SCHEDULE INFORMATION
This schedule includes all courses expected to be offered by the Johns Hopkins Bloomberg School of Public Health during the 3rd term of academic year 2011-12. The listing is based on data supplied by the academic departments and approved by the subcommittee of the Committee on Academic Standards as of December 19, 2011. 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://www.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 3rd term through January 10, 2012 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. 3rd term tuition payments are due via the web (https://isis.jhu.edu/sswf) by Friday, February 17, 2012. Changes to 3rd term registration may be processed via the web during the published Add/Drop period for 3rd term: Monday, January 23 – Friday, February 3, 2012. School of Medicine Post Doctoral Fellows may not register via the web; they must register in person, prior to the January 10 deadline. SOM Post Docs must complete the paper registration form in E1002 (SOM Post Docs must adhere to all course restrictions and required permissions). Special Students Limited (SSL) may apply for the regular eight week term at http://www.jhsph.edu/studentaccts/nondegree/application.html; SSL online registration requests will not be processed until instructor's permission for all courses and tuition payment are received. SSLs must submit payment and permission to the Continuing Education Student Services Office at 410-614-8633 or mail to: Continuing Education Student Services, Suite W1101, 615 N. Wolfe St., Baltimore, MD 21205.

Tuition is assessed at a rate of $892 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 January 10 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 approved by the instructor in writing (e-mail approvals are acceptable).
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)
ME School of Medicine (SOM)
NR School of Nursing (SON)
BU Business Carey School

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

120.621.01 MOLECULAR ENDOCRINOLOGY

Course offered this year
(4 credits)
Brown, Terry

Presents molecular biology as applied to endocrinology. Topics include the molecular biology and endocrinology of sexual differentiation, hypothalamic and pituitary regulation, ovarian follicular development, steroidogenesis, breast and prostate cancer, androgen, estrogen and thyroid hormone action, diabetes and insulin action, endocrine effects on immunity, G-protein coupled receptors and hormonal regulation of gene expression. Examines steroid and peptide hormone action via paracrine, autocrine, and endocrine mechanisms; transmembrane and intracellular signal transduction; and regulation of nuclear gene transcription.

Upon successfully completing this course, students will be able to:

1. Explain the molecular mechanisms by which steroid hormones activate nuclear receptors to provoke their biological effects
2. Explain the molecular mechanisms by which peptide hormones activate cell surface receptors to provoke their biological effects
3. Describe how androgens and estrogens are involved in cancers, as in the prostate and breast respectively
4. Explain how the actions of peptide hormones (e.g. insulin) are involved in diseases (e.g. diabetes)

5. Construct pathways of the endocrine systems that link control and production of hormones in specific tissues with the actions of these hormones in their respective target organs

E-mail: tbrown@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment minimum of 4
No Maximum
Letter Grade or Pass/Fail

120.626.01 PRINCIPLES OF CELL BIOLOGY

Course offered this year
(3 credits)
Matunis, Michael

Provides students with a basic understanding of the architecture and function of eukaryotic cells. In addition to introducing students to new facts and vocabulary pertinent to cell biology, also introduces students to experimental methods used by scientists to define and understand cell structure and function. Highlights relationships between defects in basic cell function and human diseases.

Upon successfully completing this course, students will be able to:

1. Identify the intracellular organelles of eukaryotic cells and describe their functions
2. Design experiments to study individual proteins by light or electron microscopy
3. Design experiments to fractionate and characterize different membrane-bound organelles
4. Describe the proteins and mechanisms regulating ion and small molecule transport across membranes
5. Define the functions of the ER and the mechanisms regulating ER translocation and protein modification within the ER
6. Design and interpret experiments aimed at studying protein sorting and translocation into sub-cellular organelles
7. Describe the molecules and mechanisms regulating vesicular transport and protein secretion
8. Design experiments to study protein transport and targeting in the endocytic pathway
9. Describe the molecules and pathways involved in relaying signals from the cell surface to the nucleus
10. Describe the structures and properties of the major proteins that make up the cytoskeleton and their individual functions
11. Describe the dynamics of actin assembly and the mechanisms of actin-myosin based movement
12. Describe the dynamics of microtubule assembly and the mechanisms of actin-myosin based movement
13. Define the structure and function of intermediate filaments
14. Describe the structures and functions of the major molecules mediating cell-cell interactions and tissue formation

E-mail: mmatunis@jhsph.edu
Lecture: W F 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Introductory courses in Genetics and/or Molecular and Cell Biology (such as 120.602). Students should also have a basic understanding of molecular genetics (i.e. the roles of DNA and RNA in protein synthesis) and a basic understanding of protein structure and function.

120.800.01 MPH CAPSTONE: BIOCHEMISTRY AND MOLECULAR BIOLOGY
Course offered this year
(2 credits)
Must have 1-4 credits per term for two terms.
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.
Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the Capstone project.
Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

120.820.01 THESIS RESEARCH BIOCHEMISTRY
Course offered this year
(variable credits)
Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Description</th>
<th>Credits</th>
<th>Enrollment Minimum</th>
<th>Maximum</th>
<th>Grade Option</th>
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<tbody>
<tr>
<td>120.830.01</td>
<td>POSTDOCTORAL RESEARCH BIOCHEMISTRY</td>
<td>Course offered this year (variable credits) Information not required for this course type Enrollment minimum of 10 No Maximum Pass/Fail</td>
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<tr>
<td>120.840.01</td>
<td>SPECIAL STUDIES AND RESEARCH BIOCHEMISTRY</td>
<td>Course offered this year (variable credits) Based on other coursework taken. Consists of presentations by speakers of scientific renown on important and current information in biochemistry, and molecular and cellular biology, and by faculty members from the university whose research efforts are of general interest to fellows, students, and faculty. Information not required for this course type Enrollment minimum of 10 No Maximum Pass/Fail</td>
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<tr>
<td>120.850.01</td>
<td>BIOCHEMICAL TECHNIQUES</td>
<td>Course offered this year (6 credits) 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. Information not required for this course type Lecture: TBA Enrollment minimum of 10 No Maximum Pass/Fail</td>
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120.852.01  CORE RESEARCH LITERATURE
Course offered this year
(variable credits)
BMB students taking this course should enroll for 2 credits. MMI students taking this course should enroll for 1 credit.
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.
Information not required for this course type
E-mail: mhardwic@jhsph.edu
Lecture: T 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
Consent required for all students
Jointly offered with Molecular Microbiology and Immunology
Requirement of students in the Departments of Biochemistry & Molecular Biology, and Molecular Microbiology & Immunology enrolled in core curriculum.

120.860.01  SPECIAL STUDIES-MHS THESIS PREPARATION
Course offered this year
(2 credits)
Students engage in one-on-one independent study with a departmental faculty member who will be the student's thesis supervisor. Prepares students for completing the MHS using independent reading of papers from current literature, combined with meetings with the thesis supervisor to discuss the reading and how to recognize this research to develop the MHS thesis.
Information not required for this course type
Lecture: TBA
Enrollment minimum of 10
No Maximum
Pass/Fail
Prerequisite: None.
Students should register with their thesis advisor for this course.
**120.895.01 MPH PRACTICUM: BIOCHEMISTRY AND MOLECULAR BIOLOGY**

Course offered this year
(variable credits)

Students who have not met the practicum requirement, must register for at least two credits.

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

Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Student must receive faculty advisor approval

**Biostatistics**

**140.615.01 STATISTICS FOR LABORATORY SCIENTISTS I**

Course offered this year
(4 credits)
Ruczinski, Ingo

Introduces the basic concepts and methods of statistics with applications in the experimental biological sciences. Demonstrates methods of exploring, organizing, and presenting data, and introduces the fundamentals of probability.

Presents the foundations of statistical inference, including the concepts of parameters, estimates, and the use of confidence intervals and hypothesis tests. Topics include experimental design, linear regression, the analysis of two-way tables, and sample size and power calculations. Introduces and employs the freely available statistical software, R, to explore and analyze data.

Upon successfully completing this course, students will be able to:

1. Create appropriate statistical graphics
2. Identify flaws in experimental designs and observational studies, and form appropriate simple experimental designs
3. Explain confounding and identify potential confounding factors in an observational study
4. Solve simple probability problems
5. Calculate and interpret confidence intervals for the difference between two populations' means and for a population proportion
6. Conduct simple tests of statistical hypotheses and calculate and interpret P-values from such tests
7. Calculate power and minimal sample size for simple experiments
8. Use the statistical software, R, to display and analyze data

E-mail: iruczins@jhsph.edu
Lecture: M W F 10:30 AM - 11:20 AM
Enrollment minimum of 8
No Maximum
Letter Grade or Pass/Fail

Computer labs are 1:30-2:20 and 2:30-3:20.

Course Change Information:
Course Modified, Keywords and/or Method of Student Evaluation only, Approved Date: 10/07/2011;
CourseLearningObj, TargetAud, CourseLocation, CourseFormat, IRBSurvey, AuditorsAllowedId, CourseOfferRationaleNote, CourseSectionNote, ContactPerson, ContactEmail, RepeatableRetakable, ScheduleTypeld, LabScheduleTypeld, LabTime, .10/07/2011;

**140.623.01 STATISTICAL METHODS IN PUBLIC HEALTH III**

Course offered this year
(4 credits)
Diener-West, Marie and McGready, John

Presents use of generalized linear models for quantitative analysis of data encountered in public health and medicine. Specific models include analysis of variance, analysis of covariance, multiple linear regression, logistic regression, and Cox regression.

Upon successfully completing this course, students will be able to:

1. Use statistical reasoning to formulate public health questions in quantitative terms
   1.1 Critique a proposed public health hypothesis to determine its suitability for testing using regression methods and the available data;
   1.2 Formulate and correctly interpret a multivariable linear, logistic or survival regression model to estimate a health effect while minimizing confounding and identifying possible effect modification;
   1.3 Evaluate the limitations of observational data as evidence for a health effect;
   1.4 Appreciate the importance of relying upon many regression models to capture the relationships among a response and predictor in observational studies

2. Conduct statistical computations and construct graphical and tabular displays for regression analysis
   2.1 Use the statistical analysis package Stata to perform multivariable regression models;
   2.2 Document and archive the steps of your statistical analysis by creating a Stata do-file;
   2.3 Create and interpret scatter-plots and adjusted variable plots that display the relationships among an outcome and multiple risk factors;
   2.4 Create and interpret tables of regression results including unadjusted and adjusted estimates of coefficients with confidence intervals from many models

3. Use probability models to describe trends and random variation in public health data
   3.1 Distinguish between the underlying probability distributions for modeling continuous, categorical, binary and time-to-event data;
   3.2 Recognize the key assumptions underlying a multivariable regression model and judge whether departures in a particular application warrant consultation with a statistical expert

4. Use statistical methods for inference in multiple regression to draw valid public health inferences from data
   4.1 Conduct a simple linear, logistic or survival regression and correctly interpret the regression coefficients and their confidence interval.

E-mail: mdiener@jhsph.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment minimum of 10
No Maximum
For MPH, DrPH, "special students" and MHS degree candidates in departments to be determined

Letter Grade or Pass/Fail
Consent required for some students
Consent required for non-PH students
Prerequisite: 140.622
One 90-minute lab per week, lab is 140.923. As soon as you register for the course, please also register for one section of 140.923. Course Materials Fee is $40.00.
Course Change Information:
CPIinstructor, .07/12/2011;

140.623.02 STATISTICAL METHODS IN PUBLIC HEALTH III
Course offered this year
(4 credits)
McGready, John and Diener-West, Marie
Presents use of generalized linear models for quantitative analysis of data encountered in public health and medicine. Specific models include analysis of variance, analysis of covariance, multiple linear regression, logistic regression, and Cox regression.

Upon successfully completing this course, students will be able to:

1. Use statistical reasoning to formulate public health questions in quantitative terms
   1.1 Critique a proposed public health hypothesis to determine its suitability for testing using regression methods and the available data; 1.2 Formulate and correctly interpret a multivariable linear, logistic or survival regression model to estimate a health effect while minimizing confounding and identifying possible effect modification; 1.3 Evaluate the limitations of observational data as evidence for a health effect; 1.4 Appreciate the importance of relying upon many regression models to capture the relationships among a response and predictor in observational studies

2. Conduct statistical computations and construct graphical and tabular displays for regression analysis
   2.1 Use the statistical analysis package Stata to perform multivariable regression models; 2.2 Document and archive the steps of your statistical analysis by creating a Stata do-file; 2.3 Create and interpret scatter-plots and adjusted variable plots that display the relationships among an outcome and multiple risk factors; 2.4 Create and interpret tables of regression results including unadjusted and adjusted estimates of coefficients with confidence intervals from many models

3. Use probability models to describe trends and random variation in public health data
   3.1 Distinguish between the underlying probability distributions for modeling continuous, categorical, binary and time-to-event data; 3.2 Recognize the key assumptions underlying a multivariable regression model and judge whether departures in a particular application warrant consultation with a statistical expert

4. Use statistical methods for inference in multiple regression to draw valid public health inferences from data
   4.1 Conduct a simple linear, logistic or survival regression and correctly interpret the regression coefficients and their confidence interval.

E-mail: jmcgread@jhsph.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment minimum of 10
No Maximum
For PhD, ScM and MHS degree candidates in departments to be determined
Letter Grade or Pass/Fail
Consent required for some students
Consent required for non-PH students
Prerequisite: 140.622
One 90-minute lab per week, lab is 140.923. As soon as you register for the course, please also register for one section of 140.923. Course Materials Fee is $40.00.
Course Change Information: 07/12/2011;
140.631.01  THE SAS STATISTICAL PACKAGE: A SURVEY FOR STATISTICIANS

Course offered this year
(3 credits)
McDermott, Aidan
Introduces students to the SAS statistical package in a Microsoft Windows environment. Using examples of public health data students learn to write programs to summarize and present data and to perform simple statistical analyses. Emphasizes the creation and manipulation of database structures suitable for statistical analyses. Using the interactive matrix language, introduces students to computation within a matrix environment and the development of modular programming techniques.

Upon successfully completing this course, students will be able to:
1. Write and execute programs using SAS syntax
2. Read and transform data in preparation for statistical analysis
3. Create tabular and graphical displays of data
4. Perform simple statistical analyses such as linear regression
5. Utilize the SAS matrix language to perform matrix computations
6. Employ optimization procedures and functions to maximize simple likelihoods

E-mail: amcdermo@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment minimum of 1
Enrollment maximum of 20
Letter Grade or Pass/Fail
Consent required for all students
All students must obtain consent
Prerequisite: 140.651 or 140.652

140.640.01  STATISTICAL METHODS FOR SAMPLE SURVEYS

Course offered this year
(3 credits)
Ahmed, Saifuddin
Presents construction of sampling frames, area sampling, methods of estimation, stratified sampling, subsampling, and sampling methods for surveys of human populations. Students use STATA or another comparable package to implement designs and analyses of survey data. (380.712 develops additional practical skills in sampling.)

Information not required for this course type

E-mail: sahmed@jhsph.edu
Lecture: W 3:30 PM - 4:20 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: 140.622, former 140.602, or 140.652
Jointly offered with Population, Family and Reproductive Health
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Description</th>
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<tr>
<td>140.644.01</td>
<td>STATISTICAL MACHINE LEARNING: METHODS, THEORY, AND APPLICATIONS</td>
<td>Liu, Han</td>
<td>Introduces statistical and computational foundations of modern statistical machine learning. Acquaints students with methods to evaluate statistical machine learning models defined in terms of algorithms or function approximations using basic coverage of their statistical and computational theoretical underpinnings. Topics covered include: regression and classification, tree-based methods, overview of supervised learning theory, support vector machines, kernel methods, ensemble methods, clustering, visualization of large datasets and graphical models. Example applications include cancer prognosis from microarray data, graphical models for data visualization and decision making. Upon successfully completing this course, students will be able to: 1. Evaluate statistical machine learning models.</td>
</tr>
<tr>
<td>140.644.01</td>
<td>ESSENTIALS OF PROBABILITY AND STATISTICAL INFERENCE III: THEORY OF MODERN STATISTICAL METHODS</td>
<td>Rohde, Charles</td>
<td>Builds on the concepts discussed in 140.646 and 140.647 to provide the theory for modern statistical methods such as linear models, generalized linear models, random effects models, and marginal regression models. Also discusses the theory of causal inference. De-emphasizes proofs and replaces them with extended discussion of interpretation of results and simulation for illustration. Upon successfully completing this course, students will be able to: 1. Describe the theoretical basis for the current methods used in statistical analysis.</td>
</tr>
<tr>
<td>140.653.01</td>
<td>METHODS IN BIOSTATISTICS III</td>
<td>Peng, Roger</td>
<td>Course offered this year</td>
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</table>

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Focuses on regression analysis for continuous and discrete data, and data analyses that integrate the methods learned in 140.651-652. Regression topics include simple linear regression; a matrix formulation of multiple linear regression; inference for coefficients, predicted values, and residuals; tests of hypotheses; graphical displays and regression diagnostics; specific models, including polynomial regression, splines, one- and two-way ANOVA; variable selection non-parametric regression; log-linear models for incidence rates and contingency tables; logistic regression; and generalized linear models.

Upon successfully completing this course, students will be able to:

1. Formulate a scientific question about the relationship of a continuous response variable Y and predictor variables X in terms of the appropriate linear regression model
2. Interpret the meaning of regression coefficients in scientific terms as if for a substantive journal (2.1 Explicitly define the epidemiologic terms “confounding” and “effect modification” in terms of multiple regression coefficients)
3. Develop graphical and/or tabular displays of the data to display the evidence relevant to describing the relationship of Y with one X controlling for others (3.1 Use an adjusted variables plot to explain the meaning of a multiple regression coefficient)
4. Estimate the model using a modern statistical package such as STATA or R and interpret the results for substantive colleagues 4.1 Derive the least squares estimators for the linear model and the distribution of coefficients, predicted values, residuals and linear functions of them
5. Check the major assumptions of the model including independence and model form (mean, variance and distribution of residuals) and make changes to the model or method of estimation and inference to appropriately handle violations of standard assumptions 5.1 Use weighted least squares for situations with unequal variances; 5.2 Use robust variance estimates for violations of independence or variance or distributional assumptions; 5.3 Use regression diagnostics to prevent a small fraction of observations from having undue influence on the results
6. Write a methods and results section for a substantive journal, correctly describing the regression model in scientific terms and the method used to specify and estimate the model. Correctly interpret the regression results to answer the specific substantive questions posed in scientific terms that can be understood by substantive experts
7. Critique the methods and results from the perspective of the statistical methods chosen and alternative approaches that might have been

E-mail: rpeng@jhsph.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: 140.652

140.655.01 ANALYSIS OF LONGITUDINAL DATA
Course offered this year
(4 credits)
Colantuoni, Elizabeth
Explores statistical models for drawing scientific inferences from longitudinal data. Topics include longitudinal study design; exploring longitudinal data; linear and generalized linear regression models for correlated data, including marginal, random effects, and transition models; and handling missing data. Intended for doctoral students in quantitative sciences.

Upon successfully completing this course, students will be able to:

1. Prepare graphical or tabular displays of longitudinal data that effectively communicate the patterns of scientific interest
2. Implement and interpret a general linear model to make scientific inferences about the relationship between response and explanatory variables while accounting for the correlation among repeated responses for an individual
3. Implement and interpret marginal, random effects, or transitional generalized linear models to make scientific inferences when the repeated observations are binary, counts, or non-Gaussian continuous observations
4. Implement analysis of longitudinal data within SAS or STATA

E-mail: ejohnson@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment minimum of 8
No Maximum

Letter Grade or Pass/Fail

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

The Advanced Topics lab sequence (Monday 9:00 - 10:20) is required for Biostatistics students; interested non-Biostatistics students may attend. The Implementation and Interpretation of Analysis of Longitudinal Data (Wednesday 9:00 - 10:20) is highly recommended for all students.
Prerequisite: 140.611-612 or statistical equivalent
Jointly offered with EHS, MMI
The use of personal laptops to follow along is strongly encouraged. A time restricted free version of the software is available with the required text. A limited number of laptops are available during class to be shared when needed.

Course Change Information:
EnrollMin, EnrollMax, TargetAud, CourseLocation, CourseFormat, IRBSurvey, AuditorsAllowedId, ExpectedEnrollNumber, JointlyOffered, DeptCoList, CourseOfferRationaleNote, ScheduleTypeld, LabScheduleTypeld, .11/11/2011;

140.662.02 SPATIAL ANALYSIS AND GIS I
Course offered this year
(3 credits)
Curriero, Frank and Glass, Gregory
Examines the use of Arc View Geographic Information System (GIS) software as a tool for integrating, manipulating, and displaying public health-related spatial data. Topics covered include mapping, geocoding, and manipulations related to data structures and topology. Uses selected case studies to demonstrate concepts. Focuses on using GIS to generate and refine hypotheses about public health-related spatial data in preparation for a formal statistical analysis. Although spatial statistical modeling is not a required part of the curriculum, related topics are discussed throughout.
Includes both lecture and lab formats with GIS concepts and software specific details demonstrated during the lab portions.

Upon successfully completing this course, students will be able to:

1. conduct GIS spatial analysis by inputting, manipulating, querying, and displaying spatial data with use of the ArcGIS software;
2. perform Geocoding and create appropriate maps for the different types of spatial data;
3. identify the key differences between a GIS spatial analysis and a spatial statistical analysis.

E-mail: fcurrier@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment minimum of 10
Enrollment maximum of 60

Letter Grade or Pass/Fail
Prerequisite: 140.611-612 or statistical equivalent
Jointly offered with EHS, MMI
The use of personal laptops to follow along is strongly encouraged. A time restricted free version of the software is available with the required text. A limited number of laptops are available during class to be shared when needed.

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
140.664.01  CAUSAL INference IN MEDICINE AND PUBLIC HEALTH

Course offered this year
(4 credits)
Stuart, Elizabeth and Frangakis, Constantine

Presents an overview of methods for estimating causal effects: how to answer the question of “What is the effect of A on B?” Includes discussion of randomized designs, but with more emphasis on alternative designs for when randomization is infeasible: matching methods, propensity scores, regression discontinuity, and instrumental variables. Methods are motivated by examples from the health sciences, particularly mental health and community or school-level interventions.

Upon successfully completing this course, students will be able to:

1. Discuss causal problems as potential interventions, through the framework of potential outcomes and assignment mechanisms,
2. Describe the spectrum of designs for both randomized and non-randomized studies,
3. Identify the situations for which non-randomized designs are most appropriate,
4. apply methods for estimating causal effects, including propensity score techniques, instrumental variables (“encouragement designs”), and regression discontinuity
5. critically review research that claims to estimate causal effects with non-experimental data
6. discuss complications encountered in causal studies, including missing data, noncompliance, and hidden bias

E-mail: estuart@jhsph.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment minimum of 10
No Maximum

140.673.01  INTRODUCTION TO STATISTICAL THEORY I

Course offered this year
(4 credits)
Frangakis, Constantine

Introduces modern statistical theory, including likelihood functions; minimal sufficiency; exponential families; theory estimation, theory of optimal tests, and confidence intervals; robustness; and decision theory.

Information not required for this course type

E-mail: cfrangak@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
Prerequisite: 140.621-624 or 140.651-654, or consent of the instructor
Jointly offered with MH

140.753.01  ADVANCED METHODS IN BIOSTATISTICS III

Course offered this year
(3 credits)
Louis, Thomas A.
Introduces the General Linear Model and Generalized Least Squares. Develops the Generalized Likelihood Ratio Test (GLRT) and connects it to the Gaussian Linear Model. Defines Fisher Information and Observed Information. Compares methods of simultaneous inference and multiple comparisons. Covers robust variance estimation. Compares optimal statistical weights to optimal policy weights, and missing data theory and practice. Develops consequences of departures from assumptions, efficiency and robustness trade-offs in the context of missing data and correlated responses. Identifies implications for design, and outlines basic experimental designs, choice of design and analysis, fixed and random effects, introduces shrinkage estimates. Covers study designs that account for uncertainty in input parameters. Introduces sample reuse via the jackknife and adds to criteria to use in evaluating a procedure and how to identify when a new method or adaptation is needed.

Upon successfully completing this course, students will be able to:

1. give examples of different types of data arising in public health studies
2. Discuss differences and similarities between standard linear regression and models for discrete outcomes
3. use modern statistical concepts such as generalized linear models for inference
4. apply theoretical concepts to scientific data using R and WinBUGS software
5. conduct and interpret logistic, conditional logistic, and probit regression inference
6. extend models to account for clustering
7. expand the set of biostatistical models with quasi-likelihood, beta-binomial and log-linear models
8. improve computational and analytic skills through analysis of simulated data sets

For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
140.800.01 MPH CAPSTONE BIOSTATISTICS
Course offered this year
(2 credits)
Must have 1-4 credits per term for two terms.
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.
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.
Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

140.830.01 POSTDOCTORAL RESEARCH BIOSTATISTICS
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

140.840.01 SPECIAL STUDIES AND RESEARCH BIOSTATISTICS
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

140.820.01 THESIS RESEARCH BIOSTATISTICS
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
140.850.01 ADVANCED SPECIAL TOPICS IN BIOSTATISTICS
Course offered this year
(variable credits)
Number of credits will depend on the material being covered
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.
Information not required for this course type
Lecture: TBA
Enrollment minimum of 10
No Maximum
For Biostatistics PhD students only
Pass/Fail
Consent required for all students
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
Course offered this year
(variable credits)
Student and advisor determine the number of credits
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.
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Instructor consent is required.
Prerequisite: Approval of project by academic advisor and project advisor
Students should register with their capstone advisor for this course
Course Change Information:
CreditNote, FrequencySchedule, CourseLocation, IRBSurvey, AuditorsAllowedId, CourseOfferRationaleNote, CourseSectionNote, ContactPerson, ContactEmail, StartingOfferYear, RepeatableRetakable, ScheduleTypeId, LabScheduleTypeId, .04/13/2011;
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>140.895.01</td>
<td>MPH PRACTICUM: BIOSTATISTICS</td>
<td></td>
<td>Course offered this year&lt;br&gt;(variable credits)&lt;br&gt;Students who have not met the practicum requirement, must register for at least two credits&lt;br&gt;The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.&lt;br&gt;Information not required for this course type&lt;br&gt;Enrollment minimum of 10&lt;br&gt;No Maximum&lt;br&gt;Pass/Fail&lt;br&gt;<strong>Clinical Investigation</strong></td>
</tr>
<tr>
<td>390.701.01</td>
<td>RESEARCH PLANNING AND GRANT PREPARATION I</td>
<td>Adkinson,Franklin</td>
<td>Course offered this year&lt;br&gt;(2 credits)&lt;br&gt;Students consider the principles of research strategy and requirements of funding agencies, choosing a research area of interest together with a suitable mentor. With mutual review and criticism, each student develops a research plan in the format of an NIH RO1 application, which forms the basis for clinical research activity in the subsequent two years. Upon successfully completing this course, students will be able to:&lt;br&gt;1. Develop the process of considering, researching, writing, and reviewing a standard RO1 NIH grant application&lt;br&gt;2. Practice for the upcoming need to submit for review and approval a research proposal, which will constitute the basis for the student's thesis work&lt;br&gt;2. Construct a successful application for outside funding for the developed research plan or a later modification&lt;br&gt;E-mail: <a href="mailto:fadkinso@jhsph.edu">fadkinso@jhsph.edu</a>&lt;br&gt;Lecture: T 3:00 PM - 4:50 PM&lt;br&gt;Enrollment minimum of 10&lt;br&gt;No Maximum&lt;br&gt;Restricted to GTPCI students.&lt;br&gt;<strong>Letter Grade or Pass/Fail</strong>&lt;br&gt;Multi-term with 390.702&lt;br&gt;Jointly offered with School of Medicine</td>
</tr>
</tbody>
</table>

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
390.721.01  PLANNING AND FUNDING CLINICAL RESEARCH I
Course offered this year
(2 credits)
Punjabi, Naresh
Considers the principles of successful clinical research strategies and the requirements of funding agencies. Students identify a defined research project together with a suitable team of mentors and collaborators. With mutual review and criticism, each student develops a written research proposal in the format of a grant application which integrates the scientific principles of the GTPCI curriculum. Designed as a capstone project for GTPCI MHS candidates.
Upon successfully completing this course, students will be able to:
1. integrate the competencies of the GTPCI curriculum in planning and proposing a coherent clinical research project
2. write a grant application to support the proposed research program, incorporating scientific rigor and elements of successful grantsmanship
3. write an IRB submission to permit the conduct of the proposed research
E-mail: npunjabi@jhsph.edu
Lecture: T 8:00 AM - 10:20 AM
Enrollment minimum of 10
No Maximum
Must be GTPCI MHS students
Letter Grade or Pass/Fail
Multi-term with 390.722
Grade for 390.721 and 722 given at completion of 390.722.

390.820.01  THESIS RESEARCH IN CLINICAL INVESTIGATION
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

390.840.01  SPECIAL STUDIES AND RESEARCH IN CLINICAL INVESTIGATION
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

Environmental Health Sciences

180.629.01  ENVIRONMENTAL AND OCCUPATIONAL HEALTH LAW AND POLICY
Course offered this year
(4 credits)
Locke, Paul
Examines the legal systems, institutions and policies upon which environmental and occupational health protection are based. Focuses on how US and international environmental and occupational health laws, regulations and policies apply to public health and evaluates the strengths and weaknesses of laws as intervention tools. Topics covered include significant US federal environmental and occupational health statutes (for example, the Clean Air Act, Superfund, Community Right-to-Know, Safe Drinking Water Act, Occupational Safety and Health Act), international environmental law principles and treaties, international human rights issues, how laws deals with emerging health issues and environmental justice and facility siting.

Upon successfully completing this course, students will be able to:

1. Discuss how to use laws, regulations and policies for public health intervention
2. Discuss the strengths and weaknesses of these laws, regulations and policies
3. Analyze how legal institutions, such as the courts and agencies, affect public policy and decision-making
4. Evaluate how laws and policies influence environmental health decision-making

E-mail: plocke@jhsph.edu
Lecture: M W 3:30 PM - 5:20 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Students who take 180.628.81, Introduction to Environmental and Occupational Health Law cannot take this course.

Course Change Information:
CourseLearningObj, StudentEval, CourseLocation, CourseFormat, IRBSurvey, AuditorsAllowedId, ExpectedEnrollNumber, CourseOfferRationaleNote, RepeatableRetakable, ScheduleTypeld, LabScheduleTypeld, .09/09/2011;

180.640.01 MOLECULAR EPIDEMIOLOGY AND BIOMARKERS IN PUBLIC HEALTH
Course offered this year
(4 credits)
Strickland, Paul
Emphasizes the scientific basis of molecular epidemiology and provides examples of the application of molecular biology, analytical chemistry, and toxicology to the study of chronic disease etiology and its public health application, including examples in human cancer, cardiovascular, immunological, and neurological diseases. Also discusses methodological and study design problems.

Information not required for this course type
E-mail: pstrickl@jhsph.edu
Lecture: T TH 2:30 PM - 3:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: 340.601-602 or consent of instructor
Jointly offered with Epidemiology
Additional 1 hour TBA
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Description</th>
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</table>
| 180.651.01  | ENERGY POLICY CHOICES AND PUBLIC HEALTH           | Chaitkin, Stuart | Examines why energy policy choices are so important to human health and well-being. Explores how the impacts of energy exploration, generation, and usage patterns are tied directly to economic prosperity, the condition of the environment, the health of the population, and even aspects of national and international security, for developed as well as developing nations. Discusses and presents potential solutions to the three biggest energy challenges: (1) meeting the basic energy needs of the world’s poorest people in a more healthful manner, (2) de-carbonizing electricity generation, and (3) reducing oil dependence. Emphasizes that energy is the core of the environment problem and environment is the core of the energy problem. Upon successfully completing this course, students will be able to:  
1. Define the basic linkages between energy impacts and public health  
2. Identify the principal negative impacts associated with energy exploration, generation, and consumption in developing as well as developed countries  
3. Distinguish between potentially valid and overly hyped claims about energy performance, energy impacts, or energy technologies  
4. Assess a range of policy choices for reducing the impacts of energy consumption on public health |
| 180.654.01  | NANOTECHNOLOGY RISK ANALYSIS                      | White, Ronald   | Provides an overview of the issues and approaches in the application of environmental health risk assessment, risk management and risk perception/communication concepts to the use of engineered nanomaterials in technology and products. Upon successfully completing this course, students will be able to:  
1. Describe how the fundamental principles of risk assessment, risk management and risk communication interrelate with nanotechnologies in a societal context.  
2. Identify key issues and approaches to assessing and managing the health and environmental impacts of nanotechnologies.  
3. Analyze and articulate the application of risk analysis approaches to nanotechnology, including risk-risk and risk-benefit issues. |

E-mail: schaitki@jhsph.edu  
Lecture: M 1:30 PM - 3:20 PM  
Enrollment minimum of 5  
No Maximum  
**Letter Grade or Pass/Fail**  
Course is held in departmental space.

E-mail: rwhite@jhsph.edu  
Lecture: W 10:00 AM - 11:50 AM  
Enrollment minimum of 10  
Enrollment maximum of 50  
Undergraduate student enrollment is limited to upper level (4th year) students, with permission of the instructor required.  
**Letter Grade or Pass/Fail**  
Consent required for some students  
Undergraduate student enrollment is limited to upper level (4th year) students, with permission of the instructor required.  
Prerequisite: Introduction to the Risk Sciences and Public Policy (317.600)  
Jointly offered with HPM

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
BALTIMORE FOOD SYSTEMS: A CASE STUDY OF URBAN FOOD ENVIRONMENTS

Neff, Roni and Palmer, Anne

Challenges students to look closely at the environment of Baltimore City's complex food systems using experiential learning, discussion, lectures, and related texts. Students consider improvements to these systems to assure access to nutritious, adequate, affordable and sustainably produced foods, and to increase supply and demand of these foods; to address diet related disease; and to reduce food system environmental harms. Students “go backstage” with tour guides at sites around the city. Class sessions are primarily discussion-oriented, but also include lectures and guest visits. Students consider the relative impacts of access, demand, cost, stakeholder interests, administrative issues, history, and power, and consider the relative strengths of voluntary, governmental, legal and other strategies. They also consider applicability of lessons from Baltimore to other area food systems.

Upon successfully completing this course, students will be able to:

1. Describe how food systems and food environments relate to public health broadly and environmental public health more specifically
2. Describe from first-hand experience selected food system sites in Baltimore, including their offerings, clientele, and operations, and key opportunities and barriers to improving their healthfulness and economic and environmental sustainability
3. Conduct and document oral history interviews
4. Discuss key factors that have shaped food systems in Baltimore and other urban locales, including within the domains of policy, business, agriculture, and society
5. Analyze responses to particular challenges and opportunities within Baltimore’s food systems

E-mail:rneff@jhsph.edu
Lecture: W F 10:00 AM - 11:50 AM
Enrollment minimum of 9
Enrollment maximum of 20
No auditors allowed.

Letter Grade or Pass/Fail

We will provide time for students to arrange transportation with other students for the field trips; you do not need a car to participate. Classes are held in departmental space.

Course Change Information:
CourseDesc, CourseOfferRationaleNote, CourseSectionNote, ScheduleTypeId, .09/09/2011;
INTRODUCTORY PRINCIPLES OF ENVIRONMENTAL HEALTH

Course offered this year
(3 credits)
Kanarek, Norma
Provides an introduction to the concepts and principles of environmental health -- the effects of the environment on human health. Presents the major concepts and principles of environmental health, and their relation to the practice of public health. Course utilizes selected environmental agents and vectors as exemplars of these concepts and principles. Intended for MHS students (this course does not meet the Environmental Health requirement for the MPH program).
Information not required for this course type

E-mail: nkanarek@jhsph.edu
Lecture: TH 5:00 PM - 8:00 PM
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
This course does not meet the EHS requirement for the MPH program

MPH CAPSTONE ENVIRONMENTAL HEALTH SCIENCES

Course offered this year
(2 credits)
Must have 1-4 credits per term for two terms.
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.
Upon successfully completing this course, students will be able to:

1. to synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience

Enrollment minimum of 10
No Maximum

Pass/Fail
Consent required for all students
Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.
Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).
### 180.820.01 ThesiSE ReseaRCh EnviRonmeNTaL heaLth scienciEs
Course offered this year
(variable credits)
Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail

### 180.830.01 PoStDoCToRAL ReseaRCh EnviRonmeNTaL heaLth scienciEs
Course offered this year
(variable credits)
Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail

### 180.840.01 SpEcial StudiEs anD ReseaRCh EnviRonmeNTaL heaLth scienciEs
Course offered this year
(variable credits)
Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail

### 180.860.01 SpEcial StudiEs MHS ESSay
Course offered this year
(2 credits)
Spannhake, Ernst
This course is required of all departmental students in the advanced study and research MHS degree program, and provides the opportunity to finalize the required essay.
Information not required for this course type

E-mail: espannha@jhsph.edu
Enrollment minimum of 10
No Maximum
Pass/Fail
This is the second in a series of three courses required of students in the full-time academic MHS program in EHS. Successful completion of this series is necessary for graduation. The student's advisor serves as course instructor.
180.880.01 SPECIAL STUDIES IN ENVIRONMENTAL HEALTH/COMMUNITY OUTREACH

Course offered this year
(variable credits)
Variable 1-3. Per instructor, number of units is decided based upon amount of participation/work the student and the instructor agree upon.

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.

Information not required for this course type

E-mail: mtrush@jhsph.edu
Lecture: T 4:00 PM - 6:00 PM
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students

180.895.01 MPH PRACTICUM: EHS

Course offered this year
(variable credits)
Students who have not met the practicum requirement, must register for at least two credits

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

Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail
182.614.01  INDUSTRIAL HYGIENE LABORATORY
Course offered this year
(5 credits)
Rule, Ana Maria and Lees, Peter
Uses laboratory and field methods and equipment to appraise occupational and environmental atmospheric conditions. Topics include grab and dynamic sampling; measurement of respirable and non-respirable particulates; particulates size analysis; fiber sampling and analysis; gas and vapor sampling and analysis by wet chemical and instrumental methods; and calibration of direct reading field survey instruments.

Upon successfully completing this course, students will be able to:
1. Calibrate air sampling pumps using primary and secondary standards
2. Conduct air sampling for airborne particulate matter
3. Define criteria and equipment used for size-selective particulate matter sampling
4. Conduct air sampling for airborne gases and vapors
5. Describe adsorptive and absorptive sampling techniques
6. Select appropriate analytical techniques for air sample analysis
7. Conduct air sampling using direct-reading instruments
8. Perform a survey for airborne contaminants
9. Write a professional report for air sample survey results

E-mail: arule@jhsph.edu
Lecture: W F 1:30 PM - 4:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: College chemistry and physics

182.623.01  OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT
Course offered this year
(3 credits)
Averill, Dennis
Examines elements needed to design and implement an effective safety and health program in industry. Stresses managerial techniques, including financial planning, communications, organizational structure, planning, auditing, and the use of records.

Upon successfully completing this course, students will be able to:
1. Describe the organization and structure of an occupational health service system
2. Assess major approaches to managing and improving health services organizations, including approaches to process improvement, strategic planning, and organizational design
3. Apply performance improvement concepts and tools in revising a specific process within an organizational setting
4. Prepare a basic budget

E-mail: daverill@jhsph.edu
Lecture: M 1:30 PM - 3:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

182.626.01  ISSUES FOR WATER AND SANITATION IN TROPICAL ENVIRONMENTAL HEALTH
Course offered this year
(2 credits)
Schwab, Kellogg

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Introduces major environmental health problems in
the tropical areas of the world and discusses some
solutions in detail. Covers engineering, human
behavior, and public health approaches to providing
potable water and sanitation including simple water
supplies, sanitary latrines, the relationship of water
supply and sanitation to diarrheal diseases, disaster
sanitation, and techniques for disinfection.
Demonstrates field treatment of water supplies and
water microbiology. Each student develops a case
study drawn from current events and designs a field
project for an environmental control measure to
reduce disease in a community. In addition,
students develop a short (4-6 page) mock grant
proposal designed to implement an integrated water
and sanitation hygiene intervention of their
choosing drawing on the lessons learned during this
course.

Upon successfully completing this
course, students will be able to:

1. Define some engineering and
behavior health and environmental
problems confronting populations
living in poorer parts of the world
2. Analyze some relevant situations
and develop interventions to
manage some of these situations
3. Describe what factors contribute
to the spread and proliferation of
fecal and water borne disease in
developing countries
4. Explain the role of improved
sanitation and adequate water
supplies in improving quality of life;
you will discuss what is meant by
appropriate technology and village
level of maintenance
5. Describe some factors that affect
local availability of water and
improved water supplies. By
observing examples and through
class discussion and debate of
current case studies

6. List problems regarding waste
disposal and water supplies in rural,
peri-urban and urban environments,
and engineering and human
behavior solutions to address these
problems

E-mail: kschwab@jhsph.edu
Lecture: T 8:30 AM - 10:20 AM
Enrollment minimum of 10
Enrollment maximum of 35
Letter Grade or Pass/Fail

182.640.01 FOOD- AND WATER- BORNE DISEASES
Course offered this year
(3 credits)
Schwab, Kellogg
Discusses food- and water-borne intoxicants and
infections, diseases linked to eating and drinking,
and prevention of food and water-borne diseases.
Topics include transmission of disease via food and
water, disease processes in food- and water-related
illness, microbial toxins, mycotoxins, chemical
toxins, bacterial infections (salmonellosis,
shigellosis, vibrio, listeria, etc.) virus and parasitic
infections, organizing safe food and water supplies,
and issues in food and water safety.
Information not required for this course
type

E-mail: kschwab@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Consent required for some students
Consent required for undergraduate students.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Type</th>
<th>Credit Hours</th>
<th>Enrollment</th>
<th>Grade Option</th>
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<tr>
<td>182.810.01</td>
<td>Field Placement Environmental Health Engineering</td>
<td>(variable credits)</td>
<td></td>
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<tr>
<td>182.820.01</td>
<td>Thesis Research Environmental Health Engineering</td>
<td>(variable credits)</td>
<td></td>
<td>10</td>
<td>Pass/Fail</td>
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<tr>
<td>182.830.01</td>
<td>Postdoctoral Research Environmental Health Engineering</td>
<td>(variable credits)</td>
<td></td>
<td>10</td>
<td>Pass/Fail</td>
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<tr>
<td>182.840.01</td>
<td>Special Studies/Research Environmental Health Engineering</td>
<td>(variable credits)</td>
<td></td>
<td>10</td>
<td>Pass/Fail</td>
</tr>
<tr>
<td>182.850.01</td>
<td>Special Studies Environmental Health Engineering MSPH Essay</td>
<td>(variable credits)</td>
<td></td>
<td>1-2</td>
<td>Pass/Fail</td>
</tr>
</tbody>
</table>

Students work with their advisors to formulate, research, finalize, and gain approval of their master’s essay, which is based on a required Independent Professional Project (IPP). Students write the essay as a professional report summarizing the findings of the IPP. This represents a substantive application of professional technical skills through the process of collecting and summarizing data and reviewing appropriate literature. One credit is awarded at the completion of each of three stages: 1) submission of an acceptable proposal, 2) submission of an acceptable report, and 3) successful completion of a seminar at the end of the program.

Upon successfully completing this course, students will be able to:

1. Synthesize, integrate, and apply the skills and competencies they have acquired to a workplace exposure assessment/management problem
2. Augment their training by pursuing an independent project within their particular area of interest or specialized competency

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
3. Prepare a professional report on their findings
4. Present in an oral seminar setting

Enrollment minimum of 1
Enrollment maximum of 25

**Pass/Fail**

Consent required for some students
Course only available to MSPH OEH PTIB students - they do not need consent.

The student's advisor serves as course instructor.
Successful completion of the MSPH Essay is required for graduation from the program.

Course Change Information:
CourseTitle, Credit, CreditNote,
CourseLearningObj, CourseOfferRationaleNote,
ContactPerson, CPInstructor, .12/14/2010;

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<tr>
<td>183.642.01</td>
<td><strong>THE CARDIOPULMONARY SYSTEM UNDER STRESS</strong></td>
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<td></td>
<td>Course offered this year</td>
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<tr>
<td></td>
<td>(2 credits)</td>
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<tr>
<td></td>
<td>Fitzgerald, Robert</td>
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<tr>
<td></td>
<td>Identifies the responses of the cardiopulmonary system to physiological and environmental stress, presenting information from both human and</td>
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<tr>
<td></td>
<td>research laboratory model experimentation. Reviews hypoxia and some common air pollutants (e.g. ozone) as a prototypical environmental stress</td>
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<td></td>
<td>factors, and exercise as an example of physiologic stress. Discusses epithelial, circulatory, and</td>
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<td></td>
<td>ventilatory responses of the pulmonary system, as well as susceptibility factors and biomarkers to stress.</td>
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<tr>
<td></td>
<td>Upon successfully completing this course, students will be able to:</td>
</tr>
<tr>
<td></td>
<td>1. Assess the varied responses of the cardiopulmonary system to physiological and toxicological stresses such as: emotion, isometric and</td>
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<td>isotonic exercise, changes in gravity, diving, altitude, viral cardiac infections, air pollution (e.g. ozone) on lung f</td>
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<tr>
<td></td>
<td>E-mail: <a href="mailto:rfitzer@jhsph.edu">rfitzer@jhsph.edu</a></td>
</tr>
<tr>
<td></td>
<td>Enrollment minimum of 6</td>
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<td>Enrollment maximum of 20</td>
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<tr>
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<td><strong>Letter Grade or Pass/Fail</strong></td>
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<td>Consent required for all students</td>
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<tr>
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<td>Consent is required if student has not taken 183.638.</td>
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<tr>
<td></td>
<td>Prerequisite: 183.638 - Mechanisms of Cardiopulmonary Control or consent of instructor</td>
</tr>
</tbody>
</table>

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3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
THIRD TERM
COURSE SCHEDULE 2011-2012
January 23 - March 16, 2012

PLEASE CHECK EXTRADEPARTMENTAL LISTING FOR COURSES IN INDIVIDUAL DEPARTMENTS.

183.820.01  THESIS RESEARCH PHYSIOLOGY
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

183.830.01  POSTDOCTORAL RESEARCH PHYSIOLOGY
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

183.840.01  SPECIAL STUDIES AND RESEARCH PHYSIOLOGY
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

183.861.01  CURRENT RESEARCH IN PHYSIOLOGY
Course offered this year
(1 credits)
An, Steven
Covers current research topics in environmental and medical physiology. At least once during the year students present a seminar describing their current research project.
Upon successfully completing this course, students will be able to:
1. assess ongoing research in environmental and medical pathophysiology
2. analyze how basic and cellular mechanisms contribute to the environmental and medical pathophysiology
E-mail: san@jhsph.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment minimum of 10
No Maximum
Pass/Fail

Consent required for all students

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
187.621.01  PUBLIC HEALTH TOXICOLOGY: ADVANCED TOPICS
Course offered this year
(1 credits)
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.
Upon successfully completing this course, students will be able to:
1. Critically read and review scientific papers in Toxicology
2. Analyze many of the laboratory techniques used in Toxicology research as they are presented in the literature
E-mail: jbressle@jhsph.edu
Lecture: M 4:00 PM - 5:20 PM
Enrollment minimum of 10
No Maximum
Pass/Fail
Students must register for all four terms of this course.

187.630.01  XENOBIOTIC METABOLISM AND BIOMARKER DEVELOPMENT
Course offered this year
(4 credits)
Groopman, John
Focuses on the metabolism of xenobiotics and on toxicokinetics and dynamics and is largely literature-based. Discusses pathways and concepts of xenobiotic metabolism thru review of the literature inside and outside the classroom, and applies concepts thru classroom discussion of pertinent research papers. Emphasizes experimental design with analytical techniques, and incorporates strategies for writing and evaluating laboratory research grants. Prepares PhD students for a career in toxicology laboratory research.
Information not required for this course type
E-mail: jgroopma@jhsph.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment minimum of 10
No Maximum
Course restricted to PhD students in the Department of Environmental Health Sciences - Division of Toxicology
Letter Grade or Pass/Fail
Consent required for all students
Course will be held in departmental space.
Course Change Information: CourseTitle, InstructorConsentId, CourseOfferRationaleNote, 09/09/2011;
187.820.01  THESIS RESEARCH TOXICOLOGICAL SCIENCES
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

187.830.01  POSTDOCTORAL RESEARCH TOXICOLOGICAL SCIENCES
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

187.840.01  SPECIAL STUDIES AND RESEARCH TOXICOLOGICAL SCIENCES
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

187.861.01  TOXICOLOGY SEMINAR
Course offered this year
(2 credits)
Bressler, Joseph
Students, postdoctoral trainees, and faculty in EHS present scientific papers from the current literature dealing with biochemical and molecular mechanisms of toxicity agents.
Upon successfully completing this course, students will be able to:
1. Read and critically evaluate scientific papers
2. Assess new methodological approaches in the area of biochemistry, molecular biology, cell biology and genomics
3. Analyze pathways of toxicity at the molecular, cellular and tissue levels
E-mail: jbressle@jhsph.edu
Enrollment minimum of 10
No Maximum
Restricted to TOX students in EHS
Pass/Fail
Consent required for all students
Prerequisite: 187.610 (previous or concurrent)

188.685.01  OCCUPATIONAL AND ENVIRONMENTAL HEALTH NURSING
Course offered this year
(2 credits)
Fitzgerald, Sheila

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Focuses on occupational and environmental health and the role of the nurse in these settings. Emphasizes the interaction of the worker with his/her work place and the maintenance of health and prevention of disease. Seminars and directed reading focus on approaches to recognizing and preventing occupational and environmental disease, selected hazardous exposures and their health effects, and the components of an occupational health program. A field trip to a local industry provides an opportunity to participate in a plant walk-through and to complete a written workplace assessment that incorporates the nursing process.

Upon successfully completing this course, students will be able to:

1. Examine the elements of an occupational and environmental health program and the role of the nurse as a member of the health and safety team
2. Analyze the impact of occupational and environmental exposures on the development of acute and chronic health effects in the worker
3. Define the role of the nurse in the prevention and management of occupational and non-occupational disease, disability and injury
4. Apply the nursing process in the completion of a written workplace assessment designed to evaluate health and safety
5. Identify the professional standards and ethical issues in the delivery of occupational health

E-mail: sfitzger@jhsph.edu
Lecture: T 5:00 PM - 6:50 PM
Enrollment minimum of 4
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
Course is held in the School of Nursing building.

188.686.01 CLINICAL ENVIRONMENTAL AND OCCUPATIONAL TOXICOLOGY
Course offered this year
(3 credits)
Weaver, Virginia
Through a variety of methods, explores adverse impacts on human health from a wide range of environmental and occupational toxicants. Covers toxicant-related health effects by organ system and by selected chemical categories, including metals, pesticides, solvents, and asphyxiants. Discusses the use of biomarkers in clinical evaluations of exposed individuals and populations. Addresses prevention of adverse health effects in exposed populations and assessment of causal relations. Presents a wide range of information resources which are then utilized in course work. Utilizes case -based examples throughout the course.

Upon successfully completing this course, students will be able to:

1. Recognize adverse health effects of environmental and occupational toxicants in individual patients and/or populations
2. Develop a public health-based approach to clinical assessment that includes
   3. Obtaining a detailed occupational/environmental history
4. Utilizing a resource base, including the Internet
5. Discussing the application of appropriate diagnostic tests, such as biomarkers
6. Defining an evaluation and management plan for exposed patients and/or populations

E-mail: vweaver@jhsph.edu
Lecture: W F 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
### Epidemiology

**340.606.01 SYSTEMATIC REVIEWS AND META-ANALYSIS**

Course offered this year  
(5 credits)  
Dickersin, Kay and Li, Tianjing  

Presents basic methods in qualitative and quantitative meta-analysis, including formulating a hypothesis that can be addressed via meta-analysis, methods for searching the literature, abstracting information, and synthesizing the evidence. Quantitative methods include Bayesian and likelihood approaches to meta-analysis.

Upon successfully completing this course, students will be able to:

1. Perform a systematic review and meta-analysis addressing an epidemiologic or clinical research question
2. Formulate a focused research question
3. Conduct a comprehensive search for relevant research
4. Assess study quality and abstract the data
5. Evaluate heterogeneity of the evidence
6. Synthesize and assess the study results both qualitatively and quantitatively
7. Interpret the results and construct a report
8. Describe the various analytic approaches used in meta-analysis
9. Describe the challenges associated with performing and interpreting systematic reviews

E-mail: kdickers@jhsph.edu
Lecture: M F 3:30 PM - 5:20 PM
Enrollment minimum of 5
Enrollment maximum of 50

Letter Grade or Pass/Fail
Prerequisite: 340.601 or 340.751 and 140.622.
Letter grade only, no pass/fail

Course Change Information:
TargetAud, CourseLocation, CourseFormat, IRBSurvey, AuditorsAllowedId,
ExpectedEnrollNumber, CourseOfferRationaleNote,
ContactPerson2, ContactEmail2, StartingOfferYear,
RepeatableRetakable, ScheduleTypeld, LabScheduleTypeld, LabTime, CPIinstructor,
.12/14/2010;

340.607.01 INTRODUCTION TO CARDIOVASCULAR DISEASE EPIDEMIOLOGY
Course offered this year
(4 credits)
Coresh,Josef
Discusses the epidemiology and prevention of cardiovascular disease, focusing on coronary heart disease, stroke, and end stage renal disease, emphasizing the interrelationships of biological and behavioral aspects. Focuses on established major modifiable risk factors for cardiovascular diseases, putative risk factors, and genetic susceptibility. Covers the social burden of disease and prevention strategies.

Upon successfully completing this course, students will be able to:

1. Discuss the definition and symptoms associated with the various cardiovascular diseases, including coronary artery disease, cerebrovascular disease, and kidney disease
2. Describe the major cardiovascular disease risk factors (hypertension, hypercholesterolemia, obesity, diabetes, and smoking) as well as key pathophysiologic processes (atherosclerosis, inflammation and oxidative damage)
3. List the pathogenic sequence of events leading to atherosclerosis and cardiovascular disease is discussed as well as the environmental, behavioral and genetic influences on the underlying processes
4. Discuss strategies for primary and secondary prevention as well as relevant cohort studies and clinical trials are reviewed
5. Discuss risk score and behavioral aspects of risk as a basis for prevention as a foundation for epidemiologic study design and research

340.609.01 CONCEPTS AND METHODS IN INFECTIOUS DISEASE EPIDEMIOLOGY
Course offered this year
(3 credits)

E-mail: jcoresh@jhsph.edu
Lecture: M W F 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
Prerequisite: 340.751 or 340.601 or equivalent; 140.622 or equivalent; and knowledge of clinical and pathological aspects of diseases covered
Moss, William and Lessler, Justin
Develops deeper understanding of the concepts and quantitative methods unique to infectious disease epidemiology, building upon the concepts and methods of general epidemiology and knowledge of specific infectious diseases. Topics include disease emergence, transmissibility and the basic reproductive number, transmission patterns and serial intervals, seasonality, virulence, the impact of heterogeneity host and pathogens on transmission, herd immunity, co-infections and phylodynamics.

Upon successfully completing this course, students will be able to:
1. identify concepts and methods unique to the epidemiology of infectious diseases
2. link appropriate methods with fundamental research questions in infectious disease epidemiology
3. interpret analyses of key concepts in infectious disease epidemiology, including spatiotemporal transmission patterns, seasonality and the impact of selective pressures on pathogen dynamics
4. critically evaluate different approaches to the measurement of key variables in infectious disease epidemiology
5. Discuss methods and techniques to address challenges unique to infectious disease epidemiology, including network analysis, methods for determining contact rates and the heterogeneity of host responses to pathogen exposure

E-mail: wmoss@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment minimum of 5
Enrollment maximum of 30
Letter Grade or Pass/Fail
Prerequisite: 340.752 and 340.627 Epi of Infectious Diseases

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.

Upon successfully completing this course, students will be able to:
1. Describe the epidemiology of tuberculosis
2. Explain the basic concepts of tuberculosis infection, disease, prevention and treatment, and the correlation between HIV infection and tuberculosis
3. Evaluate tuberculosis literature and apply it to tuberculosis control needs of the present and future in both industrialized and non-industrialized populations

E-mail: jegolub@jhsph.edu
Lecture: T 1:30 PM - 3:20 PM
Enrollment minimum of 6
No Maximum
Letter Grade or Pass/Fail
Jointly offered with IH

Beaty, Terri
(3 credits)
Course offered this year
Prerequisite: 340.752 and 340.627 Epi of Infectious Diseases

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Addresses methods for incorporating genetic markers into conventional epidemiologic study designs as risk factors. Looks at ways statistical evidence of association between markers and disease risk should be interpreted. Introduces both case-control and family-based study designs, as well as statistical methods for testing hypotheses of linkage disequilibrium (or association). Examines the interpretation of tests for interaction between genes and environmental factors. Topics covered also include problems of interpreting genome wide association studies.

Upon successfully completing this course, students will be able to:

1. Explain how family data can be used to test for genetic control of a disease or phenotype
2. Estimate familial correlations for quantitative phenotypes from family data
3. Use currently available software to check for structural errors in family data, estimate allele frequencies, check for Mendelian inconsistencies and describe familial aggregation of both qualitative and quantitative phenotypes
4. Explain how models of inheritance are fit to family data and interpret published articles on segregation analysis of complex phenotypes
5. Explain what linkage analysis means, and the relationship between meiotic recombination, crossing over, genetic distance and mapping functions
6. Interpret published articles on parametric or model based linkage analysis for both qualitative and quantitative phenotypes
7. Use currently available software to estimate recombination fraction from informative multiplex families and test for linkage between a single marker and a disease phenotype using maximum likelihood methods
8. Use currently available software to estimate the map position of an unobserved trait locus and a fixed framework map of multiple markers to map genes
9. Explain how variance components models can be used to identify quantitative trait loci (QTL) that are used to map genes for quantitative phenotypes
10. Interpret and critically evaluate non-parametric or model free methods for linkage analysis of complex phenotypes

E-mail: tbeaty@jhsph.edu
Lecture: T TH 8:30 AM - 9:50 AM
Enrollment minimum of 10
Enrollment maximum of 30
Letter Grade or Pass/Fail
Consent required for all students
Prerequisite: 140.621-622 or 140.651-652; 340.664

340.633.01 DATA MANAGEMENT IN CLINICAL TRIALS
Course offered this year
(3 credits)
Shade, Dave

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Acquaints students with important principles of the acquisition, management, and distribution of data in the clinical research environment. Topics focus on real-world needs of investigators and emphasizes those issues that researchers need to understand to work effectively with other members of study teams, including coordinators, data entry staff, programmers, and data managers. Does not focus on any particular type or size of study but covers topics that apply to many studies, and discusses approaches ranging from small single-investigator trials using only a spreadsheet through international networks using sophisticated web-based data management systems. Discussions often stress the benefits and costs of alternatives rather than recommending particular courses of actions. Does not focus on computer programming, although it combines practical and hands-on exercises with advanced treatment of important concepts.

Upon successfully completing this course, students will be able to:

1. explain basic and advanced concepts of data management
2. make reasonable decisions about how to collect and manage data for studies of various sizes and budgets
3. evaluate alternative courses of action and policies regarding data collection and management issues in a trial
4. integrate data management activities into the conduct of a research project
5. communicate with or supervise other study staff involved with data management issues

E-mail: dshade@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment minimum of 5
Enrollment maximum of 25
Letter Grade or Pass/Fail

Prerequisite: 340.645 (Introduction to Clinical Trials) OR 550.711 (Methods in Clinical Research) OR 140.642 (Design of Clinical Experiments) OR permission of the instructor

Replaces 340.856 (SS/R Data Mgmt in Clinical Trials).
HEALTHCARE EPIDEMIOLOGY

Course offered this year
(4 credits)
Milstone, Aaron and Perl, Trish
Introduces the history, descriptive epidemiology, surveillance methods, and economics of exploration of the most important factors influencing nosocomial infections, especially those in pediatric and adult services. Describes and analyzes methods for control of nosocomial infection, including primary and secondary interventions. Also discusses alternative interventions and parallels between contemporary and traditional approaches in developing countries.

Upon successfully completing this course, students will be able to:
1. Introduce the principles of counting/identifying healthcare-associated infections, organisms resistant to antimicrobial agents, or organisms that are epidemiologically important.
2. Review their epidemiology, and the risk factors for developing colonization and infection.
3. Review the data supporting important infection control and antibiotic management strategies for the types of infections and for certain epidemiologically important organisms.
4. Effectively respond to questions about exposure to communicable diseases and appropriate prevention and control strategies.
5. Explain the impact that healthcare associated infections have on patient safety.

E-mail:amilstone@jhsph.edu
Enrollment minimum of 5
No Maximum
Letter Grade or Pass/Fail

EPIDEMIOLOGY AND NATURAL HISTORY OF HUMAN VIRAL INFECTIONS

Course offered this year
(6 credits)
Farzadegan, Homayoon
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.

Upon successfully completing this course, students will be able to:
1. Describe the common structures and functions of viruses and their components, including genetics, etc
2. Identify the main steps of viral pathogenesis
3. Discuss virus-host interactions
4. Recognize the advantages and limiting factors related to antiviral treatment options
5. List several viruses and describe the processes by which they can cause cancer
6. Recall the interaction between viral agents and other factors in the disease pathway
7. Compare the pathogenesis of retroviruses with other viruses, including the mechanisms of invasion and integration and synthesis of new viral particles
8. Recognize and describe the issues of treatment, prevention, and future concerns of human immunodeficiency virus and AIDS
9. Compare and contrast the epidemiology and natural history of other human viral pathogens, including influenza, herpes simplex virus, bovine spongiform encephalitis and others

340.705.01 ADVANCED SEMINAR IN SOCIAL EPIDEMIOLOGY

Course offered this year
(3 credits)
Glass, Thomas

Offers doctoral students an opportunity to synthesize theories and methodologies from the social and behavioral sciences and epidemiology. Highlights current controversies and practices in the evolving field of social epidemiology. Topics include: (a) the role of theory in epidemiology, (b) fundamental causes and the problem of “distality”, (c) how social factors affect the body, (d) modeling of social factors and health, and (e) area-based influences on health. Course is oriented toward research rather than practice.

Upon successfully completing this course, students will be able to:

1. Define and describe the origins, history, and major approaches to the study of social conditions as determinants of health at the population level
2. Identify and describe 7 distinct core areas of research within the field

3. Distinguish between and apply leading theories that have guided the field of social epidemiology
4. Apply concepts, theories and methods from the field of social epidemiology to a research problem of interest to the student
5. Construct theoretical arguments and select appropriate methods for analyzing the influence of upstream social processes on population health
6. Operate within a seminar course format

Consent required for all students
Consent of instructor is required.
Prerequisite: 140.654 or 140.624, 340.602, and one graduate level course in social or behavioral sciences
140.658 Statistics for psychosocial research strongly recommended.
340.730.01  ASSESSMENT OF CLINICAL CARDIOVASCULAR DISEASE

Course not offered until 2012 - 2013
(2 credits)
Miller, Edgar R.
Familiarizes students with techniques used to detect and quantify the presence of clinical cardiovascular disease. Initially, students tour the hospital, medical records department, angiography, echocardiography, and vascular laboratories. Students as a group observe radiographic (CT and MRI) imaging of atherosclerosis and review gross and histological specimens of atherosclerosis in the pathology laboratory. In addition, each student makes direct observations of any one imaging technique including cardiac or carotid echocardiography, coronary of peripheral angiography, coronary calcium scores using EBCT or Helical CT, or clinical assessment of blood pressure and ankle/brachial index.

Information not required for this course type.

E-mail: milleredg@mail.nih.gov
Enrollment minimum of 2
Enrollment maximum of 8
Letter Grade or Pass/Fail
Consent required for all students
Screening and scheduling required prior to start.
Prerequisite: 340.601

340.753.01  EPIDEMIOLOGIC METHODS 3

Course offered this year
(5 credits)
Gange, Stephen and Mehta, Shruti

Third offering in the Epidemiologic Methods sequence. Expands on the presentation of modern epidemiologic inference emphasizing the theory and practice of epidemiologic data analysis. Covers, in detail, detection and analysis of confounding and effect modification using multivariable models in the context of the major epidemiological study designs. Develops an understanding of the underlying principles & assumptions, practical application, and correct interpretation of the epidemiologic results using appropriate multivariable models. Provides experience through laboratory exercises with applying epidemiologic analysis in both infectious and non-infectious disease settings.

Upon successfully completing this course, students will be able to:

1. Link appropriate analytic models with public health research questions and epidemiologic study designs
2. Conduct and interpret epidemiologic analyses from a range of multivariable models (including linear, logistic, and Cox regression models)
3. Account for the presence of confounding bias using both stratified approaches and multivariable regression
4. Identify and critically evaluate different approaches to modeling complex exposures including dose-response relationships & time-varying exposures
5. Analyze data for the presence of effect modification
6. Critically discuss model limitations with respect to: misspecification, outliers and residual bias

E-mail: sgange@jhsph.edu
Lecture: M W F 8:30 AM - 9:50 AM
Lab: M F 10:00 AM-11:50 AM
Lab: M W 10:00 AM - 11:50 AM
Lab: M W 10:00 AM - 11:50 AM
Special Lab Number: 340.953
Enrollment minimum of 30
Enrollment maximum of 220
No auditors permitted.

**Letter Grade or Pass/Fail**

Consent required for some students
Consent required for special students and non-JHSPH students.

Prerequisite: Epidemiologic Methods 1 and 2 (340.751, 340.752), Statistical Methods in Public Health I and II (140.621, 140.622) or Methods in Biostatistics I and II (140.651, 140.652), and prior or concurrent enrollment in Statistical Methods in Public Health III (140.623) or Methods in Biostatistics III (140.653).

You must register for one lab 340.953 when you register for this course. Labs begin at 10:15 AM.

Course Change Information:
CourseOfferRationaleNote, CourseSectionNote, LabNumber, LabTime, .09/09/2011;

**340.763.01 PROFESSIONAL EPIDEMIOLOGY METHODS I**

Course offered this year
(4 credits)
Althoff,Keri and Baral, Stefan

Provides a methodological framework for addressing public health scenarios utilizing three essential functions - health situation analysis, public health surveillance and health promotion. Through the application of core concepts and methods covered previously, students develop competencies for public health practice at local, state, national and international health departments and organizations using real epidemiological and public health data. Emphasizes the use of public health information systems for measuring population health burdens, developing epidemiological profiles, conducting health situation analyses, and communicating results to decision-makers. Covers: epidemiological methods for public health surveillance, including novel measurement approaches for “real and near real time” surveillance, syndromic surveillance and surveillance of public health events.

Upon successfully completing this course, students will be able to:

1. Conduct a health situation analysis for an identified health priority
2. Identify and critically evaluate and use public health surveillance and other information systems to develop epidemiological and population health profiles
3. Identify the main epidemiological metrics and tools needed for measuring population health burden
4. Recognize the different components and types of epidemiological analyses and methods needed in public health surveillance, including “real and near real time” surveillance
5. Identify some of the key aspects in communicating public health results to decision-makers for effective public health promotion

E-mail: kalthoff@jhsph.edu
Lecture: M W 9:00 AM - 10:20 AM
Lab: F 8:30 AM - 10:20 AM

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
### Third Term Information

**Course Schedule 2011-2012**

**January 23 - March 16, 2012**

Please check extradepartmental listing for courses in individual departments.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Enrollment Minimum</th>
<th>Maximum</th>
<th>Grade Mode</th>
<th>Prerequisite</th>
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</thead>
<tbody>
<tr>
<td>340.800.01</td>
<td>MPH Capstone Epidemiology</td>
<td>2</td>
<td>10</td>
<td>200</td>
<td>Pass/Fail</td>
<td>340.608 Observational Epid or 340.752 Epidemiologic Methods 2</td>
</tr>
<tr>
<td>340.810.01</td>
<td>Field Placement Epidemiology</td>
<td>Variable</td>
<td>10</td>
<td></td>
<td>Pass/Fail</td>
<td></td>
</tr>
<tr>
<td>340.820.01</td>
<td>Thesis Research Epidemiology</td>
<td>Variable</td>
<td>10</td>
<td></td>
<td>Pass/Fail</td>
<td></td>
</tr>
<tr>
<td>340.830.01</td>
<td>Postdoctoral Research Epidemiology</td>
<td>Variable</td>
<td>10</td>
<td></td>
<td>Pass/Fail</td>
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</tr>
</tbody>
</table>

**Lab:** F 1:30 PM-3:20 PM

**Special Lab Number:** 340.963

**Enrollment minimum of 10**

**Enrollment maximum of 200**

**Letter Grade or Pass/Fail**

**Prerequisite:** 340.608 Observational Epid or 340.752 Epidemiologic Methods 2

**Lab:** F 1:30 PM-3:20 PM

**Special Lab Number:** 340.963

**Enrollment minimum of 10**

**No Maximum**

**Pass/Fail**

**Course offered this year**

(2 credits)

**Must have 1-4 credits per term for two terms.**

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.

**Enrollment minimum of 10**

**No Maximum**

**Pass/Fail**

**Consent required for all students**

**Consent from the Capstone Supervisor is Required**

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

**Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).**

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
### 340.840.01  SPECIAL STUDIES AND RESEARCH EPIDEMIOLOGY

- Course offered this year
- (variable credits)
- Information not required for this course type
- Enrollment minimum of 10
- No Maximum
- Pass/Fail

### 340.860.01  CURRENT TOPICS IN EPIDEMIOLOGIC RESEARCH

- Course offered this year
- (1 credits)
- Gange, Stephen and Beaty, Terri
- Provides overview of proposed and ongoing research within the Epidemiology department or field and offers an opportunity for discussion and clarification of epidemiologic methods as applied in research settings.
- Information not required for this course type
- E-mail: sgange@jhsph.edu
- Lecture: M F 12:00 PM - 1:20 PM
- Enrollment minimum of 10
- No Maximum
- Pass/Fail
- Prerequisite: prior or concurrent epidemiologic methods course (340.601 or 340.751).

### 340.863.01  DOCTORAL SEMINARS IN EPIDEMIOLOGY

- Course offered this year
- (3 credits)
- Celentano, David and Gange, Stephen
- 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.
- Upon successfully completing this course, students will be able to:
  1. discuss epidemiology research, controversies, ethics, and help form their professional identities
- E-mail: dcelenta@jhsph.edu
- Enrollment minimum of 5
- Enrollment maximum of 45
- Post-comprehensive, second year doctoral students in Epidemiology
- Pass/Fail
- Consent required for all students
- Enrollment restricted to 2nd year Epidemiology doctoral students
- Prerequisite: 340.751-754 and department written comprehensive exam.
- Students will write their dissertation proposals during this term. Group will meet 2-3x during the term.
- Course Change Information:
- Prerequisite, CourseOfferRationaleNote, CourseSectionNote, CPInstructor, .10/07/2011;

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3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
340.871.01  WELCH CENTER RESEARCH SEMINAR

Course offered this year
(1 credits)
Selvin, Elizabeth

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.

Upon successfully completing this course, students will be able to:
1. read and critically evaluate scientific papers
2. give a presentation and lead a discussion related to a research article
3. critique analytic methods in the published literature
4. describe the strengths and weaknesses of various methodological approaches in clinical epidemiology and cardiovascular epidemiology

E-mail: lselvin@jhsph.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment minimum of 10
Enrollment maximum of 25
MHS/ ScM, PhD, ScD, DrPH students in Epidemiology, others with consent of instructor only.

Pass/Fail
Consent required for some students
Students from departments and programs outside of Epidemiology must meet with and obtain permission from the instructor to take the course prior to registration.

340.895.01  MPH PRACTICUM: EPIDEMIOLOGY

Course offered this year
(variable credits)

Students who have not met the practicum requirement, must register for at least two credits

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

Information not required for this course

Enrollment minimum of 10
No Maximum
Pass/Fail

Extradepartmental

THIRD TERM
COURSE SCHEDULE 2011-2012
January 23 - March 16, 2012

PLEASE CHECK EXTRADEPARTMENTAL LISTING FOR COURSES IN INDIVIDUAL DEPARTMENTS.
550.001.01 ENGLISH FOR ACADEMIC PURPOSES I

Course offered this year

Hong Smith, Vicki

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

Upon successfully completing this course, students will be able to:
1. Apply strategies used in the three main stages of the Writing Process. Spiral strategies include brainstorming, outlining, drafting, proofreading, rewriting and editing
2. Formulate an effective thesis statement
3. Support thesis with concrete supporting details
4. Avoid global errors such as fragments, run-on/splice sentences, dangling modifiers
5. Avoid errors in tenses and agreements
6. Correctly incorporate quotation, summary, and paraphrase when citing outside sources
7. Correctly apply required parenthetical documentation and bibliographical documentation format

E-mail: vhongs@jhsph.edu

Lecture: SA 10:30 AM - 3:20 PM

Enrollment minimum of 5
Enrollment maximum of 12

Letter Grade or Pass/Fail
Consent required for some students
Consent of Student Affairs required. Please email contact person.

550.851.01 PHASE INTERNSHIP

Course offered this year
(variable credits)

1-6 credits. Course includes planning and internship.

Resnick, Beth A.

Public Health Applications for Student Experience (PHASE), provides students with insight on how a degree in public health can be applied to practice-based careers. The PHASE internships give students opportunities to synthesize, integrate and apply academic theory into real world settings. Provides students with 'real-world' exposures and opportunities for hands-on experiences. Exposes students to public health careers. By working on a project on-site, students develop a better appreciation of how public health agencies function and engage in public health decision-making.

Upon successfully completing this course, students will be able to:
1. Apply academic knowledge and theory in a real world public health practice setting
2. Participate in public health practitioner meetings
3. Write a concept paper outlining the project aims, objectives and specific deliverables
4. Perform background research and data analysis as necessary
5. Summarize their PHASE experience and project findings in a final paper
6. Present the project at the PHASE symposium

E-mail: bresnick@jhsph.edu

Enrollment minimum of 10
No Maximum
undergraduates not permitted

Letter Grade or Pass/Fail
Consent required for all students
all students must obtain consent.

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

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
550.864.01  BALTIMORE COMMUNITY PRACTICUM

Course offered this year
(variable credits)
1-4 per term
Levin, Mindi

Students conduct a project involving a defined denominator population at a community-based organization or local health department. They also participate in seminar sessions which cover basic methods of outreach to community organizations, attitudes and values about the role of professionals in community-based work, the social contract required of service professionals, and the attitudes required for effective public health practice.

Upon successfully completing this course, students will be able to:

1. Describe in detail, as well as summarize, the development and operation of an on-going community-based public health project
2. Describe the organizational structure of one particular public health practice site and its relationship with its community
3. Demonstrate practical methods for promoting partnerships between communities, public health agencies, academic institutions, and community-based organizations
4. Explain the basic concepts of community-based participatory research, service-learning, and civic professionalism
5. Articulate their values and attitudes about community engagement and ways of developing partnerships
6. Demonstrate effective communication and presentation skills, as well as how to give and receive constructive feedback from peers, supervisors, and community members

7. List and briefly describe in their final presentation and paper, the ten most important items of content discuss learned from their faculty and preceptors and documented in their journal

E-mail: mlevin@jhsph.edu
Lecture: F 12:00 PM - 1:20 PM
Enrollment minimum of 10
Enrollment maximum of 25

Pass/Fail
Consent required for all students
All students must get consent of instructor
Prerequisite: None

550.870.01  SS/R: OCCUPATIONAL MEDICINE RESIDENCY-PRACTICUM YEAR

Course offered this year
(variable credits)
Depends on rotations, courses, and research workload.
Weaver, Virginia and Schwartz, Brian
Occupational medicine resident physicians perform a series of clinical, administrative, regulatory, and plant-based rotations throughout the year.

Information not required for this course type

E-mail: vweaver@jhsph.edu
Lecture: TBA
Enrollment minimum of 10
No Maximum
Residency training.
Pass/Fail
Consent required for all students
Must have approval of program director.

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
550.880.01 SS/R: GENERAL PREVENTIVE MEDICINE
RESIDENCY-MPH
Course offered this year
(1 credits)
Alexander,Miriam
Information not required for this course
type
E-mail: mhalexan@jhsph.edu
Lecture: TBA
Enrollment minimum of 10
No Maximum
Restricted to MPH/GPMR during MPH year.
Pass/Fail

550.890.01 SS/R: GENERAL PREVENTIVE MEDICINE
RESIDENCY-RESIDENCY YEAR
Course offered this year
(variable credits)
Range of 12-16 credits
Alexander,Miriam
Information not required for this course
type
E-mail: mhalexan@jhsph.edu
Lecture: TBA
Enrollment minimum of 10
No Maximum
Restricted to GPMR during post MPH year.
Pass/Fail

551.605.01 CASE STUDIES IN MANAGEMENT DECISION-
MAKING
Course offered this year
(3 credits)
Alleyne,George and Peters,David

Students analyze problems and develop strategies
based on real dilemmas faced by decision-makers.
Students formulate positions before class and
actively participate in discussion during class.
Cases come from both International and U.S.
settings, and deal with issues such as: conflict
between budget and program offices, working with
governing boards, contracting between government
and non-government providers, dysfunctional
clinics, reforming hospitals, managing local politics,
cutting budgets and collaborating in informal
organizations. Develops skills in leadership,
negotiation, analysis, communication, and human
resource management.

Upon successfully completing this
course, students will be able to:

1. Identify roles, motivation, points
   of conflict, and means of resolution
   between program and budget
   officials in a public agency
2. Identify how budget processes
   should be designed to improve
   organizational effectiveness
3. Analyze how dynamics of human
   relationships and communications
   affect organizational effectiveness
4. Practice communication skills to
   improve organizational effectiveness
5. Identify transitions in a non-profit
   organization
6. Identify how different models of
   board behavior can be used to
   manage organizational transition
7. Outline a plan for succession in
   an organization from the perspective
   of a consultant
8. Write a usable contract for health
   and social services
9. Identify the limitations of
   contracting for health and social
   services, and how to deal with them
10. Apply ethical approaches to
    practical health care program
decisions

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
11. Identify how conflict emerges and how to deal with it in highly decentralized organizations
12. Identify and plan how to manage ambiguity in health organizations
13. Develop strategies to deal with complex human resource issues in health care using imperfect data and with pressures to save money
14. Identify how confusion of mission and conflict of interest operate at board and management levels in a health care organization
15. Practice good participation in a conflict-ridden meeting of a health organization

E-mail: galleyne@jhsph.edu
Lecture: W 1:30 PM - 4:20 PM
Enrollment minimum of 10
Enrollment maximum of 24
Letter Grade or Pass/Fail
Prerequisite: 551.601, 551.602
Jointly offered with Health Policy and Management, International Health

551.607.01 PHARMACEUTICALS MANAGEMENT FOR UNDER-SERVED POPULATIONS
Course offered this year
(3 credits)
Eng, Maria and Peters, David

Students analyze problems and develop strategies based on real world drug management issues, including regulations, manufacture, procurement, distribution, safety, policy, financing and the unique aspects of international pharmaceutical trade, the role of the World Trade Organization -- Trade-Related Aspects of Intellectual Property Rights (WTO-TRIPS), government, NGOs and individuals in the selection and use of pharmaceutical products. Course materials are drawn from both developed and developing countries so that the student will be knowledgeable about the role of Essential Medicines and the formation of a National Drug Policy. Uses a multidisciplinary approach to provide students with an operational understanding of factors influencing access to and use of pharmaceuticals and other health commodities. Collectively, these materials and approaches are intended to stimulate critical thinking on how to improve access to and the use of pharmaceutical products.

Upon successfully completing this course, students will be able to:

1. Demonstrate the factors influencing access to, use, management, policies and financing of pharmaceuticals in developing countries and under-served populations in developed countries, and the roles of government, Non-Governmental
2. Define key terms and concepts in pharmaceuticals and their management in developing countries and underserved populations in developed countries
3. Identify the different types of health commodities and their regulations in developing countries
4. Explain the key factors in the Drug Management Cycle, including selection, procurement, distribution and use
5. Identify potential obstacles and solutions to problems of access to pharmaceuticals in developing countries

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
6. Explain factors influencing the selection and rational use of pharmaceuticals
7. Identify and explain relative strengths and weaknesses of alternative ways to raise revenues and pay for pharmaceuticals

Letter Grade or Pass/Fail

Prerequisite: This course requires evaluative health services experience as a prerequisite. Either Managing Health Services Organizations (551.601); Health Systems in Low and Middle Income Countries (221.646); Comparative Evaluation for Health Policy in International Health (221.647); Problem Solving in Public Health (550.608); or equivalent course or work experience qualifies.

Jointly offered with HPM,IH
551.610.01 FOUNDATIONS OF LEADERSHIP: A LEADERSHIP SURVEY COURSE
Course offered this year
(3 credits)
Gundlach, Ann-Michele
Students develop an understanding of the role of the organizational leader, and the essential knowledge and skills the role requires. Designed to provide a framework for understanding the process of working effectively with and leading others. Drawing from a variety of disciplines, places emphasis on the role of the leader in relation to organizational effectiveness, developing a vision for the future, leading change, and building adaptive organizational cultures.
Information not required for this course type
E-mail: agundlac@jhsph.edu
Lecture: T 3:30 PM - 6:20 PM
Enrollment minimum of 5
Enrollment maximum of 35
Letter Grade or Pass/Fail
Consent required for all students
All students must receive consent from Jamila Savage to register.
Jointly offered with HPM

410.610.01 HEALTH AND HOMELESSNESS
Course offered this year
(3 credits)
Bone, Lee
Introduces the issues of homelessness and its relationship to health. Lectures, seminars, and community experience present factors leading to homelessness, myths about homelessness, barriers to accessing services, health problems that arise from homelessness, multidisciplinary approaches to health care from homeless persons, and advocacy strategies.
Information not required for this course type
E-mail: lbone@jhsph.edu
Lecture: SA 9:00 AM - 12:20 PM
Enrollment minimum of 15
No Maximum
Letter Grade or Pass/Fail

Health Behavior and Society
410.613.01  PSYCHOSOCIAL FACTORS IN HEALTH AND ILLNESS

Course offered this year
(3 credits)
Latkin, Carl
Reviews studies on the roles of social and psychological factors, such as socioeconomic status, mobility, ethnicity, stress, social support, coping, and illness behavior, in selected health disorders and chronic diseases. Discusses factors in relation to disease etiology, recognition of and response to symptoms, seeking care, the doctor-patient relationship and communication patterns, compliance, the course of disease, and disease outcomes.

Upon successfully completing this course, students will be able to:
1. explain levels of analysis of psychosocial factors
2. delineate prominent theories of behavior change
3. compare measures of psychosocial factors
4. describe and critique quantitative measures of social context
5. analyze the relationship between behavioral factors and chronic and infectious diseases
6. develop behavioral interventions for disease prevention and treatment
7. develop conceptual models of behavior change

E-mail: clatkin@jhsph.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

410.615.01  RESEARCH DESIGN IN THE SOCIAL AND BEHAVIORAL SCIENCES

Course offered this year
(3 credits)
Doherty, Elaine
Provides an overview of the design and conduct of research in the social and behavioral sciences, as applied to public health. Drawing primarily from the research perspectives and methodologies of sociology, anthropology, and psychology, students examine the formulation of a research question; selection of a research design, study site, and population; and issues and methods of data collection. Evaluates the major types of social sciences research design (experimental, quasi-experimental, observation), and discusses the ways in which each social science perspective shapes the conduct and results of research, compared to other disciplines in public health, such as epidemiology.

Upon successfully completing this course, students will be able to:
1. compare different scientific philosophies in social and behavioral sciences, and the theories and methods of research derived from those philosophies
2. define and design theory, hypotheses, constructs, and measurement strategies relevant to scientific inquiry in the social and behavioral sciences
3. evaluate the strengths and weaknesses of a wide range of research designs in the social and behavioral sciences, and consider the strength of scientific evidence presented by these research activities

E-mail: edoherty@jhsph.edu
Lecture: W F 10:30 AM - 11:50 AM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Two terms biostatistics or consent of instructor. Social or behavioral sciences recommended.
410.626.01 ALCOHOL, SOCIETY AND HEALTH

Course offered this year
(3 credits)
Jernigan, David and Baker, Susan

Examines alcohol use and alcohol policy as social, behavioral and political phenomena. Reviews the history of alcohol policy in the United States, as well as U.S. and international epidemiological evidence regarding health harms and possible health benefits of alcohol use. Uses recent neurological research and social science research to inform the question of why people drink. Explores the evidence of effectiveness of various interventions, ranging from individual to structural, for preventing (in the case of underage and other high-risk populations) and reducing harmful use of alcohol.

Upon successfully completing this course, students will be able to:
1. Discuss the role of harmful use of alcohol in international health
2. Discuss the evidence base for interventions to prevent and reduce harmful use of alcohol
3. Assess and create from the evidence base comprehensive strategies to reduce harmful use of alcohol and related health consequences
4. Recognize techniques and pitfalls in implementing effective strategies to reduce harmful use of alcohol and its consequences
5. Participate as informed public health practitioners and researchers in efforts to advance and translate research findings into practice regarding harmful use of alcohol

E-mail: djerniga@jhsph.edu
Lecture: W 5:30 PM - 8:30 PM
Enrollment minimum of 7
No Maximum
Letter Grade or Pass/Fail
Jointly offered with HPM

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.

410.651.01 HEALTH LITERACY: CHALLENGES AND STRATEGIES FOR EFFECTIVE COMMUNICATION

Course offered this year
(3 credits)
Roter, Debra

Introduces the broad areas of literacy and health literacy, discusses approaches to the assessment of key health literacy skills linked to health outcomes, and explores techniques and approaches for the assessment and creation of print material especially appropriate for low literate audiences. Functional health literacy deficits are widespread and represent a significant challenge to the health of the public and the delivery of quality health care. The starting point and theoretical lens of the course is a communication empowerment framework in which levels of health literacy, ranging from functional to critical, are explored in relation to communication strategies designed to foster personal and community engagement in health issues. The framework acknowledges parallels to Paulo Freire’s critique of education and the development of critical consciousness.

Upon successfully completing this course, students will be able to:
1. Appreciate the prevalence of restricted literacy in the US and worldwide, the nature and consequences of literacy for health, and the variety of health literacy definitions
2. Evaluate print communication, including reading burden, format and visual appeal
3. Develop health education print materials suitable for both literate and low literate audiences
4. Recognize the learner’s voice and appreciate the power of facilitating individual and community participation in learning and materials development through the use of traditional and non-traditional formats
5. Develop health education material for a target audience using participatory strategies and production approaches addressed in class.

E-mail: droter@jhsph.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment minimum of 25
No Maximum
Letter Grade or Pass/Fail

410.654.01 HEALTH COMMUNICATION PROGRAMS I: PLANNING AND STRATEGIC DESIGN

Course offered this year
(4 credits)

Storey, Douglas

Focuses on the design, implementation, evaluation, and critique of communication interventions and campaigns designed to change behavior. Emphasizes background analysis (including situation and program analysis; policy, media, and service review; and audience analysis); strategic program design; message development; pretesting; materials production; developing and implementing a research-based distribution plan; monitoring; evaluation; and interpersonal communication and use of mass media, including "entertainment education" projects, as an integral part of health communication programs. Involves lectures, readings, computer exercises, and carrying out a health promotion program.

Upon successfully completing this course, students will be able to:

1. discuss the steps involved in developing, implementing and evaluating a health communication project, intervention or campaign
2. describe the types of research necessary to develop a health communication strategy and design a project
3. develop a workplan for a health communication project
4. design and carry out a sample survey to identify pre- and post-intervention discuss, attitudes and behaviors
5. develop communication messages and materials consistent with a health communication strategy
6. describe appropriate monitoring and evaluation techniques used to track and assess health communication processes and effects
7. describe the elements that make a health communication project effective and critique designs and materials used by actual health communication interventions

E-mail: dstorey@jhuccp.org
Lecture: T 1:30 PM - 5:20 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

Multi-term with 380.632
Grades submitted at end of 4th term. Students are required to meet with TA/Professor one hour a week outside of regular class time.

410.690.01 ETHNOGRAPHIC FIELDWORK

Course offered this year
(4 credits)

Gioia, Deborah

Introduces students to the practice of qualitative research, including the design and conduct of a qualitative research study. Covers theoretical concepts and methods used in ethnographic and other types of qualitative research. Students design and conduct hands-on fieldwork projects in Baltimore. Classroom sessions include lectures, discussion, and intensive group work related to the fieldwork projects.
Upon successfully completing this course, students will be able to:

1. formulate research questions that probe the connections between the public’s health and the social worlds in which individuals and institutions are situated
2. discuss some of the major concepts and theoretical developments that have shaped ‘qualitative’ and ethnographic inquiry from the mid-20th century to the present
3. describe and use multiple methods for the collection and interpretation of ‘qualitative’ or ethnographic data
4. articulate the relative appropriateness of different types of data and methods of data collection and analysis for a particular ‘qualitative’ or ethnographic study
5. manage different sources of textual data collected in the course of a fieldwork project
6. critically read and evaluate archival materials and other ‘qualitative’ and ethnographic texts

E-mail: dgioia@jhsph.edu
Lecture: M W 8:30 AM - 10:20 AM
Enrollment minimum of 18
Enrollment maximum of 54
Letter Grade or Pass/Fail

**410.721.01 TRANSLATING RESEARCH INTO PUBLIC HEALTH PROGRAMS I**

Course offered this year
(2 credits)
Holtgrave, David and Villanti, Andrea

Examines how behavioral research (especially intervention research) is used, and not used, by policy makers and program administrators to determine what public health services are delivered. Defines the major types of decisions made in determining services to deliver in public health programs and major decision analytic methods used to aid these selections. Types of decisions include (1) how much to invest in service for one disease area relative to another, (2) determining if an intervention is affordable for large-scale delivery, and (3) choosing how much to invest in each of several different types of services within one disease area. Methods include decision tree analysis, cost analysis, and cost-utility analysis.

Upon successfully completing this course, students will be able to:

1. identify key decisions that must be made in determining what interventions to use in applied public health programs,
2. identify the roles behavioral research can play in informing this decision making,
3. identify ways to make behavioral research more applicable to this decision making,
4. identify key decision analytic and economic evaluation methods that can be used to aid policy makers and program administrators who must make these decisions,
5. describe the ways in which each of the decision analytic methods has been used (or failed to be used) in a real public health policy situation,
6. apply the methods to a public health area of interest to the learner

E-mail: dholtgra@jhsph.edu
Lecture: T 8:30 AM - 10:20 AM
Enrollment minimum of 10
Enrollment maximum of 50
Letter Grade or Pass/Fail
Consent required for some students
Consent required for MHS students

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Grade for 410.721 submitted upon completion of 410.722.

Course Change Information:
CourseLearningObj, CourseOfferRationaleNote, MultiTermFinalGradeld, CPInstructor, 12/05/2011;

410.752.01 CHILDREN, MEDIA, AND HEALTH
Course offered this year
(3 credits)
Borzekowski, Dina

Participants examine children's use of media and its impact on health. Using a developmental perspective, this course considers different aged children (from preschoolers to teenagers), multiple media formats (print, radio, television, computer games and the internet) and various health concerns (food preferences, consumerism, smoking, violence, weight, and sexuality).

Upon successfully completing this course, students will be able to:
1. Be able to characterize the developmental stages of childhood, from infancy through adolescence
2. Discuss what types of media children use during these different developmental stages
3. Become familiar and use different research methodologies used in Health Communication
4. Perform an exercise where they do Content Analyses and two qualitative Interviews
5. Identify and critique important elements that determine the positive and negative qualities of media used by children and adolescents
6. Assess different media, including print, video, and computer technology
7. Learn about and evaluate how theories and frameworks underlie the successful production of children's media, focusing on Social Cognitive Theory
8. Assess how other theories (especially Cultivation Theory and Uses and Gratification Theory) suggest the media impacts the behavior of children and adolescents

E-mail: dborzeko@jhsph.edu
Lecture: M 9:00 AM - 11:50 AM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
Consent required for undergraduates only.

410.800.01 MPH CAPSTONE HEALTH, BEHAVIOR AND SOCIETY
Course offered this year
(2 credits)

Number of credits depends upon the scope and nature of their project.

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.

Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).
410.810.01  FIELD PLACEMENT HEALTH BEHAVIOR AND SOCIETY
Course offered this year
(variable credits)
McDonald,Eileen
Information not required for this course type
E-mail: emcdonal@jhsph.edu
Enrollment minimum of 10
No Maximum
Pass/Fail

410.820.01  THESIS RESEARCH IN HEALTH BEHAVIOR AND SOCIETY
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

410.830.01  POSTDOCTORAL RESEARCH IN HEALTH BEHAVIOR AND SOCIETY
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

410.840.01  SPECIAL STUDIES AND RESEARCH IN HEALTH BEHAVIOR AND SOCIETY
Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

410.860.01  GRADUATE SEMINAR IN SOCIAL AND BEHAVIORAL SCIENCES
Course offered this year
(3 credits)
Leonard,Lori
Reviews and critiques current literature in the behavioral sciences and evaluates studies from a methodological and conceptual basis.
Information not required for this course type
E-mail: lleonard@jhsph.edu
Lecture: TH 1:30 PM - 4:20 PM
Enrollment minimum of 5
Enrollment maximum of 20
Restricted to HBS doctoral students
Letter Grade or Pass/Fail

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.

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410.861.01  GRADUATE SEMINAR IN COMMUNITY-BASED RESEARCH

Course offered this year
(1 credits)
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.

Information not required for this course type

E-mail: lbone@jhsph.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment minimum of 10
No Maximum
Pass/Fail

410.867.01  MSPH FIELD PLACEMENT PREPARATION

Course offered this year
(1 credits)
McDonald, Eileen
Prepares students to fully understand the MSPH field placement requirements, processes, and opportunities, so that they may make the most of this professional preparation opportunity.

Upon successfully completing this course, students will be able to:

1. Describe your specific career/employment interests so that you can select a field placement that will be most suited your career trajectory
2. Create a resume that effectively communicates your professional skills, strengths, and experiences
3. Evaluate various job/field placement offers to determine their appropriateness and match to your career interests
4. Review and practice interviewing and salary negotiation skills
5. Evaluate your experience and skills related to a variety of job responsibilities common among young professionals (e.g., time management, meeting management, project management, supervision, etc)

E-mail: emcdonal@jhsph.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment minimum of 10
Enrollment maximum of 30
Restricted to MSPH students in HBS
Pass/Fail
Prerequisite: 410.865 and 410.866
410.883.01  MHS IN SOCIAL FACTORS IN HEALTH SEMINAR III
Course offered this year
(1 credits)
German, Danielle
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Focuses on agencies and settings in which public health social science research is conducted.
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Upon successfully completing this course, students will be able to:
1. Recognize the challenges unique to addressing sexual and reproductive health in adolescents and the intersection of adolescent risk-seeking and avoidance and the socio-political context through which sexual and reproductive health outcomes evolve
2. Use the ASRH literature to engage in an informed and lively debate on the most controversial issues in adolescent sexual reproductive health
3. Synthesize information on an adolescent reproductive health issue to prepare a publishable public health document (e.g. position statement, policy brief, or editorial) relevant to the issue
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E-mail: dgerman@jhsph.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment minimum of 10
No Maximum
HBS MHS in Social Factors in Health students
Pass/Fail

410.895.01  MPH PRACTICUM: HEALTH BEHAVIOR AND SOCIETY
Course offered this year
(variable credits)
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Students who have not met the practicum requirement, must register for at least two credits
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The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
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Information not required for this course type
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Enrollment minimum of 10
No Maximum
Pass/Fail

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Health Policy and Management
300.652.01  POLITICS OF HEALTH POLICY

Course offered this year
(4 credits)

Navarro, Vicente

Analyzes the politics of health policy according to the dictum of one of the founders of public health, R. Virchow, “Public Health is a Social Science and Politics is Public Health in its most profound sense.” Focuses on the political reasons for the underdevelopment of health and health care in the U.S. and in the world. Looks at how economic, social, and political power are reproduced through political institutions, and the consequences on the level of health and type of health care that countries have. Critiques the role of national and international agencies such as the WTO, World Bank, IMF, and WHO in facilitating and/or hindering development of health. Also focuses on U.S. governmental policies that diminish or increase the maldistribution of power outside and within the health sector.

Upon successfully completing this course, students will be able to:

1. identify the dynamics of political and economic forces on health
2. analyze how power ---- namely class, race, and gender power --- is reproduced in society, nationally and internationally, and how power affects the health and well-being of populations
3. Discuss the causes of underdevelopment and the reasons for the growth in social inequalities, both worldwide and within nations

E-mail: vnavarro@jhsph.edu
Lecture: F 8:00 AM - 11:50 AM
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail

300.713.01  RESEARCH AND EVALUATION METHODS FOR HEALTH POLICY

Course offered this year

(4 credits)

Webster, Daniel and Castillo, Renan

Introduces basic principles and methods for undertaking scientifically rigorous research with a special emphasis on evaluations of interventions intended to improve health and safety. Focuses on evaluations of health policies, health care delivery systems, and public health programs. Also prepares students to apply the results of health policy research done by others. Topics include the relationship between health services research, health policy research, health policy analysis and health program management; approaches for assessing the impact of health policy and health program implementation; common research designs and their strengths and weaknesses; measurement issues of reliability and validity; survey research techniques; qualitative research methods; quality of care and outcomes measurement; use of existing health and safety data; and basic cost benefit and effectiveness analysis.

Upon successfully completing this course, students will be able to:

1. Critique published health services research and health policy/program evaluations
2. Develop an appropriate study design for a research or evaluation project
3. Describe the relationship between health services research and program evaluation
4. Identify differences between basic and policy-relevant health services research projects and program evaluation
5. Develop a conceptual framework for a study, showing the hypothesized causal variables and the expected outcomes
6. Identify different types of study design, including observational, pre-experimental and experimental designs, and their inherent threats to internal and external validity
7. Describe the basic issues related to measurement of variables
8. Identify problems with measurement reliability and validity
9. Identify aspects of quality of care and its measurement as they relate to health services research projects
10. Discuss how survey research is used in health services research and evaluation, in terms of choice of sampling techniques, determination of sample size, and approaches to writing survey questions
11. Demonstrate discuss of the basic concepts of cost benefit and cost-effectiveness analysis
12. Identify and use appropriate secondary data and existing information sources in research projects

E-mail: dwebster@jhsph.edu
Lecture: T TH 9:00 AM - 10:20 AM
Lab: W 1:30 PM-2:50 PM
Lab: T 1:30 PM-2:50 PM
Lab: T 1:30 PM-2:50 PM
Special Lab Number: 300.913
Enrollment minimum of 10
No Maximum
Restricted to graduate students only

**Letter Grade or Pass/Fail**

Students are encouraged to take HP I and II before this course. PhD/HPM students must register for lab 300.913.01. All other students should register for ONE of the other two lab time options 300.913.02 or 300.913.03

Course Change Information:
CourseOfferRationaleNote, CourseSectionNote, LabTime, .11/11/2011;

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**300.750.01 TEACHING AT THE UNIVERSITY LEVEL**

Course offered this year
(3 credits)
Riley, Anne

Prospective instructors explore and practice key skills, including course planning and development; lecture planning and delivery; discussion leading; evaluating students and courses; and maintaining positive interactions with students. Encourages students to articulate their own educational philosophy. Identifies and discusses characteristics and behaviors of exemplary teachers.

Information not required for this course type

E-mail: ariley@jhsph.edu
Lecture: T 3:30 PM - 6:20 PM
Enrollment minimum of 10
Enrollment maximum of 30
Restricted to 2nd year doctoral students or beyond

**Letter Grade or Pass/Fail**

Consent required for all students
MPH CAPSTONE HEALTH POLICY AND MANAGEMENT
Course offered this year
(2 credits)
Must have 1-4 credits per term for two terms.
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.
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Consent from the Capstone Supervisor is Required.
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.
Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

POSTDOCTORAL RESEARCH HEALTH POLICY AND MANAGEMENT
Course offered this year
(variable credits)
credit registration is negotiated with faculty mentor
Information not required for this course type
Lecture: TBA
Enrollment minimum of 10
No Maximum
Pass/Fail

SPECIAL STUDIES AND RESEARCH IN HEALTH POLICY AND MANAGEMENT
Course offered this year
(variable credits)
student and faculty determine appropriate number of credits for each registration period
Not required for this course type
Information not required for this course type
Enrollment minimum of 10
No Maximum
For MPH students who register for SS/R in HPM.
Pass/Fail
For non-departmental students who register for SS/R in HPM.
Course Change Information:
CreditNote, CourseDesc, CourseLearningObj, EnrollRestriction, EnrollMin, EnrollMax, StudentEval, TargetAud, CourseLocation, CourseFormat, IRBSurvey, AuditorsAllowedId, CourseOfferRationaleNote, CourseSectionNote, ContactPerson, ContactEmail, RepeatableRetakable, ScheduleTypeld, LabScheduleTypeld, .09/09/2011;
MPH PRACTICUM: HPM

Course offered this year
(variable credits)
Students who have not met the practicum requirement, must register for at least two credits
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail

HUMAN RIGHTS FOR PUBLIC HEALTH PRACTITIONERS

Course offered this year
(2 credits)
Rubenstein, Len and Gostin, Lawrence
Considers human rights as a tool, an analytical framework, and a source of ethical guidance in public health practice. Reviews basic concepts in human rights and examines how human rights can contribute to the work of public health practitioners in a variety of roles. These include analysis of public health problems, design of programs, the setting of public health policy, decision-making in day to day practice, research on human rights and public health. Also considers a human rights standard for ethical practice in public health and the linkages between public health practice and the work of human rights organizations in advancing human rights in health.

Upon successfully completing this course, students will be able to:

1. identify the interrelationships between modern concepts of public health and international human rights,
2. Discuss the impact of health policies, programs, and practices on human rights,
3. Discuss the health impacts resulting from violations of human rights

E-mail: lrubenst@jhsph.edu
Lecture: F 1:30 PM - 3:20 PM
Enrollment minimum of 12
Enrollment maximum of 25
Letter Grade or Pass/Fail
Consent required for all students
all students are required to obtain consent
301.820.01  THESIS RESEARCH IN HEALTH POLICY AND MANAGEMENT  
Course offered this year  
(variable credits)  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail  

301.861.01  GRADUATE SEMINAR IN HEALTH AND PUBLIC POLICY  
Course offered this year  
(1 credits)  
Frattaroli, Shannon  
Reviews and critiques current literature in health and public policy and evaluates studies from a methodological and conceptual basis.  
Information not required for this course type  
E-mail: sfrattar@jhsph.edu  
Lecture: TBA  
Enrollment minimum of 10  
No Maximum  
Restricted to Health & Pub Policy HPM doctoral students.  
Pass/Fail  

305.613.01  DESIGN AND EVALUATION OF COMMUNITY HEALTH AND SAFETY INTERVENTIONS  
Course offered this year  
(4 credits)  
Fowler, Carolyn  
Focuses attention on the importance of integrating program evaluation methods throughout the life of community health and safety interventions, from early assessments, through program planning, testing, delivery and measurement of outcomes. Also focuses on the development of practical program planning, implementation and evaluation skills that may be applied in many different areas of public health. Topics include problem definition and analysis; assessing the social and environmental factors that may impact the development, delivery, and outcomes of interventions; identifying intervention points; selecting among educational, regulatory, and technological interventions to achieve maximum likelihood of success; writing measurable program goals and objectives; designing implementation plans; and examining methods to evaluate the efficacy and effectiveness of interventions.  
Upon successfully completing this course, students will be able to:  
1. Describe, and illustrate with sample worksheets, the process required to design, implement and evaluate community health and safety interventions  
2. Demonstrate their ability to use selected conceptual frameworks as part of this process  
3. Demonstrate their ability to prioritize interventions using objective criteria  
4. Explain selected program evaluation methodologies  
5. Describe potential "unintended consequences" of interventions  
6. Discuss common problems encountered in evaluations  
7. Prepare an "intent to submit" program development proposal  
8. Critique a published evaluation article  
E-mail: cfowler1@son.jhmi.edu  
Lecture: M W 1:30 PM - 3:20 PM  
Enrollment minimum of 5  

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Prerequisite</th>
<th>Notes</th>
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<tbody>
<tr>
<td>305.615.01</td>
<td>OCCUPATION INJURY PREVENTION AND SAFETY PRACTICE</td>
<td>Weeks, Jim</td>
<td>At least one occupational health or injury prevention course.</td>
<td>Course not offered until 2012 - 2013</td>
</tr>
</tbody>
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Provides a link between the public health approach to injury prevention, the traditions of safety science and engineering, and their relationship with ergonomics and biomechanics. Topics covered include identifying the injury problem; using surveillance and record-keeping systems; preventing injuries by government, unions, health departments, and industry; and comparing safety sciences and a public health approach to injury prevention.

Upon successfully completing this course, students will be able to:

1. develop strategies for preventing occupational injuries based on the scientific literature
2. describe a public health approach to occupational injury prevention
3. evaluate the roles of industry, government, public health professionals, labor unions, and the media in preventing occupational injuries
4. identify fundamental elements for evaluating interventions to prevent occupational injuries
5. provide a critique of the occupational injury prevention literature

E-mail: jweeks@jhsph.edu
Lecture: TH 3:30 PM - 5:20 PM
Enrollment minimum of 8

No Maximum undergraduate students are not permitted in this course

Letter Grade or Pass/Fail

Prerequisite: At least one occupational health or injury prevention course.

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
305.630.01  TRANSPORTATION SAFETY: POLICY AND POLITICS
Course offered this year
(2 credits)
Baker,Susan and Pollack,Keshia
Provides an overview of the significant role of national politics on transportation safety policy in the United States. Using case studies of notable safety enhancement efforts in aviation, highway, and other transportation modes, students discover the significant roles and interactions of lobbyists, industry associations, politicians, and Federal Agencies in transportation safety research and subsequent safety improvement rulemaking. Through informal lectures, readings and a field trip to the Baltimore Washington International airport tower, students learn that transportation safety and injury prevention improvements often require significant efforts to successfully navigate the path from research findings to interventions that improve the traveling public's safety and health.
Information not required for this course type

E-mail: sbaker@jhsph.edu
Lecture: TH 1:30 PM - 3:20 PM
Enrollment minimum of 8
No Maximum
Letter Grade or Pass/Fail

305.861.01  GRADUATE SEMINAR IN INJURY RESEARCH AND POLICY
Course offered this year
(1 credits)
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.
Information not required for this course type

E-mail: agielen@jhsph.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment minimum of 10
No Maximum
Pass/Fail
306.650.01  **PUBLIC HEALTH AND THE LAW**

Course offered this year  
(3 credits)  
Vernick, Jon and Teret, Stephen  
Introduces non-lawyers to the important role played by the law in determining the public’s health. Students analyze judicial opinions, statutes, and regulations in classroom discussions. Covers substantive legal topics including the balance between individual rights and public health initiatives, privacy, medical malpractice, and informed consent.

Information not required for this course type

E-mail: jvernick@jhsph.edu  
Lecture: T 3:30 PM - 6:20 PM  
Enrollment minimum of 10  
Enrollment maximum of 115  
**Letter Grade or Pass/Fail**  
Consent required for some students  
Consent required of undergraduates

Upon successfully completing this course, students will be able to:

1. Discuss business law as it affects health services delivery, including choice of corporate form, imposition of liability for clinical decision making and regulated financial practices (e.g., health care fraud)

2. Identify and define legal and ethical conflicts arising in the current health care delivery system, including the manner in which particular financial arrangements and management theories create conflict between different legal and ethical principles

3. Examine legislative and judicial responses to conflicts in health care as an expression of public policy and societal concerns

4. Explore the inherent limitations of the legal system to address and resolve conflict and the role of ethical analysis

5. Identify the differences between legal and ethical issues

6. Analyze ethical issues within the context of individuals and collective value systems and the organizational structure, mission and culture of health care delivery systems

7. Utilize different methods of ethical analysis, problem solving, and conflict resolution for ethical disputes

8. Examine reality-based conflict driven fact patterns and analyze legal and ethical issues

E-mail: jdoherty@jhsph.edu  
Lecture: T 9:30 AM - 11:50 AM  
Enrollment minimum of 12  
Enrollment maximum of 40  
**Letter Grade or Pass/Fail**

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Consent required for all students
All students must receive consent from Jamila Savage to register.

306.665.01  RESEARCH ETHICS AND INTEGRITY: U.S. AND INTERNATIONAL ISSUES
Course offered this year
(3 credits)
Kass, Nancy

Acquaints students with an introduction to ethical theory and principles, including ethics requirements when conducting research with human subjects in the U.S. and/or developing countries. Through lectures and small group case discussion, the following topics are covered: ethical theory and principles; informed consent in research; Institutional Review Boards; the just selection of research participants; cultural relativism; genetic research; ethical issues in vaccine research; ethics and human rights; appropriate use of placebos; what is owed to research participants, communities, and countries after research is completed; the use of animals in research; and scientific and academic integrity. Students in this course select to be in the U.S. track or the international track. While most lectures are identical for the two tracks, case discussions and assignments are different. The international track is geared toward international and American students conducting research in developing

Upon successfully completing this course, students will be able to:

1. Discuss ethical theory and the principles of bioethics,
2. To familiarize students with ethics requirements when conducting research with human subjects and with animals in the U.S. and/or developing countries,
3. To instruct students how to recognize the moral considerations inherent to public health research

E-mail: nkass@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment minimum of 10

No Maximum
Letter Grade or Pass/Fail
Consent required for some students
undergraduates must obtain instructor consent prior to registering for this course
Jointly offered with IH
Satisfies school & NIH requirement re: responsible conduct of research

Course Change Information:
CourseLearningObj, InstructorConsentld, ConsentNote, TargetAud, CourseLocation, CourseFormat, IRBSurvey, AuditorsAllowedId, JointlyOffered, DeptCoList, CourseOfferRationaleNote, ContactPerson, ContactEmail, StartingOfferYear, RepeatableRetakable, ScheduleTypeld, LabScheduleTypeld, CPInstructor, .09/14/2010;
306.861.01  GRADUATE DOCTORAL SEMINAR IN BIOETHICS

Course offered this year
(1 credits)
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.

Upon successfully completing this course, students will be able to:

1. have a deeper awareness of and understanding of the literature in bioethics and public health
2. analyze arguments in existing bioethics literature and respond to them independently
3. to synthesize literature across different content areas of bioethics in order to provide linkages in the field
4. to critique one another's work and scholarly arguments.

E-mail: nkass@jhsph.edu

Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for some students

Students who are NOT doctoral students in the bioethics track require permission of the instructor.

306.863.01  GREENWALL SEMINAR SERIES

Course offered this year
(1 credits)
Merritt,Maria

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 grassroots bioethics movements. Students meet with policy makers and scholars in bioethics and health policy.

Information not required for this course type

E-mail: mmerritt@jhsph.edu
Lecture: TBA

Enrollment minimum of 3
No Maximum
Restricted to Greenwall fellows and senior doctoral students in ethics program
Pass/Fail

Consent required for all students
FOGARTY BIOETHICS FELLOWS SEMINAR

Course offered this year
(1 credits)
Kass,Nancy and Hyder,Adnan
Provides a small, interactive setting for discussion of research ethics, ethics committees, and ethics concepts among the trainees and between trainees and affiliated faculty. Sessions are divided among the following activities: reviewing and critiquing journal articles related to research ethics; trainees' individual presentations on practicum research progress; guest speakers related to research ethics cases and/or concepts; and development and presentation of original case studies by each trainee. Topics include standard of care, justice, inducements, research ethics committees, informed consent, and gender roles in research decisions.

Upon successfully completing this course, students will be able to:

1. Discuss key literature in international research ethics
2. Critically analyze case studies in research ethics
3. Present research ethics cases and original research proposals
4. Identify ethics issues in cases related to ethics and research

E-mail: nkass@jhsph.edu
Lecture: TBA
Enrollment minimum of 10
No Maximum
Fogarty African Bioethics Training Program Fellows

THE POLITICAL ECONOMY OF SOCIAL INEQUALITIES AND ITS CONSEQUENCES FOR HEALTH AND QUALITY OF LIFE.

Course offered this year
(3 credits)
Navarro,Vicente
Focuses on the economic and political causes for the growth of social inequalities in the U.S. and in the world and its consequences for health and quality of life. Emphasizes the increasing concentration of power and the way it appears in health and vital statistics. Requires active participation of the students in the discussion of the issues involved. Also discusses the classical works of Wilkinson, Kawachi, Kennedy, Muntaner, Shi, Navarro and others.

Information not required for this course type

E-mail: vnavarro@jhsph.edu
Lecture: TH 5:15 PM - 7:45 PM
Enrollment minimum of 10
Enrollment maximum of 30

Letter Grade or Pass/Fail
Consent required for all students
All students must obtain consent of instructor prior to registering for this class.
308.678.01 CHRONIC CONDITIONS: A KEY POLICY PROBLEM FOR THE 21ST CENTURY

Course offered this year
(3 credits)
Bleich, Sara and Anderson, Gerard

Examines the cost and prevalence of chronic diseases. Some of the examples come from the U.S. while others are drawn from high, middle and low income countries. Examines the policies and programs designed to address some of the major risk factors for chronic disease – obesity, tobacco, and alcohol. The next section focuses on secondary and tertiary prevention programs that have been demonstrated to be effective including disease management and care management. Concludes with a discussion of promising programs/policies aimed at reducing the prevalence of chronic disease, and the key challenges to implementing policies related to chronic disease.

Upon successfully completing this course, students will be able to:
1. describe the burden of disease associated with chronic disease,
2. assess the effectiveness of various interventions to address the major risk factors associated with chronic disease,
3. assess the effectiveness of various interventions to address secondary and tertiary prevention of chronic disease,
4. define the key challenges to implementing policies related to chronic disease

E-mail: sbleich@jhsph.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
Consent required for some students
students planning to audit this course must receive permission of instructor

308.810.01 FIELD PLACEMENT HEALTH POLICY-MSPH

Course offered this year
(variable credits)
program decision
King, Christine and Resnick, Beth A.

Information not required for this course type
Information not required for this course type

E-mail: chking@jhsph.edu
Enrollment minimum of 10
No Maximum
matriculated MSPH/hp students only
Pass/Fail
Consent required for all students
enrollment restricted to MSPH students in HPM only

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
308.867.01  MSPH SEMINAR IN HEALTH POLICY

Course offered this year
(1 credits)
King, Christine and Resnick, Beth A.
Introduces work undertaken in health policy settings and prepares MSPH students in Health Policy and Management for the field placement requirement in the second year of the program.
Upon successfully completing this course, students will be able to:
1. Define Health Policy
2. Identify major arenas of health policy work
3. Discuss the scope of health policy work: what do health policy analysts do? Develop a professional resume targeted toward future employers
4. Write attention-getting cover letters to accompany resumes
5. Begin the process of career networking: start a jobs database, investigate interest areas, Discuss the power of personal contacts
6. Begin the process of career networking: start a jobs database, investigate interest areas, Discuss the power of personal contacts
E-mail: chking@jhsph.edu
Lecture: W 10:30 AM - 11:50 AM
Enrollment minimum of 10
No Maximum
Restricted to MSPH in Health Policy degree candidates
Pass/Fail
Consent required for all students
enrollment is restricted to MSPH-health policy students only

309.608.01  NEW FRONTIERS IN GERONTOLOGY

Course offered this year
(2 credits)
Boult, Chad
Integrates the results of recent research – from several disciplinary and institutional perspectives – on the pressing social and epidemiologic challenges to the health of aging populations. Leading scientists describe the goals and the outcomes of their research, and discuss with the students the process of translating their findings into policy and practical applications to improve the health of aging populations. Sessions address recent scientific advances against major threats to health and independence in later years, e.g., dementia, depression, poverty, frailty, acute conditions, social isolation, and terminal illnesses. Students participate in class discussions and write a paper about the potential for one recent advance to improve the health of members of aging populations.
Upon successfully completing this course, students will be able to:
1. Identify recent innovations that improve the health of older persons
2. Describe the major factors that facilitate and impede the translation of gerontologic research findings into policy and practical applications
3. Evaluate the potential for specific scientific discoveries to improve the quality of life of aging populations
E-mail: cboult@jhsph.edu
Lecture: T 3:30 PM - 5:20 PM
Enrollment minimum of 10
Enrollment maximum of 60
Letter Grade or Pass/Fail

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
309.620.01  MANAGED CARE AND HEALTH INSURANCE
Course offered this year
(3 credits)
Weiner, Jonathan
Presents an overview of major issues related to the design, function, management, regulation, and evaluation of health insurance and managed care plans. Provides a firm foundation in basic concepts pertaining to private and public sector health insurance/benefit plans, both as provided by employers and government agencies such as Medicaid and Medicare. Key topics include population care management techniques, provider payment, organizational integration, quality and accountability, cost-containment, and public policy.
The course makes extensive use of outside experts.
Course is relevant for management- or policy-oriented students who will be working in, or interrelating with, public and private (both for-profit and not-for-profit) health insurance plans and organized delivery systems such as HMOs and hospital/physician “integrated” delivery systems.
Course is also relevant to students who will be researching and analyzing these systems. Although the emphasis is placed on the US, the mat
Information not required for this course type.
E-mail: jweiner@jhsph.edu
Lecture: M W 9:00 AM - 10:20 AM
Enrollment minimum of 10
No Maximum
Student taking 309.620 for credit should not enroll in 309.622.11.
Letter Grade or Pass/Fail
Prerequisite: This course is intended for students with some basic knowledge of the US health care system. 300.651 or a similar courses or consent of instructor.

309.670.01  COMPARATIVE HEALTH INSURANCE
Course offered this year
(3 credits)
Anderson, Gerard
Provides an overview of the organization and financing of health systems in middle and high-income countries – focusing on population coverage, in terms of both how different groups are covered and the benefits package provided. Begins with a conceptual framework of financing flows in the health sector, and proceeds to identify a series of topics and case studies as the subject of specific lectures. Explores in depth the principal models for population coverage – including national health insurance, national health service, social insurance, private insurance, and mixed hybrid models.
Provides case studies of health insurance coverage in specific countries, including the United Kingdom, France, Germany, Japan, Taiwan, Chile – with lessons drawn for transitional countries interested in expanding health insurance coverage.
Information not required for this course type.
E-mail: ganderso@jhsph.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment minimum of 10
No Maximum
undergraduate students are not permitted
Letter Grade or Pass/Fail
309.861.01  GRADUATE SEMINAR IN HEALTH SERVICES RESEARCH AND POLICY
Course offered this year
(1 credits)
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.
Upon successfully completing this course, students will be able to:
1. describe the key substantive areas that comprise health services research
2. articulate how their own research interests align with the field of health services research
E-mail: jweiner@jhsph.edu
Lecture: TBA
Enrollment minimum of 10
No Maximum
PhD students in HPM -Health Services Research and Policy program only
Pass/Fail

311.820.01  THESIS RESEARCH HPM-DRPH
Course offered this year
(variable credits)
Students register for thesis research credits per consultation with advisor.
HPM/DrPH students conduct their thesis research.
Information not required for this course type
Lecture: TBA
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
311.861.01 GRADUATE SEMINAR IN HEALTH CARE MANAGEMENT AND LEADERSHIP
Course offered this year
(1 credits)
Morlock, Laura and Engineer, Lilly
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.
Upon successfully completing this course, students will be able to:
  1. Apply concepts and skills in organizational performance improvement
  2. Develop and monitor organizational performance indicators on a variety of dimensions (clinical, services, financial)
  3. Demonstrate change management, communication and leadership skills
E-mail: lmorlock@jhsph.edu
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students

312.623.01 FINANCIAL MANAGEMENT IN HEALTH CARE I
Course offered this year
(3 credits)
Ellis, John
Case studies present an overview of financial theory and financial management principles and concepts in a health care setting. Topics include discounted cash flow analysis, long-term debt financing, equity financing, lease financing, capital budgeting, analysis, and forecasting.
Upon successfully completing this course, students will be able to:
  1. Discuss unique features of the health care industry that affect the application of financial management principles and concepts
  2. Develop a working discuss of the tools of financial management and utilize software and financial techniques in case presentations
  3. Practice written and oral communication skills through individual assignments and team case presentation
E-mail: joellis@jhsph.edu
Lecture: T 3:30 PM - 5:50 PM
Enrollment minimum of 10
Enrollment maximum of 35
Grad Students Only
Letter Grade or Pass/Fail
Consent required for all students
All students must receive consent from Jamila Savage to register.
Prerequisite: 312.617, 551.603

312.678.01 INTRODUCTION TO HEALTHCARE QUALITY AND PATIENT SAFETY: A MANAGEMENT PERSPECTIVE
Course offered this year
(2 credits)
Berenholtz, Sean and Goeschel, Chris

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Introduces students to the latest thinking on healthcare quality and patient safety improvement through didactic sessions, interactive exercises and case studies that have direct relevance for the public health practitioner, healthcare administrator or clinician. Focuses on the specific domains of healthcare quality and patient safety based on the strategies recommended by the Institute of Medicine report "To Err is Human."

Upon successfully completing this course, students will be able to:

1. Recognize the complexities and challenges of evaluating progress toward improving patient safety
2. Explain current thinking regarding strategies to increase the extent to which clinicians use evidence-based interventions
3. Summarize current strategies to improve the effectiveness and efficiency with which we identify and mitigate hazards in health care
4. Appreciate the interplay between safety culture and communication that influence patient outcomes
5. Learn strategies to improve safety culture and communication including the Comprehensive Unit Safety Program that has been successfully used to improve safety culture and communication at The Johns Hopkins and in hundreds of Michigan hospitals
6. Identify organizational characteristics that are associated with improved patient safety
7. Learn to develop an organizational scorecard to help answer an important question: Are patients safer as a result of our efforts?

E-mail: seberenh@jhsph.edu
Lecture: W 10:30 AM - 11:50 AM
Enrollment minimum of 10
Enrollment maximum of 40

not open to undergraduates

Letter Grade or Pass/Fail
Consent required for all students
due to enrollment limits, all students need to obtain permission to register
Course is an offspring of 309.730
Students who take this course should not take 309.730 or 311.615 in the same year.
Course Change Information:
ConsentNote, CourseOfferRationaleNote, CPInstructor, .01/07/2011;

312.685.01 HOSPITAL OPERATIONS
Course offered this year
(2 credits)
Ward, William and Ward, Colin
Provides students with a basic overview of the structure and operation of hospitals and related organizations to include governing and leadership structure, issues of quality, safety and performance, physician services, nursing and patient care, professional, clinical and ancillary services, and support services. Field trips, lectures, and discussions will be used throughout the course.

Upon successfully completing this course, students will be able to:

1. Explain organizational systems, structures and governance requirements of a hospital operation
2. Demonstrate an understanding of hospital services and their interdependencies [e.g., medical, nursing, ancillary, emergency, admitting, ambulatory, hotel, and support
3. Explain the role and function of hospital business operations including corporate compliance, medical records, risk management
4. Identify and discuss the accreditation and licensing requirements of hospitals in the United States

E-mail: wward@jhsph.edu

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Enrollment minimum of 10
Enrollment maximum of 25
Due to travel and scheduling constraints, this course is restricted to first year MHA students.

Letter Grade or Pass/Fail
Consent required for all students
Enrollment Restriction: Due to travel and scheduling constraints, this course is restricted to first year MHA students.
This course requires several site visit trips.
Therefore, the course will be scheduled when these visits can be arranged.

Course Change Information:
Credit, CourseDesc, CourseLearningObj, EnrollRestriction, InstructorConsentId, ConsentNote, EnrollMin, EnrollMax, CourseFormat, CourseOfferRationaleNote, CourseSectionNote, ScheduleTypId, CPInstructor, .09/09/2011;

312.693.01 INTRODUCTION TO COMPARATIVE EFFECTIVENESS AND OUTCOMES RESEARCH
Course offered this year
(3 credits)
Segal, Jodi and Wu, Albert
Introduces students to the motivation and methods of comparative effectiveness research. Reviews the problems faced by decision makers across the US health care system, and the priority topics for investigation. Explains the role of stakeholders, including payors, manufacturers, health care organizations, professional groups, providers and patients. Explains study designs and methods used in effectiveness research, focusing in particular on observational studies. Also describes the policy implications of this research.

Upon successfully completing this course, students will be able to:
1. describe the role of comparative effectiveness research and outcomes research in improving health, which includes the place of comparative effectiveness research in the U S research portfolio, the identity and agendas of stakeholders, and the policy impl
2. illustrate the difference between efficacy and effectiveness research
3. develop study designs and methodologies unique to effectiveness research
4. choose appropriate outcomes and match outcomes to design options to address priority topics

E-mail: jsegal@jhsph.edu
Lecture: W F 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
undergraduates not permitted in this course

Letter Grade or Pass/Fail
CER is the generation and synthesis of evidence that compares the benefits and harms of alternative methods to prevent, diagnose, treat and monitor a clinical condition, or to improve the delivery of care. The purpose of CER is to assist consumers, clinicians, purchasers, and policy makers to make informed decisions that will improve health care at both the individual and population levels

Course Change Information:
FrequencySchedule, TargetAud, CourseLocation, IRBSurvey, AuditorsAllowedId, CourseOfferRationaleNote, ContactPerson, ContactEmail, StartingOfferYear, RepeatableRetakable, ScheduleTypId, LabScheduleTypId, CPInstructor, .10/12/2010;
312.810.01 FIELD PLACEMENT - HEALTH ADMINISTRATION
Course offered this year
(variable credits)
program decision
Schwartz, Teresa and Gundlach, Ann-Michele
Information not required for this course type
Information not required for this course type
E-mail: tschwart@jhsph.edu
Enrollment minimum of 10
No Maximum
Pass/Fail

312.862.01 MHA CAPSTONE
Course offered this year
(1 credits)
MHA students synthesize and integrate the knowledge and skills they have acquired throughout the program and their field placement to the examination and analysis of a current healthcare trend and its potential implications for health care services and delivery systems.
Upon successfully completing this course, students will be able to:
   1. Augment training by pursuing an independent research project within their particular area of interest or specialized competency
   2. Synthesize, integrate, and apply the skills and competencies they have acquired to analyze in writing a current healthcare trend from multiple perspectives, eg economic, financial, organizational and environmental factors
   3. Identify implications of the trend for healthcare leaders
Enrollment minimum of 10
No Maximum
2nd year MHA students only
Pass/Fail
This written deliverable is a graduation requirement for all MHA students.

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
<th>Description</th>
<th>Credits</th>
<th>Lecture Time</th>
<th>Enrollment Minimum</th>
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<tbody>
<tr>
<td>312.867.01</td>
<td>MHA SEMINAR IN HEALTH FINANCE AND MANAGEMENT</td>
<td>Schwartz, Teresa and Gundlach, Ann-Michele</td>
<td>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. Upon successfully completing this course, students will be able to: 1. Discuss current and emerging health care issues; develop effective listening, questioning and critical thinking skills, and actively engage in small group discussions with health care leaders 2. Assume responsibility for developing a professional network 3. Work effectively in a team and produce a professional and persuasive presentation for a case competition 4. Develop a career strategy, write an effective resume and business letter, and perform effectively in job interviews. 5. Identify key issues related to the importance of developing effective relationships between clinicians and hospital administrators.</td>
<td>1 (credits)</td>
<td>M W 12:00 PM - 1:20 PM</td>
<td>Minimum of 10</td>
<td>No Maximum</td>
<td>Pass/Fail</td>
<td>313.630 or 313.790.81 are strongly recommended</td>
<td>IH</td>
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<tr>
<td>313.631.01</td>
<td>ECONOMIC EVALUATION II</td>
<td>Rao, Krishna and Frick, Kevin</td>
<td>Enables students to understand and apply current methods in the economic evaluation of health interventions. Students design and carry out an economic evaluation. Analytic topics covered include the role of decision analysis in economic evaluation - students are introduced to, and extensively use, the TreeAge software; the principles and practices of measuring and analyzing costs; and estimating QALYs and DALYs. Also introduces students to a range of techniques for presenting data on costs and effects together such as sensitivity analysis and league tables. Finally, introduces students to a critique of the value of economic evaluation in health care decision-making. Upon successfully completing this course, students will be able to: 1. Identify the key features of different types of economic evaluation and explain when each type of evaluation is most appropriately used 2. Assess the relevance and value of economic evaluation for health policy and planning 3. Carry out an illustrative economic evaluation designed to guide the investment decisions of planners in developing health policy.</td>
<td>4 (credits)</td>
<td>W F 10:30 AM - 11:50 AM</td>
<td>Minimum of 10</td>
<td>Maximum of 50</td>
<td>Letter Grade or Pass/Fail</td>
<td>313.630 or 313.790.81 are strongly recommended</td>
<td>IH</td>
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<tr>
<td>313.644.01</td>
<td>HEALTH ECONOMICS II</td>
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Bridges, John
Building on the basic concepts and applications presented in Health Economics I, students in Health Economics II are exposed to some of the seminal topics in health economics, with a particular focus on the issues of human capital, economics of the household and the demand for healthy and risky behaviors. Topics include: the economic returns of education; economics of the household; the demand for health (Grossman Model); addiction; teen sex; obesity, the statistical value of a life, and fertility. While it will not be the focus of the class, some time will be spent on the dynamic modeling and econometric techniques that are used in the papers that we review. Teaching methods include lectures, group discussion and problem solving exercises, and hands on experiments.

Upon successfully completing this course, students will be able to:
1. Discuss how economic human capital theory can be applied to important public health topics
2. read and summarize the findings of seminal papers from the economics of the household literature
3. critically assess economic and econometric methods used in recent applications of human capital theory and economics of the household in health economics

E-mail: jbridges@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment minimum of 10
No Maximum
no undergraduates permitted

313.655.01 MICROECONOMIC MODELS IN PUBLIC HEALTH III
Course offered this year
(2 credits)
Herring, Bradley
Covers seminal publications in health economics and is targeted towards advanced Ph.D. students. Describes theoretical models in health economics for the determinants of health and demand for healthcare services, the foundations for cost-effectiveness analysis, the supply of healthcare services in competitive, monopolistic, and government-regulated markets, and the provision of private and public health insurance.

Upon successfully completing this course, students will be able to:
1. Describe the core concepts in health economics and some standard empirical techniques in employed in the literature
2. Apply comparative statics to health economic problems
3. Create your own models of health economic phenomenon
4. Produce advanced articles in health economics literature

E-mail: bherring@jhsph.edu
Lecture: F 1:30 PM - 3:20 PM
Enrollment minimum of 10
No Maximum
no undergraduates permitted in this course
Letter Grade or Pass/Fail
Consent required for all students
all students required to obtain consent prior to registration
Prerequisite: 313.653 and 313.654
Final grade applies to all terms
313.861.01 PUBLIC HEALTH ECONOMICS SEMINAR
Course offered this year
(1 credits)
Frick, Kevin
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.
Upon successfully completing this course, students will be able to:
1. List the theoretical and empirical techniques of health economics and their implication for health policy decisions
2. Prepare written critiques of recent research in area of public health economics

E-mail: kfrick@jhsph.edu
Lecture: F 3:30 PM - 4:50 PM
Enrollment minimum of 10
No Maximum
Pass/Fail

317.610.01 RISK POLICY, MANAGEMENT AND COMMUNICATION
Course offered this year
(3 credits)
Fox, Mary and Burke, Thomas
Provides students with an understanding of how the risk sciences are applied in the formulation and implementation of public health policy in “the real world.” Utilizes a case-study approach in placing science-based risk assessment into broad societal context, which includes consideration of social, economic, and political factors that affect decisions regarding risk policy and management. In addition, students gain an overview of public policy development theory, risk management tools and the application of risk communication principles.
Information not required for this course type

E-mail: mfox@jhsph.edu
Lecture: M W 5:00 PM - 6:30 PM
Enrollment minimum of 10
Enrollment maximum of 30
Letter Grade or Pass/Fail
Consent required for all students
all students required to obtain permission to register
Prerequisite: 317.600
Jointly offered with EHS, EPI

International Health
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.

Information not required for this course type

Lecture: TBA
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.
Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

Enrollment minimum of 10
No Maximum
Pass/Fail

Enrollment minimum of 10
No Maximum
Pass/Fail

Enrollment minimum of 10
No Maximum
Pass/Fail
220.895.01  MPH PRACTICUM: INTERNATIONAL HEALTH

Course offered this year
(variable credits)
Students who have not met the practicum requirement, must register for at least two credits.
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Student must receive faculty advisor approval

221.605.01  HISTORY OF INTERNATIONAL HEALTH AND DEVELOPMENT

Course not offered until 2012 - 2013
(3 credits)
Packard, Randall
Examines the history of western efforts to promote health and nutrition in the "developing world" from the beginnings of tropical medicine to recent efforts of disease eradication. Explores the various economic and political interests, as well as cultural assumptions, that have shaped the development of ideas and practices associated with international health in "developing" countries. Topics include history of international health organizations, strategies, and policies.

Upon successfully completing this course, students will be able to:
1. describe the origins of different approaches to global health problems
2. discuss the history of major international health programs and campaigns
3. assess the broader political and economic forces which have shaped the history of global health strategies
4. discuss the history of international health and development organizations and their changing roles in the development of global health strategies
5. describe the history of tensions between competing visions of international health: horizontal versus vertical programs; selective interventions versus comprehensive primary health care; technical interventions versus improvements in overall social and economic well-being
6. list the institutional, cultural, and political contexts within which international health planning and implementation occur

E-mail: rpackar2@mail.jhmi.edu
Lecture: W F 1:30 PM - 2:50 PM
Enrollment minimum of 10
Enrollment maximum of 15
Letter Grade or Pass/Fail
Jointly offered with ME
221.633.01  PUBLIC HEALTH ISSUES IN DISASTERS

Course offered this year
(2 credits)
Kirsch, Thomas and Vu, Alexander

Examines fundamental concepts in disaster studies and disaster management practices. Topics include disaster epidemiology, natural history of disasters, rapid epidemiologic assessment, strategy of disaster management, agencies involved in relief operations, development through disaster planning, and mission craft. Includes lectures, group exercises, and discussion.

Upon successfully completing this course, students will be able to:
1. Discuss the etiology, epidemiology, natural history, and health impacts of natural and human-generated disasters
2. Manage disaster mitigation, planning, response and post disaster rehabilitation, particularly related to health and public health
3. Design a program to address one of the elements of the "disaster cycle" and to prepare a funding proposal to obtain needed resources to implement the program

E-mail: tkirsch1@jhsph.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

Prerequisite: 340.601

221.634.01  STRESS MANAGEMENT FOR RELIEF WORKERS

Course offered this year
(2 credits)
Everly, George

Provides awareness of emotional stress faced by health workers providing humanitarian assistance in emergency situations. Topics include signs and symptoms of stress disorders (critical-incident stress), components of critical-incidence management programs, and provision of services to prevent long-term mental health consequences.

Upon successfully completing this course, students will be able to:
1. separate normal responses to a disaster from events related to incident stress
2. identify the psychological "first aid" which is needed for persons demonstrating the signs and symptoms of stress in emergency situations
3. organize an effective response using appropriate resources to mitigate the effects of stress on relief workers

E-mail: geverly@jhsph.edu
Lecture: T 5:30 PM - 8:00 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

221.635.01  CASE STUDIES IN PRIMARY HEALTH CARE

Course offered this year
(4 credits)
Perry, Henry and Taylor, Henry
Introduces students to the origins, concepts and development of community-based primary health care through case studies from both developing and developed countries. Like clinical bedside teaching, the course uses real cases to help students develop problem-solving skills in practical situations. Participatory approaches in the organization and management of health services and other factors such as equity, socio-cultural change and environmental protection are discussed.

Upon successfully completing this course, students will be able to:

1. describe the key concepts of the SEED-SCALE and illustrate their use in a description of a plan for implementing Community Based Primary Health Care
2. demonstrate practical methods of promoting participatory activities in communities and action groups
3. comprehend the methods for examining the conditions and practical techniques for developing partnerships to improve bottom-up participation of communities, top-down support by officials and outside-in stimulation by experts
4. explore in depth and be able to describe concepts of equity, justice, sustainability, scaling up, the tilting point in community empowerment and challenges in promoting changes in behaviors and social norms
5. describe strategies of multisectoral collaboration and integration within health services and demonstrate the methods for analysis of these strategies
6. identify successes and failures or weaknesses of each case study and describe the lessons learned from them

7. Overall objectives of this course are: 1) to help students clarify their own values and attitudes in developing partnership relationships with communities and colleagues
8. to facilitate students’ ability to Discuss participatory methods in building community capacity to solve priority problems in varied health care settings
9. to build on students’ prior experiences and help them develop skills in learning how to use case studies in their own work and teaching
10. to facilitate students’ ability to scale up community-based successes from a local situation to general extension

E-mail: heperry@jhsph.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment minimum of 10
Enrollment maximum of 35

Letter Grade or Pass/Fail
Prerequisite: 220.601
221.643.01  ARMED CONFLICT AND HEALTH

Course offered this year
(2 credits)
Burnham, Gilbert
Explores the causes of war and how it affects health systems in fragile states. Examines the political causes of population flight, and how this affects the health of those who have been forced to leave, as well as those who stay behind. Explores how the process of peace building is necessary for the restoration and full function of health services, and emphasizes that this is not an easy step and is subject to erratic progress and failure. Covers factors that affect resolution of conflicts. Discusses the role of strategic interests of donors and the reconstruction process. Considers case studies from various countries, including DR Congo, Kosovo, Liberia, Afghanistan, and Iraq.

Upon successfully completing this course, students will be able to:

1. Evaluate the nature of Fragile States and why armed conflict can so easily develop
2. Describe the consequence to health of populations caught up in armed conflict--staying behind, being displaced in their own country, or fleeing as refugees
3. Describe the steps that are required to bring conflicts to resolution, and how health can play a role in resolution
4. Outline the key components in rebuilding health systems post conflict

E-mail: gburnham@jhsph.edu
Lecture: TH 1:30 PM - 3:20 PM
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail

Prerequisite: 221.614 (recommended) or previous coursework in political science

221.647.01  COMPARATIVE EVALUATION FOR HEALTH POLICY IN INTERNATIONAL HEALTH

Course offered this year
(3 credits)
Niessen, Louis
Presents evaluation techniques to compare health system interventions in international health. Focuses on addressing existing constraints in health systems development, given key policy goals as quality, equity and efficiency. Presents both qualitative and quantitative approaches to evaluate interventions to better inform policy how to improve system performance and functions. Identifies policy goals, actor groups, system functions and ways to assess improvement strategies related to policy goals using existing systems frameworks. Covers key constraints in systems performance such as: effective prevention and treatment programs, patient compliance, health worker performance, inequitable access, collective financing, choosing priorities, and community-level interventions. Comparative methods draw on a mix of epidemiology, health economics, disease modeling, services research, and qualitative techniques.

Upon successfully completing this course, students will be able to:

1. design comparative evaluation approaches for health policy development in multiple low- and middle-income country settings
2. apply at least three comparative health system evaluation methods in three different country settings in relation to policy goals
3. critically assess methods and results of comparative health system evaluations
4. define the strengths and limitations of research in health policy contexts

E-mail: Iniessen@jhsph.edu
Lecture: T TH 3:30 PM - 5:00 PM
Enrollment minimum of 8
Enrollment maximum of 24
221.650.01 HEALTH POLICY ANALYSIS IN LOW AND MIDDLE INCOME COUNTRIES
Course offered this year
(3 credits)
Bennett, Sara

Provides an overview of political frameworks and theories related to policy development and offers practical perspectives on their application to health policy in low and middle income countries (LMICs). Analyzes the political economy of health policy, (i.e. how the political environment and country institutions policy development). Introduces the main actors, processes and contextual features that are typical of policy development and implementation in LMICs. Topics encompass national policy and planning frameworks; aid harmonization and alignment; the role of policy networks (particularly civil society actors); policy implementers and their role in shaping policy; and mechanisms for global health policy development. Final sessions focus on practical strategies to strengthen policy processes. Teaching draws upon examples from different diseases, services and health systems.

Information not required for this course type

E-mail: sbennett@jhsph.edu
Lecture: M W 9:00 AM - 10:20 AM
Enrollment minimum of 10
No Maximum
no undergraduates

Letter Grade or Pass/Fail
Prerequisite: 220.601 Intro to International Health

Ozawa, Sachi and Rao, Krishna
Introduces students to concepts and methods in health financing targeting low and middle income countries. Examines four themes of financing: pooling, purchasing and provision of healthcare and surveys health financing practices across countries with different political and economic contexts. Enables students to use household survey data to estimate essential health financing metrics such as out-of-pocket payments, headcount ratio, poverty gap, and catastrophic health expenditures. Prepare students with health financing toolsets for a career in international health.

Upon successfully completing this course, students will be able to:

1. Explain basic health financing concepts and how they are applied in low and middle income country settings
2. Assess the strengths and weaknesses of different healthcare financing functions: financing, pooling, purchasing and provision mechanisms
3. Analyze household survey data to measure out-of-pocket payments, headcount ratio, poverty gap, and catastrophic health expenditures
4. Describe and evaluate the health financing systems of select low or middle income countries

E-mail: sozawa@jhsph.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment minimum of 10
Enrollment maximum of 30

Letter Grade or Pass/Fail
Prerequisite: Biostatistics 140.611/612 or 140.621/622 or 140.651/652 or experience using stata.
313.639, Microeconomics, or 313.641, Health Economics I are recommended.
221.810.01  FIELD PLACEMENT HEALTH SYSTEMS  
Course offered this year  
(variable credits)  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail  

221.820.01  THESIS RESEARCH HEALTH SYSTEMS  
Course offered this year  
(variable credits)  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail  

221.830.01  POSTDOCTORAL RESEARCH HEALTH SYSTEMS  
Course offered this year  
(variable credits)  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail  

221.840.01  SPECIAL STUDIES AND RESEARCH HEALTH SYSTEMS  
Course offered this year  
(variable credits)  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail  

221.860.01  HEALTH SYSTEMS PROGRAM SEMINAR  
Course offered this year  
(1 credits)  
Doocy, Shannon and Lewy, Daniela  
Health Systems Program faculty present ongoing activities and doctoral students present their research interests and findings. The seminar may be used occasionally for administrative or academic matters.  
Information not required for this course type  
E-mail: sdoocy@jhsph.edu  
Lecture: T 12:00 PM - 1:20 PM  
Enrollment minimum of 10  
No Maximum  
Enrollment is restricted to MHS students and doctoral students in the Health Systems Program and DrPH students in the Department of International Health  
Pass/Fail  

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
221.861.01  DOCTORAL SEMINAR IN HEALTH SYSTEMS

Course offered this year
(1 credits)
Robinson, Courtland

Designed to prepare first-year PhD students in the Health Systems program area to develop and defend their research proposal. Students will practice formulating a research question, conducting a systematic literature review, and drafting, presenting and critiquing research proposals.

Upon successfully completing this course, students will be able to:

1. describe the elements of a research proposal
2. formulate a research question, develop or identify a conceptual framework, conduct a brief literature review, and describe a range of study designs
3. analyze and present a critique of a scientific journal article
4. draft, present and defend an outline of a research proposal and to critique the proposals of fellow students

E-mail: crobinso@jhsph.edu
Lecture: TBA
Enrollment minimum of 10
No Maximum
Pass/Fail

222.647.01  NUTRITION EPIDEMIOLOGY

Course offered this year
(3 credits)
Caulfield, Laura

Reviews methodological issues related to nutritional assessment in the context of clinical, epidemiological, and programmatic research design. Discusses nutrition surveillance, cohort studies, field intervention trials, assessment techniques, and research design, including data collection, analysis, and interpretation.

Upon successfully completing this course, students will be able to:

1. apply a conceptual framework for choosing appropriate indicators of nutritional status for different research and programmatic applications
2. identify key methodological issues when assessing dietary intake, biochemical and anthropometric indicators, and the implications of those issues for assessing nutrition disease relationships
3. apply statistical methods for evaluating indicators of nutritional status, for choosing among candidate indicators and for assessing biases in nutrition-disease relationships

E-mail: lcaulfie@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
222.655.01 NUTRITION AND LIFE STAGES

Course offered this year
(3 credits)
Christian, Parul
Reviews stages of human development as a prism for understanding human nutrition. Discussions focus on various life stages, highlighting the biological, social and behavioral changes that influence the transitions in nutrition between life stages. Identifies key nutritional considerations for optimal human growth and development. Discusses early nutritional influences on health and well-being later in life.
Upon successfully completing this course, students will be able to:
1. apply principles of nutrition in the context of human growth and development
2. integrate human physiology and development, psychosocial factors, and nutrition through in-depth study of a nutrition/life stage issue
3. interpret and critique scientific literature

E-mail: pchristi@jhsph.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
Restricted to graduate students

Letter Grade or Pass/Fail
Consent required for all students
Consent to ensure that students have a nutrition background and to determine their interest.
Required: PhD and MHS programs in Human Nutrition

222.810.01 FIELD PLACEMENT HUMAN NUTRITION

Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

222.820.01 THESIS RESEARCH HUMAN NUTRITION

Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail

222.830.01 POSTDOCTORAL RESEARCH HUMAN NUTRITION

Course offered this year
(variable credits)
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail
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<tr>
<td>222.840.01</td>
<td>SPECIAL STUDIES AND RESEARCH HUMAN NUTRITION</td>
<td>2</td>
<td>Mehra, Sucheta &amp; De Luca, Luigi</td>
<td>Course offered this year (variable credits) Information not required for this course type Enrollment minimum of 10 No Maximum Pass/Fail E-mail: <a href="mailto:smehra@jhsph.edu">smehra@jhsph.edu</a> Lecture: TH 12:00 PM - 1:20 PM</td>
<td>doctoral students only</td>
<td>10</td>
<td>Pass/Fail</td>
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<tr>
<td>222.860.01</td>
<td>GRADUATE NUTRITION SEMINAR</td>
<td>1</td>
<td>Caulfield, Laura</td>
<td>Course offered this year (1 credits) Exposes students to the breadth of interests represented by the Nutrition faculty at the School and from other universities and related organizations such as the US Department of Agriculture (USDA) and National Institutes of Health (NIH) through active listening and discussion of the presentations. Specific topics vary over time. Emphasizes the ability to critically evaluate the related research design, approaches and findings, and presentation skills. Information not required for this course type E-mail: <a href="mailto:lcaulfie@jhsph.edu">lcaulfie@jhsph.edu</a> Lecture: TBA Enrollment minimum of 10 No Maximum Pass/Fail</td>
<td></td>
<td>10</td>
<td>Pass/Fail</td>
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<tr>
<td>222.861.01</td>
<td>DOCTORAL SEMINAR IN PROPOSAL DEVELOPMENT</td>
<td>1</td>
<td>Caulfield, Laura</td>
<td>Course offered this year (1 credits) 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. Upon successfully completing this course, students will be able to: 1. Identify the differences between a resume and curriculum vitae 2. Identify the components of a research career that they would like to pursue and opportunities at JHU to support the process 3. Conduct a literature review in an area of interest 4. Develop a concept paper for a study in an area of interest 5. Write an NIH-style grant on a research topic of interest 6. Give presentations on a research topic of interest E-mail: <a href="mailto:lcaulfie@jhsph.edu">lcaulfie@jhsph.edu</a> Lecture: TBA Enrollment minimum of 10 No Maximum doctoral students only Pass/Fail</td>
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<td>Pass/Fail</td>
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3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
223.663.01  INFECTIOUS DISEASES AND CHILD SURVIVAL

Course offered this year
(3 credits)
Karron,Ruth and Ruff,Andy
Reviews the major causes of childhood morbidity and mortality in the developed and developing world, and introduces intervention strategies. Reviews infectious disease problems contributing to childhood morbidity and mortality worldwide, including (but not limited to) HIV, TB, polio, tetanus, diarrheal disease, ARI, helminth infections, and measles. Emphasizes epidemiology, strategies for prevention and control, and differences between developed and developing countries.

Upon successfully completing this course, students will be able to:
1. describe the major infectious causes of pediatric morbidity and mortality
2. describe current methods available to control or prevent these diseases
3. contrast control/prevention measures used in the developed and developing world
4. give a concise, coherent presentation on a course-related topic to faculty and peers

E-mail: rkarron@jhsph.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment minimum of 5
Enrollment maximum of 40
Restricted to graduate students
Letter Grade or Pass/Fail
Consent required for all students

Helps students (1) critically review the community trials literature, (2) develop, identify and justify a randomized community trial design appropriate to answer a set of specific research aims. Different types of randomized study designs appropriate for community (as opposed to clinical) trials are discussed. Topics include critical review of the community trials literature, formulation of specific aims, selection of study designs and appropriate study populations, estimation of sample size, methods for allocation of interventions or treatments, grantsmanship and budgeting, community participation, consent procedures, ethical and cultural considerations, specification of key outcomes, Safety and Monitoring Boards, data analyses and publication of results. These methods apply in many settings, but emphasis is placed on issues that are unique to developing country environments.

Upon successfully completing this course, students will be able to:
1. formulate a research question and design a trial
2. describe the methods used to conduct a trial, and the types of data analysis required to answer the research question

E-mail: jkatz@jhsph.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: 140.621, 140.622, 140.623 concurrently, or 140.651-653, 340.602 or 340.608 highly recommended

223.664.01  DESIGN AND CONDUCT OF COMMUNITY TRIALS

Course offered this year
(4 credits)
Katz,Joanne and Labrique,Alain

223.687.01  VACCINE POLICY ISSUES

Course offered this year
(3 credits)
Salmon, Daniel and Johnson, Hope

Examines current national and international policy issues in vaccine research, development, manufacturing, supply, and utilization. Topics include development of orphan vaccines, ensuring an adequate supply of safe and effective vaccines, vaccine injury compensation, and disease eradication. Emphasizes the identification of important vaccine policy issues and the development and evaluation of policies to address these issues. Presents the roles, responsibilities, and policy positions of key immunization stakeholders via guest lectures by a wide array of experts who have worked for important vaccine groups (i.e., FDA, GAVI, Vaccine Industry, US Vaccine Injury Compensation Program, Consumer Group). Readings include relevant scientific papers and reviews, and publications of U.S. and international agencies.

Upon successfully completing this course, students will be able to:

1. identify the key stakeholders and institutions involved in formulating vaccine policy in the United States and globally
2. describe the ‘value chain’ in vaccine policy domestically and globally as it progresses from basic research all the way to procurement and implementation
3. describe the different factors that influence the policy-makers in each stage of the ‘value chain’ and the factors that constrain their ability to enact policy changes
4. use a ‘policy analysis’ perspective to analyze a vaccine policy issue and recommend a policy action

E-mail: dsalmon@jhsph.edu
Lecture: T TH 5:00 PM - 6:30 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: 223.662, Vaccine Development and Application

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<td>Pass/Fail</td>
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<td>POSTDOCTORAL RESEARCH DISEASE CONTROL</td>
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3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
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<td>(variable credits)</td>
<td>Course offered this year. Information not required for this course type. Enrollment minimum of 10. No Maximum. Pass/Fail.</td>
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<tr>
<td>223.860.01</td>
<td>GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM SEMINAR</td>
<td>Charron, Karen</td>
<td>(1 credits)</td>
<td>Course offered this year. Global Disease Epidemiology 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. Information not required for this course type. E-mail: <a href="mailto:kcharron@jhsph.edu">kcharron@jhsph.edu</a>. Lecture: M 12:00 PM - 1:20 PM. Enrollment minimum of 10. No Maximum. Restricted to Global Disease Epidemiology and Control MSPH students. Pass/Fail. Consent required for all students. Limited to GDEC MSPH students.</td>
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<tr>
<td>223.861.01</td>
<td>GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM DOCTORAL SEMINAR</td>
<td>Mullany, Luke</td>
<td>(1 credits)</td>
<td>Course offered this year. Strengthen research skills through critical appraisal of published research results and preparation of research protocols or projects. Upon successfully completing this course, students will be able to: 1. Intelligently discuss the role of research in the improvement of the health status of populations throughout the world. 2. Identify and compare aspects of the philosophy of science that are critical to the conduct of research. 3. Constructively critique research methods employed by public health scientists. 4. Formulate research questions that may develop into dissertation topics. E-mail: <a href="mailto:lmullany@jhsph.edu">lmullany@jhsph.edu</a>. Lecture: T 12:00 PM - 1:20 PM. Enrollment minimum of 10. No Maximum. IH doctoral students. Pass/Fail. Prerequisite: None.</td>
</tr>
</tbody>
</table>

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
223.867.01  SPECIAL TOPICS IN VACCINE SCIENCE

Course offered this year

(1 credits)

Durbin, Anna and Cox, Amber

Series of 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, from industry and other institutions. Series provides the student with an understanding of the pathways leading to development and utilization of vaccines with public health impact.

Upon successfully completing this course, students will be able to:

1. describe the key barriers along the process of research, development, testing, evaluation, acquisition, and distribution of vaccines
2. cite specific examples of how financial and political factors interact with scientific issues to affect governmental and industry prioritization about vaccine development
3. describe how stakeholder motives (investor, corporate, public health agency, individual) can influence the fate of a vaccine R&D project

E-mail: adurbin@jhsph.edu

Lecture: W 5:30 PM - 7:00 PM

Enrollment minimum of 10

No Maximum

Pass/Fail

224.690.01  QUALITATIVE RESEARCH THEORY AND METHODS

Course offered this year

(5 credits)

Kennedy, Caitlin and Gittelsohn, Joel

First of a two-term sequence (with 224.691), which introduces students to qualitative research and provide them with practical skills for conducting research in domestic and international settings. Provides an overview of theoretical foundations of qualitative research and different approaches to qualitative inquiry, including programmatic qualitative research, grounded theory, ethnography, phenomenology, grounded theory, and narrative and case study approaches. Covers how to formulate qualitative research questions and how to design a qualitative research study. Provides description and practice in different qualitative data collection methods, including in-depth interviews, focus groups, and observation. To develop qualitative research skills, the course includes a significant group project component where students design and conduct hands-on local fieldwork projects, which must go through school ethical review and approval.

Information not required for this course type

E-mail: ckennedy@jhsph.edu

Lecture: T TH 8:30 AM - 10:20 AM

Lab: F 3:30 PM-5:20 PM

Lab: TH 3:30 PM-5:20 PM

Special Lab Number: 224.990

Enrollment minimum of 18

Enrollment maximum of 54

Letter Grade or Pass/Fail

Prerequisite: 224.689 or permission of instructor.

Required to take both 224.690 and 224.691; no grade given until both courses are completed

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<th>Offered This Year</th>
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<td>224.810.01</td>
<td>FIELD PLACEMENT SOCIAL AND BEHAVIORAL INTERVENTIONS</td>
<td>variable</td>
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<td>No Max</td>
<td>Pass/Fail</td>
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<td>No</td>
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<tr>
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<td>10</td>
<td>No Max</td>
<td>Pass/Fail</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>224.830.01</td>
<td>POSTDOCTORAL RESEARCH SOCIAL AND BEHAVIORAL INTERVENTIONS</td>
<td>variable</td>
<td>variable</td>
<td>10</td>
<td>No Max</td>
<td>Pass/Fail</td>
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<td>SPECIAL STUDIES AND RESEARCH SOCIAL AND BEHAVIORAL INTERVENTIONS</td>
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<td>variable</td>
<td>10</td>
<td>No Max</td>
<td>Pass/Fail</td>
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3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
224.862.01 SOCIAL AND BEHAVIORAL INTERVENTIONS
PROGRAM SEMINAR III: INTERVENTION CASE STUDIES

Course offered this year
(1 credits)
Leontsini, Elli and

Each session is an intervention case study examining formative research, implementation process, or monitoring and evaluation aspects. Relevant readings illustrating one or more of these aspects are provided by the SBI faculty or doctoral students who will be leading each of the sessions.

Information not required for this course type

E-mail: eleontsi@jhsph.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment minimum of 5
Enrollment maximum of 25
SBI MHS and SBI PhD Students
Pass/Fail

Mental Health

330.612.01 INTRODUCTION TO BEHAVIORAL AND PSYCHIATRIC GENETICS

Course offered this year
(3 credits)
Zandi, Peter

Provides an overview of research methods and their application to the study of behavioral and psychiatric genetics. Course begins by briefly introducing necessary concepts in molecular and population genetics. The course then studies designs and analytic methods used to investigate the genetic contribution to human behavior and its disturbances. The study designs covered include the following: family, twin, and adoption studies to evaluate the extent of genetic contribution; segregation studies to determine the mode of inheritance; linkage and association studies to map genes; and other epidemiological designs to elucidate gene-by-environment interactions. These are illustrated through examples of real studies. At the end of the course, the student will be familiar with our current understanding of the role genetic factors play in human behavior, its disturbances, and how our research may further that understanding.

Upon successfully completing this course, students will be able to:

1. review the basic molecular genetic concepts necessary for

   Discussing how genetic factors may contribute to behavioral and psychiatric traits

2. describe the latest research methods that may be used to investigate the genetics of behavioral and psychiatric traits

3. list the principles of quantitative genetic studies, such as family, twin and adoption studies, and molecular genetic studies, such as linkage and association studies, and the challenges of applying these study designs to behavioral and psychia

4. discuss the role genetic factors play in behavioral and psychiatric traits of major public health concern, including schizophrenia, personality and smoking

E-mail: pzandi@jhsph.edu
Lecture: M W 3:00 PM - 4:20 PM
Enrollment minimum of 10
330.628.01  PRINCIPLES OF PUBLIC MENTAL HEALTH DELIVERY IN THE COMMUNITY CONTEXT

Course offered this year

Agus, Deborah

Acquaints students with mental health systems and the development of a comprehensive approach to the delivery of services to a variety of vulnerable populations living in difficult conditions in the community. Topics include a survey of the variety of current mental health services and evidence-based approaches, the impact on services of governance, organization and financing of services including a primer on Medicaid and Medicare, the link between poverty and mental health and the use of jails as mental asylums, the development of a competent workforce and an introduction to international community mental health issues. Features discussion and problem solving and involves a high degree of interaction between the participants as well as several field trips.

Upon successfully completing this course, students will be able to:

1. Define the components of a comprehensive and effective community mental health system
2. Analyze the governance structure of a system
3. Define and analyze the issues facing delivery of mental health services to a variety of vulnerable populations
4. Analyze a problem and the ramifications of various solutions

330.653.01  SEMINAR ON PROGRAM PLANNING IN DEVELOPING COUNTRIES ON DRUG ABUSE AND OTHER HEALTH PROBLEMS III

Course offered this year

Alexandre, Pierre and Mancha, Brent

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 present a formal proposal to mitigate some aspect of the selected health problem. The presenter advocates for the adoption of the proposal in a role play committee meeting which will vote on acceptance or rejection of the proposal.

Upon successfully completing this course, students will be able to:

1. use the internet to assemble information describing the geographic, political, economic and cultural parameters which may affect the types and level of psychoactive substance abuse in a developing country
2. conduct a national needs assessment using country based data on the extent and patterns of substance abuse and will be able to describe the policies, regulations and public health resp

3. develop and defend a proposal for improvement of a specific substance abuse problem in their country In each term, students practice leadership skills in presenting and defending proposals for prevention, tre

E-mail: pialexan@jhsph.edu
Lecture: T TH 3:30 PM - 5:20 PM
Enrollment minimum of 10
No Maximum
Must be a Humphrey Fellows in drug abuse or have consent of instructor.

Letter Grade or Pass/Fail
Consent required for all students
Students not in Humphrey Fellows program.
Course is held in departmental space.
Course Change Information:
StudentEval, TargetAud, CourseLocation, CourseFormat, IRBSurvey, AuditorsAllowedId, CourseOfferRationaleNote, ContactPerson, ContactEmail, RepeatableRetakable, ScheduleTypeId, LabScheduleTypeId, CPInstructor, .09/09/2011;

330.661.01 SOCIAL, PSYCHOLOGICAL, AND DEVELOPMENTAL PROCESSES IN THE ETIOLOGY OF MENTAL DISORDERS
Course offered this year
(3 credits)
Bradshaw, Catherine

Examines the major social, psychological, and developmental theories of mental and behavioral disorders. Covers biopsychosocial frameworks such as the diathesis stress model, ecological theory, and life course development. Psychological models include behavioral, cognitive, personality, and psychodynamic theories. Covers social processes covered such as social stratification, social integration, social diffusion, social stress, social learning, social cognitive, and attachment. Applies these theories to major mental and behavioral disorders of childhood, adolescence, and adulthood, including depression, anxiety, conduct disorders, and personality disorders. Explores multidisciplinary areas, and includes guest lectures by other mental health faculty. Lectures highlight main issues from readings, provide additional information on theories, and apply reading and lecture materials to specific mental and behavioral disorders.

Upon successfully completing this course, students will be able to:

1. help students gain an understanding of leading social, psychological, and developmental theories that serve as the foundation for public mental health research

2. Students will also develop skills that will help them critically evaluate mental health research from multiple theoretical perspectives

3. At the conclusion of the course, students should be able to draw upon these theories to support their own mental health or services research (e.g. dissertations, grant applications)

E-mail: cbradsha@jhsph.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
Consent required of undergraduates.
THIRD TERM
COURSE SCHEDULE 2011-2012
January 23 - March 16, 2012

PLEASE CHECK EXTRADEPARTMENTAL LISTING FOR COURSES IN INDIVIDUAL DEPARTMENTS.

330.800.01 MPH CAPSTONE MENTAL HEALTH
Course offered this year
(2 credits)
Must have 1-4 credits per term for two terms.
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.
Information not required for this course type
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Consent from the Capstone Supervisor is Required.
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.
Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

330.802.01 SEMINAR ON AGING, COGNITION AND NEURODEGENERATIVE DISORDERS
Course offered this year
(2 credits)
Rebok, George and Zandi, Peter
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.
Upon successfully completing this course, students will be able to:

1. classify the major domains of cognition and describe the age-related changes that occur in each cognitive domain
2. to classify the major neurodegenerative disorders related to age and describe the clinical presentation and pattern of cognitive change in each disorder
3. to identify gaps in discuss concerning age-related cognitive change and the primary neurodegenerative disorders and apply concepts to the development and evaluation of future interventions for age-related cognitive decline and neurodegenerative disorder

E-mail: grebok@jhsph.edu
Lecture: TH 3:30 PM - 5:20 PM
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
All students must receive consent.

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Predoctoral and Postdoctoral students from A&S, SPH and Medicine students participating in training grant on age-related, cognitive and neuropsychiatric disorders.

Course Change Information:
TargetAud, CourseOfferRationaleNote, CPInstructor, 10/07/2011;

330.805.01  SEMINAR ON STATISTICAL METHODS FOR MENTAL HEALTH
Course offered this year
(1 credits)
Stuart, Elizabeth
Students discuss recent advances in statistical methods in mental health. Class sessions include student and faculty presentations as well as discussions of recent articles in the literature. Topics include missing data, longitudinal data analysis, causal inference, and measurement.

Upon successfully completing this course, students will be able to:
1. Identify the key areas of research in statistical methods for mental health,
2. describe recent developments in the field, and
3. critically evaluate studies in this area

E-mail: estuart@jhsph.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment minimum of 4
Enrollment maximum of 25

Pass/Fail
Consent required for some students
Master's students and undergraduates.
Prerequisite: 140.621-624 or 140.651-654, or consent of the instructor
Jointly offered with BIOSTAT
Will be held in department space.

Course Change Information:
Recommended, CatalogStatus, 10/07/2011;

330.811.01  MHS THESIS IN MENTAL HEALTH: FROM PROPOSAL TO PUBLICATION I
Course offered this year
(1 credits)
Parisi, Jeanine M.
Students are required to conduct a systematic review of the literature or a data-driven paper in partial fulfillment of the Master of Health Science (MHS) degree in the Department of Mental Health. Students will be provided with basic research and organizational skills needed for successful completion of the MHS project.

Topics include: conducting a systematic review or literature review for data driven papers, selecting an appropriate research design, and interpreting findings.

This course will prepare you to be able to do the following:
1. Formulate and clearly communicate research questions, study design, and findings.
2. Review and critically evaluate existing literature and/or analytical approaches.
3. Critique and edit the final MHS project.

E-mail: jparisi@jhsph.edu
Lecture: T 10:30 AM - 11:50 AM
Enrollment minimum of 10
No Maximum
MHS students in Mental Health; no undergraduates
Pass/Fail

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
330.820.01  THESIS RESEARCH MENTAL HEALTH  
Course offered this year  
(variable credits)  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail

330.830.01  POSTDOCTORAL RESEARCH MENTAL HEALTH  
Course offered this year  
(variable credits)  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail

330.840.01  SPECIAL STUDIES AND RESEARCH MENTAL HEALTH  
Course offered this year  
(variable credits)  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail

330.895.01  MPH PRACTICUM: MENTAL HEALTH  
Course offered this year  
(variable credits)  
Students who have not met the practicum requirement, must register for at least two credits  
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.  
Information not required for this course type  
Enrollment minimum of 10  
No Maximum  
Pass/Fail

Molecular Microbiology and Immunology
260.624.01  ADVANCED VIROLOGY
Course offered this year
(4 credits)
Pekosz, Andrew
Includes lectures on a diverse collection of viruses, with emphasis on molecular biology and pathogenesis. Approximately 50% course content consists of student presentations and discussion of primary literature.
Upon successfully completing this course, students will be able to:
1. Describe in depth and in detail the replication and pathogenesis of a number of different viruses
2. Critically analyze and critique the literature
3. Identify novel and important areas of research
E-mail: apekosz@jhsph.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
If prerequisite is not met.
Prerequisite: 260.623 or consent of instructor

260.625.01  SCIENTIFIC GRANT WRITING
Course offered this year
(2 credits)
Hardwick, J.-Marie
Covers the critical components of a scientific grant application, common errors in grantsmanship and how to avoid them, grant application review criteria, ethics related to grant writing and reviewing, and identification of funding sources. Students prepare a short (6-page) proposal and a revision of this same proposal following review. Proposal topics are selected by the student and developed with the instructor. Students also prepare critiques of classmates’ anonymous, instructor-edited proposals for discussion in class.
Upon successfully completing this course, students will be able to:
1. Identify essential components of hypothesis-driven research plans,
2. Construct a compelling proposal that reviewers can appreciate,
3. Gain grantsmanship skills by identifying the strengths and weaknesses of other proposals,
4. Experience the strengths and caveats of a peer-review system
E-mail: mhardwic@jhsph.edu
Lecture: W 3:30 PM - 4:50 PM
Enrollment minimum of 5
No Maximum
Pass/Fail
Recommended for, but not restricted to PhD students in laboratory sciences.
Course Change Information:
CourseDesc, CourseLearningObj, Recommended, RecommendedNote, StudentEval, TargetAud, CourseLocation, CourseFormat, IRBSurvey, AuditorsAllowedId, CourseOfferRationaleNote, ContactPerson, ContactEmail, StartingOfferYear, RepeatableRetakable, ScheduleTypeld, LabScheduleTypeld, 04/13/2011;

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
260.633.01  AUTOIMMUNE DISEASES OF THE ENDOCRINE GLANDS
Course offered this year
(4 credits)
Caturegli, Patrizio
Reviews current understanding of autoimmunity, the immunological mechanisms and the animal models. Presents the clinical manifestations and the pathogenesis of all autoimmune diseases affecting the endocrine glands, such as Graves' disease, type 1 diabetes and Hashimoto's thyroiditis. Current articles from the literature address important topics in autoimmunity.
Information not required for this course type
E-mail: pcatureg@jhsph.edu
Lecture: M W 3:30 PM - 5:20 PM
Enrollment minimum of 5
Enrollment maximum of 30
Letter Grade or Pass/Fail
Prerequisite: Principles of Immunology or equivalent.

260.635.01  BIOLOGY OF PARASITISM
Course offered this year
(4 credits)
Sullivan, David and Shiff, Clive
Presents a biological basis of parasitic lifestyles including host responses and parasite evasion of host defense mechanisms, transmission, epidemiology, diagnosis, clinical manifestations, pathology, treatment, and control of the major helminthic and protozoan infections of man
Upon successfully completing this course, students will be able to:
1. Discuss the biological basis for host-parasite adaptation
2. Define the scope of Parasitic Infections of Global Public Health Importance
3. Learn epidemiological concepts of relevance to parasite infections
4. Learn methods of diagnosis, identification and detection of parasites
5. Learn Pathological changes associated with Parasite infections
6. Discuss the role of vectors and intermediate hosts in parasite transmission
7. Learn the role of vertebrate innate and adaptive immune system in controlling parasites
8. Learn molecular biology concepts unique to parasite infections
9. Define the biochemical targets for drugs targeting parasites
10. Define the mechanisms of drug resistance
11. Define the immune evasion strategy employed by certain parasites
E-mail: dsulliva@jhsph.edu
Lecture: M W F 8:30 AM - 9:50 AM
Lab: M W F 10:00 AM-11:50 AM
Special Lab Number: 260.935
Enrollment minimum of 5
Enrollment maximum of 50
Letter Grade or Pass/Fail
Required for MMI students. MMI PhD and ScM should also enroll in 3 credit lab, 260.935. Non-MMl students may take the lab with special permission. Laboratory sessions examine living and preserved parasites, gross pathology, histopathology, and vectors. Journal discussions based on research papers and topics of fundamental importance to parasitology will involve student participation in a seminar format.
Course Change Information:
CourseOfferRationaleNote, CourseSectionNote, ScheduleTypeld, LabTime, .10/07/2011;
260.650.01  VECTOR BIOLOGY AND VECTOR-BORNE DISEASES
Course offered this year
(3 credits)
Norris, Douglas and Rasgon, Jason
Presents principles of transmission of human and animal pathogens by insects, mites and ticks. Discusses basic arthropod biology with special attention to biological properties of vectors and their interactions with pathogens. Discusses basic components of arbovirus disease cycles and principles of pathogen transmission dynamics. Discusses major groups of arthropod-borne pathogens and vectors. Special topics will include emergent pathogens, vector genetics, traditional and modern disease control strategies and venomous arthropods.
Information not required for this course type
E-mail: dnorris@jhsph.edu
Lecture: T TH 8:30 AM - 9:50 AM
Enrollment minimum of 5
No Maximum
Letter Grade or Pass/Fail

260.665.01  BIOLOGICAL BASIS OF AGING
Course not offered until 2012 - 2013
(3 credits)
Levitskaya, Jelena
Emphasizes the fundamental nature of the aging process, at the molecular, cellular, and organismal level and examines the principles of aging in other animal species which may apply to man. Presents the physiological aspects of the different organs/systems affected by the disease processes (e.g., cardiovascular, metabolic, immunological etc.) Discusses the theoretical models of aging.

Upon successfully completing this course, students will be able to:
1. Upon successfully completing this course, students will be able to:
2. Discuss biological basis of aging at the molecular, cellular and organismal levels
3. Discuss biological aspects of aging to both health and disease-related public health issues

E-mail: jelevits@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
Please email instructor for consent.
MPH CAPSTONE MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

Course offered this year
(2 credits)
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.
Information not required for this course type
•
Enrollment minimum of 10
No Maximum
Pass/Fail
Consent required for all students
Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.
Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

Course Change Information:
Credit, CreditNote, CourseLearningObj, FrequencySchedule, CourseLocation, IRBSurvey, GradingRestriction, AuditorsAllowedId, CourseOfferRationaleNote, ContactPerson, ContactEmail, StartingOfferYear, RepeatableRetakable, ScheduleTypeld, LabScheduleTypeld, .04/13/2011;

FIELD PLACEMENT MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

Course offered this year
(variable credits)
Information not required for this course type
•
Enrollment minimum of 10
No Maximum
Pass/Fail

THESIS RESEARCH MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

Course offered this year
(variable credits)
Information not required for this course type
•
Enrollment minimum of 10
No Maximum
Pass/Fail

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
260.821.01  RESEARCH FORUM IN MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

Course offered this year
(1 credits)
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.
Information not required for this course type

E-mail: dgriffin@jhsph.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment minimum of 10
No Maximum
Pass/Fail
Required for MMI students.

260.822.01  SEMINARS IN RESEARCH IN MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

Course offered this year
(1 credits)
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.
Information not required for this course type

E-mail: dgriffin@jhsph.edu
Lecture: TH 12:05 PM - 1:05 PM
Enrollment minimum of 10
No Maximum
Pass/Fail
Required for MMI students.

260.830.01  POSTDOCTORAL RESEARCH MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

Course offered this year
(variable credits)
Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail
260.840.01 SS/R: MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

Course offered this year

(4-8 credits)

Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail

260.851.01 LABORATORY ROTATIONS

Course offered this year

(4-8 credits)

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.

Information not required for this course type

Lecture: TBA

Enrollment minimum of 10
No Maximum
Pass/Fail

Consent required for all students
Consent of rotation supervisor required.
Required for MMI students.

260.855.01 PANDEMICS OF THE 20TH CENTURY

Course offered this year

(1 credits)

Pekosz, Andrew and Yu, Xiaofang

Focuses on major pandemics in the human population that have occurred in the 20th century: the 1918 influenza pandemic; the emergence of HIV; the severe acute respiratory distress syndrome (SARS) outbreak of 2002-03; and viral hepatitis (hepatitis B and C viruses). For each pandemic, discussion groups cover a clinical-, public health- and pathogen-oriented reading topic in order to give students a broad understanding of the overall importance of each, as well as to compare and contrast the key aspects of each disease. Focuses on acute and chronic diseases, as well as diseases with different routes of transmission and incubation times between infection and disease. Provides a comprehensive overview of how each pandemic emerged, what key factors dictated spread in the population, and how each pathogen induced disease.

Upon successfully completing this course, students will be able to:

1. Critically evaluate scientific literature on clinical, public health and basic science aspects of major 20th century pandemics
2. Comprehensively describe how new diseases emerge into the human population
3. Construct a good oral presentation

E-mail: apekosz@jhsph.edu

Lecture: W 1:30 PM - 2:20 PM

Enrollment minimum of 7
Enrollment maximum of 16

Letter Grade or Pass/Fail

Prerequisite: 120.602 Introduction to Molecular Biology OR 260.623 Fundamental Virology

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Description</th>
<th>Credits</th>
<th>Term</th>
<th>Enroll. Min.</th>
<th>Maximum</th>
<th>Grade Mode</th>
<th>Course Change Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>260.895.01</td>
<td>MPH PRACTICUM: MMI</td>
<td></td>
<td>The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals. Information not required for this course type.</td>
<td>variable</td>
<td></td>
<td>10</td>
<td></td>
<td>Pass/Fail</td>
<td></td>
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<tr>
<td>380.611.01</td>
<td>FUNDAMENTALS OF PROGRAM EVALUATION</td>
<td>Mmari, Kristin</td>
<td>Familiarizes students in different types of program evaluation, including needs assessment, formative research, process evaluation, monitoring of outputs and outcomes, impact assessment, and cost analysis. Students gain practical experience through a series of exercises involving the design of a conceptual framework, development of indicators, analysis of computerized service statistics, and development of an evaluation plan to measure impact. Covers experimental, quasi-experimental, and non-experimental study designs, including the strengths and limitations of each. Upon successfully completing this course, students will be able to: 1. Describe the purpose of different types of evaluation 2. Design a conceptual framework that explains program impact, based on program objectives 3. Develop indicators based on the conceptual framework 4. Identify sources of data at the program and population level corresponding to different types of evaluation 5. Describe the purpose of needs assessment and steps in the process 6. Describe the purpose of formative research and identify the most common methods 7. Explain the purpose of pretesting communications and the most common methods 8. Outline the advantages and disadvantages of using service statistics for program evaluation 9. Use a computerized MIS to obtain and interpret routine service statistics 10. Describe the elements of experimental and quasi-experimental designs, and explain how they address the threats to validity 11. Outline the characteristics, advantages and limitations of randomized control trials for evaluating impact 12. Design an evaluation plan</td>
<td>4</td>
<td>2011</td>
<td>10</td>
<td></td>
<td>Letter Grade or Pass/Fail</td>
<td>E-mail: <a href="mailto:kmmari@jhsph.edu">kmmari@jhsph.edu</a> Lecture: W F 1:30 PM - 3:20 PM</td>
</tr>
</tbody>
</table>

PLEASE CHECK EXTRADEPARTMENTAL LISTING FOR COURSES IN INDIVIDUAL DEPARTMENTS.

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
ATTITUDES, PROGRAMS, AND POLICIES FOR CHILDREN WITH SPECIAL HEALTH CARE NEEDS

Course offered this year
(3 credits)
Minkovitz, Cynthia

Examines conceptual and epidemiological issues related to chronic illnesses and disabling conditions of childhood, including social and personal attitudes; epidemiology of serious health conditions; chronic illness or disability in the context of child and family development; implementing and evaluating community based programs; and the structure, function, administration, and management of major US governmental programs that serve children with disabilities and chronic illnesses.

Upon successfully completing this course, students will be able to:
1. discuss conceptual and epidemiological issues related to chronic illnesses and disabling conditions of childhood, including social and personal attitudes
2. consider chronic illness in the context of child and family development
3. describe the major US governmental programs which serve children with disabilities and chronic illnesses

E-mail: cminkovi@jhsph.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

FUNDAMENTALS OF LIFE TABLES

Course offered this year
(4 credits)
Canudas-Romo, Vladimir

Participants learn to analyze population phenomena using demographic methods. Focuses on international comparisons of mortality trends, but students also study fertility and population growth changes. Presents training in life tables (including single, multiple-decrement and multi-state life tables), providing students an opportunity to explore the relations among functions in the life table and its applications to key population processes. Emphasizes the theoretical concepts underlying this methodology, as well as the practice of estimating demographically meaningful results. R is the common computing language in demography and statistics, and students develop essential computing and quantitative data manipulation skills. Course materials are presented interactively, allowing students to gain hands-on experience in manipulating the principal functions of a life table and become familiar with the type of research that can be based on them.

Information not required for this course type

E-mail: vcanudas@jhsph.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment minimum of 1
Enrollment maximum of 30
Letter Grade or Pass/Fail
Prerequisite: 380.603 Demographic Methods in Public Health and 380.600 Principles of Population Change are both highly recommended.

FAMILY PLANNING POLICIES AND PROGRAMS

Course offered this year
(4 credits)
Tsui, Amy

Course offered this year
(3 credits)
Introduces issues and programmatic strategies related to the development, organization, and management of family planning programs, especially those in developing countries. Topics include social, economic, health, and human rights rationale for family planning; identifying and measuring populations in need of family planning services; social, cultural, political, and ethical barriers; contraceptive methods and their programmatic requirements; strategic alternatives, including integrated and vertical programs and public and private sector services; information, education, and communication strategies; management information systems; and the use of computer models for program design.

Upon successfully completing this course, students will be able to:

1. characterize different contraceptive technologies in terms of their service delivery requirements and their appropriateness for different stages in the reproductive cycle
2. compute the Bongaarts intermediate fertility variables and assess how they relate to the level of fertility observed in a population
3. analyze contraceptive technologies and service delivery programs from a user perspective
4. specify key elements that characterize a high quality service delivery program
5. evaluate the role of incentives and disincentives in a family planning program
6. discuss the pros and cons of integrated versus vertical family planning and reproductive health service delivery programs
7. explain the rationale for cost-recovery in family planning and the observed relationships between price and use of contraceptives
8. assess the roles of the private sector and social marketing in a family planning program strategy
9. formulate a multifaceted program strategy designed to effectively address that segment of the population with an unmet need for contraception
10. critique the ethical issues and human rights concerns that are raised by family planning programs

E-mail: atsui@jhsph.edu
Lecture: M W 3:30 PM - 5:20 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: No prerequisites.
380.666.01 WOMEN'S HEALTH

Course offered this year
(3 credits)
Strobino, Donna
Presents an overview of the health status of women and preventive strategies to improve their health, primarily in developed countries. Topics include physical and mental health problems, health behavior, and where appropriate, gender differences in health problems and health behavior. Health issues are viewed from both biological and social perspectives. Risk factors for each are discussed as well as effective preventive interventions for women.

Upon successfully completing this course, students will be able to:
1. Describe the health status of women in the United States and other developed countries, including the epidemiology and risk factors for selected health problems
2. Describe current strategies to prevent selected health problems among women in the United States and other developed countries
3. Evaluate and synthesize the literature on a selected topic in women's health and present a debate about the topic

E-mail: dstrobin@jhsph.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

380.668.01 INTERNATIONAL PERSPECTIVES ON WOMEN, GENDER, AND HEALTH

Course offered this year
(3 credits)
Hindin, Michelle
Examines the ways by which the study of gender informs the study of health in the developing world with a focus on women's health issues. Explores the ways in which gender and sex help us to understand women's health and explain societal patterns of health, disease and well-being. Topics include both reproductive and nonreproductive health issues including mental health and physical health.

Upon successfully completing this course, students will be able to:
1. identify the multiple mechanisms by which the family, neighborhood/community, and national context adversely impacts women’s health in developing countries
2. After completing this course, students should be able to explain disparities in men's and women's health from a multidisciplinary perspective (sociology, economics, and international development)

E-mail: mhindin@jhsph.edu
Lecture: M 8:00 AM - 10:50 AM
Enrollment minimum of 1
Enrollment maximum of 25
Letter Grade or Pass/Fail
Consent required for all students
Consent is required for all students

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
| Course Code | Course Title                                      | Instructor        | Description                                                                                                                                                                                                                                                                                                                                 | E-mail                              | Lecture Times          | Credits | Enrollment Min | Enrollment Max | Grade Type                      | Consent Required     |
|-------------|--------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------|---------|----------------|----------------|---------------------------------|----------------------|                      |
| 380.711.01  | ISSUES IN SURVEY RESEARCH DESIGN                 | Sonenstein, Freya | Leads participants through the process of designing their own survey. Examines the major decisions faced by a health researcher who wants to design and implement a survey. Explores the potential sources of bias associated with alternative approaches to sample design, respondent recruitment, data collection methods (interviews in-person or by telephone, computer assisted interviews, or mail surveys) instrument design, and field administration. Participants prepare a defensible proposal for a survey that they would like to conduct. Emphasizes population surveys, but not exclusively so. Upon successfully completing this course, students will be able to: 1. Identify primary sources of error in surveys, and discuss the consequences of each type of error for survey findings 2. Critically evaluate the design, construction and implications of studies based on survey research 3. Formulate strategies for surveys that minimize error 4. Critically evaluate the design, construction, and implications of surveys                                                                 | fsonenst@jhsph.edu                  | T TH 3:30 PM - 4:50 PM | 3       | 10             | 22             | Letter Grade or Pass/Fail       | Consent required for some students Students who have not had a course in statistics |
| 380.750.01  | MIGRATION AND HEALTH: CONCEPTS, RATES, AND RELATIONSHIPS | Robinson, Courtland | Students review research on specific countries and population groups as well as international data to be able to identify key concepts, categories and trends in migration; to describe basic methods (and limitations) in measuring migration, to speculate on causation of patterns and rates, and to analyze some of the relationships between migration and health, including speculation on causation of patterns and rates of fertility, mortality and morbidity; gender and reproductive health; vulnerable populations (including victims of trafficking); migration policy and human rights. Information not required for this course type  | crobinso@jhsph.edu                  | T TH 3:30 PM - 4:50 PM | 3       | 10             | 30             | Letter Grade or Pass/Fail       | Consent required for undergraduates only. Jointly offered with IH |
380.753.01 DYNAMICS OF POPULATION AGING

Agree, Emily
Examines basic concepts of demography of aging, including trends in aging and the health of populations; characteristics of the older population in the U.S. and other countries; models of the demographic and health transitions experienced by older individuals; and implications of population aging for policy and program responses.

Upon successfully completing this course, students will be able to:
1. Identify and describe the primary demographic causes of population aging
2. Relate population aging to the epidemiologic transition
3. Discuss and critique theories about the relationships between changing patterns of morbidity and longevity
4. Describe the implications of population aging for health care, social programs, intergenerational equity, and family support
5. Contrast the nature of population aging for diverse cultures and ethnic groups

E-mail: eagree@jhsph.edu
Lecture: TH 3:30 PM - 6:20 PM
Enrollment minimum of 5
Enrollment maximum of 20
Letter Grade or Pass/Fail
Consent required for all students

380.760.01 CLINICAL ASPECTS OF REPRODUCTIVE HEALTH

Burke, Anne
Provides a comprehensive presentation of several clinical disease processes affecting women’s health. Topics include hysterectomy, hormone replacement therapy, pelvic inflammatory disease, infertility, breast disease and mammography, cervical cancer screening and management, and endometriosis. Uses traditional lecture materials, videos of procedures, patient interviews, and selected journal readings. Focuses not only on the clinical aspect of the disease, but the health policy implications on women’s health.

Information not required for this course type

E-mail: aburke@jhsph.edu
Lecture: W F 10:30 AM - 11:50 AM
Enrollment minimum of 8
No Maximum
Letter Grade or Pass/Fail
Students are expected to attend all lectures and participate in class discussions of the readings.
Course Change Information:
StudentEval, ExpectedEnrollNumber, CourseOfferRationaleNote, ContactPerson, ContactEmail, CPInstructor, .12/02/2011;

380.761.01 SEXUALLY TRANSMITTED INFECTIONS IN PUBLIC HEALTH PRACTICE

Hogan, Terry
Course offered this year
(4 credits)
Hogan, Terry
Considers features of sexually transmitted diseases relevant to their control, reviewing the natural history of the infections and laboratory diagnosis. Emphasizes public health practice control measures, including policy, behavior intervention, and medical screening/treatment intervention of sexually transmitted diseases.

Upon successfully completing this course, students will be able to:

1. Describe the clinical aspects of common STIs including their sequelae
2. Define the epidemiology of selected STIs
3. Explain the theoretical and practical issues related to the design and implementation of STI control intervention
4. Describe the impact of laboratory-based versus syndromic based management strategies on the epidemiology, prevention and control of STIs
5. Describe the economic, social, and political issues influencing development and implementation of STI control programs and supporting policies
6. Demonstrate competence in the development and delivery of a STI-related policy options paper and briefing for decision making by a policy maker (a presentation illustrating the integration of clinical and public health evidence based discuss for policy

E-mail: mhogan2@jhmi.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail

Consent required for some students
Undergraduates require instructor consent and also advisor consent.

Prerequisite: Working knowledge of Epidemiology; Public Health Biology 550.630 or equivalent which may include professional experience.
Jointly offered with EPI

380.766.01 ADVANCED SEMINAR IN PERINATAL RESEARCH
Course offered this year
(1 credits)
Strobino, Donna
Discusses research articles reviewed in 380.662 in greater depth, covering sampling and selection bias, measurement of variables, data analysis strategies, and validity of inference. Each student leads discussion of one or two articles for each class.

Upon successfully completing this course, students will be able to:

1. describe selected biologic and social concepts related to the study of maternal, newborn, and infant morbidity and mortality
2. describe selected methodological approaches to the analysis of data of maternal, newborn, perinatal, and infant morbidity and mortality
3. describe selected approaches to the measurement of social and biological factors related to maternal, newborn, perinatal and infant morbidity and mortality

E-mail: dstrobin@jhsph.edu
Lecture: TBA
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: 380.662 is corequisite
## MPH Capstone Population, Family and Reproductive Health

**Course offered this year**

(2 credits)

Must have 1-4 credits per term for two terms.

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.

**Enrollment minimum of 10**

No Maximum

**Pass/Fail**

Consent required for all students

Consent from the Capstone Supervisor is Required

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

Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

## Field Placement in Population, Family and Reproductive Health

**Course offered this year**

(variable credits)

Information not required for this course type

**Enrollment minimum of 10**

No Maximum

**Pass/Fail**

Consent required for all students

Consent from the Capstone Supervisor is Required

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

Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

## Thesis Research in Population, Family and Reproductive Health

**Course offered this year**

(variable credits)

Information not required for this course type

**Enrollment minimum of 10**

No Maximum

**Pass/Fail**

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.

Upon successfully completing this course, students will be able to:

1. Develop a research question, study aims, and hypotheses to be used in a dissertation proposal
2. Conduct a literature review which identifies current research and gaps as they relate to the study and research questions and aims
3. Identify an appropriate study design including study population and methodology- quantitative and qualitative
4. Identify data sets or setting for data collection

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3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
5. Examine frameworks and find appropriate frameworks for the study
6. Review analytic methods
7. Develop a feasible timeline for the study
8. Consider ethical issues and IRB approval
9. Identify potential funding sources

E-mail: mhindin@jhsph.edu
Lecture: TBA
Enrollment minimum of 1
No Maximum
PFRH Doctoral Students only.
Pass/Fail
Prerequisite: Must be PFRH Doctoral Student; must have completed second year comprehensive exams.

380.830.01 POSTDOCTORAL RESEARCH IN POPULATION, FAMILY AND REPRODUCTIVE HEALTH
Course offered this year
(variable credits)
Information not required for this course type

- Enrollment minimum of 10
- No Maximum
- Pass/Fail

380.840.01 SPECIAL STUDIES AND RESEARCH IN POPULATION, FAMILY AND REPRODUCTIVE HEALTH
Course offered this year
(variable credits)
Information not required for this course type

- Enrollment minimum of 10
- No Maximum
- Pass/Fail

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
380.870.01  PFRH SPECIAL STUDIES IN PUBLIC HEALTH PRACTICE

Course offered this year
(variable credits)

Credits will vary according to scope of activity. The preceptor/advisor will determine the number of 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.

Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail

380.882.01  LESSONS IN LEADERSHIP: APPLICATIONS FOR POPULATION, FAMILY AND REPRODUCTIVE HEALTH III

Course offered this year
(1 credits)
Blum, Robert

Focusses on instruments and tools that assess leadership styles, strengths and weaknesses. Explores communication strategies used by effective leaders and interview public health leaders to identify how they approach their work. Opportunity to read studies in leadership.

Upon successfully completing this course, students will be able to:

1. Analyze the components of effective leadership strategies used by effective leaders
2. Explore their own leadership styles so as to identify personal strengths and limitations
3. Manage conflict and give effective feedback
4. Practice communication skills associated with leadership

E-mail: rblum@jhsph.edu
Lecture: M 4:30 PM - 7:00 PM

Enrollment minimum of 15
Enrollment maximum of 30
Restricted to graduate students. Preference is given to second year graduate students.

Letter Grade or Pass/Fail

Multi-term with 380.880

Final grade applies to all terms

Credit is only earned by completing 380.880 through 380.883; Grades are issued after completion of the series. Students must enroll consecutively. Failure to enroll consecutively, will result in a grade of W.
**THIRD TERM**

**COURSE SCHEDULE 2011-2012**

**January 23 - March 16, 2012**

PLEASE CHECK EXTRADEPARTMENTAL LISTING FOR COURSES IN INDIVIDUAL DEPARTMENTS.

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**380.895.01**  **MPH PRACTICUM: PFRH**

Course offered this year
(variable credits)

Students who have not met the practicum requirement, must register for at least two credits

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

Information not required for this course type

Enrollment minimum of 10
No Maximum
Pass/Fail

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**INTERNATIONAL COHORT**

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**Extradepartmental**

**550.860.20**  **RESEARCH ETHICS**

Course offered only this year
(1 credits)

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).

Information not required for this course type

Lecture: SA 8:30 AM - 5:00 PM

Enrollment minimum of 10
No Maximum
Pass/Fail

Consent required for all students

this course is restricted to students in the Pacific Rim DrPH program and others on a case by case per consent of the program

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**Health Policy and Management**

**312.660.20**  **MARKETING IN HEALTH CARE ORGANIZATIONS**

Course offered only this year
(3 credits)

Miller, Rudy

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3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Introduces students to marketing concepts in health care through readings, guest speakers, small group exercises and individual study. Students learn how to conduct a situational analysis, understanding the market and consumer behavior as well as assessing the capabilities of the organization. Explores primary and secondary market research techniques. Discusses marketing strategy, including positioning and branding, program/service development, pricing, distribution, and promotion. Evaluation and measurement methods are explained.

Upon successfully completing this course, students will be able to:

1. Develop a critical eye for identifying effective marketing strategies and how they may translate to the healthcare field.
2. Evaluate the need for marketing for an individual product line in your organization
3. Understand the need and importance for an organizational brand
4. Execute a crisis communication plan
5. Utilize free media to advance or manage your message
6. Plan a marketing campaign for a single product line or service

E-mail: rumiller@jhsph.edu
Lecture: TH F SA 8:30 AM - 5:00 PM
Enrollment minimum of 10
No Maximum
undergraduates are not permitted in this course

Letter Grade or Pass/Fail
Consent required for all students
this course is restricted to Pacific Rim DrPH students only and others on a case by case basis with permission of the program

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/

Biostatistics

140.885.81 NON-INFERIORITY AND EQUIVALENCE CLINICAL TRIALS
Course offered only this year
(2 credits)
Day, Simon and Foulkes, Mary
Presents the important differences between superiority trials and those intended to show either equivalent effect, or to show that one therapy is no worse than another (but might be better). Explores the problems of setting equivalence margins, preservation of some proportion of active control effect, and emphasizes the use of confidence intervals to interpret the results of studies. Discusses special issues of quality of the trial conduct, assay sensitivity, historical evidence of treatment effects and assumptions of constancy of treatment effects over time, including concerns over “bio-creep”. Compares sample size requirements between superiority trials, equivalence trials and non-inferiority trials. Discusses the use of different analysis populations (ITT and per-protocol) and issues of changing conclusions between non-inferiority and superiority. Discusses the regulatory aspects of trial design and interpretation, and reviews existing regulatory guidance.

Upon successfully completing this course, students will be able to:

1. Define “superiority”, “equivalence” and “non-inferiority” clinical trials
2. Assess the adequacy of published examples of equivalence and non-inferiority trials
3. Design equivalence and non-inferiority trials, knowing what special features are required

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

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Students can find information about the course, course dates, and directions for registration at the course website:
http://distance.jhsph.edu/oll/
4. Present results from trials so that
equivalence or non-inferiority can be
adequately interpreted

E-mail: simon.day@roche.com
Enrollment minimum of 10
No Maximum
Access to appropriate web tools to take on-line
lectures, quizzes and exam, and to take part in
LiveTalks

Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning. Good
understanding of clinical trials. Possible background
course could be 140.633 (Biostatistics in Medical
Product Regulation).

Environmental Health Sciences

180.601.81  ENVIRONMENTAL HEALTH
Course offered this year
(5 credits)

Links, Jonathan
Examines health issues, scientific understanding of
causes, and possible future approaches to control
of the major environmental health problems in
industrialized and developing countries. Topics
include how the body reacts to environmental
pollutants; physical, chemical, and biological agents
of environmental contamination; vectors for
dissemination (air, water, soil); solid and hazardous
waste; susceptible populations; biomarkers and risk
analysis; the scientific basis for policy decisions;
and emerging global environmental health
problems.

Upon successfully completing this
course, students will be able to:

   1. Define the major environmental
agents (i.e., environmental
chemical, biological, and physical
agents that cause adverse effects
on human health) and their sources

   2. Discuss the transport and fate of
these agents in the environment,
and identify the carriers or vectors
(air, water, soil, and food) that
promote the transfer of these agents
from the environment to the human

   3. Describe the toxicokinetics of
these agents in the body, including
the effect of route of entry
(inhalation, ingestion, absorption)

   4. Describe the toxicodynamics of
these agents, including
biotransformation and the
mechanisms by which they exert
adverse health effects, and the use
of models for prediction of the
magnitude of adverse effects

   5. Identify and define the steps in
the risk assessment process,
including both exposure and dose-
response assessment, and the
sources and magnitude of
uncertainty

   6. Describe various risk
management approaches, including
regulatory, engineering, and
behavioral/risk communication
options

   7. Describe specific genetic factors
(including gender- and ethnicity-
related factors), physiologic factors
(including age- and health status-
related factors), and psychosocial
factors (including SES- and
social/cultural-related factors) that
influence the risk of exposure and/or
the likelihood of developing adverse
health outcomes from exposure to
environmental agents

3rd term information is correct as of December 27 , 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
8. Identify techniques for improving risk assessment and risk management strategies, including consideration of: (1) factors in the physical environment, (2) factors in the social environment, (3) community-based participation in both the assessment/management process and in basic environmental/public health research, and (4) issues of environmental justice/equity.

E-mail: jlinks@jhsph.edu
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning; college courses in general biology, algebra, and physics or chemistry.

This course is offered in two venues: Summer Term in East Baltimore and Third Term in Distance Education format via the internet. The Third term Distance Education venue is a pure internet course, will all lectures, discussions, and other interactions occurring via the web. The Summer Term East Baltimore venue is a combination face-to-face class session for delivery of selected lectures and for all question and answer and discussion sessions, along with Internet delivery of all other lectures.

Course Change Information:
TargetAud, CourseLocation, CourseFormat, AuditorsAllowedId, CourseOfferRationaleNote, ContactPerson, ContactEmail, ScheduleTypeld, LabScheduleTypeld, CPInstructor, .09/14/2010;

182.637.81 NOISE AND OTHER PHYSICAL AGENTS IN THE ENVIRONMENT
Course offered this year
(4 credits)
Breysse, Patrick and Doyle, Mary
Discusses noise-related topics such as physics of noise propagation and control, noise measurement, hearing anatomy and physiology, and noise-induced hearing loss; and covers ionizing and non-ionizing radiation, lasers, and heat stress.

Upon successfully completing this course, students will be able to:

1. Describe the components of an acceptable hearing conservation program
2. Define the mechanisms by which noise induces hearing loss
3. Calculate noise exposure metrics and compare them to acceptable exposure criteria
4. Operate sound level meters and noise dosimeters
5. Define the hazard classification system for laser safety programs
6. Assess the acceptability of exposures to radiofrequency non-ionizing radiation
7. Describe basic radiation health concepts and methods for detecting ionizing radiation
8. Assess occupational heat stress risk

E-mail: pbreysse@jhsph.edu
Enrollment minimum of 5
Enrollment maximum of 50
Letter Grade or Pass/Fail
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
<th>Description</th>
<th>Prerequisite(s)</th>
<th>Enrollment Minimum</th>
<th>Enrollment Maximum</th>
<th>Grade Type</th>
<th>E-mail</th>
<th>Credits</th>
<th>Offered this Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>187.650.81</td>
<td>ALTERNATIVE METHODS IN ANIMAL TESTING</td>
<td>Bressler, Joseph</td>
<td>Discusses and evaluates strategies for reducing the number of animals utilized in basic and applied research. Addresses traditional in vitro methods, including cell culture and analytical chemistry as well as newer and evolving techniques such as informatics, genomics, proteomics, and metabolomics. Also discusses governmental regulatory processes for approving new testing methods, especially in vitro methods.</td>
<td>Information not required for this course</td>
<td>10</td>
<td>No Maximum</td>
<td>Pass/Fail</td>
<td><a href="mailto:jbressle@jhsph.edu">jbressle@jhsph.edu</a></td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>340.608.81</td>
<td>OBSERVATIONAL EPIDEMIOLOGY</td>
<td>Gange, Stephen and Golub, Elizabeth T.</td>
<td>Expands upon material presented in Principles of Epidemiology (340.601) and provides opportunity to learn more about epidemiologic concepts as applied to cohort and case-control studies. Emphasizes interpretation and the ability to critically evaluate observational study designs and methods of data analysis. Intermediate concepts include measures of association, bias, confounding, and interaction/effect modification, and are illustrated in the context of analytic observational study designs.</td>
<td>Upon successfully completing this course, students will be able to:</td>
<td>10</td>
<td>125</td>
<td>Pass/Fail</td>
<td><a href="mailto:sgange@jhsph.edu">sgange@jhsph.edu</a></td>
<td>4</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Epidemiology**

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Beaty, Terri
Addresses methods for incorporating genetic markers into conventional epidemiologic study designs as risk factors. Looks at ways statistical evidence of association between markers and disease risk should be interpreted. Introduces both case-control and family-based study designs, as well as statistical methods for testing hypotheses of linkage disequilibrium (or association). Examines the interpretation of tests for interaction between genes and environmental factors. Topics covered also include problems of interpreting genome wide association studies.

Upon successfully completing this course, students will be able to:

1. Explain how family data can be used to test for genetic control of a disease or phenotype
2. Estimate familial correlations for quantitative phenotypes from family data
3. Use currently available software to check for structural errors in family data, estimate allele frequencies, check for Mendelian inconsistencies and describe familial aggregation of both qualitative and quantitative phenotypes
4. Explain how models of inheritance are fit to family data and interpret published articles on segregation analysis of complex phenotypes
5. Explain what linkage analysis means, and the relationship between meiotic recombination, crossing over, genetic distance and mapping functions
6. Interpret published articles on parametric or model based linkage analysis for both qualitative and quantitative phenotypes
7. Use currently available software to estimate recombination fraction from informative multiplex families and test for linkage between a single marker and a disease phenotype using maximum likelihood methods
8. Use currently available software to estimate the map position of an unobserved trait locus and a fixed framework map of multiple markers to map genes
9. Explain how variance components models can be used to identify quantitative trait loci (QTL) that are used to map genes for quantitative phenotypes
10. Interpret and critically evaluate non-parametric or model free methods for linkage analysis of complex phenotypes

E-mail: tbeaty@jhsph.edu
Enrollment minimum of 10
Enrollment maximum of 30
Letter Grade or Pass/Fail
Consent required for all students
Assessment of prior knowledge conducted by instructor
Prerequisite: Introduction to Online Learning and 140.621-622 or 140.651-652; 340.664

7. Use currently available software to estimate recombination fraction from informative multiplex families and test for linkage between a single marker and a disease phenotype using maximum likelihood methods

8. Use currently available software to estimate the map position of an unobserved trait locus and a fixed framework map of multiple markers to map genes

9. Explain how variance components models can be used to identify quantitative trait loci (QTL) that are used to map genes for quantitative phenotypes

10. Interpret and critically evaluate non-parametric or model free methods for linkage analysis of complex phenotypes

E-mail: tbeaty@jhsph.edu
Enrollment minimum of 10
Enrollment maximum of 30
Letter Grade or Pass/Fail
Consent required for all students
Assessment of prior knowledge conducted by instructor
Prerequisite: Introduction to Online Learning and 140.621-622 or 140.651-652; 340.664
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<th>Enrollment Maximum</th>
<th>Grade Options</th>
<th>Consent Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>340.645.81</td>
<td>INTRODUCTION TO CLINICAL TRIALS</td>
<td>Holbrook, Janet and Drye, Lea</td>
<td>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. Upon successfully completing this course, students will be able to:</td>
<td><a href="mailto:jholbroo@jhsph.edu">jholbroo@jhsph.edu</a></td>
<td>3</td>
<td>3</td>
<td>50</td>
<td>Letter Grade or Pass/Fail</td>
<td>Consent required for all students</td>
</tr>
<tr>
<td>340.744.81</td>
<td>ADVANCED TOPICS ON CONTROL AND PREVENTION OF HIV/AIDS</td>
<td>Farzadegan, Homayoon</td>
<td>Focuses on directed readings and discussion on the science and pathogenesis of HIV/AIDS. Covers dynamics of the HIV epidemic in the populated world, difficulties and contrasts between clinical management of HIV/AIDS in developed and developing countries, prevention and control modalities against HIV/AIDS, and predicting patterns of future growth of the HIV/AIDS epidemic with special reference to global economic impact of HIV vaccine and eradication issues of HIV/AIDS. Upon successfully completing this course, students will be able to:</td>
<td><a href="mailto:hfarzade@jhsph.edu">hfarzade@jhsph.edu</a></td>
<td>4</td>
<td>10</td>
<td>Unlimited</td>
<td>Letter Grade or Pass/Fail</td>
<td>Consent of instructor is required.</td>
</tr>
</tbody>
</table>

Extradepartmental

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
HISTORY OF PUBLIC HEALTH

Mooney, Graham

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

Upon successfully completing this course, students will be able to:

1. Examine public health through its historical context and use this information in the evaluation of current public health issues

E-mail: gmooney3@jhmi.edu
Enrollment minimum of 10
No Maximum
Pass/Fail
Prerequisite: Introduction to Online Learning.

CURRENT ISSUES IN PUBLIC HEALTH

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.

Upon successfully completing this course, students will be able to:

1. Describe four major current issues in public health. This will include discuss of the magnitude of the problem, recent relevant research findings, and intervention strategies

E-mail: eschoenr@jhsph.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning
This is the Internet version of 550.861.
MANAGING HEALTH SERVICES ORGANIZATIONS

Course offered this year
(4 credits)
Marsteller, Jill

Presents a framework for understanding and managing health services and health sector organizations. Discusses strategic and organizational management [e.g., health care environment, stakeholders and customers, missions, vision and values, governance, organizational structure and design]; management & performance improvement tools [e.g., budgeting and financial management, logistics, continuous quality improvement, balanced scorecard, logical framework, learning networks and collaboratives; management role and functions [e.g., leadership style, employee performance, decision-making, human resource management]

Upon successfully completing this course, students will be able to:

1. Identify the complexities and challenges of managing health services organizations
2. Analyze health service organizations and their functions in order to facilitate change and performance improvement
3. Apply management tools and processes to performance improvement opportunities,
4. Demonstrate an understanding of the role and expectations of managers in health service organizations

E-mail: jmarstel@jhsphs.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.
Jointly offered with HPM, IH

FUNDAMENTALS OF BUDGETING AND FINANCIAL MANAGEMENT

Course offered this year
(3 credits)
Ward, William

Explains the role of budgeting as a key component of the administrative process. Students learn to develop a budget and evaluate the financial status of a department or operating unit and determine what, if any, corrective actions need to be taken. Presents various analytical methods in management decision making, including benefit/cost ratio analysis, variance analysis, and break-even analysis. Also includes approaches to benchmarking, productivity improvement techniques, and methods for building cost standards.

Upon successfully completing this course, students will be able to:

1. Demonstrate an understanding of budgeting's role as a key component of the administrative process
2. Develop budgets for revenues, staffing and salaries, supplies and services, and equipment
3. Evaluate the financial status of a department or operating unit using volume adjusted variance analysis to determine the cause(s) of performance deviation
4. Use a variety of analytical methods to support sound business decision-making: marginal analysis, benefit:cost ratio analysis, and break-even analysis
5. Demonstrate an understanding of revenue, cost, and productivity improvement techniques
6. Build cost standards, perform bilateral performance mapping, and analyze process flow
7. Demonstrate an understanding of how to perform useful benchmarking analysis
8. Develop effective action/implementation plans

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.

126 of 152
Health Behavior and Society

410.755.81  HEALTH COMMUNICATION PROGRAMS
Course offered this year
(4 credits)
Lozare,Benjamin
Focuses on the step by step design, implementation, evaluation, and critique of communication programs designed to change behavior. Students create actual mini-campaigns and use the simulation SCOPE to develop these hypothetical campaigns in the U.S. Students present their final projects in the form of PowerPoint presentations.

Upon successfully completing this course, students will be able to:

1. Carry out a small scale communication campaign to promote a desirable health practice
2. Develop a large scale project including researching, designing, and developing materials, implementing, monitoring, and working with evaluators to measure the program's effectiveness
3. Demonstrate competency by preparing and reporting on a complete campaign developed with SCOPE software

E-mail: blozare@jhsph.edu
Enrollment minimum of 12
Enrollment maximum of 40

Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.
Course must be taken for letter grade, not audit.
Course Change Information:
CourseOfferRationaleNote, ContactPerson, ContactEmail, CPlnstructor, .09/09/2011;

Health Policy and Management

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
309.616.81 INTRODUCTION TO METHODS FOR HEALTH SERVICES RESEARCH AND EVALUATION I

Course offered this year
(2 credits)
Weiner, Jonathan and Burton, Lynda
Introduces basic methods for undertaking research and program evaluation within health services organizations and systems, and reviews major completed studies. Topics include the relationship between health services research (HSR) and health care policy and management; the multidisciplinary philosophy of HSR; research design, including experimental and quasi-experimental approaches; issues of reliability, validity, and measurement; survey research techniques; use of existing data systems; basic cost benefit and effectiveness analysis; and measurement of quality of care. Students critique published HSR studies and develop a design for a research or evaluation project.

Upon successfully completing this course, students will be able to:

1. Critique published health services research and health program evaluations
2. Develop a design for a research or evaluation project
3. Describe the relationship between health services research and program evaluation
4. Identify differences between basic and policy-relevant health services research projects and program evaluation
5. Develop a conceptual framework for a study, showing the hypothesized causal variables and the expected outcomes
6. Identify different types of study design, including observational, pre-experimental and experimental designs, and their inherent threats to internal and external validity
7. Describe the basic issues related to measurement of variables
8. Identify problems with measurement reliability and validity
9. Identify aspects of quality of care and its measurement as they relate to health services research projects
10. Discuss how survey research is used in health services research and evaluation, in terms of choice of sampling techniques, determination of sample size, and approaches to writing survey questions
11. Demonstrate discuss of the basic concepts of cost benefit and cost-effectiveness analysis
12. Utilize secondary data and existing information sources in research projects

E-mail: jweiner@jhsph.edu
Enrollment minimum of 10
No Maximum
do not register for 300.713 and this course.

Letter Grade or Pass/Fail
Consent required for all students
Prerequisite: Introduction to Online Learning.
Multi-term with 309.617

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
309.730.81  PATIENT SAFETY AND MEDICAL ERRORS
Course offered this year
(3 credits)
Wu, Albert and Pronovost, Peter
Provides an introduction to the science of safety, and how it relates to problems with patient safety in health care. Explains the role of both individuals and systems in improving patient safety. Reviews institutional responses to adverse events, including the topics of risk management and medical malpractice. Emphasizes the importance of communication and teamwork. Students learn the basics of conducting an incident investigation, gain an understanding of the advantages and limitations of error reporting, learn how to disclose errors and adverse events, and learn models for improving safety in hospitals and other health care organizations from both the micro and macro points of view.
Information not required for this course type
E-mail: awu@jhsph.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Internet skills course

312.633.81  HEALTH MANAGEMENT INFORMATION SYSTEMS
Course offered this year
(3 credits)
Minear, Michael
Provides a broad overview of healthcare information systems with emphasis on historical foundations, current issues, and industry pressures pushing modernization and increased sophistication in the use of technology. Major topics include: an overview of healthcare use of information technology, medical informatics, public health informatics, Information Technology infrastructure, ethics in computing, computer security, consumer informatics, clinical software, computing in clinical education, research computing, IT strategy, community-wide clinical information sharing, and the future of healthcare computing.
Information not required for this course type
E-mail: mminear@jhsph.edu
Enrollment minimum of 10
Enrollment maximum of 40
undergraduates are not permitted in this course
Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.

313.641.81  HEALTH ECONOMICS I
Course offered this year
(3 credits)
Frick, Kevin
Introduces students to the application of economic tools to the analysis of the interaction among the many stakeholders in the health care system and the public health system. Uses a standard medical care economics text as the main reference guide; also draws on a combination of other texts that either use economic tools to draw contrasting conclusions, or that consider the economics of issues related more directly to public health topics.
Upon successfully completing this course, students will be able to:

1. compare and contrast the demand for health and health care
2. motivate the demand for protection from health care expenditures
3. describe the economics of production of health services,
4. discuss the production and supply of medical personnel
5. discuss the supply of the pharmaceutical products
6. discuss the economics of public health externalities
7. describe the role of government in remedying market failures in the health care sector
8. discuss the economics of public health issues including obesity, food safety, injury prevention, and infectious disease

E-mail: kfrick@jhsph.edu
Enrollment minimum of 12
Enrollment maximum of 50
Undergraduates are NOT permitted in this course

**Letter Grade or Pass/Fail**
Prerequisite: Introduction to Online Learning, 313.639 1st term, or 313.670 1st term, or permission of instructor

**315.700.81 HEALTH INFORMATION SYSTEMS: DESIGN TO DEPLOYMENT**
Course offered this year
(3 credits)
Miller, Robert
Reviews health information systems, such as patient records, patient monitoring, imaging, public health, educational, bioinformatics and scholarly systems. Teaches the core architectures and technologies of these core systems, focusing on commonalities and differences and design.
Information not required for this course type

E-mail: remiller@jhmi.edu
Enrollment minimum of 15
No Maximum
**Letter Grade or Pass/Fail**
Prerequisite: Introduction to on-line learning and 315.707.81
Jointly offered with HPM, ME
This is the same course as SOM 600.700.
315.708.81  HIT STANDARDS AND SYSTEMS INTEROPERABILITY
Course offered this year
(3 credits)
Orlova, Anna
Students learn the data, information, and knowledge standards critical to the successful implementation of local, regional, and national health-related information systems. Target competencies are to identify the appropriate level of HITSP standards for an informatics problem, and select the appropriate standard within that level; create use cases and an organizational process to define an interoperability standard for a specific healthcare/regional situation; participate in a national standards-creation process.

Upon successfully completing this course, students will be able to:
1. To Discuss health information exchanges (HIEs) between clinical and public/population health data systems
2. Discuss the main categories of HIT standards
3. Discuss the standards harmonization process
4. participate in the design of information systems in public health

E-mail: aorlova@jhsph.edu
Enrollment minimum of 15
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Introduction to On-line learning and 315.707.81 or 309.631.81
Jointly offered with ME
This is the same course as SOM 600.708.
Course Change Information:
Prerequisite, CourseOfferRationaleNote, .07/12/2011;

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315.709.81  HEALTH SCIENCES INFORMATICS, KNOWLEDGE ENGINEERING AND DECISION SUPPORT
Course offered this year
(3 credits)
Lehmann, Harold
Provides a framework for understanding decision support in the workflow of the health sciences. Focuses on the types of support needed by different decision makers, and the features associated with those types of support. Discusses a variety of decision support algorithms, examining advantages and disadvantages of each, with a strong emphasis on decision analysis as the basic science of decision making. Students are expected to demonstrate facility with one algorithm in particular through the creation of a working prototype, and to articulate the evidence for efficacy and effectiveness of various types of decision support in health sciences and practice, in general.

Upon successfully completing this course, students will be able to:
1. Identify the place of decision support in the informatics infrastructure
2. Discuss the formal approaches to decision making
3. Identify the psychological approaches to decision making

E-mail:
Enrollment minimum of 15
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Introduction to on-line learning
Jointly offered with ME
This is the same course as SOM 600.702.
Course Change Information:
CourseNumber, CourseOfferRationaleNote, .12/14/2010;

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3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
317.600.81  INTRODUCTION TO THE RISK SCIENCES AND PUBLIC POLICY

Course offered this year
(3 credits)
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.

Information not required for this course type

E-mail: tburke@jhsph.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: on-line learning course
Jointly offered with EHS, Epi

International Health

221.649.81  E-HEALTH AND M-HEALTH: USING INFORMATION TECHNOLOGY TO IMPROVE HEALTH IN LOW AND MIDDLE-INCOME COUNTRIES

Course offered this year
(3 credits)
Bunker, Edward and Weiss, Bill
Explores eHealth and mHealth in Low and Middle-Income Countries (LMIC). Students consider practical approaches to assess appropriate application of information and communication technologies to solve public health problems and improve health. Students also identify and discuss challenges for developing and deploying eHealth and mHealth systems. Through analysis of case studies and interactions with practitioners, students assess and articulate requirements for eHealth and mHealth systems. Covers current topics and issues, including: “lessons-learned” from recent mobile health initiatives; challenges of creating, developing, and supporting systems within low-bandwidth or no-bandwidth environments; electronic health records (EHRs); role of mobile data collection within program monitoring and evaluation; and role and use of open source systems. Although not exclusively, faculty and guest lecturers will draw upon their work and experiences related to HIV/AIDS in Africa.

Upon successfully completing this course, students will be able to:
1. articulate basic definitions and terms relevant to eHealth, mHealth, and Informatics
2. apply frameworks and other tools in the assessment and evaluation of ICT projects
3. assist public health agencies and donors to develop or select ICT to better achieve objectives in LMIC and critically participate in discussions about basic system requirements for proposed systems
4. write “Use Case” narratives and requirement statements
5. discuss and debate current eHealth and mHealth issues and challenges

E-mail: ebunker@jhsph.edu
Enrollment minimum of 5
Enrollment maximum of 40
Letter Grade or Pass/Fail
Section 81 (Distance Education) will involve 5 pre-scheduled Live Talks, with dates and times to be posted on the Distance Education web-site. Please plan accordingly.

Course Change Information:
EnrollMin, EnrollMax, CourseOfferRationaleNote, .10/07/2011;

221.688.81 SOCIAL AND BEHAVIORAL FOUNDATIONS OF PRIMARY HEALTH CARE

Course offered this year
(4 credits)
Brieger, William

Provides students with the knowledge and skills needed to understand individual, community, and organizational behaviors and change processes in cross-cultural and developing countries settings as a foundation for planning appropriate Primary Health Care (PHC) programs. Students learn to outline the contributions of social and behavioral science theory in the planning and implementation of culturally relevant PHC programs; will utilize social and behavioral theories to understand individual, social network, organizational, community, and policy maker health related behaviors; and identify the factors that promote and inhibit community involvement in PHC program development and implementation.

Upon successfully completing this course, students will be able to:

1. Outline the contributions of social and behavioral science theory in the planning and implementation of PHC programs
2. Apply relevant social and behavioral theories to diagnose and Discuss individual, social network, organizational, community, and policy-maker behaviors associated with the planning, implementation, evaluation, and maintenance of community-based pr
3. Identify the factors that promote and inhibit community involvement in PHC program development and implementation, and outline indigenous management strategies to sustain PHC at the community level

E-mail: bbrieger@jhsph.edu
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
223.665.81  INFECTION, IMMUNITY AND UNDERNUTRITION: INTERACTIONS AND EFFECTS
Course offered this year
(4 credits)
Coles, Christian
Reviews current data on the metabolic, physiologic and endocrinological events that comprise, the acute phase responses of the body to infection. Discusses the detrimental impact of these, responses on nutrient intake, metabolism, absorptions, and losses. Examines the deleterious effects of undernutrition and micronutrient deficiencies on host barrier defenses, innate, mucosal, humoral and cell-mediated immunity, and pathogen virulence. Evaluates the influence of nutritional status on responses to vaccination and antimicrobial therapy.
Upon successfully completing this course, students will be able to:
1. describe the impact of infectious diseases on nutritional status
2. explain the general effects of undernutrition and micronutrient deficiencies on host immunity and the impact on immunity to the major infectious causes of child morbidity and mortality
3. Discuss the implications for the control of pediatric infectious diseases in low income countries
E-mail: ccoles@jhsph.edu
Enrollment minimum of 10
Enrollment maximum of 40
Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning. A basic knowledge of immunology and nutrition is desirable.

330.607.81  PREVENTION OF MENTAL DISORDERS: PUBLIC HEALTH INTERVENTIONS
Course offered this year
(3 credits)
Ialongo, Nicholas and Rebok, George
Introduces the basic principles and methods that guide research on the prevention of and early intervention with mental disorders and drug abuse. Includes public health interventions that operate at multiple ecological levels, including the community (e.g., mobilization, media), school (e.g., changes in classroom management and organization), family (e.g., parent training strategies), and individual (e.g., social competence strategies). Focuses on specific topics in prevention and intervention trial design, community and institutional base building, intervention theory and monitoring, and data analysis techniques and findings. Examines population-based epidemiologic and other methodological approaches from a life-course developmental perspective.
Upon successfully completing this course, students will be able to:
1. describe a public health approach to the prevention and control of mental disorders and substance abuse
2. apply concepts learned to the development and evaluation of preventive interventions for individuals, families, neighborhoods, and communities
3. utilize conceptual models for the development, implementation, and evaluation of intervention strategies aimed at the prevention or control of mental disorders or substance use
E-mail: nialongo@jhsph.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
Consent required for undergraduates.

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
INTRODUCTION TO BEHAVIORAL AND PSYCHIATRIC GENETICS

Zandi, Peter

Provides an overview of research methods and their application to the study of behavioral and psychiatric genetics. Course begins by briefly introducing necessary concepts in molecular and population genetics. The course then studies designs and analytic methods used to investigate the genetic contribution to human behavior and its disturbances. The study designs covered include the following: family, twin, and adoption studies to evaluate the extent of genetic contribution; segregation studies to determine the mode of inheritance; linkage and association studies to map genes; and other epidemiological designs to elucidate gene-by-environment interactions. These are illustrated through examples of real studies. At the end of the course, the student will be familiar with our current understanding of the role genetic factors play in human behavior, its disturbances, and how our research may further that understanding.

Upon successfully completing this course, students will be able to:

1. review the basic molecular genetic concepts necessary for discussing how genetic factors may contribute to behavioral and psychiatric traits
2. describe the latest research methods that may be used to investigate the genetics of behavioral and psychiatric traits
3. list the principles of quantitative genetic studies, such as family, twin and adoption studies, and molecular genetic studies, such as linkage and association studies, and the challenges of applying these study designs to behavioral and psychiatric traits
4. discuss the role genetic factors play in behavioral and psychiatric traits of major public health concern, including schizophrenia, personality and smoking

E-mail: pzandi@jhspht.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
Consent required of undergraduates.

Molecular Microbiology and Immunology

MALARIOLOGY

Sullivan, David and Shiff, Clive

Presents issues related to malaria as a major public health problem. Emphasizes the biology of malaria parasites and factors affecting their transmission to humans by anopheline vectors. Topics include host-parasite-vector relationships; diagnostics; parasite biology; vector biology; epidemiology; host immunity; risk factors associated with infection, human behavior, chemotherapy, and drug resistances; anti-vector measures; vaccine development; and management and policy issues.

Upon successfully completing this course, students will be able to:

1. Discuss the complex relationships between host and vector that affect transmission and control
2. Integrate the host and parasite relationships to Discuss the immune response, nature of disease, and disease manifestations
3. Interpret epidemiological indices associated with patterns of malaria transmission
Population, Family and Reproductive Health

4. Evaluate different approaches to malaria control through vector control, chemotherapy, and vaccines when they become available.

5. Describe the differences between the various species of Plasmodium affecting humans.

E-mail: dsulliva@jhsph.edu
Enrollment minimum of 5
Enrollment maximum of 150
Letter Grade or Pass/Fail
Consent required for some students
Part-time, distance students - no consent required.
Full-time MPH and other full-time students - consent required.
Please email instructor for permission.
Prerequisite: Introduction to Online Learning.

380.603.81 DEMOGRAPHIC METHODS FOR PUBLIC HEALTH
Course offered this year
(4 credits)
Agree, Emily
Prepares students to use demographic methods to address specific public health problems, identify and estimate populations at risk, and aid in forecasting health service needs, using a combination of lectures, labs, and case studies. Methods covered include population projections and period life tables.

Upon successfully completing this course, students will be able to:
1. Identify appropriate sources of demographic data and describe the limitations of various data sources
2. Apply appropriate demographic methods to address specific public health problems
3. Calculate basic demographic indicators and measures
4. Calculate and apply period and cohort life tables
5. Identify and estimate populations at risk
6. Forecast population growth by age and sex

E-mail: eagree@jhsph.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.

380.623.81 ADOLESCENT HEALTH AND DEVELOPMENT
Course offered this year
(3 credits)
Blum, Robert
Lectures on research findings and issues present biological, psychological, and social aspects of normal adolescent growth and development as a framework for viewing a variety of adolescent health problems and their social and biological effects. Also considers programmatic needs of the adolescent.

Upon successfully completing this course, students will be able to:

1. Discuss the biological and psychological developmental processes that occur during adolescence and puberty

2. Identify major health concerns affecting adolescents in both the domestic and international domains

3. Frame major health concerns affecting adolescents within a conceptual framework to discuss their key determinates that include risk and protective factors within the biological, social, cultural, behavioral, political and environmental domains

4. Analyze major health concerns affecting adolescents in an effort to recommend effective interventions to improve the health of adolescent

5. Explore four topical areas (reproductive health, adolescents with disabilities, substance use and juvenile justice) in depth to discuss the interplay of key determinates in different settings through guest speakers and case studies

6. Effectively moderate panels of guest speakers as part of the topic specific case studies

7. Work in multi-disciplinary teams to create a poster presentation on a major health concerns affecting adolescents, which includes creating a poster board for visual display and a brief oral presentation similar to those conducted at professional conferences

8. Demonstrate critical and analytical thinking by preparing a written report on a major health concern affecting adolescents that includes a description of the magnitude of the concern, a conceptual framework and a recommended intervention

E-mail: rblum@jhsph.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
RESEARCH ETHICS
Course offered this year
(1 credits)
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).
Information not required for this course type
.
E-mail: jdipietr@jhsphs.edu
Enrollment minimum of 10
No Maximum
Auditing not permitted
Pass/Fail
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.

BETHESDA, MD, NOT A HOPKINS FACILITY
Health Behavior and Society

INTRODUCTION TO HUMAN GENETICS II
Course offered this year
(2 credits)
Biesecker, Leslie
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 reimbursement of genetic counseling services are addressed. 415.612 - 613 expand on the previous two courses to examine the Hemoglobinopathics and Thalassemias as models of molecular pathology, the molecular/biochemical basis of genetic disease, genetics of cancer, gene mapping

Upon successfully completing this course, students will be able to:

1. Discuss basic structure and function of chromosomes and genes
2. recognize inheritance patterns in pedigrees and assess risks
3. Discuss when and how screening and diagnostic tests are performed and how to interpret results of such tests
4. discuss basic mechanisms of mutation and how mutations can lead to disease
5. Discuss how the inheritance pattern of a disease is determined by the molecular mechanisms by which mutations alter gene function and cause the disease
6. discuss the features of common genetic diseases seen in genetic counseling practice, including natural history and management

E-mail: leslieb@helix.nih.gov
Lecture: M 5:30 PM - 7:30 PM

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsphs.edu/C4/Academics/.
Enrollment minimum of 4
Enrollment maximum of 8
**Letter Grade or Pass/Fail**
Consent required for all students
Prerequisite: 415.611
Jointly offered with National Inst. Health

**415.630.92 THERAPEUTIC GENETIC COUNSELING I**

Course offered this year
(2 credits)
Biesecker, Barbara

Prepares students to develop an applied theory for genetic counseling practice. Presents a client-centered approach as adapted for short-term therapy related to genetic conditions, using case examples and role-playing to implement concepts and apply them to clinical scenarios; basic attending skills in conjunction with issues of countertransference; and limitations of counseling, particularly for mentally ill clients or those with pathologic grief reactions. Compares and contrasts several counseling theories.

Information not required for this course type

E-mail: barbarab@mail.nih.gov
Lecture: F 12:00 PM - 1:50 PM
Enrollment minimum of 4
No Maximum

**Letter Grade or Pass/Fail**
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH

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.

Upon successfully completing this course, students will be able to:

1. describe the process of adaptation to disability from a family systems perspective
2. analyze cases in terms of adaptation theories
3. develop theory-based counseling interventions for families in an adaptation process
4. become aware of one's own attitudes, beliefs, behaviors, and counter-transference issues that affect one's development as an adaptation counselor

E-mail: Andrea.Wray@med.navy.mil
Lecture: TH 1:00 PM - 2:50 PM
Enrollment minimum of 10
Enrollment maximum of 12

**Letter Grade or Pass/Fail**
Consent required for all students
Prerequisite: 415.650; Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with National Inst. Health

Grades submitted at the end of the term.
### THESIS RESEARCH: GENETIC COUNSELING

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<td>THESIS RESEARCH: GENETIC COUNSELING</td>
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<td>Pass/Fail</td>
<td>Yes</td>
<td>Must be enrolled in ScM in Genetic Counseling Program</td>
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### SS/R: GENETIC COUNSELING

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<td></td>
<td>10</td>
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<td>Pass/Fail</td>
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<td>Must be enrolled in ScM in Genetic Counseling Program</td>
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### SUPERVISED CLINICAL ROTATIONS: GENETIC COUNSELING

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<td>415.851.92</td>
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<td></td>
<td></td>
<td>Pass/Fail</td>
<td>Yes</td>
<td>Must be enrolled in ScM in Genetic Counseling Program</td>
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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.

Consent required for all students

### E-mail: barabarab@mail.nih.gov

Lecture: TBA

Enrollment minimum of 10

Enrollment maximum of 15

Pass/Fail

Students should register for 4 credits in terms 1-4 and 2 credits in the summer term.

Biesecker, Barbara

Information not required for this course type

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
415.861.92 GENETIC COUNSELING SEMINAR: TOPICS IN THE FIELD

Course offered this year
(2 credits)
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.

Information not required for this course type

E-mail: barbarab@mail.nih.gov
Lecture: F 2:30 PM - 4:20 PM
Enrollment minimum of 10
Enrollment maximum of 25
ScM in Genetic Counseling students

Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH
Students must register for all four terms.

Course Change Information:
CourseLearningObj, RecommendedNote, EnrollRestriction, InstructorConsentId, TargetAud, CourseLocation, CourseFormat, AuditorsAllowedId, JointlyOffered, DeptCoList, ContactPerson, ScheduleTypeId, LabScheduleTypePld, CPInstructor, .09/09/2011;

415.866.92 CURRENT TOPICS IN MOLECULAR GENETICS I

Course offered this year
(1 credit)
Hart, Suzanne
Reviews current research in molecular genetics, exploring specific molecular techniques and applications. Students critically assess research results in assigned papers to determine their application to genetics medicine and genetic counseling.

Upon successfully completing this course, students will be able to:

1. appreciate the types of techniques used in the molecular diagnostic lab
2. Discuss the issues underlying molecular diagnosis for a variety of disorders, including Fragile X syndrome, cystic fibrosis, achondroplasia, fetal Rh typing, colorectal cancer, and thrombophilies
3. Discuss how to interpret molecular genetic results

E-mail: shart@mail.nih.gov
Lecture: W 4:00 PM - 4:50 PM
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
Consent required for all students
Prerequisite: 415.610-.613; Must be enrolled in ScM in Genetic Counseling Program
Multi-term with 315.866
Jointly offered with National Inst. Health
Students must register for both 3rd and 4th term.
415.870.92  GENETIC COUNSELING CLINICAL SUPERVISION

Course offered this year
(1 credits)
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.

Information not required for this course type

E-mail: barbarab@mail.nih.gov
Lecture: TBA
Enrollment minimum of 10
Enrollment maximum of 15

Pass/Fail
Consent required for all students
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program; students must register for four terms.
Jointly offered with National Inst. Health

Discontinued

140.822.01  SEMINARS IN BIOINFORMATICS

Course offered this year
(1 credits)
Ruczinski, Ingo

Students attend the weekly Genomics Working Group meeting, where researchers from JHU and other biomedical research institutions present and discuss approaches and results of problems arising in computational biology, bioinformatics and related topics.

Upon successfully completing this course, students will be able to:

1. Identify the key areas of research in bioinformatics, statistical genetics, and computational biology
2. Critically evaluate studies in bioinformatics, statistical genetics, and computational biology

E-mail: iruczins@jhsph.edu
Lecture: W 2:30 PM - 3:20 PM
Enrollment minimum of 10
No Maximum

Pass/Fail
Consent required for all students
Consent of instructor is required.
Will be held in departmental space. This is a special studies offering designed for students formally appointed to the Bioinformatics Training Grant and/or enrolled in the MHS in bioinformatics program.

Course Change Information:
CatalogStatus, .09/09/2011;

180.641.01  METHODS IN PUBLIC HEALTH EMERGENCY PREPAREDNESS

Course offered this year
(3 credits)
Kirsch, Thomas

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Develops intermediate-level knowledge and skills that are required for leading national and international public health preparedness efforts. Provides an overview of development of first responder systems, medical assistance planning, and contemporary preparedness challenges.

Upon successfully completing this course, students will be able to:

1. Define the structure and organization of disaster response efforts, including incident command systems and the responsibilities of governmental and nongovernmental entities;
2. Monitor baseline and disaster-related public health status to identify community health problems to enhance planning capabilities;
3. Conduct post-emergency/catastrophe assessments for the purpose of informing future public health preparedness systems;
4. Inform, educate and empower the public about public health preparedness related issues;
5. Design and evaluate disaster related drills;
6. Prepare public health disaster plans to provide emergency assistance including medical assistance to vulnerable populations.

E-mail: tkirsch1@jhmi.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment minimum of 10
Enrollment maximum of 40
Letter Grade or Pass/Fail
Jointly offered with IH

187.650.01  ALTERNATIVE METHODS IN ANIMAL TESTING
Course offered this year
(3 credits)
Bressler, Joseph
Discusses and evaluates strategies for reducing the number of animals utilized in basic and applied research. Addresses traditional in vitro methods, including cell culture and analytical chemistry as well as newer and evolving techniques such as informatics, genomics, proteomics, and metabolomics. Also discusses governmental regulatory processes for approving new testing methods, especially in vitro methods.

Information not required for this course type

E-mail: jbressle@jhsph.edu
Enrollment minimum of 5
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
Contact Dr. Bressler in order to obtain approval to register for this course.
Prerequisite: 187.610 Public Health Toxicology
410.862.01 RESEARCH SEMINAR IN HEALTH COMMUNICATION

Course offered this year
(2 credits)
Underwood, Carol

In this seminar, students critically review current and seminal articles concerning various aspects of health communication, including the impact of mass media, interpersonal communication, and health campaigns.

Upon successfully completing this course, students will be able to:
1. Describe the major theoretical traditions in the study of human communication
2. Compare and contrast the thematic concerns and underlying assumptions of the theories discussed in class
3. Use communication theory in conceptualizing, speaking and writing about health communication

E-mail: cunderwo@jhsph.edu

Enrollment minimum of 7
No Maximum

Letter Grade or Pass/Fail

309.640.01 INTRODUCTION TO PUBLIC HEALTH INFORMATICS

Course offered this year
(3 credits)
Lehmann, Harold

Provides students with the knowledge and skills to practice public health in the electronic environment. Presents an overview of core informatics skills and knowledge in public health. Topics include literature searching and aspects of database construction and critique, standards at multiple levels, security and privacy concerns, and information-system development.

Information not required for this course type

E-mail:

Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail

Prerequisite: Familiarity of working with public health data or other information systems.
317.640.01  NANOTECHNOLOGY RISK ANALYSIS
Course offered this year
(3 credits)
White, Ronald
Introduces environmental risks and benefits associated with nanotechnology.
Information not required for this course type
E-mail: rwhite@jhsph.edu
Enrollment minimum of 10
Enrollment maximum of 50
Letter Grade or Pass/Fail
Consent required for all students
All students are required to receive permission of instructor.
Prerequisite: 317.600
Jointly offered with EHS

Cancelled - Department

305.665.01  POLITICS AND PRACTICE: PUBLIC HEALTH POLICY CASE STUDIES
Course offered this year
(2 credits)
Resnick, Beth A.
Familiarize students with the public health policy development and implementation processes, using the core public health functions as an organizing framework. Students assess, debate, and discuss specific case examples from current Federal, Maryland State, and local legislative sessions. Focuses on the public health policy decision-making process, as well as the policy implications for addressing public health challenges. Students lead class discussion on current public health policy issues, and also have a choice of written assignment formats including policy position statements, testimony, policy briefing memos, and opinion-editorials, as well as field-placement work, if applicable.
Upon successfully completing this course, students will be able to:
  1. describe the three core public health functions
  2. assess the efficacy of specific public health policies for addressing public health challenges
  3. offer pragmatic policy strategies to address public health challenges
E-mail: bresnick@jhsph.edu
Enrollment minimum of 10
Enrollment maximum of 15
Letter Grade or Pass/Fail

221.648.01  INTERVENTION PROGRAMMING FOR MENTAL HEALTH RESEARCH IN LOW AND MIDDLE-INCOME COUNTRIES
Course offered this year
(3 credits)
Murray, Laura

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
Introduces students to global mental health symptoms and syndromes and the variety of strategies and interventions used to treat such symptoms. Discusses mental health services as an integral part of global health research and program development. Addresses methods of adapting and developing intervention approaches in low-resource countries, as well as research designs used to evaluate mental health interventions. Challenges students to use critical and creative thinking skills throughout to discuss the issues involved in this relatively new area. Focuses on cross-cultural challenges in conducting mental health research in low-resource settings. Topics covered include overview of mental health issues in low-resource countries; cultural issues, developing, modifying and disseminating mental illness prevention and intervention strategies, and the interplay between mental health and related topics such as HIV and violence.

Upon successfully completing this course, students will be able to:

1. discuss the issues unique to Discussing mental health in low-resource contexts
2. recognize the major mental health symptoms seen cross-culturally in adults and children
3. illustrate ways that culture can affect mental health services
4. recognize the issues and challenges inherent in strategies for prevention, intervention development and dissemination in low-resource countries
5. describe the process of identification, adaptation and evaluation of mental health interventions in low-resource countries
6. critique past and current strategies in identifying, assessing, measuring and intervening with international mental health issues

E-mail: lamurray@jhsph.edu

Enrollment minimum of 10

Enrollment maximum of 30
No undergraduates unless prior instructor approval

Letter Grade or Pass/Fail
Consent required for all students
Prerequisite: 330.620 Issues in Global Mental Health Research (highly recommended); or 330.601, Perspectives in Psychiatry, or 330.603, Psychiatric Epidemiology

Knowledge of mental health epidemiology is recommended. Students will get exposed to real-time mental health projects in the field.

Course Change Information:
CatalogStatus, .11/11/2011;

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>E-mail</th>
<th>Lecture Times</th>
<th>Enrollment</th>
<th>Grade Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>330.609.01</td>
<td>ALCOHOL PROBLEMS: EPIDEMIOLOGY, PREVENTION, &amp; TREATMENT</td>
<td>Furr-Holden, Debra</td>
<td>340.601</td>
<td>3</td>
<td><a href="mailto:dholden@jhsph.edu">dholden@jhsph.edu</a></td>
<td>T TH 1:30 PM - 2:50 PM</td>
<td>Minimum of 5</td>
<td>Pass/Fail</td>
<td>Course offered this year. Presents the development and scope of alcohol use, misuse and associated problems and disorders. Upon successfully completing this course, students will be able to: 1. Describe the nature and scope of alcohol use, misuse and disorders in the population, both locally and nationally. 2. Define the genetic, psychosocial and environmental determinants and effects of alcohol use and alcohol disorders. 3. List the short and long-term outcomes associated with alcohol use and disorders. 4. Illustrate assessment tools and strategies for alcohol problems. 5. Describe leading preventive interventions for alcohol use and disorders. 6. Prepare leading treatment strategies for alcohol problems and disorders.</td>
</tr>
<tr>
<td>330.674.01</td>
<td>SUICIDE AS A PUBLIC HEALTH PROBLEM</td>
<td>Wilcox, Holly and Clarke, Diana</td>
<td></td>
<td>3</td>
<td><a href="mailto:hwilcox@jhsph.edu">hwilcox@jhsph.edu</a></td>
<td>T TH 9:00 AM - 10:20 AM</td>
<td>Minimum of 10</td>
<td>Pass/Fail</td>
<td>Course offered this year. Introduces students to the following content areas with regard to suicide: history and theories; epidemiology; etiological factors and mechanisms; clinical phenomenology and comorbid disorders; assessment of suicidal behaviors; special populations; preventive and treatment interventions; ethical issues on the conduct of research on suicidal populations. Upon successfully completing this course, students will be able to: 1. Define and discuss suicide and suicidal behaviors from a public health framework. 2. Describe the epidemiology, etiology, mechanisms, and interventions for attempted and completed suicide. 3. Identify the essential clinical, social and ethical issues in the conduct of suicide research.</td>
</tr>
<tr>
<td>380.623.01</td>
<td>ADOLESCENT HEALTH AND DEVELOPMENT</td>
<td>Blum, Robert</td>
<td>340.601</td>
<td>3</td>
<td></td>
<td>T TH 1:30 PM - 2:50 PM</td>
<td>Maximum of 25</td>
<td>Pass/Fail</td>
<td>Lectures on research findings and issues present biological, psychological, and social aspects of normal adolescent growth and development as a framework for viewing a variety of adolescent health problems and their social and biological effects. Also considers programmatic needs of the adolescent.</td>
</tr>
</tbody>
</table>
Upon successfully completing this course, students will be able to:

1. Discuss the biological and psychological developmental processes that occur during adolescence and puberty
2. Identify major health concerns affecting adolescents in both the domestic and international domains
3. Frame major health concerns affecting adolescents within a conceptual framework to discuss their key determinates that include risk and protective factors within the biological, social, cultural, behavioral, political and environmental domains
4. Analyze major health concerns affecting adolescents in an effort to recommend effective interventions to improve the health of adolescent
5. Explore four topical areas (reproductive health, adolescents with disabilities, substance use and juvenile justice) in depth to discuss the interplay of key determinates in different settings through guest speakers and case studies
6. Effectively moderate panels of guest speakers as part of the topic specific case studies
7. Work in multi-disciplinary teams to create a poster presentation on a major health concerns affecting adolescents, which includes creating a poster board for visual display and a brief oral presentation similar to those conducted at professional conferences
8. Demonstrate critical and analytical thinking by preparing a written report on a major health concern affecting adolescents that includes a description of the magnitude of the concern, a conceptual framework and a recommended intervention

E-mail: rblum@jhsph.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment minimum of 10
No Maximum
No Audits - credit only
Letter Grade or Pass/Fail

380.757.01 BIOSOCIAL POPULATION RESEARCH: INTEGRATING SOCIAL AND BIOLOGICAL PERSPECTIVES ON THEORY AND MEASUREMENT
Course offered this year
(3 credits)
Seplaki, Chris and Dariotis, Jacinda
Introduces students to issues and methods of combining biological and social information in population-based, public health research. Topics include an introduction to biomarkers, biodemography, and the use of biomarkers in population research; conceptual frameworks that link non-biological and biological measures (e.g., lifecourse models of health and aging, models of family and child development); methodological and logistical aspects of biomarker collection and analysis, ethical concerns, and policy implications.
E-mail: cseplaki@jhsph.edu
Enrollment minimum of 5
Enrollment maximum of 25
Letter Grade or Pass/Fail

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
180.621.81  SPECIAL STUDIES IN FOOD PRODUCTION, PUBLIC HEALTH AND THE ENVIRONMENT

Course offered this year
(1 credits)
Walker, Polly and Lawrence, Robert

Students continue to explore issues presented in the 2nd term online course, “Food Production, Public Health and the Environment”. Students actively participate in the selection of topics explored and work together in small groups to review and discuss scientific journal articles, technical reports and other resources related to a topic and present the results of their research to the class. Interaction on the bulletin board (BBS) and communication within small groups via other DED communication tools is a critical component to this class.

Upon successfully completing this course, students will be able to:

1. Critically evaluate scientific journal articles, technical reports and mass media communications related to food systems
2. Examine issues relating to the food system by considering varying viewpoints and perspectives
3. Identify key resources for reliable information on food system related issues

E-mail: pwalker@jhsph.edu
Enrollment minimum of 5
Enrollment maximum of 15
Letter Grade or Pass/Fail
Consent required for all students
Instructor consent required
Prerequisite: Introduction to Online Learning, and 180.620.81 Food Production, Public Health and the Environment
Course is an offspring of 180.620

182.621.81  INTRODUCTION TO ERGONOMICS

Course offered this year

(4 credits)
Callison, Myrna C. and Agnew, Jacqueline

Introduces the fundamental principles of ergonomics, including terminology, concepts, and applications of physiology, anthropometry, biomechanics, psychology, and engineering to work place and work methods design. Emphasizes the complex relationships among workers, job demands, work place designs, and work methods. Prepares students for advanced study in safety science, industrial hygiene, injury prevention, industrial engineering, and safety and health management.

Upon successfully completing this course, students will be able to:

1. Identify ergonomic risk factors, select the appropriate assessment tool and conduct a detailed ergonomic risk assessment
2. Identify and analyze the biomechanical aspects of a manual material handling task and develop design recommendations to reduce the risk of injury
3. Evaluate an office work area for ergonomic concerns and provide design recommendations to improve performance and reduce injury risk
4. Assess a work-rest schedule and develop recommendations based on the physical demands of the task, worker characteristics and environmental conditions
5. Discuss the applicability of various standardized ergonomic assessment tools, including OWAS, RULA, REBA, and the Strain Index
6. Discuss various program management issues and the value-added of an integrated ergonomics program

E-mail: mcalliso@jhsph.edu
Enrollment minimum of 10
Enrollment maximum of 20
Letter Grade or Pass/Fail
Consent required for some students
Consent required for students not in the MHS OEH PTIB program.
Prerequisite: Introduction to Online Learning.

221.706.81 MANAGEMENT OF HEALTH SYSTEMS IN DEVELOPING COUNTRIES I
Course offered this year
(2 credits)
Thorne,Melvyn and Reinke,William
Presents and interrelates the historic development of basic health services and the origins of modern management thought. Provides examples of successful management innovations and issues in and constraints to improving health services management in the Third World, emphasizing immunization management, rehydration/diarrhea control, maternal-child/family planning, and primary health care programs.

Upon successfully completing this course, students will be able to:

1. Discuss management that encompasses the main aspects of problem solving typically faced by managers
2. Define and describe essential concepts, principles, methods, and terms in management
3. Apply certain techniques in the resolution of selected management issues
4. Produce a well reasoned proposal for selective management improvement (in the form of a term paper of approximately 2,000 words)

E-mail: mthorne@jhsph.edu
Enrollment minimum of 10
No Maximum

Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.
Multi-term with 221.706
Grades and credit given at end of 4th term.
Course Change Information:
RecommendedNote, CatalogStatus, .09/09/2011;

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.
330.603.81 PSYCHIATRIC EPIDEMIOLOGY
Course offered this year
(3 credits)
Eaton, William
Presents the epidemiology of childhood mental disorders and late life dementias, mood and anxiety disorders, schizophrenia, and other disturbances of brain function and mental life. Examines operational case definitions, measurement techniques, and sampling strategies to enhance field surveys and risk factor research. Intended for clinical or public health practitioners and administrators acquainted with these illnesses, and specialists in other fields.

Upon successfully completing this course, students will be able to:
1. Define the various elements of the field of psychiatric epidemiology and how these delineate the borders of the field
2. Demonstrate discuss of the descriptive epidemiology of the major mental disorders—prevalence, incidence, and natural history
3. Discuss the most important genetic and environmental risk factors for the major mental disorders
4. Be aware of gaps in discuss, and future needs and trends in the field of psychiatric epidemiology
5. Describe the gaps in knowledge, as well as future needs and trends, in the field of psychiatric epidemiology

E-mail: weaton@jhsph.edu
Enrollment minimum of 10
No Maximum
Letter Grade or Pass/Fail
Consent required for all students
Prerequisite: Introduction to Online Learning; prior or concurrent course in epidemiology or biostatistics, or consent of instructor.

Jointly offered with EPI
MH doctoral studs. must register for 1 unit 330.840 w/Drs. Anthony & Eaton
Course Change Information:
CatalogStatus, .11/11/2011;

330.661.81 SOCIAL, PSYCHOLOGICAL, AND DEVELOPMENTAL PROCESSES IN THE ETIOLOGY OF MENTAL DISORDERS
Course offered this year
(3 credits)
Bradshaw, Catherine
Examines the major social, psychological, and developmental theories of mental and behavioral disorders. Covers biopsychosocial frameworks such as the diathesis stress model, ecological theory, and life course development. Psychological models include behavioral, cognitive, personality, and psychodynamic theories. Covers social processes such as social stratification, social integration, social diffusion, social stress, social learning, social cognitive, and attachment. Applies these theories to major mental and behavioral disorders of childhood, adolescence, and adulthood, including depression, anxiety, conduct disorders, and personality disorders. Explores multidisciplinary areas, and includes guest lectures by other mental health faculty. Lectures highlight main issues from readings, provide additional information on theories, and apply reading and lecture materials to specific mental and behavioral disorders.

Upon successfully completing this course, students will be able to:
1. Help students gain an understanding of leading social, psychological, and developmental theories that serve as the foundation for public mental health research
2. Students will also develop skills that will help them critically evaluate mental health research from multiple theoretical perspectives
3. At the conclusion of the course, students should be able to draw upon these theories to support their own mental health or services research (e.g. dissertations, grant applications)

E-mail: cbradsha@jhsph.edu
Enrollment minimum of 7
Enrollment maximum of 35
Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.

Discontinued Section

311.615.01 QUALITY OF MEDICAL CARE
Course offered this year
(3 credits)
Dy, Sydney M. and Wu, Albert
Introduces quality issues, including the extent to which customary care for specific health problems improves quality of life and reduces mortality, and quality assessment and assurance performed by caregivers, professional societies, government-sponsored professional review organizations, and government and other third party organizations who pay for care. Provides a basis to judge the effectiveness of quality assessment and assurance activities and to begin to develop programs.

Upon successfully completing this course, students will be able to:

1. Describe a framework for analyzing and improving the quality of medical care
2. Explain how to assess quality of care for a medical condition, including: -Relative advantages/disadvantages of measuring structure, process, outcome -Different assessment methods and need for risk adjustment -Advantages and methods for assessing patie

3. Describe the fundamental elements of quality assurance in the United States
4. Discuss how to develop a workable quality improvement and evaluation plan, including: -Theoretical framework -Quality assessment -Evaluating assessment results and developing goals for improvement -Changing individual health professionals’ behavior

E-mail: sdy@jhsph.edu
Enrollment minimum of 10
No Maximum
Restricted to graduate students
Letter Grade or Pass/Fail
Consent required for all students

3rd term information is correct as of December 27, 2011. For updated information please use Course Search at my.jhsph.edu/C4/Academics/.