. Topics in numerical linear algebra provide working examples.

Lecture: T Th 1:30 - 2:50

Prerequisite: 140.621 or equivalent

140.800.01 **MPH CAPSTONE BIOSTATISTICS**

(variable units)

Departmental Faculty

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Lecture: TBA

Pass/fail only

Consent of instructor required

Consent from the Capstone Supervisor is Required

Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

140.820.01 **THESIS RESEARCH BIOSTATISTICS**

140.822.01 **SEMINARS IN BIOINFORMATICS**

(1 unit)

Departmental Faculty

Students attend the weekly Expressionists Working Group meeting, where researchers from JHU and other biomedical research institutions present results of state- of-the-art investigations in bioinformatics and related topics, with a particular emphasis on the analysis of gene expression microarray data.

Lecture: W 2:30 - 4:00

Pass/fail only

Will be held in departmental space

140.830.01 **POSTDOCTORAL RESEARCH BIOSTATISTICS**

140.840.01 **SPECIAL STUDIES AND RESEARCH BIOSTATISTICS**

140.850.01 **ADVANCED SPECIAL TOPICS IN BIOSTATISTICS**

(variable units)

Departmental Faculty

Exposes Biostatistics PhD students to advanced special topics that are not covered in the core courses. Comprises two- and four-week modules, with revolving instructors and topics. Possible topics include: theory underlying analysis for correlated data; latent variable modeling; advanced survival analysis; image analysis; time series; and likelihood inference.

Lecture: TBA

For Biostatistics PhD students only

Pass/fail only

Consent of instructor required

Consent required only if students have not already completed PhD core courses

Prerequisite: Ph.D. core courses or consent from the instructors

140.860.01 **MHS IN BIOINFORMATICS CAPSTONE PROJECT**

(variable units)

Students experience a bioinformatics project in an active research laboratory. They gain practical bioinformatics experience in a research environment. Students interact with active researchers to complete a project that demonstrates their core bioinformatics competencies and skills.

Pass/fail only

Consent of instructor required

Instructor consent is required.

Prerequisite: Approval of project by academic advisor and project advisor

140.895.01 **MPH PRACTICUM: BIOSTATISTICS**

(variable units)

Departmental Faculty

The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.

Pass/fail only

Clinical Investigation

390.631.01 **PRINCIPLES OF DRUG DEVELOPMENT**

(2 units)

Flexner, Charles

Presents principles underlying preclinical and clinical development of new therapeutic drugs and procedures. Describes and evaluates specific examples, and discusses legal and ethical regulations that apply to drug development.

Email: gtpci@jhsph.edu

Lecture: W 1:30 - 2:50

Restricted to GTPCI students, and faculty and staff with active involvement in clinical research

Jointly offered with ME

390.673.01 **ETHICAL AND REGULATORY ISSUES IN CLINICAL RESEARCH**

(3 units)

Adkinson, Franklin

Explores and examines the ethical issues central to clinical research, reviews current regulations for clinical investigation, promotes understanding of the function and procedures of Institutional Review Boards, and better appreciation of the role of good clinical practices for clinical trials.

Lecture: M 5:30 - 8:30

Enrollment minimum of 10

Enrollment maximum of 30

Restricted to individuals in the SOCI certificate program or GTPCI students.

Second in a five-course series in the science of clinical investigation.

390.710.01 **BIOMEDICAL WRITING I**

(2 units)

McClellan, Deborah

Introduces the process of writing peer -reviewed research paper and provides a brief overview of grant proposal writing. Emphasizes a logical organization, clear writing, and an understanding of readers and reviewers expectations. Students prepare selected sections of a first draft of a research paper based on their own research, and they receive feedback on their drafts through in-class discussion and written comments from the instructor.

Email: gtpci@jhsph.edu

Lecture: T 3:30 - 5:20

Enrollment minimum of 4

Enrollment maximum of 12

Restricted to GTPCI students.

Pass/fail only

Consent of instructor required

Jointly offered with ME

Grade issued at the end of 2nd term after completion of 390.711

390.710.02 **BIOMEDICAL WRITING I**

(2 units)

McClellan, Deborah

Introduces the process of writing peer -reviewed research paper and provides a brief overview of grant proposal writing. Emphasizes a logical organization, clear writing, and an understanding of readers and reviewers expectations. Students prepare selected sections of a first draft of a research paper based on their own research, and they receive feedback on their drafts through in-class discussion and written comments from the instructor.

Lecture: M 3:30 - 5:00

Enrollment minimum of 4

Enrollment maximum of 12

Only offered to GTPCI students

Pass/fail only

Consent of instructor required

Instructor consent required.

Grade issued at the end of 2nd term after completion of 390.711.

390.820.01 **THESIS RESEARCH IN CLINICAL INVESTIGATION**

390.840.01 **SPECIAL STUDIES AND RESEARCH IN CLINICAL INVESTIGATION**

Environmental Health Sciences

180.609.01 **PRINCIPLES OF ENVIRONMENTAL HEALTH I**

(4 units)

Spannhake, Ernst

Presents concepts, principles, and applications of the main natural and social science disciplines that form the basis of environmental health and describes how these disciplines and their practitioners interact in the environmental health paradigm. Topics include the sources, pathways of exposure, and methods of control of the principal physical, chemical, biologic, and sociologic factors that impact human health in ambient, indoor and occupational environments. Familiarizes students with the processes associated with the translation of basic scientific and health data into public health policy and environmental law. Students gain first-hand experience with the multidisciplinary environmental health approach to the solution of current and emerging environmental problems that pose a risk to public health. Consists of lectures, case studies, and class discussions.

Lecture: M W 1:30 - 3:20

Enrollment maximum of 36

Consent of instructor required

Consent is required for non-EHS degree candidates.

Prerequisite: None

EHS degree candidates are required to take both Principles of Environmental Health I & II.

180.611.01 **THE GLOBAL ENVIRONMENT AND PUBLIC HEALTH**

(4 units)

Parker, Cindy

Explores how global environmental issues such as global warming, urban sprawl, deforestation, mining, environmental refugees, biodiversity loss, and food security may cause increasing human harm. Provides an overview of the science and policy issues related to the changing environment, how environmental problems affect human health, and emphasizes potential solutions and sustainable development methods essential for resolving a myriad of environment-health problems.

Lecture: T Th 8:30 - 10:20

180.800.01 **MPH CAPSTONE ENVIRONMENTAL HEALTH SCIENCES**

(variable units)

Departmental Faculty

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Lecture: TBA

Pass/fail only

Consent of instructor required

Consent from the Capstone Supervisor is Required

Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

180.820.01 **THESIS RESEARCH ENVIRONMENTAL HEALTH SCIENCES**

180.830.01 **POSTDOCTORAL RESEARCH ENVIRONMENTAL HEALTH SCIENCES**

180.840.01 **SPECIAL STUDIES AND RESEARCH ENVIRONMENTAL HEALTH SCIENCE**

180.880.01 **SPECIAL STUDIES IN ENVIRONMENTAL HEALTH/COMMUNITY OUTREACH**

(variable units)

Trush, Michael

In the first and second terms, introduces concepts of environmental justice and community outreach in environmental health by emphasizing ongoing projects in Baltimore. Presentations are by researchers or project directors and their community partners as well as representatives from city and state government. In the third and fourth terms, students have the opportunity to participate in ongoing community-based research projects. This may serve as an MPH integrating experience.

Email: mtrush@jhsph.edu

Lecture: T 4:00 - 6:00

Pass/fail only

Consent of instructor required

180.895.01 **MPH PRACTICUM: EHS**

(variable units)

Departmental Faculty

The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.

Pass/fail only

182.631.01 **PRINCIPLES OF OCCUPATIONAL SAFETY**

(2 units)

Knowles, Emory

Introduces the organizational framework in which safety sciences are practiced in the U.S. Illustrates professional and scientific methodologies by focusing on selected, substantive areas of practice (systems safety, nature of accidents, electrical hazards, fire and fire suppression, explosions and explosives, and falls and walking and working surfaces).

Email: emory.knowles@ngc.com

Lecture: F 1:30 - 3:20

Enrollment minimum of 6

Enrollment maximum of 30

Consent of instructor required

182.810.01 **FIELD PLACEMENT ENVIRONMENTAL HEALTH ENGINEERING**

182.820.01 **THESIS RESEARCH ENVIRONMENTAL HEALTH ENGINEERING**

182.830.01 **POSTDOCTORAL RESEARCH ENVIRONMENTAL HEALTH ENGINEERING**

182.840.01 **SPECIAL STUDIES/RESEARCH ENVIRONMENTAL HEALTH ENGINEERING**

183.820.01 **THESIS RESEARCH PHYSIOLOGY**

183.830.01 **POSTDOCTORAL RESEARCH PHYSIOLOGY**

183.840.01 **SPECIAL STUDIES AND RESEARCH PHYSIOLOGY**

183.861.01 **CURRENT RESEARCH IN PHYSIOLOGY**
(1 unit)
Reddy, Sekhara
Covers current research topics in environmental and medical physiology. At least once during the year students present a seminar describing their current research project.
Email: sreddy@jhsph.edu
Lecture: W 12:00 - 1:20
Pass/fail only
Consent of instructor required

186.810.01 **FIELD PLACEMENT RADIATION HEALTH SCIENCES**

186.820.01 **THESIS RESEARCH RADIATION HEALTH SCIENCES**

186.830.01 **POSTDOCTORAL RESEARCH RADIATION HEALTH SCIENCES**

186.840.01 **SPECIAL STUDIES AND RESEARCH RADIATION HEALTH SCIENCES**

187.610.01 **PUBLIC HEALTH TOXICOLOGY**
(4 units)
Trush, Michael and Yager, James
Examines basic concepts of toxicology as they apply to environmental toxicology. Discusses distribution, cellular penetration, metabolic conversion, and elimination of toxic agents, as well as the fundamental laws governing the interaction of foreign chemicals with biological systems. Focuses on the application of these concepts to the understanding and prevention of mortality and morbidity resulting from environmental exposure to toxic substances through a case study format.
Email: mtrush@jhsph.edu
Lecture: W F 3:30 - 4:50
Prerequisite: Background in chemistry (particularly organic chemistry) and biology useful.

187.621.01 **PUBLIC HEALTH TOXICOLOGY: ADVANCED TOPICS**
(1 unit)
Bressler, Joseph
Complements Public Health Toxicology and provides students with additional depth of information regarding topics discussed concurrently in the Toxicology core curriculum. Students are assigned review articles from the literature and primary research papers. Students discuss the data from such papers and an overview of the literature with Toxicology faculty at weekly meetings.
Lecture: M 4:00 - 5:20
Only for PhD students in a laboratory based graduate program. Students must register for all four terms of this course.
Pass/fail only

187.820.01 **THESIS RESEARCH TOXICOLOGICAL SCIENCES**

187.830.01 **POSTDOCTORAL RESEARCH TOXICOLOGICAL SCIENCES**

187.840.01 **SPECIAL STUDIES AND RESEARCH TOXICOLOGICAL SCIENCES**

187.861.01 **TOXICOLOGICAL SCIENCES SEMINAR**
(2 units)
Biswal, Shyam S.
Students, postdoctoral trainees, and faculty in EHS present scientific papers from the current literature dealing with biochemical and molecular mechanisms of toxicity agents.
Email: tkensler@jhsph.edu
Lecture: TBA
Pass/fail only
Consent of instructor required
Prerequisite: 187.610 (previous or concurrent)

188.680.01 **FUNDAMENTALS OF OCCUPATIONAL HEALTH**
(3 units)
Cadorette, Maureen
Surveys the history of occupational health, the continuum from exposure to disease, the hierarchy of controls in the workplace, workplace medical screening and surveillance, occupational health hazards, legal and regulatory issues, the provision of occupational health services, the core disciplines in occupational health and safety, and current issues in occupational health.
Lecture: T Th 3:30 - 4:50

188.810.01 **FIELD PLACEMENT OCCUPATIONAL AND ENVIRONMENTAL HEALTH**

188.820.01 **THESIS RESEARCH OCCUPATIONAL AND ENVIRONMENTAL HEALTH**

188.830.01 **POSTDOCTORAL RESEARCH OCCUPATIONAL AND ENVIRONMENTAL HEALTH**

188.840.01 **SPECIAL STUDIES AND RESEARCH OCCUPATIONAL AND ENVIRONMENTAL HEALTH**

Epidemiology

340.601.01 **PRINCIPLES OF EPIDEMIOLOGY**

(5 units)

Moss, William

Introduces principles and methods of epidemiologic investigation of infectious and noninfectious diseases. Illustrates how methods of studies of the distribution and dynamic behavior of disease in a population can contribute to an understanding of etiologic factors, modes of transmission, and pathogenesis. Presents different types of study design, including randomized trials, case-control and cohort studies, and risk estimation and causal inferences. Demonstrates the interface between epidemiology and the development of policy. Laboratory problems provide experience in epidemiologic methods and inferences, illustrating a common-vehicle epidemic, the spread of infectious diseases in populations, epidemiological aspects of a noninfectious disease, causality, vaccination, the epidemiological approach to health services evaluation, rates of morbidity and mortality, sensitivity and specificity, and life table methods.

Email: aarnold@jhsph.edu

Lecture: M W F 8:30 - 9:20
Lab: M W 10:00 - 12:00 or M F 10:00 - 12:00 or W F 10:00 - 12:00

Enrollment minimum of 5

Enrollment maximum of 275

No auditors permitted. Course Materials Fee is $35.00

340.646.01 **EPIDEMIOLOGY AND PUBLIC HEALTH IMPACT OF HIV AND AIDS**

(4 units)

Farzadegan, Homayoon

Provides an overview of the historical and public health aspects of the HIV/AIDS epidemic, with review and analysis of virology; immunology; clinical and laboratory manifestations; legal and ethical issues; economic impact; and needs for future research and intervention for global control of the HIV epidemic.

Lecture: T Th 8:30 - 10:20

340.660.01 **PRACTICAL SKILLS IN CONDUCTING RESEARCH IN CLINICAL EPIDEMIOLOGY AND INVESTIGATION**

(3 units)

Jacobson, Lisa and Fink, Nancy

Emphasizes the practical aspects of conducting and organizing a clinical research project. Focuses on developing skills to conduct and manage a research protocol, monitor the data collection, manage the data, and disseminate results. Covers basic components of a clinical research team, the components of good clinical practice, the responsibilities, expertise and tasks that each member is expected to perform, and organizational, logistical and attitudinal issues that need to be addressed in producing an effective research group specifically translational research and the kinds of issues that arise in the multi-disciplinary teams brought together to conduct it.

Lecture: T Th 10:30 - 11:50

Enrollment minimum of 5

Enrollment maximum of 40

Restricted to graduate students.

Consent of instructor required

Instructor consent required for non-degree students.

Prerequisite: 340.752 Epidemiologic Methods II and 140.622 Statistical Methods in Public Health
or 140.652 Methods in Biostatistics

340.664.01 **INTRODUCTION TO GENETIC EPIDEMIOLOGY**

(4 units)

Kao, Wen Hong Linda

First in a four-term series. Presents fundamental concepts and methods in genetic epidemiology. Reviews basic terminology of genetics, introduces basic principles of population genetics, and provides an overview of various genetic epidemiology study designs, covering basic analysis, inferences, plus their strengths and limitations. Presents methods for assessing familial aggregation/correlation, and covers statistical techniques for modeling inheritance of complex phenotypes on family data. Presents both linkage and association analyses, with emphasis on how these are used in genetic epidemiology. Explains different study designs commonly used in genetic epidemiology to identify the genetic basis of common, complex diseases.

Lecture: T Th 8:30 - 10:20

Prerequisite: College-level biology or genetics

340.751.01 **EPIDEMIOLOGIC METHODS 1**

(5 units)

Platz, ElizabethDepartmental Faculty

First offering in the Epidemiologic Methods sequence. Introduces students to history, principles, and concepts of epidemiologic research. Covers epidemiologic reasoning and causal inference, models of disease causation and prevention, and the cohort framework for characterizing the health of populations. Presents measures of population health, measures of association, and screening. Provides experience through laboratory problems with epidemiologic methods and inference, calculation of population health measures, and literature interpretation.

Email: akhan@jhsph.edu

Lecture: M W F 8:30 - 9:50
Lab: M W 10:00 - 11:50

Enrollment minimum of 30

Enrollment maximum of 230

No auditors permitted.

Consent of instructor required

Consent required for special students and non-JHSPH students.

Prerequisite: Prior or concurrent enrollment in Statistical Methods in Public Health I (140.621) or Methods in Biostatistics I (140.651).

MPH students who earned a grade of "B" or higher in 340.601 PRINCIPLES OF EPIDEMIOLOGY in the summer term may opt to skip the course 340.751 and proceed into 340.752 EPIDEMIOLOGIC METHODS 2 during the 2nd term. While generally skipping 340.751 is not recommended there may be individual circumstances where it is appropriate, especially if additional preparatory work is done. Contact the Department of Epidemiology for more information: avillant@jhsph.edu. MPH students who have elected the Quantitiative Sciences concentration may NOT skip the 340.751 course. Course Materials Fee is $35.00.

340.800.01 **MPH CAPSTONE EPIDEMIOLOGY**

(variable units)

Departmental Faculty

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Pass/fail only

Consent of instructor required

Consent from the Capstone Supervisor is Required

Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

340.810.01 **FIELD PLACEMENT EPIDEMIOLOGY**

340.820.01 **THESIS RESEARCH EPIDEMIOLOGY**

340.830.01 **POSTDOCTORAL RESEARCH EPIDEMIOLOGY**

340.840.01 **SPECIAL STUDIES AND RESEARCH EPIDEMIOLOGY**

340.845.01 **SS/R APPLIED ASPECTS OF COHORT STUDIES**

(4 units)

Farzadegan, Homayoon

Provides a learning experience for students to understand the details of operational aspects of infectious disease cohort studies at clinical, laboratory, and data management levels. By direct observation and active participation in clinical and laboratory activities of the ongoing large cohort studies at Infectious Disease Program, students will have hands- and eyes-on daily field activities in the clinic and in the labs that are required for successful implementations of these studies.

Lecture: TBA

340.851.01 **PHASE INTERNSHIP**

(variable units)

Sifakis, Frangiscos

Familiarizes students with public health practice settings and provides hands-on experience about research topics in practice. Students synthesize and integrate knowledge acquired in coursework and apply it to a practical issue. Field experiences, seminars, research projects, and a scientific paper form the basis for the course.

Email: fsifakis@jhsph.edu

Pass/fail only

Consent of instructor required

Instructor must meet with each student accepted to this program.

Prerequisite: 340.751 Epid Methods I, 340.601Principles of Epidemiology, or equivalent.

340.863.01 **DOCTORAL SEMINARS IN EPIDEMIOLOGY**

(3 units)

Goodman, Steven and Glass, Thomas

Provides a forum in which the doctoral students present and discuss papers on topics relative to epidemiologic principles and practice. Proposed topics include issues in measurement, causal reasoning, confounding, and multilevel modeling. Faculty guides the selection of topics and readings, and facilitates active dialog among seminar participants.

Email: sgoodman@jhmi.edu

Lecture: T 4:00 - 5:50

Enrollment minimum of 5

Enrollment maximum of 30

Restricted to second year doctoral students in Epi.

Consent of instructor required

Prerequisite: 340.601-604 and department written comprehensive exam.

340.871.01 **WELCH CENTER RESEARCH SEMINAR**

(1 unit)

Selvin, Elizabeth and Daumit, Gail

Students, postdoctoral fellows, and faculty present scientific papers from the current and/or classic literature dealing with epidemiologic research, focusing on clinical and cardiovascular epidemiology. Emphasizes presentation skills and the ability to critically evaluate scientific papers. Uses a journal-club format in which one or more papers are distributed in advance; participants are expected to read and discuss the assigned material.

Lecture: T 12:00 - 1:20

Pass/fail only

Students may take this course multiple times.

340.895.01 **MPH PRACTICUM: EPIDEMIOLOGY**

(variable units)

Departmental Faculty

The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.

Pass/fail only

Extradepartmental

550.001.01 **ENGLISH FOR ACADEMIC PURPOSES**

(0 units)

Hong Smith, Vicki

Focuses on academic writing skills including documentation styles, and combines Saturday class meetings with online assignments and one individual conference.

Email: sbazzett@jhsph.edu

Lecture: S 10:30 - 3:20

Enrollment minimum of 5

Enrollment maximum of 12

Pass/fail only

Consent of instructor required

Consent of Student Affairs required. Please email Contact person.

550.609.01 **LIFE AND DEATH IN CHARM CITY: HISTORIES OF PUBLIC HEALTH IN BALTIMORE, 1750 TO THE PRESENT**

(3 units)

Mooney, Graham

Critically explores a range of important topics in the history of public health in Baltimore from the mid-18th century to the present, including: migration and health; sewers and water supply; infectious disease control (for example, tuberculosis and STDs); housing and lead poisoning; rodent control. Recurrent themes are racial inequality, the geography of poverty and the multiple challenges of urban government. Focuses on the city of Baltimore, but the issues discussed are placed in their wider national and international contexts and take into account broad historical developments in the theory and practice of public health.

Lecture: M W 10:30 - 11:50
Enrollment minimum of 5
Enrollment maximum of 30

550.630.01 **PUBLIC HEALTH BIOLOGY**

(3 units)

Bryant, Randy and Glass, Gregory

Offers an integrative molecular and biological perspective on public health problems. Explores population biology and ecological principles underlying public health and reviews molecular biology in relation to public health biology. Modules focus on specific diseases of viral, bacterial, and environmental origin. Specific examples of each type are used to develop the general principles that govern interactions among susceptible organisms and etiologic agents. Special attention is devoted to factors that act in reproduction and development. Emphasis placed on common elements encountered in these modules. These may include origin and dissemination of drug resistance, organization and transmission of virulence determinants, modulation of immune responses, disruption of signal transduction pathways, and perturbation of gene expression. The role of the genetic constitution of the host is considered as well.

Email: swarner@jhsph.edu

Lecture: M W 1:30 - 2:50
Enrollment minimum of 10

Prerequisite: A modern, college-level course in biology.

Jointly offered with Biochem, MMI

550.853.01 **SEMINAR FOR MPH CONCENTRATION IN SOCIAL AND BEHAVIORAL SCIENCES I**

(1 unit)

Winch, Peter

Introduces students to research and practice activities related to social and behavioral sciences at JHU, and also introduces students to key concepts and tools needed to successfully complete a Capstone Project related to social and behavioral sciences.

Lecture: W 12:00 - 1:20
Pass/fail only
Prerequisite: None

550.865.01 **PUBLIC HEALTH PERSPECTIVES ON RESEARCH I**

(1 unit)

Kumar, Nirbhay

Introduces the substantive and methodologic basis for public health research presenting human health throughout the life span; the major causes of morbidity and mortality; and strategies for health interventions in each stage of life. Also provides examples of common public health methodology drawn from the quantitative, qualitative, biologic, social, and behavioral sciences. Highlights principles of high-quality research, including the value of a population perspective, interdisciplinary cooperation, the importance of new measurement techniques, and the interface between theory and practice. Gives students information about the interactions between the public and the researcher.

Email: mksmith@jhsph.edu

Lecture: T 10:30 - 11:50 and F 1:30 - 2:50
Multi-term with 550.865 - PUBLIC HEALTH PERSPECTIVES ON RESEARCH
550.866 - PUBLIC HEALTH PERSPECTIVES ON RESEARCH II
Students must complete both sections (550.865 and 550.866) in order meet the PHP requirement; grades are issued at the end of term 2 for both terms.
Required of all PhD/ScD students, ScM students, and MHS students enrolled in academic/advanced study programs. Certain students may obtain waivers: 1. students with an MPH degree from a domestic institution within the last ten years 2. students enrolled in a professional MHS program or in the DrPH program, 3. students who have taken graduate-level courses in the five CEPH core areas that are biostatistics, epidemiology, social and behavioral sciences, environmental health sciences, and health systems administration. Waivers to this course can be obtained from Dr. Nirbhay Kumar nkumar@jhsph.edu

550.870.01 **SS/R: OCCUPATIONAL MEDICINE RESIDENCY-PRACTICUM YEAR**

(variable units)

Weaver, Virginia and Schwartz, Brian

Occupational medicine resident physicians do a series of clinical, administrative, regulatory, and plant-based rotations throughout the year.

Lecture: TBA
Residency training.
Pass/fail only
Consent of instructor required
Must have approval of program director.

550.873.01 **SEMINAR IN PUBLIC HEALTH LEADERSHIP**

(1 unit)

Morlock, Laura

Provides a framework for the development of advanced professional practice and leadership in public health. Topics include the scope of public health, leadership competencies, problem solving, and communication skills. Involves presentations by faculty, guest speakers, and students.

Email: gwhite@jhsph.edu

Lecture: TBA
Restricted to DrPH students.
Pass/fail only
Consent of instructor required
This course is restricted to students officially enrolled in the DrPH program only. Students must obtain the permission of Gail White in order to register

550.880.01 **SS/R: GENERAL PREVENTIVE MEDICINE RESIDENCY-MPH**
(1 unit)
Alexander, Miriam
Email: lmyers@jhsph.edu
Lecture: TBA
Restricted to MPH/GPMR during MPH year.
Pass/fail only

550.890.01 **SS/R: GENERAL PREVENTIVE MEDICINE RESIDENCY-RESIDENCY YEAR**
(variable units)
Alexander, Miriam
Email: lmyers@jhsph.edu
Lecture: TBA
Restricted to GPMR during post MPH year.
Pass/fail only

551.601.01 **MANAGING HEALTH SERVICES ORGANIZATIONS**
(4 units)
Ward, William and Gundlach, Ann-Michele and Edward, Anbrasi
Discusses leadership development (building a shared vision; strategic planning; measuring and monitoring organizational performance); human resources management (motivation, performance feedback, incentive systems, and team building); approaches to process improvement (continuous quality improvement and re-engineering); and managing change. Case studies provide examples of the application of these concepts to improving productivity and health outcomes in hospitals, primary care organizations, and integrated delivery systems.
Email: jsavage@jhsph.edu
Lecture: T Th 8:30 - 10:20
Course restricted to graduate students only.
Jointly offered with IH, HPM

551.602.01 **APPROACHES TO MANAGING HEALTH SERVICE ORGANIZATIONS: CASES AND APPLICATIONS**
(2 units)
Ward, William and Gundlach, Ann-Michele
Explores a variety of settings in which to apply concepts learned in the course "Managing Health Services Organizations". Examines the following: (1) organizational design and how to evaluate an organization from the perspectives of open systems, (2) community-focused strategic management, (3) perspectives of key stakeholders-and ways organizations meet their expectations, (4) governance in healthcare organizations, (5) the role of conflict in healthcare organizations, (6) preparing, implementing, and communicating a budget that is based on limited resources within a business, (7) performance improvement concepts and tools in a healthcare organization, and (8) the construct of a “balanced score card” for a healthcare organization.
Lecture: W 10:00 - 11:50
students with a US focus should register for this section
Pass/fail only
Prerequisite: 551.601 must be taken prior to or concurrently with 551.602.
Jointly offered with IH, HPM

551.602.02 **APPROACHES TO MANAGING HEALTH SERVICE ORGANIZATIONS: CASES AND APPLICATIONS**
(2 units)
Peters, David
Explores a variety of settings in which to apply concepts learned in the course "Managing Health Services Organizations". Examines the following: (1) organizational design and how to evaluate an organization from the perspectives of open systems, (2) community-focused strategic management, (3) perspectives of key stakeholders-and ways organizations meet their expectations, (4) governance in healthcare organizations, (5) the role of conflict in healthcare organizations, (6) preparing, implementing, and communicating a budget that is based on limited resources within a business, (7) performance improvement concepts and tools in a healthcare organization, and (8) the construct of a “balanced score card” for a healthcare organization.
Lecture: W 10:00 - 11:50
students with an international focus should register for this section
Pass/fail only

Health Behavior and Society

410.612.01 **SOCIOLOGICAL PERSPECTIVES ON HEALTH**
Course offered every other year. Course offered this year.
(3 units)
Ensminger, Margaret
Presents sociological concepts, paradigms, and theories frequently cited or used as sources of basic ideas and assumptions in contemporary analyses of health behavior and health systems. Discusses the social construction of concepts and theories, especially those that apply to our understanding of health and illness, and the implications of sociological perspectives for public health, including social stratification, deviance, social control, role performance, and stress.
Lecture: M W 3:30 - 4:50
Undergraduate enrollment restricted to seniors with at least 2 social science courses.

410.618.01 **INTEGRATING SOCIAL AND BEHAVIORAL THEORY INTO PUBLIC HEALTH. PART I: FOUNDATIONS**
(4 units)
Wissow, Lawrence
Provides students with the basic theoretical and conceptual knowledge needed to understand health behavior and to design and evaluate behavioral interventions on an individual, group, community, and national scale. Using an ecologic framework, integrates theoretical perspectives from anthropology, geography, sociology, and psychology. Illustrates how these theories inform public health interventions at multiple levels. Uses a combination of lectures, reading, and small group exercises to demonstrate the dynamic relationship of theory and intervention.
Lecture: M W 3:30 - 4:50
Lab: F 10:30 - 11:20
Enrollment minimum of 20
Combines content from: 410.616 - SOCIAL AND BEHAVIORAL ASPECTS OF PUBLIC HEALTH

410.620.01 **PROGRAM PLANNING FOR HEALTH BEHAVIOR CHANGE**
(3 units)

Gielen, Andrea

Provides an overview of the breadth of programs and diversity of settings in the field of health education in health promotion, and an opportunity to develop skills in program planning. Explains the importance of health behavior as a contributor to current public health problems and the role of health education and health promotion programs in addressing them, drawing examples from the literature on community-based health education, patient education, school health, and work-site health promotion. Also discusses issues of ethical standards and quality assurance in health education and health promotion.

Lecture: T Th 1:30 - 2:50

410.653.01 **CONTEMPORARY ISSUES IN HEALTH COMMUNICATION**
(1 unit)

Borzekowski, Dina

Introduces the role of health communication in public health programs. Features health communication theory; the role of social marketing and mass media; management of communication programs; interpersonal communication; social networks and social change; and formative research and evaluation.

Lecture: W 5:30 - 6:30
Enrollment minimum of 20

Pass/fail only

410.656.01 **ENTERTAINMENT EDUCATION FOR BEHAVIOR CHANGE AND DEVELOPMENT**
(4 units)

de Fossard, Esta

Examines and teaches ways in which education can be subtly but effectively worked into both new and time-honored genres of entertainment in order to foster positive behavior change and life improvement in both developing countries and local environments. Develops students' ability to understand the ingredients of successful entertainment: emotions, empathy, efficacy and empowerment, and how these can be employed to enhance social and personal health and life skills. Examines methodology and develops skills needed to create a successful Entertainment-Education (E-E) project in entertainment (story, drama, etc.) formats with effective behavior change messages.

Lecture: M W 1:30 - 3:20
Enrollment minimum of 7

Restricted to graduate students

410.800.01 **MPH CAPSTONE HEALTH, BEHAVIOR AND SOCIETY**
(variable units)

Departmental Faculty

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Lab: TBA

Pass/fail only

Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

All MPH students are required to do a capstone project.

410.810.01 **FIELD PLACEMENT HEALTH BEHAVIOR AND SOCIETY**

410.820.01 **THESIS RESEARCH IN HEALTH BEHAVIOR AND SOCIETY**

410.830.01 **POSTDOCTORAL RESEARCH IN HEALTH BEHAVIOR AND SOCIETY**

410.840.01 **SPECIAL STUDIES AND RESEARCH IN HEALTH BEHAVIOR AND SOCIETY**

410.860.01 **GRADUATE SEMINAR IN SOCIAL AND BEHAVIORAL SCIENCES**
(variable units)

Ensminger, Margaret

Reviews and critiques current literature in the behavioral sciences and evaluates studies from a methodological and conceptual basis.

Email: lwissow@jhsph.edu

Lecture: T 1:30 - 3:20
Enrollment minimum of 5

Enrollment maximum of 20

Restricted to HBS doctoral students

Consent of instructor required

410.861.01 **GRADUATE SEMINAR IN COMMUNITY-BASED RESEARCH**
(1 unit)

Bone, Lee and Bowie, Janice

Explores faculty-community partnership in community-based research (CBPR), education, and practice. Seminar topics may include CBPR principles and ethics, coalition and partnership building, implementation, dissemination, translation and sustainability, media and marketing, advocacy, policy, cultural diversity, collaborative grant writing, and publishing. Speakers include faculty, Kellogg scholars, and community patrons. This seminar is open to all divisions in the University and community.

Email: lbone@jhsph.edu

Lecture: T 12:00 - 1:20 1st and 3rd Tuesdays

Pass/fail only

410.865.01 **M.H.S. SEMINAR IN HEALTH EDUCATION AND HEALTH PROMOTION**
(1 unit)

McDonald, Eileen

Introduces a variety of topics important to the profession of health education and health promotion, including both historical and current issues. Presents role definitions and competencies, health education certification, professional organizations representing the field, and other health education and promotion resources. Prepares students for the field placement requirement in the second year of the program.

Email: emcdonal@jhsph.edu

Lecture: W 12:00 - 1:20
MHS students in BSHE & students pursuing certificate in Health Education.

Pass/fail only

Consent of instructor required

410.870.01 **HBS RESEARCH AND PROPOSAL WRITING PROCESS FOR DOCTORAL STUDENTS I**
(2 units)

Davey-Rothwell, Melissa and Tobin, Karen

Acquaints doctoral students with the dissertation proposal and preparation for preliminary oral examination processes. Assists students in making progress on their own proposal through refinement of writing, literature synthesis and critique, and peer review skills. Each session focuses on a specific stage of proposal development for behavioral research including developing a comprehensive conceptual framework, formulating research questions and hypotheses, choosing appropriate study design and methodologies, identifying reliable and valid measures, developing a sound data analysis plan, and ensuring compliance with Human Subjects regulations. Reviews departmental and school-wide requirements for dissertation proposals and preliminary examinations. Discusses application of dissertation proposal and examination preparation skills to professional activities such as manuscript development and conference presentations.

Lecture: W 8:30 - 10:20
HBS doctoral students
Pass/fail only
Multi-term with 410.871 - HBS RESEARCH AND PROPOSAL WRITING PROCESS FOR DOCTORAL STUDENTS II
Grade is given for both 410.870 and 410.871 upon completion of 410.871.

410.895.01 **MPH PRACTICUM: HEALTH BEHAVIOR AND SOCIETY**
(variable units)

Departmental Faculty

The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Pass/fail only

Health Policy and Management

300.711.01 **HEALTH POLICY I: SOCIAL AND ECONOMIC DETERMINANTS OF HEALTH**
(3 units)

LaVeist, Thomas

Provides students with the theoretical and practical background to understand the complex web of social, economic, and political, determinants of health. Introduces students to key theories from sociology, economics and political science; students learn to applied these theories as analytic tools enabling them to develop and evaluate policy solutions to public health problems. Students also learn various conceptual models that integrate social, economic and political factors as determents of health related outcomes and health policy formation.
Email: msewell@jhsph.edu

Lecture: T Th 9:00 - 10:20
Enrollment minimum of 10
no undergraduates permitted in this course
PhD students in HPM along with MHS in health policy students: MPH students and others from the school interested in health policy development.

300.721.01 **HEALTH POLICY I: SOCIAL AND ECONOMIC DETERMINANTS OF HEALTH PHD LAB**
(1 unit)

LaVeist, Thomas

Reviews and critiques current literature applicable to each week's lectures in Health Policy I.

Lecture: Th 5:00 - 5:50
ONLY PHD students in HPM permitted to register for this class
Pass/fail only
Prerequisite: concurrent registration in 300.711
PhD students in HPM ONLY

300.800.01 **MPH CAPSTONE HEALTH POLICY AND MANAGEMENT**
(variable units)

Departmental Faculty

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Pass/fail only
Consent of instructor required
Consent from the Capstone Supervisor is Required.
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

300.830.01 **POSTDOCTORAL RESEARCH HEALTH POLICY AND MANAGEMENT**

300.840.01 **SPECIAL STUDIES AND RESEARCH IN HEALTH POLICY AND MANAGEMENT**

300.870.01 **THE RESEARCH AND PROPOSAL WRITING PROCESS I**
(2 units)

Shi, LeiyuDepartmental Faculty

Assists doctoral students in preparing their dissertation proposal through presentations on their progress and faculty lectures on relevant topics, such as identifying research questions and writing hypotheses; reviewing the literature; sources of funding; protocol construction; and the Committee on Human Research.
Email: lshi@jhsph.edu

Lecture: W 1:30 - 3:20
Restricted to 2nd year HPM doctoral students, or consent of department.
Pass/fail only
Multi-term with 300.871 - THE RESEARCH AND PROPOSAL WRITING PROCESS II

300.895.01 **MPH PRACTICUM: HPM**
(variable units)

Departmental Faculty

The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Pass/fail only

301.820.01 **THESIS RESEARCH IN HEALTH POLICY AND MANAGEMENT**

301.861.01 **GRADUATE SEMINAR IN HEALTH AND PUBLIC POLICY**
(1 unit)
Frattaroli, Shannon
Reviews and critiques current literature in health and public policy and evaluates studies from a methodological and conceptual basis.
Email: msewell@jhsph.edu
Lecture: Th 1:30 - 3:20
Restricted to Health & Pub Policy HPM doctoral students.
Pass/fail only

305.610.01 **ISSUES IN INJURY AND VIOLENCE PREVENTION**
(2 units)
Vernick, Jon
Addresses prominent sources of injury, including motor vehicles, falls, fires, and firearms. Explores the biological, behavioral, and social issues relating to injury and violence prevention and policy. Emphasizes basic strategies for preventing injuries and deaths in the workplace, home, travel, and recreation, and the relative effectiveness of various types of approaches. Students who wish to write a paper may sign up for extra credit as special studies.
Lecture: M W 3:30 - 4:50
Jointly offered with EHS

305.861.01 **GRADUATE SEMINAR IN INJURY RESEARCH AND POLICY**
(1 unit)
Gielen, Andrea
Students attend weekly seminars offered by the Center for Injury Research and Policy and read literature provided to accompany each presentation. Seminar topics complement the content areas of current courses and include themes of global perspectives in injury control, contemporary thoughts in violence prevention, advanced methods in injury research, and updates in trauma and rehabilitation research. The last week of each course is devoted to an in-depth discussion of the terms' seminars.
Email: sbaker@jhsph.edu
Lecture: TBA
Pass/fail only

306.861.01 **GRADUATE DOCTORAL SEMINAR IN BIOETHICS**
(1 unit)
Kass, Nancy
Familiarizes students with contemporary and classic literature in bioethics and demonstrates how to rigorously critique empirical and normative writings in the field of bioethics. Readings for the seminar include recent publications in bioethics and some classic pieces in the field. Students are primarily responsible for selection of articles and for presentation of articles for discussion.
Pass/fail only
Consent of instructor required
Students who are NOT doctoral students in the bioethics track require permission of the instructor.

306.863.01 **GREENWALL SEMINAR SERIES**
(1 unit)
Geller, Gail
Explores the history of bioethics in the U.S. by examining its effects on health policy. Readings and discussion focus on federal commissions, federal and state court decisions, the ethics committee movement, federal and state regulations, professional organizations, and grassroot bioethics movements. Students meet with policy makers and scholars in bioethics and health policy.
Email: ggeller@jhsph.edu
Lecture: TBA
Enrollment minimum of 3
Restricted to Greenwall fellows and senior doctoral students in ethics program
Pass/fail only
Consent of instructor required

308.810.01 **FIELD PLACEMENT HEALTH POLICY-MHS**

308.867.01 **M.H.S. SEMINAR IN HEALTH POLICY**
(1 unit)
Sleicher, Dana
Introduces work undertaken in health policy settings and prepares M.H.S. students in Health Policy and Management for the field placement requirement in the second year of the program.
Email: dsleiche@jhsph.edu
Lecture: W 12:00 - 1:20
Restricted to MHS in Health Policy degree candidates
Pass/fail only
Consent of instructor required

309.605.01 **HEALTH ISSUES FOR AGING POPULATIONS**
(3 units)
Wolff, Jennifer and Leff, Bruce
Provides an overview of issues in health and health care delivery for older persons. Students explore three modules: (1) broad social and policy implications of an aging society (demography, socially defined roles and expectations, disability dynamics and trends, housing and the built environment), (2) clinical issues in aging (aging and geriatric medicine, chronic care, long term care delivery, ethical issues in the health care of older adults, and death and dying), and (3) financial implications (financing of health and long-term care, retirement and economic security, sustainability of entitlement programs for older adults).
Email: jwolff@jhsph.edu
Lecture: T Th 3:30 - 4:50
First of a series of five courses offered by the School as a concentration in Gerontology for master and doctoral students.

309.607.01 **INNOVATIONS IN HEALTH CARE FOR AGING POPULATIONS**
(3 units)

Boult, Chad

Acquaints students with the nature of the health care received by older Americans at home and in hospitals, nursing homes, emergency departments, rehabilitation facilities, and outpatient offices. Presents successful and promising innovations in the health care of older people. Provides students with available evidence about the costs and effectiveness of these innovations.

Email: aking@jhsph.edu

Lecture: T Th 1:30 - 2:50
Public Health students.
Consent of instructor required
Consent of instructor required for undergraduate students.

309.861.01 **GRADUATE SEMINAR IN HEALTH SERVICES RESEARCH AND POLICY**
(1 unit)

Weiner, Jonathan

Provides opportunity to learn about faculty research, review current literature, discuss issues and concepts relevant to the field of health services research, and prepare for comprehensive exams and proposal writing. Intended for doctoral students concentrating in health services and outcomes research or gerontology and long-term care.

Email: kmcollins@jhsph.edu

Lecture: TBA
Pass/fail only
Consent of instructor required

311.820.01 **THESIS RESEARCH HPM-DRPH**

311.861.01 **GRADUATE SEMINAR IN HEALTH CARE MANAGEMENT AND LEADERSHIP**
(1 unit)

Morlock, Laura and Pronovost, Peter

Provides opportunity to discuss concepts and issues related to organizational performance improvement, organizational performance indicators, and change strategies. Facilitates preparation for comprehensive exams and the design and conduct of dissertation projects. Intended for DrPH students concentrating in Health Care Management and Leadership. Student evaluation based on seminar presentations and participation.

Lecture: TBA
Pass/fail only
Consent of instructor required
Consent of instructor is required.

312.617.01 **FUNDAMENTALS OF FINANCIAL ACCOUNTING**
(3 units)

Tong, Dalton

Introduces the basic elements of financial and managerial accounting, including reading and analyzing financial statements, basic accounting concepts, and concepts of financial management control. Draws examples from case studies.

Email: jsavage@jhsph.edu

Lecture: W 3:30 - 6:20
Restricted to graduate students.

312.810.01 **FIELD PLACEMENT HEALTH FINANCE AND MANAGEMENT-MHS**

312.867.01 **MHA SEMINAR IN HEALTH FINANCE AND MANAGEMENT**
(1 unit)

Schwartz, Teresa

Introduces students to current health care finance and management issues through a series of discussion sessions with program directors and guest lecturers. Prepares students for the program's fourth term case competition and the second year field placement requirement.

Email: tschwartz@jhsph.edu

Lecture: TBA
Restricted to MHA students only
Pass/fail only

313.642.01 **INTRODUCTION TO MICROECONOMICS**
(3 units)

Sorkin, Alan

Introduces economics of the business enterprise, the household, and the industry. Topics include supply and demand, price and income elasticity, equilibrium of the firm, and the measurement of poverty and inequality

Email: asorkin@jhsph.edu

Lecture: T Th 3:30 - 4:50

313.670.01 **MATHEMATICAL MICROECONOMICS I**
(3 units)

Bridges, John

Explores the essential topics of microeconomics: assumptions about markets, theory of the consumer, theory of the firm, market equilibrium, market failure, public goods, government intervention and game theory. Provides students with a graduate level introduction to microeconomics and will utilize both linear algebra and calculus. While discussion focuses predominately on first order conditions, students are encouraged to examine second order conditions, and other advanced theory and methods such as Kuhn-Tucker conditions, duality, and envelope theorems.

Lecture: F 1:30 - 4:20
Enrollment minimum of 7
Prerequisite: an undergraduate course in calculus and economics or permission of instructor
Multi-term with 313.671 - MATHEMATICAL MICROECONOMICS II
Grade for both 313.670 and 313.671 is submitted at the end of the 2nd term course.

313.861.01 **PUBLIC HEALTH ECONOMICS SEMINAR**
(1 unit)

Herring, Bradley

Exposes students to recent research in various areas of health economics, such as healthcare financing; the production and regulation of medical services; economic evaluation; the determinants of health; and the relationships between health, population, environment, and development. Focuses on theoretical and empirical techniques in health economics and considers the policy implications of the findings. This seminar setting allows researchers to present their work-in-progress, with the goals of disseminating their analysis to others and receiving constructive feedback to improve their subsequent analyses. The speakers are a mix of faculty and Ph.D. candidates within the school and faculty outside the school at either other universities or research organizations.

Email: bherring@jhsph.edu

Lecture: Th 12:00 - 1:20
Pass/fail only

317.600.01 **INTRODUCTION TO THE RISK SCIENCES AND PUBLIC POLICY**
(3 units)
Burke, Thomas
Provides an introduction to the basic paradigm for quantitative risk assessment and illustrates its application in the public policy process using case studies. Examines risk assessment in a broad societal context, considering social, economic, and political factors that affect risk decision-making; evolution of risk assessment; and the use of risk assessment in regulatory processes. Students complete a risk assessment exercise.
Lecture: M W 5:00 - 6:30
Jointly offered with EHS, Epi

International Health

220.601.01 **INTRODUCTION TO INTERNATIONAL HEALTH**
(4 units)
Tielsch, James
Introduces approaches used by various countries in solving their health and medical care problems, and the role of major international health organizations. Analyzes some of the current important issues in international health.
Email: introih@jhsph.edu
Lecture: T Th 1:30 - 3:20
Course materials fee is $20.00.

220.800.01 **MPH CAPSTONE INTERNATIONAL HEALTH**
(variable units)
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Lecture: TBA
Pass/fail only
Consent of instructor required
Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

220.810.01 **FIELD PLACEMENT DRPH PROGRAM INTERNATIONAL HEALTH**

220.820.01 **THESIS RESEARCH DRPH PROGRAM INTERNATIONAL HEALTH**

220.840.01 **SPECIAL STUDIES AND RESEARCH DRPH PROGRAM INTERNATIONAL HEALTH**

220.895.01 **MPH PRACTICUM: INTERNATIONAL HEALTH**
(variable units)
Departmental Faculty
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Pass/fail only
Consent of instructor required
Student must receive faculty advisor approval

221.613.01 **INTRODUCTION TO HUMANITARIAN EMERGENCIES**
(2 units)
Burnham, Gilbert
Introduces basic types of public health emergencies, both manmade and natural and reviews public health skills used for conflict and disasters. Informs students of the environment in which these emergencies occur and how public health responses to each differ. Students learn which skills are neeeded to address nutritional, water and sanitation, and health needs, as well as the role of surveillance and information systems. Explores mechanisms and management of response to emergencies.
Lecture: T 5:00 - 6:50
Enrollment minimum of 15

221.722.01 **QUALITY ASSURANCE MANAGEMENT METHODS FOR DEVELOPING COUNTRIES**
(4 units)
Burnham, Gilbert
Presents the principles and practice of total quality management methods for health systems in developing countries. Emphasizes integrated district-level health systems management; fostering a genuine team approach in the face of an authoritarian tradition; central importance of community governance; interventions performed according to standards and in an equitable fashion; introducing a measurement-based approach to problem solving, emphasizing analysis of service delivery process and outcome; and developing operational research as an integral component of the management system.
Email: rmorrow@jhsph.edu
Lecture: M W 1:30 - 3:20
Enrollment minimum of 10
Enrollment maximum of 40
Jointly offered with HPM

221.810.01 **FIELD PLACEMENT HEALTH SYSTEMS**

221.820.01 **THESIS RESEARCH HEALTH SYSTEMS**

221.830.01 **POSTDOCTORAL RESEARCH HEALTH SYSTEMS**

221.840.01 **SPECIAL STUDIES AND RESEARCH HEALTH SYSTEMS**

221.860.01 **HEALTH SYSTEMS PROGRAM SEMINAR**
(1 unit)
Weiss, Bill and Lefevre, Amnesty
Health Systems Program faculty present ongoing activites and doctoral students present their research interests and findings. The seminar may be used occassionally for administrative aor academic matters.
Email: jpinderh@jhsph.edu
Lecture: T 12:00 - 1:20
Pass/fail only
Consent of instructor required

222.641.01 **PRINCIPLES OF HUMAN NUTRITION**

(4 units)

Caballero, Benjamin

Provides an integrated overview of the physiological requirements and functions of protein, energy, and the major vitamins and minerals that are determinants of health and disease. Topics include dietary sources, intake levels, and biological determinants of nutrient requirements; assessment of nutrient status in individuals and populations; the role of nutrition in growth and health through the life cycle; the rationale for the development of dietary guidelines and of nutrition policies in different countries; and the role of diet on the development of chronic diseases, such as cardiovascular disease, cancer, diabetes, etc.

Lecture: M W 1:30 - 3:20

Prerequisite: Basic background in biology/medical sciences

222.651.01 **ADVANCED NUTRIENT METABOLISM**

(3 units)

De Luca, Luigi

Provides an in-depth review of the metabolism of major nutrients and its importance in disease states, such as teratogenesis, cardiovascular disease, ageing, cancer, obesity, and liver fibrosis. Focuses on regulatory mechanisms, integration of metabolic pathways, and biochemical and physiological aspects of nutrient metabolism at the whole body, tissue and cellular level. Includes both discussion and lectures.

Lecture: T Th 3:30 - 4:50

Enrollment minimum of 7

Prerequisite: Previous course work in biochemistry and/or the course on Nutritional Biochemistry

222.657.01 **FOOD AND NUTRITION POLICY**

(2 units)

Klemm, Rolf and West, Keith

Examines major governmental, bilateral, and multilateral agency food and nutrition policies and programs that directly or indirectly affect 1) the availability and quality of food and 2) the health and nutrition of populations. Examples are drawn from developing and developed countries. Discussions are led by faculty and guest lecturers with diverse experience in developing and implementing food and nutrition policies.

Email: rklemm@jhsph.edu

Lecture: F 10:00 - 11:50

Enrollment minimum of 5

222.658.01 **CRITICAL THINKING IN NUTRITION**

(1 unit)

Cheskin, Lawrence

Introduces graduate students of nutrition to the seminal literature in the field. Teaches students how to interpret and evaluate literature, and foster discussion and debate among students and faculty on current issues. Faculty selects seminal papers and participates in the discussion. Students are expected to read each paper as well as discuss and explain the methods and results in class.

Email: cheskin@jhmi.edu

Lecture: F 1:30 - 2:20

Enrollment minimum of 2

Enrollment maximum of 20

Consent of instructor required

222.810.01 **FIELD PLACEMENT HUMAN NUTRITION**

222.820.01 **THESIS RESEARCH HUMAN NUTRITION**

222.830.01 **POSTDOCTORAL RESEARCH HUMAN NUTRITION**

222.840.01 **SPECIAL STUDIES AND RESEARCH HUMAN NUTRITION**

222.860.01 **GRADUATE NUTRITION SEMINAR**

(1 unit)

Wang, Youfa

Presentations of recent and/or historical papers in human nutrition. Emphasizes presentation skills and ability to critically evaluate scientific papers.

Email: dreese@jhsph.edu

Lecture: Th 12:15 - 1:15

Pass/fail only

Consent of instructor required

222.861.01 **DOCTORAL SEMINAR IN PROPOSAL DEVELOPMENT**

(1 unit)

Caulfield, Laura

Facilitates doctoral students in the development of research ideas and their dissertation proposals. Topics will vary by term but will include the following: how to develop a research idea, and components of a solid research proposal – background, design, methods, sample size, analysis, writing to different audiences, research designs in nutrition, ethical review, funding sources and requirements, budgeting, staff management, thesis and manuscript preparation, and professional development.

Lecture: TBA

doctoral students only

Pass/fail only

223.810.01 **FIELD PLACEMENT DISEASE CONTROL**

223.820.01 **THESIS RESEARCH DISEASE CONTROL**

223.830.01 **POSTDOCTORAL RESEARCH DISEASE CONTROL**

223.840.01 **SPECIAL STUDIES AND RESEARCH DISEASE CONTROL**

223.860.01 **GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM SEMINAR**

(1 unit)

Charron, Karen

Disease Prevention and Control faculty present ongoing research and program activities and doctoral students present their research interests and findings. Seminar may be used occasionally for administrative or academic matters.

Lecture: T 12:00 - 1:20

Restricted to Disease Prevention and Control doctoral and MHS students.

Pass/fail only

Consent of instructor required

223.861.01 **GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM DOCTORAL SEMINAR**

(1 unit)

Moulton, Lawrence

Strengthens research skills through critical appraisal of published research results and preparation of research protocols or projects.

Lecture: W 12:00 - 1:20

IH doctoral students

Pass/fail only

Prerequisite: None

223.867.01 **SPECIAL TOPICS IN VACCINE SCIENCE**
(1 unit)
Durbin, Anna
Year-long series of bi-weekly seminars (total 16 seminars, 4 per term) on vaccine research against infectious diseases of global importance including AIDS, tuberculosis, malaria, childhood illnesses, and many others. Economic, political, and ethical dimensions of vaccine R&D are also covered. Seminars are presented by leading vaccine experts at JHU and other institutions. Series provides the student with an understanding of the pathways leading to development and utilization of vaccines with public health impact.
Email: adurbin@jhsph.edu
Lecture: W 5:00 - 6:30
Pass/fail only

224.810.01 **FIELD PLACEMENT SOCIAL AND BEHAVIORAL INTERVENTIONS**

224.820.01 **THESIS RESEARCH SOCIAL AND BEHAVIORAL INTERVENTIONS**

224.830.01 **POSTDOCTORAL RESEARCH SOCIAL AND BEHAVIORAL INTERVENTIONS**

224.840.01 **SPECIAL STUDIES AND RESEARCH SOCIAL AND BEHAVIORAL INTERVENTIONS**

224.860.01 **SOCIAL AND BEHAVIORAL INTERVENTIONS PROGRAM SEMINAR I:APPLIED SOCIAL SCIENCE & GLOBAL HEALTH**
(1 unit)
Winch, Peter
Students read the book "Global Health: Why Cultural Perceptions, Social Representations, and Biopolitics Matter" by Mark Nichter. This book serves as a starting point for a series of discussions on why a thorough understanding of the cultural, social and economic context is important in global public health practice, and the role of applied social science theory and methods in shaping and evaluating social and behavioral interventions.
Email: ckennedy@jhsph.edu
Lecture: M 12:00 - 1:20
Enrollment minimum of 5
Enrollment maximum of 25
SBI MHS and SBI PhD students
Pass/fail only

224.863.01 **DOCTORAL SEMINAR IN RESEARCH METHODS IN APPLIED MEDICAL ANTHROPOLOGY I**
(4 units)
Winch, Peter
Discusses advanced topics in qualitative research including 1) different ways in which the concept of ethnography as a methodology is operationalized in qualitative studies on health, 2) Michael Crotty's framework for the research process (epistemology, theoretical framework, methodology, method); 3) Grounded Theory and Phenomenology; 4) Approaches to managing textual data; 5) Discourse analysis; and 6) Cognitive anthropology theory and methods.
Email: pwinch@jhsph.edu
Lecture: W F 8:30 - 10:20
Enrollment minimum of 5
Enrollment maximum of 15
Consent of instructor required
Prerequisite: 224.690 and 224.691 Qualitative Research or equivalent

330.601.01 **PERSPECTIVES OF PSYCHIATRY: THE PUBLIC HEALTH FRAMEWORK**
(3 units)
McHugh, Paul and Spira, Adam
Describes the basic features of mental disorders using an epistemological framework that facilitates understanding in the context of public health research and practice. Includes discussion of the distinction between neurological activity and mental life, and briefly presents the historical as well as current state of knowledge of the most common psychiatric conditions. Framework includes four fundamental perspectives for understanding mental disturbances: disease, dimension, behavior, and life story, with explanation of the distinct etiopathologic nature each perspective brings to bear on the problem of defining, classifying, and measuring mental disorders.
Email: pmchugh@jhmi.edu
Lecture: T Th 1:30 - 2:50
Enrollment minimum of 10
Consent of instructor required
Consent is required for undergraduates only.

330.651.01 **SEMINAR ON PROGRAM PLANNING IN DEVELOPING COUNTRIES ON DRUG ABUSE AND OTHER HEALTH PROBLEMS I**
(3 units)
Mandell, Wallace and Latimer, William W.
Reviews the scientific, social and political issues involved in resource allocation for programs to prevent and control drug abuse and other emergent public health problems in developing countries. Examines examples of major prevention program types, such as mass media awareness programs, school-based programs, community outreach networking programs, and public treatment programs. Students make presentations on the social and political factors influencing policy and resource allocation to reducing a selected drug, health or abuse problem in their own country.
Email: wmandell@jhsph.edu
Lecture: T Th 3:30 - 5:20
Enrollment minimum of 10
Must be a Humphrey Fellows in drug abuse or have consent of instructor.
Consent of instructor required
Students not in Humphrey Fellows program.
Course is held in departmental space.

330.655.01 **FIELD VISITS IN DRUG ABUSE AND HEALTH PROGRAM PLANNING.**
(2 units)
Mandell, Wallace and Latimer, William W.
Students visit local, state and federal agencies and programs engaged in health and drug abuse risk factor/reduction through prevention, treatment, research and policy implementation programs. Visits are intended to deepen understanding of the array of program models for the prevention and control of public health and drug abuse risk factors that exist in the U.S.
Email: wmandell@jhsph.edu
Lecture: TBA
Enrollment minimum of 10
Enrollment maximum of 15
Must be a Humphrey Fellow in Drug Abuse or have consent of instructor.
Consent of instructor required
Consent required of undergraduates.
Friday TBA

Mental Health

330.657.01 **STATISTICS FOR PSYCHOSOCIAL RESEARCH: MEASUREMENT**

(4 units)

Eaton, William and Xue, Qian-LiDepartmental Faculty

Presents quantitative approaches to measurement in the psychological and social sciences. Topics include the principles of psychometrics, including reliability and validity; the statistical basis for latent variable analysis, including exploratory and confirmatory factor analysis and latent class analysis; and item response theory. Draws examples from the social sciences, including stress and distress, social class and socioeconomic status, personality; consumer satisfaction, functional impairment and disability, quality of life, and the measurement of overall health status. Intended for doctoral students.

Email: weaton@jhsph.edu

Lecture: M W 10:30 - 11:50
Lab: F 10:00 - 10:50 or F 11:00 - 11:50

Consent of instructor required

Consent required of undergraduates.

Prerequisite: 140.621-624, former 140.601-604, or 140.651-654, or consent of instructor

Jointly offered with Biostat

330.664.01 **INTRODUCTION TO MENTAL HEALTH SERVICES**

(3 units)

Mojtabai, Ramin

Examines the level of met and unmet need for mental health care and predictors of mental health treatment-seeking in community settings. Also addresses the issues of disparities in access to, and the use of, mental health services; mental illness stigma and attitudes towards mental health treatment seeking; the impact of public campaigns to reduce stigma and enhance treatment seeking; the impact of new pharmaceutical marketing strategies on demand for mental health care and national and international trends in mental health service use. Finally, acquaints students with the structure, staffing and financing of mental health services in the US and other countries and recent trends in the quality of care provided in these services.

Lecture: M W 3:30 - 4:50
Enrollment minimum of 5
Enrollment maximum of 50

330.800.01 **MPH CAPSTONE MENTAL HEALTH**

(variable units)

Departmental Faculty

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Pass/fail only

Consent of instructor required

Consent from the Capstone Supervisor is Required.

Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

330.802.01 **SEMINAR ON AGING, COGNITION AND NEURODEGENERATIVE DISORDERS**

(2 units)

Rebok, George

Addresses age-related cognitive and neuropsychiatric disorders that are of particular importance with the rapid expansion of the aging population. Focuses on the major domains of cognition and comparison of the age-related changes that occur in each cognitive domain. Includes emphasis on contrasting the major neurodegenerative disorders related to age and describing the clinical presentation and pattern of cognitive change in each condition. Participants address current strategies for maximizing cognitive function with age and treatment strategies for the primary neurodegenerative disorders. Participants examine and identify gaps in knowledge and research approaches to fill these gaps. Explores concepts of cognitive systems, animal and imaging models, and selective pathological change with age and disease.

Email: camardella@jhu.edu

Lecture: Th 3:30 - 5:20
Enrollment minimum of 5
Enrollment maximum of 12

Pass/fail only

Consent of instructor required

Consent required for undergraduate students only.

Predoctoral and Postdoctoral students from A&S, SPH and Medicine students participating in training grant on age-related, cognitive and neuropsychiatric disorders.

330.820.01 **THESIS RESEARCH MENTAL HEALTH**

330.830.01 **POSTDOCTORAL RESEARCH MENTAL HEALTH**

330.840.01 **SPECIAL STUDIES AND RESEARCH MENTAL HEALTH**

330.895.01 **MPH PRACTICUM: MENTAL HEALTH**

(variable units)

Departmental Faculty

The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.

Pass/fail only

Molecular Microbiology and Immunology

260.600.01 **INTRODUCTION TO THE BIOMEDICAL SCIENCES**

(4 units)

Rose, Noel and Burek, C. Lynne and Caturegli, Patrizio

This two-week concentrated course, offered immediately prior to the first term for incoming students without adequate background or experience in the biomedical sciences, presents basic anatomy and physiology through a group process that utilizes learning selected reading assignments, explicit learning objectives, group interaction reinforced by preceptors, and short objective tests with immediate feedback. Lectures focus on basic biological principles relevant to the health of human populations.

Email: nrrose@jhsph.edu

Lecture: M T W Th F 9:00 - 5:00

Enrollment minimum of 15

Pass/fail only

Prerequisite: Restricted to full-time masters and doctoral students registered for first term

Scheduled the last two weeks before August orientation activities. Registrants must indicate this course on their FIRST term registrations, NOT their summer registrations.

260.611.01 **PRINCIPLES OF IMMUNOLOGY I**

(4 units)

Scott, Alan

Introduces biological concepts of immunology; molecular nature of antigens; molecular basis for antibody and T-cell receptor structure and diversity; complement; hypersensitivity reactions; cellular basis for the immune response; cell-mediated immunity; adhesion molecules and coreceptors cell activation; cytokines and other soluble mediators; major histocompatibility complex (MHC) antigens; tumor immunology; transplantation immunobiology; mechanisms of resistance to microorganisms; tolerance; autoimmunity; and immuno-deficiency.

Email: ascott@jhsph.edu

Lecture: T Th 8:30 - 10:20

Prerequisite: A course in advanced biology

Required for MMI students.

260.623.01 **FUNDAMENTAL VIROLOGY**

(4 units)

Griffin, Diane

Discusses cellular, molecular, genetic, and immunological principles that govern viral infection. Presents a survey of main virus groups with detailed discussion of several representative human pathogens. Topics include replication strategies, pathogenesis, carcinogenesis, vaccination, and the use of viruses as tools in molecular and cell biology. Emphasizes interactions of viral and host cell processes.

Email: dgriffin@jhsph.edu

Lecture: M W F 3:30 - 4:50

Required for MMI students.

260.636.01 **EVOLUTION OF INFECTIOUS DISEASE**

(3 units)

Markham, Richard and Klein, Sabra and Rasgon, Jason

Introduces students to the concept of how certain bacterial, parasitic, and viral pathogens have evolved and are still evolving to persist in both the developed and developing world. Enables public health workers to develop new strategies and approaches that can be used to aid in the control of the major infectious disease epidemics that continue to threaten both the developed and developing world.

Lecture: M W 1:30 - 2:50

Enrollment minimum of 5

260.800.01 **MPH CAPSTONE MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**

(variable units)

Departmental Faculty

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Lecture: TBA

Pass/fail only

Consent of instructor required

Consent from the Capstone Supervisor is Required

Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

260.801.01 **TOPICS IN IMMUNOLOGY I**

(1 unit)

Scott, Alan

Employs a journal club presentation/discussion format to explore advanced topics in basic immunology, the tenants of experimental design in immunology and the theory and practice of immunological methods. This is the core discussion class for 260.611-.612.

Email: ascott@jhsph.edu

Lecture: T 10:30 - 11:50

Consent of instructor required

Prerequisite: Restricted to ScM and PhD graduate students in MMI.

This is the core discussion course for 260.611-.612; grades submitted at end of 2nd term.

260.810.01 **FIELD PLACEMENT MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**

260.820.01 **THESIS RESEARCH MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**

260.821.01 **RESEARCH FORUM IN MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**

(1 unit)

Griffin, Diane

Departmental students organize and present research findings, resulting from laboratory investigations or literature review, to faculty and fellow students. These oral reports consist of rationale and background of the working hypothesis, experimental design, presentation of results, and analysis in the context of the hypothesis. Usually, each student presents twice a year and weekly attendance is required.

Lecture: M 12:00 - 1:20

Pass/fail only

Required for MMI students.

260.822.01 **SEMINARS IN RESEARCH IN MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**
(1 unit)
Griffin, Diane
Integrates academic training with current research in microbiology, immunology, and infectious diseases. Researchers from JHU and other biomedical research institutions present results of state of the art investigations of microbial diseases of public health significance, emphasizing experimental design and methodology for analysis and discussion.
Lecture: Th 12:05 - 1:05
Pass/fail only
Required for MMI students.

260.830.01 **POSTDOCTORAL RESEARCH MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**

260.840.01 **SS/R: MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**

260.851.01 **LABORATORY ROTATIONS**
(4-8 units)
Departmental Faculty
All departmental Sc.M. and doctoral students spend two and three terms, respectively, participating in the research activities of departmental faculty's laboratories. Students select appropriate rotations in consultation with their academic advisors and the departmental Graduate Program Committee.
Lecture: TBA
Pass/fail only
Consent of instructor required
Consent of rotation supervisor required.
Required for MMI students.

260.852.01 **MOLECULAR BIOLOGY LITERATURE**
(2 units)
Hardwick, J.-Marie
Reviews and discusses, in depth, historic and current publications in the field of molecular biology. Required of departmental students concurrently enrolled in ME 260.800, Molecular Biology.
Email: bazempa@jhmi.edu
Lecture: W F 9:00 - 10:20
Consent of instructor required
Required for 1st year PhD and ScM MMI students. Consent of instructor required only if the student is not a first year MMI student.

260.895.01 **MPH PRACTICUM: MMI**
(variable units)
Departmental Faculty
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Pass/fail only

Population, Family and Reproductive Health

380.604.01 **LIFE COURSE PERSPECTIVES ON HEALTH**
(4 units)
Blum, Robert and Hughes, M. E.
Teaches students to frame public health issues using a life course perspective. Introduces and examines basic principles of human development across the life span, from the prenatal period through senescence, and the idea that health outcomes reflect developmental processes. Provides a conceptual framework with which to understand the interrelationships among biological, psychological, and social factors and their influence on development and health. Also illustrates the application of this perspective to gain a critical understanding of public health issues.
Lecture: M W 1:30 - 3:20

380.641.01 **PRENATAL AND INFANT GROWTH AND DEVELOPMENT**
(3 units)
DiPietro, Janet and Paige, David
Focuses on the core processes of physical growth and psychosocial development from conception through infancy. Addresses maturation, cognitive, social, and emotional development, and their assessment in the neonate and infant. Considers prenatal and postnatal risk factors for compromised growth and development, including the effects of prenatal teratogens and postnatal environmental factors.
Lecture: T Th 1:30 - 2:50
Consent of instructor required
Undergraduates only must have consent of instructor

380.733.01 **COMMUNICATION NETWORK ANALYSIS IN PUBLIC HEALTH PROGRAMS**
(4 units)
Boulay, Marc
Introduces the theory and method of network analysis, its application to public health, emphasizing the dissemination of public health information and the transmission of disease, and the influence of networks on health-related behavior.
Lecture: T Th 10:30 - 11:50
Enrollment minimum of 5

380.767.01 **COUPLES AND REPRODUCTIVE HEALTH**
(3 units)
Becker, Stan
Reviews and discusses readings on couples and reproductive health such as: Definitions of couples and of reproductive health; sociological, anthropological and economic perspectives; fertility decision making; critiques of a couple approach from feminists and from those concerned primarily with less stable sexual partnerships for STD/AIDS prevention, and design of couple studies and service delivery interventions.
Email: sbecker@jhsph.edu
Lecture: T 3:00 - 4:50
Lab: TBA
Enrollment minimum of 6
Consent of instructor required
Consent required if 380.600 has not been taken.
Prerequisite: 380.600 or consent of instructor

380.800.01 **MPH CAPSTONE POPULATION, FAMILY AND REPRODUCTIVE HEALTH**
(variable units)

Departmental Faculty

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Pass/fail only

Consent of instructor required

Consent from the Capstone Supervisor is Required

Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

380.810.01 **FIELD PLACEMENT POPULATION, FAMILY AND REPRODUCTIVE HEALTH**

380.820.01 **THESIS RESEARCH POPULATION, FAMILY AND REPRODUCTIVE HEALTH**

380.821.01 **PFRH PROPOSAL WRITING SEMINAR**
(2 units)

Hindin, Michelle

Explores the process of developing a dissertation proposal to prepare PFRH students for departmental and preliminary oral exams. Covers the nuts and bolts of writing a proposal from developing a research question through completing a timeline and obtaining IRB approval. Combines readings and student presentations as well as occasional guest lectures. Intended only for students in the department of Population, Family and Reproductive Health.

Lecture: TBA

Enrollment minimum of 1

PFRH Doctoral Students only

Pass/fail only

Prerequisite: Must be PFRH Doctoral Student; must have completed second year comprehensive exams.

380.830.01 **POSTDOCTORAL RESEARCH POPULATION, FAMILY AND REPRODUCTIVE HEALTH**

380.840.01 **SPECIAL STUDIES AND RESEARCH POPULATION, FAMILY AND REPRODUCTIVE HEALTH**

380.850.01 **RESEARCH SEMINAR IN POPULATION AND HEALTH**
(2 units)

Departmental Faculty

Provides a forum for doctoral students and faculty in population studies to engage in critical review and discussion of both recent research and selected research classics in demography and population. The seminar uses a journal-club format in which one or more papers are distributed in advance. Participants are expected to read and discuss the assigned material. The seminar meets once every two weeks in the first, third, and fourth terms. Attendance is required of all first- and second-year PFRH doctoral students and encouraged for third-year students and above.

Email: lferrett@jhsph.edu

Lecture: Th 4:00 - 5:20

PFRH Department Students Only

Consent of instructor required

Consent required for non-PFRH students

380.861.01 **RESEARCH SEMINAR IN REPRODUCTIVE, PERINATAL, AND WOMENS HEALTH**
(2 units)

Strobino, Donna and Tsui, Amy

A seminar format is used to discuss seminal articles in reproductive, perinatal, and womens health. In depth discussions of questions related to one or more research articles in the field are used to develop critical analytic skills of students.

Email: lferrett@jhsph.edu

Lecture: TBA

PFRH Department Students Only

Consent of instructor required

Consent required for non-PFRH students

380.863.01 **RESEARCH SEMINAR IN CHILD HEALTH AND DEVELOPMENT**
(1 unit)

Roche, Kathleen

Provides experience in analytic evaluation of contemporary research regarding infant, child, and adolescent health, growth, and development across a range of academic disciplines and issues. Students and faculty critique and discuss empirical articles and examine their historical, methodological, and disciplinary perspectives. Highlights current controversies. Required for 2nd-year and above doctoral students in Child Health and Development track.

Email: kroche@jhsph.edu

PFRH Department Students Only

Pass/fail only

Consent of instructor required

Consent required for non-PFRH students

380.870.01 **PFRH SPECIAL STUDIES IN PUBLIC HEALTH PRACTICE**
(variable units)

Provides students with the opportunity to receive academic credit for direct involvement in public health practice activities such as: on-site placement with a public health agency, community organization, or academic center involving active participation in public health practice activities; Development of public health practice or policy recommendations based upon current research findings (translation); advocacy activities, for example, testifying in the legislature, and presenting data for the purpose of influencing public health policy or practice; preparation and conduct of a presentation related to a public health problem for a broad audience, including public health practitioners, community members, and other professionals; and direct participation in the activities of community boards or advisory groups.

Pass/fail only

Consent of instructor required

Must be approved by the faculty preceptor.

380.895.01 **MPH PRACTICUM: PFRH**
(variable units)

Departmental Faculty

The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.

Pass/fail only

DISTANCE EDUCATION

Distance Education courses must have consent of instructor to be taken as audit. All students must complete the Introduction to Online Learning course prior to enrolling in any distance education course.

Students can find information about the course, course dates, and directions for registration, at the course website: http://distance.jhsph.edu/oll/

140.611.81 **STATISTICAL REASONING IN PUBLIC HEALTH I**
(3 units)

McGready, John

Provides a broad overview of biostatistical methods and concepts used in the public health sciences, emphasizing interpretation and concepts rather than calculations or mathematical details. Develops ability to read the scientific literature to critically evaluate study designs and methods of data analysis. Introduces basic concepts of statistical inference, including hypothesis testing, p-values, and confidence intervals. Topics include comparisons of means and proportions; the normal distribution; regression and correlation; confounding; concepts of study design, including randomization, sample size, and power considerations; logistic regression; and an overview of some methods in survival analysis. Draws examples of the use and abuse of statistical methods from the current biomedical literature.

Prerequisite: Introduction to Online Learning.

140.633.81 **BIOSTATISTICS IN MEDICAL PRODUCT REGULATION**
(2 units)

Foulkes, Mary

Provides a broad understanding of the application of biostatistics in a regulatory context. Reviews the relevant regulations and guidance documents. Includes topics such as basic study design, target population, comparison groups, and endpoints. Addresses analysis issues with emphasis on the regulatory aspects, including issues of missing data and informative censoring. Discusses safety monitoring, interim analysis and early termination of trials with a focus on regulatory implications.

Pass/fail only

Prerequisite: Basic epidemiology and biostatistics

188.680.81 **FUNDAMENTALS OF OCCUPATIONAL HEALTH**
(3 units)

Cadorette, Maureen

Surveys the history of occupational health, the continuum from exposure to disease, the hierarchy of controls in the workplace, workplace medical screening and surveillance, occupational health hazards, legal and regulatory issues, the provision of occupational health services, the core disciplines in occupational health and safety, and current issues in occupational health.

Prerequisite: Introduction to Online Learning.

340.612.81 **EPIDEMIOLOGIC BASIS FOR TUBERCULOSIS CONTROL**
(2 units)

Golub, Jonathan and Chaisson, Richard

Considers subjects and epidemiologic principles relevant to control measures against tuberculosis. Topics include source and interpretation of tuberculin sensitivity; risk factors; prevention by case-finding and treatment, vaccination, and chemoprophylaxis; and elements of control programs in developed and undeveloped areas. Presentation of assigned reading topics provides the basis for group discussions.

Prerequisite: Introduction to Online Learning

340.645.81 **INTRODUCTION TO CLINICAL TRIALS**
(3 units)

Holbrook, Janet

Introduces clinical trial design in the context of epidemiological concepts, covers various topics in the design and conduct of clinical trials, and profiles clinical trials that illustrate these issues. Topics include the definition and history of clinical trials; trial designs, including phase I-IV, cross-over, factorial, and large, simple designs; internal and external validity; controls, randomization, and masking; ethical issues; data analysis principles; monitoring of accumulating safety and efficacy data; and use of data from randomized trials.

Consent of instructor required

If auditing if prerequisite not met

Prerequisite: Introduction to Online Learning plus 340.751 or 340.601.

340.654.81 **EPIDEMIOLOGY AND NATURAL HISTORY OF HUMAN VIRAL INFECTIONS**
(6 units)

Farzadegan, Homayoon and Shah, Keerti

Emphasizes biology, epidemiology, and pathogenesis of diseases caused by human viruses. Discusses virus interaction with host, diagnostic methodologies, immunization, and treatment of viral infections. Examines relationships between viral infections and oncogenesis such as hepatitis/liver cancer, HPV/cervical cancer, EBV/lymphoma, and HTLV/leukemia. Also covers biology and natural history of major viral families such as retroviruses, rabies, and others.

Email: hfarzade@jhsph.edu

Prerequisite: Introduction to Online Learning.

Jointly offered with MMI

Content similar to 260.623-624

550.694.81 **FUNDAMENTALS OF EPIDEMIOLOGY I**
(3 units)

Kanchanaraksa, Sukon and Diener-West, Marie

Introduces students to the basic concepts of biostatistics and epidemiology as applied to public health problems. Emphasizes descriptive statistics, probability concepts, and methodology used in the conduct of epidemiologic studies. Topics include appropriate summary measures of morbidity and mortality, direct and indirect methods of adjustment, abridged and clinical life tables, and measures of association. Presents various epidemiologic study designs used to investigate associations between risk factors and diseases outcomes, culminating with criteria for casual inferences. Provides examples of applications of epidemiologic and biostatistical methods in health services, genetics and public policy.

No auditors permitted.

Consent of instructor required

Special student-limited requires instructor consent.

Prerequisite: Introduction to Online Learning

Multi-term with 550.695 - FUNDAMENTALS OF EPIDEMIOLOGY II
550.694 - FUNDAMENTALS OF EPIDEMIOLOGY I

This is a multi-term course. Grades are given upon completion of the second part: 550 695.81.

550.862.81 **CURRENT ISSUES IN PUBLIC HEALTH**

(1 unit)

Schoenrich, Edyth

Senior faculty present public health topics of current interest, such as health problems of industrialized and developing nations, health promotion and disease prevention, health care delivery systems, environmental problems and the spectrum of factors influencing the health status of populations and communities.

Prerequisite: Introduction to Online Learning

This is the Internet version of 550.861.

300.600.81 **INTRODUCTION TO HEALTH POLICY**

(4 units)

Anderson, Gerard

Introduces the material covered in the Department of Health Policy and Management. Focuses on four substantive areas that form the analytic basis for many of the issues in Health Policy and Management. The areas are: (1) economics and financing, (2) need and demand, (3) politics/ethics/law, and (4) quality/effectiveness. Illustrates these issues using three specific policy issues: (1) injury, (2) medical care, and (3) public health preparedness.

Prerequisite: Introduction to Online Learning

221.639.81 **REFUGEE HEALTH CARE**

(3 units)

Burnham, Gilbert

Addresses provision of basic health requirements for refugees and coordination of care among agencies concerned with them. Topics include epidemiologic assessment and control of communicable disease; nutrition and environmental sanitation; logistical support; and resettlement issues. Students or guest speakers present topics for group discussion.

Enrollment minimum of 10

Enrollment maximum of 50

Prerequisite: Introduction to Online Learning.

221.722.81 **QUALITY ASSURANCE MANAGEMENT METHODS FOR DEVELOPING COUNTRIES**

(4 units)

Edward, Anbrasi

Presents the principles and practice of total quality management methods for health systems in developing countries. Emphasizes integrated district-level health systems management; fostering a genuine team approach in the face of an authoritarian tradition; central importance of community governance; interventions performed according to standards and in an equitable fashion; introducing a measurement-based approach to problem solving, emphasizing analysis of service delivery process and outcome; and developing operational research as an integral component of the management system.

Enrollment maximum of 35

Prerequisite: Introduction to Online Learning.

Jointly offered with HPM

223.672.81 **DATA MGMT METHODS IN HEALTH RESEARCH STUDIES**

(5 units)

Holt, Elizabeth

Presents data management techniques needed to implement a health research study in domestic and international settings. Discusses methods of designing and monitoring patient data flow, with an emphasis on data collection, editing, documentation, management, and preparation for analysis using database software packages. Involves lectures and completion of a tutorial designed to build data management skills. Geared to students preparing to undertake research.

Enrollment minimum of 5

Enrollment maximum of 30

Prerequisite: Introduction to Online Learning; 340.601 - Principles of Epidemiology.

No audits.

223.705.81 **CLINICAL VACCINE TRIALS AND GOOD CLINICAL PRACTICE (GCP)**

(3 units)

Charron, Karen

Provides students with background and tools needed to implement Phase I and II clinical vaccine trials in a healthy population according to the standards of Good Clinical Practice (GCP). Addresses both FDA Code of Federal Regulations and ICH GCP Guidelines needed for domestic and international clinical trials. Includes the following topics: review of vaccine history and types; discussion of phases of vaccine trials; development and implementation of a vaccine protocol; GCP guidelines; roles and responsibilities of the investigator and designees; ethical review committees and sponsors; budget development; product management; human subjects protection; and data collection and management, recruitment, community outreach, and overall trial conduct.

Email: kcharron@jhsph.edu

Enrollment minimum of 10

Enrollment maximum of 50

Consent of instructor required

Instructor consent is required.

Prerequisite: Introduction to Online Learning.

Not open to undergraduates.

330.601.81 **PERSPECTIVES OF PSYCHIATRY: THE PUBLIC HEALTH FRAMEWORK**

(3 units)

McHugh, Paul

Describes the basic features of mental disorders using an epistemological framework that facilitates understanding in the context of public health research and practice. Includes discussion of the distinction between neurological activity and mental life, and briefly presents the historical as well as current state of knowledge of the most common psychiatric conditions. Framework includes four fundamental perspectives for understanding mental disturbances: disease, dimension, behavior, and life story, with explanation of the distinct etiopathologic nature each perspective brings to bear on the problem of defining, classifying, and measuring mental disorders.

Email: pmchugh@jhmi.edu

Prerequisite: Introduction to Online Learning

380.604.81 **LIFE COURSE PERSPECTIVES ON HEALTH**

(4 units)

Blum, Robert and Hughes, M. E.

Teaches students to frame public health issues using a life course perspective. Introduces and examines basic principles of human development across the life span, from the prenatal period through senescence, and the idea that health outcomes reflect developmental processes. Provides a conceptual framework with which to understand the interrelationships among biological, psychological, and social factors and their influence on development and health. Also illustrates the application of this perspective to gain a critical understanding of public health issues.

Prerequisite: Introduction to Online Learning.

INTERNET MODULE

Extradepartmental

550.860.82 **RESEARCH ETHICS**

(1 unit)

DiPietro, Janet

This series of online modules presents information concerning issues related to the responsible conduct of research, such as authorship, data management, data ownership, guidelines of professional conduct, research fraud or scientific misconduct, academic ethics, conflict of interest, federal and institutional guidelines related to research using human and animal subjects, ethical issues involving vulnerable subjects in research, confidentiality, the Institutional Review Board (IRB) and the Institutional Animal Care and Use Committee (IACUC).

Email: jdipietr@jhsph.edu

Pass/fail only

This course fulfills the requirement of all research students (PhD, ScD,ScM, and some MHS students) for a course in the responsible conduct of research.

MONTGOMERY COUNTY

340.621.71 **PRINCIPLES OF EPIDEMIOLOGY I**

(3 units)

Feinleib, Manning

Introduces principles and methods of epidemiologic investigation of infectious and noninfectious diseases. Illustrates methods by which studies of the distribution and dynamic behavior of disease in a population can contribute to an understanding of etiologic factors, modes of transmission, and pathogenesis. Presents different types of study design, including randomized trials, case-control and cohort studies, risk estimation and causal inferences. Demonstrates the relationship between epidemiology and the development of policy. Laboratory problems provide experience in epidemiologic methods and inferences, illustrating a common-vehicle epidemic; the spread of infectious disease in school, home, and community; epidemiological aspects of a noninfectious disease; vaccination; the epidemiological approach to health services evaluation; rates of morbidity and mortality; sensitivity and specificity; and life table methods. No auditors permitted.

Email: akhan@jhsph.edu

Lecture: T 6:00 - 9:30

Enrollment minimum of 20

Enrollment maximum of 50

Multi-term with 340.622 - PRINCIPLES OF EPIDEMIOLOGY II

Course is an offspring of: 340.601 - PRINCIPLES OF EPIDEMIOLOGY

Grade for 340.621 and 340.622 is given at the end of 340.622.

NIH

GENETIC COUNSELING PROGRAM

These courses are restricted to ScM students in the JHU/NIH Program in Genetic Counseling.

Students must obtain consent to register from Mary Ann Dunevant (mdunevan@jhsph.edu), the program coordinator, or the course instructor, as noted. All courses are held at NIH, in Bethesda,Maryland unless otherwise noted.

415.610.92 **INTRODUCTION TO GENETIC COUNSELING**

(2 units)

Biesecker, Barbara

415.610 addresses the chromosomal basis of heredity, chromosomes and genes, tools of human molecular genetics, single gene inheritance, variation, polymorphism and mutation, genes in populations and genes in families. 415.611 presents the role of genetic counseling in health care and emphasizes the essential components of prenatal, pediatric, and adult genetics services. Indications for referral and genetics education and counseling components are illustrated using care examples. Clinical skills and tools are taught including family, medical and development history taking and pedigree construction. Additional case management skills such as the choice of laboratory and test interpretation, and issues in billing and reimbursment of genetic counseling services are addressed. 415.612 -613 expand on the previous two courses to examine the Hemoglobinapathics and Thalassemias as models of molecular pathology, the molecular/biochemical basis of genetic disease, genetics of cancer, gene mapping, multifactorial inheritance, and gene therapy.

Email: mdunevan@jhsph.edu

Lecture: M 5:30 - 7:30

Enrollment minimum of 4

Enrollment maximum of 8

Consent of instructor required

Jointly offered with NIH

415.620.92 **GENETIC COUNSELING PRACTICE I**

(2 units)

Madeo, Anne

Compares definitions of genetic counseling (GC) with objectives and service outcomes. Explores counselor values as they relate to roles and responsibilities toward clients. Introduces ethical and policy issues specific to GC in conjunction with a research agenda. Discusses and practices basic tools, including interviewing, history gathering, and case assessment, and nondirective counseling approaches.

Email: mdunevan@jhsph.edu

Lecture: F 12:00 - 2:00

Enrollment minimum of 4

Enrollment maximum of 10

Consent of instructor required

Prerequisite: Must be enrolled in ScM in Genetic Counseling Program

Multi-term with 315.621 - GENETIC COUNSELING PRACTICE II

Jointly offered with NIH

415.650.92 **FACILITATING FAMILY ADAPTATION TO LOSS AND DISABILITY I**
(2 units)

Wray, Andrea

Provides theoretical constructs for understanding the meaning of loss in maternal and child health, and techniques for short-term counseling that facilitate a healthy grief reaction for the bereaved family. Case studies of typical and atypical reactions are discussed for losses such as perinatal loss (miscarriage, stillbirth, neonatal death, termination of pregnancy for genetic reasons); birth of a child with a genetic condition/birth defect; death of a child with a chronic illness; and infertility. Topics include the psychology of pregnancy; and perinatal loss; phases of grief reaction; the art of facilitating bereavement; practical interventions in the hospital; follow-up counseling and short-term psychotherapy; resources; special needs of family members; gender differences; grandparent and sibling issues; provider issues (counter-transference, self-care, and burn-out prevention). Includes lecture, discussion, role play, video, field trips, and presentations by bereaved parents.
Email: mdunevan@jhsph.edu

Lecture: F 9:00 - 10:50
Enrollment maximum of 12
Consent of instructor required
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH
Grades submitted at the end of the term.

415.670.92 **DEVELOPMENTAL BIOLOGY AND HUMAN MALFORMATIONS I**
Course offered every other year. Course offered this year.
(1 unit)

Biesecker, Leslie

Familiarizes students with modern developmental biology and the use of this knowledge to understand common human malformations. Includes lectures on the methodology and model systems of developmental biology; a review of preimplantation development and gastrulation, and embryogensis/organogensis. Subsequent lectures focus on the development of organ systems.
Email: mdunevan@jhsph.edu

Lecture: TBA
Consent of instructor required
Multi-term with 415.671 - DEVELOPMENTAL BIOLOGY AND HUMAN MALFORMATIONS II
Jointly offered with NIH

415.701.92 **ADVANCED GENETIC COUNSELING I**
(2 units)

Biesecker, Barbara

This literature-driven course applies interactive genetic counseling techniques to specific settings and client needs. Faculty and students present key issues in client education for various medical specialties, and identify research needs related to genetic counseling. Explores counseling issues through role-play.
Email: mdunevan@jhsph.edu

Lecture: TBA
Enrollment minimum of 4
Enrollment maximum of 12
Consent of instructor required
Prerequisite: 415.630-631; Must be enrolled in ScM in Genetic Counseling Program
Multi-term with 315.702 - ADVANCED GENETIC COUNSELING II
Jointly offered with NIH

415.820.92 **THESIS RESEARCH: GENETIC COUNSELING**

415.840.92 **SS/R: GENETIC COUNSELING**

415.851.92 **SUPERVISED CLINICAL ROTATIONS: GENETIC COUNSELING**
(variable units)

Biesecker, Barbara

Clinical placements in adult, pediatric, and prenatal genetic centers in the Baltimore-Washington area provide opportunity to learn about genetic conditions by their impact on individuals and their families, and about roles of the genetic counselor. Individual rotations are scheduled to achieve a wide range of clinical experiences.
Email: mdunevan@jhsph.edu

Lecture: TBA
Enrollment maximum of 15
Pass/fail only
Consent of instructor required
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH

415.861.92 **GENETIC COUNSELING SEMINAR: TOPICS IN THE FIELD**
(2 units)

Biesecker, Barbara

Case discussions highlight psychological, social, and ethical issues in genetic counseling. Review of recent relevant literature enhances critical thinking skills. Clients who have had personal experiences with a genetic condition or risk expose students to a variety of reactions and circumstances presented from the consumers perspective. Various professionals share services, research, and expertise relevant to genetic counselors. Students in related graduate or medical genetics programs are encouraged to enroll to maximize the opportunity for exchange between disciplines.
Email: mdunevan@jhsph.edu

Lecture: F 2:30 - 4:20
Enrollment maximum of 25
Pass/fail only
Consent of instructor required
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH
Students must register for all four terms.

415.870.92 **GENETIC COUNSELING CLINICAL SUPERVISION**

(1 unit)

Biesecker, Barbara

Individual supervision sessions assist the student in recognizing the impact of personal styles and biases on the counseling process. Uses audiotapes and/or videotapes of student counseling sessions to review, analyze, and process student-client interactions throughout the students clinical rotations, and develop strategies for addressing barriers in the counseling process.

Email: mdunevan@jhsph.edu

Lecture: TBA

Enrollment maximum of 15

Pass/fail only

Consent of instructor required

Prerequisite: Must be enrolled in ScM in Genetic Counseling Program; students must register for four terms.

Jointly offered with NIH

415.881.92 **GENETIC COUNSELING PROGRAM THESIS PROPOSAL DEVELOPMENT II**

(2 units)

Erby, Lori

Email: mdunevan@jhsph.edu

Lecture: T 1:30 - 3:20

Enrollment minimum of 3

Enrollment maximum of 6

Pass/fail only

Consent of instructor required

Prerequisite: 415.880. Must be enrolled in ScM in Genetic Counseling Program

Jointly offered with NIH

Cancelled - Department

140.671.01 **INTRODUCTION TO PROBABILITY I**

Introduces probability theory, including basic concepts in measure theory and probability; random variables and their distributions; moments of random variables and probability inequalities; moment-generating and characteristic functions; convergence concepts and limit theorems; transformation and order statistics.

260.602.01 **INTRODUCTION TO BIOINFORMATICS**

Provides an introduction to bioinformatics, the combined field of biology and informatics (information science and technology). Focuses on the analysis of proteins, genes, and genomes.

Cancelled - Minimum Not Met

183.638.01 **MECHANISMS OF CARDIOPULMONARY CONTROL**

Focuses on reflex control of the respiratory and cardiovascular systems. Discusses the various receptors, central integration, and effector mechanisms of the two systems, and examines their roles under resting and stressful conditions, e.g., factors involved in respiratory rhythmicity at rest, cardiopulmonary acclimatization to altitude, and adaptation to hemorrhage. Blends didactic material with student-led discussion of pertinent journal articles and monographic literature.

Discontinued

550.605.01 **HISTORY OF PUBLIC HEALTH**

Provides a broad outline of the historical context and development of public health. Accesses the various challenging hazards to health throughout history.

309.820.01 **THESIS RESEARCH HEALTH SERVICES RESEARCH**

311.841.01 **SPECIAL STUDIES AND RESEARCH HPM/DRPH**

Students conduct independent research with faculty members.