SCHEDULE INFORMATION
This schedule includes all courses expected to be offered by the Johns Hopkins Bloomberg School of Public Health during the 4th Term of academic year 2016-17. The listing is based on data supplied by the academic departments and approved by the subcommittee of the Committee on Academic Standards as of February 28, 2017. 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 Catalog for current course information:
http://www.jhsph.edu/courses/

You can access links to comprehensive course information: http://www.jhsph.edu/offices-and-services/student-affairs/records-and-registration/

REGISTRATION INFORMATION
Continuing students may register for 4th Term through March 17, 2017 by logging on to Self-Service at https://sis.jhu.edu/sswf. To register via Self-Service, students must use their JHED ID (logon user ID) and password for authentication. 4th Term tuition payments are due via the web (https://sis.jhu.edu/sswf) by Saturday, April 22, 2017. Changes to 4th Term registrations for full-term courses may be processed via Self-Service during the published Add/Drop period for 4th Term: Monday, March 27 – Friday, April 7, 2017.

School of Medicine Post Doctoral Fellows may not register via Self-Service; they must register in person prior to the March 17 deadline. SOM Post Docs must complete the paper registration form in E1002. SOM Post Docs must adhere to all course restrictions and required permissions and are responsible for any course materials/ lab fees in addition to any late registration and late change fees. Registration information is available at https://sites.google.com/site/jhpda2/home/links/sph.

Special Students Limited (SSL) may apply for the regular eight week term at http://www.jhsph.edu/offices-and-services/student-affairs/studentaccts/non-degree-application/index.html. SSL registration requests will not be processed until instructor's permission for all courses is received. SSLs must submit permission to the Continuing Education Student Services Office by email to JHSPH.cess@jhu.edu or by fax to 410-614-8633. Payment for tuition and fees must be made prior to the first day of the term. Payments for tuition not received by the first day of the term will result in a dropped enrollment. Late re-registrations will be charged a $100 late registration fee. Registrations during the Add/Drop period require payment in full, including a $100 late registration fee.

Tuition is assessed at a rate of $1055 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 March 17 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 and should be forwarded to JHSPH.cess@jhu.edu).

As of March 20, 2017
Berman Institute (Bioethics)

700.624.01 BIOETHICS AND INFECTIOUS DISEASES: ETHICAL, LEGAL, AND HUMAN RIGHTS ISSUES
(Discontinued)
3 credits - Course offered this year - East Baltimore
Bailey, Theodore

Explores how infectious diseases pose a number of distinctive ethical, legal, and human rights issues. Reviews international human rights, US constitutional and legal principles, and ethical theories of relevance to evaluating medical, public health, and social responses to infectious diseases. Examines features of infectious diseases that raise distinctive normative issues including modes of transmission, drug-resistance, potential for natural and vaccine-induced immunity, and possibility of global eradication for some diseases. Discusses issues including pandemic preparedness and response, duties to care for people with infectious diseases, uses of liberty-limiting and privacy infringing control measures, criminalization, discrimination and stigma, antibiotic stewardship, vaccine mandates and refusal, duties to avoid transmitting infectious diseases, and global eradication of infectious diseases.

Upon successfully completing this course, students will be able to:
1. Analyze the ways that infectious disease control measures pose ethically and legally significant trade-offs between public health and individual autonomy, liberty, privacy, and well-being interests
2. Identify and apply relevant ethical norms to determine morally justified trade-offs between public health and individual autonomy, liberty, privacy, and well-being in the use of infectious disease control measures
3. Apply International Human Rights and U.S. constitutional and legal norms to evaluate uses of liberty-limiting and privacy infringing infectious disease control measures
4. Articulate the ethical, legal, and human rights duties that nations, international organizations, health-care providers, and individuals have to act in ways that avert or ameliorate infectious diseases in various settings
5. Assess the competing ethical and legal duties a health care provider may face in providing care to an individual with an infectious disease
6. Assess the ethical arguments that may be offered for and against undertaking global eradication or regional elimination of infectious diseases as opposed to more limited efforts at achieving sustained control
7. Identify ethically salient commonalities and differences between infectious disease control and infectious disease clinical research

Email: tbaile15@jhu.edu
Lecture: T 3:30 PM - 6:20 PM
Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes
Enrollment priority given to MBE students
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students
Prerequisite: None
Course meets in Deering Hall; LLC Room

700.632.01 ETHICS, POLICY, AND EMERGING BIOMEDICAL TECHNOLOGIES
3 credits - Course not offered until 2017 - 2018 - East Baltimore
Mathews, Debra

Examines the ethics and policy issues raised by emerging biomedical technologies, including stem cell science, genetics/genomics, neuroscience, and synthetic biology. Integrates primers on the relevant science with discussion of the ethics and policy issues raised by the design, conduct and integration of the science into research, clinical care and commerce.

Upon successfully completing this course, students will be able to:
1. Identify some of the ethics and policy issues raised by a range of emerging biotechnologies, and describe how these issues relate to the science itself
2. Analyze the ethics and policy issues raised by emerging biotechnologies
3. Discuss the similarities and differences across emerging biotechnologies in the types of ethics and policy challenges they raise in the contexts of research, clinical care and commerce

Email: dmathews@jhu.edu
Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes
Enrollment priority given to MBE students
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students
700.640.01 NUTRITION ETHICS AND POLICY
3 credits - Course offered this year - East Baltimore
Fanzo, Jess
Introduces and explores the ethical issues of the nutritional sciences field in science, policy and practice. Provides students with the opportunity to think critically about a variety of conflicting evidence and scientific views of what is considered a “good” diet, where are the social inequities in accessing a nutritious diet, and what are the implications of policies in achieving nutrition security. Borrows tools from practical ethics, political philosophy, and theories of justice to highlight key ethical issues and challenges that impede or incentivize progress in the field of nutrition.

Upon successfully completing this course, students will be able to:
1. Identify the major ethical debates and challenges of the nutrition field including issues in science, programs and policies
2. Critique significant societal values and ethical assumptions that shape the evidence and science of nutrition
3. Analyze the obligations and responsibilities of different actors in high-, middle-, and low-income countries involved in shaping the nutrition agenda
4. Explain how programs and policies (in high-, middle- and low-income countries) can apply an ethical lens to decision-making and partnerships pertaining to nutrition outcomes across various sectors and systems (food, health, social protection, water etc)
5. Identify potential short- and long-term ethically permissible, socially acceptable, and politically feasible solutions and strategies for improving nutrition

Email: jfanzo1@jhu.edu
Lecture: T 3:30 PM - 6:20 PM
Enrollment: Minimum 4, Maximum 20, Waitlist Enabled: Yes
Enrollment priority given to MBE students
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students
Course meets in Deering Hall; LLC Room

Learning Materials:
(Book) From Field to Fork: Food Ethics for Everyone
Thompson, Paul B.
ISBN: 978-0199391691 Oxford University Press; edition ( )
Amazon $22.00

700.641.01 GERMS, GENES, PATIENTS, AND POPULATIONS
3 credits - Course offered this year - East Baltimore
Geller, Gail; Kahn, Jeff
Explores past, present, and future ethical, legal, social and policy issues at the intersection of infectious disease and genomics. Challenges individualistic assumptions in bioethical models with frameworks that consider the interactions between hosts, vectors, pathogens, and environments. Examines a variety of diseases and modes of transmission, exploring their morally relevant differences and similarities. Discusses cutting-edge topics such as personalized vaccines, host genomic factors, and the microbiome, as well as enduring bioethical concerns about social responsibility, stigma, and the challenge of balancing individual interests and protections against risks of harms to others and to public health.

Upon successfully completing this course, students will be able to:
1. Assess historical approaches to managing infectious disease surveillance, prevention, and outbreaks in light of genomic advances
2. Identify ethical, legal, social, and policy issues at the intersection of genomics and infectious disease
3. Analyze the benefits and shortcomings of various policy approaches to infectious disease management in light of ethics and genomics considerations
4. Evaluate how genomic information and its uses could inform infectious disease management in the future

Email: ggeller@jhsph.edu
Lecture: W 3:30 PM - 6:20 PM
Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes
Enrollment priority given to MBE students. Students who have taken 700.624 BIOETHICS AND INFECTIOUS DISEASES: ETHICAL, LEGAL, AND HUMAN RIGHTS ISSUES, may not take this course for credit.

Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students
Course meets in Deering Hall; LLC Room

700.801.01 BIOETHICS PROGRAM THESIS SEMINAR
3 credits - Course offered this year - East Baltimore
Departmental Faculty
Provides students with the basic research and organizational skills needed for successful completion of the MBE thesis. Addresses skills needed to conduct a literature review, choose an appropriate topic, and construct a rigorous argument.
Upon successfully completing this course, students will be able to:
1 Formulate and clearly communicate research questions, conceptual claims, and argumentative structure
2 Review and critically evaluate existing literature
3 Outline a sustained, multi-part argument
Lecture: TH 3:30 PM - 6:20 PM
Enrollment: Minimum 2, Maximum 10, Waitlist Enabled: Yes
MBE students only
Grading Options: Pass/Fail
Course meets in Deering Hall; LLC Room

Learning Materials:
(Book) How to write a lot: A practical guide to productive academic writing
Silvia, Paul J.
Amazon.com $9.60

700.820.01 BIOETHICS PROGRAM THESIS RESEARCH
variable credits 1-6 - Course offered this year - East Baltimore
Departmental Faculty
Provides an opportunity for students to actively conduct research in bioethics.
Upon successfully completing this course, students will be able to:
1 Identify research questions of importance to bioethics
2 Review and critically evaluate existing literature
3 Edit and revise the MBE thesis project
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
MBE students only
Grading Options: Pass/Fail
Prerequisite: None

700.840.01 BIOETHICS PROGRAM INDEPENDENT STUDY
2 credits - Course offered this year - East Baltimore
Rieder, Travis
Provides students with a one-on-one independent study experience in which they independently review papers from the current literature and meet weekly with a departmental faculty member to discuss them. Offers opportunities for complementary activities which may include participating in related course discussions, seminars, conferences, etc. Culminates with the completion of a written document, typically a substantial paper.
Upon successfully completing this course, students will be able to:
1 Summarize and discuss specific fields of research
2 Formulate an original position on a bioethical issue
Email: trieder@jhu.edu
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
MBE students only

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 3 of 149
Grading Options: Pass/Fail
Consent required for all students; Consent required for all students

**700.895.01 BIOETHICS PROGRAM PRACTICUM**
3 credits - Course offered this year - East Baltimore
Departmental Faculty
Provides mentored opportunities for field work with a practicing bioethicist, or applying one's bioethical training to a real-world environment.

Upon successfully completing this course, students will be able to:
1. Participate in a bioethics research initiative
2. Integrate and apply bioethical reasoning to a real-world problem
3. Develop a proposal, take initiative, provide direction, and participate in the implementation, evaluation and/or analysis required to establish and achieve project goals

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
MBE students only
Grading Options: Pass/Fail
Consent required for all students; Consent required for all students

**Biochemistry and Molecular Biology**

**120.605.01 GENOME INTEGRITY**
2 credits - Course offered this year - East Baltimore
Jordan, Phil
Provides students with a broad base in fundamental principles of genome integrity. Examines connections between genome integrity, organism fitness, and human diseases and disorders. Addresses 1) Homologous recombination, (2) Non-homologous end joining, (3) Mismatch repair, (4) Transposable elements, (5) Topoisomerases, (6) Structural maintenance of chromosomes and (7) Chromosome segregation.

Upon successfully completing this course, students will be able to:
1. Consider how exposure to various environmental agents and anti-cancer drugs can lead to DNA damage
2. Examine the mechanisms by which DNA repair proteins and enzymes maintain the integrity of the genome
3. Illustrate how DNA protection and repair systems function in the context of the cell
4. Explain the cellular mechanisms that protect against chromosome missegregation
5. Articulate the connections between DNA damage/DNA repair capacity and human diseases and disorders

Email: pjordan8@jhu.edu
Lecture: W 10:00 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Undergraduates and BSPH students not in the departments of BMB, MMI or EHE

**120.606.01 CELLULAR STRESS IN PHYSIOLOGY AND DISEASE**
3 credits - Course offered this year - East Baltimore
Wang, Jiou
Examines stress sensing and response pathways at the DNA, RNA, and protein levels, covering transcriptional regulation, RNA processing, and protein quality control. Also discusses Organelle-specific stress responses at the level of the endoplasmic reticulum and mitochondria are also discussed. Disseminates course material through formal lectures and discussions of literature. Local JHU scientists highlight each topic by presenting ongoing laboratory research, a “meet the expert” opportunity.

Upon successfully completing this course, students will be able to:
1. Describe the basics for how cells sense and respond to a wide variety of cellular stress agents and maintain fitness and survival through quality control
2. Understand the basis for state-of-the-art laboratory approaches to research the molecular and cellular biology of stress and quality control
3. Gain an appreciation of cutting edge research conducted at JHU on cellular stress and quality control
Email: jiowang@jhsph.edu

*4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 4 of 149*
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Contact instructor for consent.
Prerequisite: Students should have a background of undergraduate or graduate level coursework in Molecular Biology.

120.622.01 MOLECULAR AND CELLULAR MECHANISMS OF REPRODUCTION
4 credits - Course offered this year - East Baltimore
Wright, William
Addresses current research in the cellular and molecular biology of fundamental reproductive processes. Topics, which may vary year-to-year based on current issues in the scientific literature, can include: synthesis and actions of hormones, gametogenesis, fertilization and activation of development, embryogenesis, sex determination, pathologies of the reproductive tracts, developmental origins of reproductive health and disease, contraception, and infertility.
Upon successfully completing this course, students will be able to:
1. Define cellular and molecular mechanisms that underlie a number of reproductive processes
2. Describe the organs, cells, molecules, and regulatory pathways involved in reproductive processes
3. Identify the hypotheses tested in scientific papers and the strengths and limitations of experimental methods used to test the hypotheses
4. Critically evaluate data described in scientific papers and integrate data from multiple papers into coherent theories about the regulation of complex biological processes

Email: wwright@jhsph.edu

Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: An undergraduate or graduate level course in biochemistry, molecular biology, cell biology, or other relevant area of biology.

120.624.01 CANCER BIOLOGY
3 credits - Course offered this year - East Baltimore
Wan, Fengyi
Presents the molecular and cellular mechanisms in the biology of cancer. Topics include Oncogenes and tumor suppressor genes, DNA damage responses, p53 signaling pathway, NF-kB signaling pathway, chemotherapy and radiotherapy, and several key research fields in major select human cancers. Emphasizes the relevance of these mechanisms to the development and treatment of human cancer.
Upon successfully completing this course, students will be able to:
1. Understand the key hallmarks associated with cancer development
2. Understand how exposure to various environmental agents could lead to carcinogenesis in normal cells and how chemotherapy- and radiotherapy-based anti-cancer drugs can kill cancer cells
3. Define the cellular signaling cascade in response to environmental and intrinsic DNA damage in normal and cancer cells
4. Define the importance of several key signaling pathways in the cellular response to DNA damage
5. Understand the mechanisms by which the cell determines the fate for survival and death
6. Understand the current research in major select human cancers

Email: fwan1@jhu.edu

Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 6, No maximum enrollment required, Waitlist Enabled: No
Undergraduates prohibited from enrolling in this course.
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required.

120.800.01 MPH CAPSTONE: BIOCHEMISTRY AND MOLECULAR BIOLOGY
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Upon successfully completing this course, students will be able to:
1. Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: 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
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

120.821.01 MHS STUDENT RESEARCH
3 credits - Course offered this year - East Baltimore
Departmental Faculty
Acquaints MHS students with basic research in the biomedical sciences through work under the guidance of a faculty member in the Department of Biochemistry and Molecular Biology, and provides an introduction to hands-on experience in laboratory research.

Upon successfully completing this course, students will be able to:
1. Identify a research question of significance in biomedical science
2. Design hypothesis-driven or discovery-driven experimental studies to address the question
3. Maintain research notes, including summaries of results and data interpretation

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Prospective students must make arrangements with a faculty member for this research experience.

120.822.01 SEMINARS IN RESEARCH IN BIOCHEMISTRY AND MOLECULAR BIOLOGY
1 credits - Course offered this year - East Baltimore
Coulombe, Pierre
Integrates academic training with current research in biochemistry and molecular biology, reproductive biology and cell and developmental biology. Features presentations by researchers from JHU and other biomedical research institutions on the results of state of the art investigations of problems and issues of public health significance, emphasizing experimental design and methodology for analysis and discussion.

Upon successfully completing this course, students will be able to:
1. Cite examples of current research, policy, or practice in the field of biochemistry and molecular biology
2. Identify areas of interest for current and future research
3. Recognize the features of engaging presentations and participate in discussions with fellow researchers

Email: coulombe@jhsph.edu
Lecture: M 12:00 PM - 12:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only open to BMB Postdocs, PHD and ScM students.
Grading Options: Pass/Fail

120.830.01 POSTDOCTORAL RESEARCH BIOCHEMISTRY
variable credits - Course offered this year - East Baltimore
120.840.01 SPECIAL STUDIES AND RESEARCH BIOCHEMISTRY
variable credits - Course offered this year - East Baltimore
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.

120.850.01 BIOCHEMICAL TECHNIQUES
6 credits - Course offered this year - East Baltimore
Departmental Faculty
All departmental students spend seven weeks participating in the research activities of a faculty member’s laboratory. During the academic year each student rotates through five laboratories.

120.852.01 CORE RESEARCH LITERATURE
variable credits BMB students taking this course should enroll for 2 credits. MMI students taking this course should enroll for 1 credit. - Course offered this year - East Baltimore
Culotta, Valeria
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.

120.870.01 MHS THESIS IN REPRODUCTIVE AND CANCER BIOLOGY
5 credits - Course offered this year - East Baltimore
Evans, Janice
In consultation with a faculty mentor from the Department of Biochemistry and Molecular Biology, students prepare a critical, scholarly paper on an assigned subject.
120.871.01 BMB SCM PREPARATORY INDEPENDENT STUDY/ESSAY
2 credits - Course offered this year - East Baltimore
Evans, Janice

Students experience one-on-one independent study with a departmental faculty member who assumes the role of ScM thesis advisor. Prepares students for undertaking an independent research project for the ScM degree. Students independently review papers from the current literature and meet weekly with the faculty advisor to discuss them. Complementary activities may include participation in lab meetings, journal paper discussions, seminars, conferences, research retreats, etc. Culminates with the completion of a written document, either a research proposal based on the intended thesis research and/or a literature review designed to provide the background for the intended research project.

Upon successfully completing this course, students will be able to:
1. Summarize and discuss the state of discuss of specific fields of research that are related to the intended ScM research project
2. State the rationale, hypothesis and specific aim(s) of the intended ScM research project, and discuss the background studies fundamental to this project
3. Engage as an active participant in research meetings as a result of acquiring the necessary discuss foundation

Email: jpevans@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Master of Science degree candidates in BMB

Grading Options: Pass/Fail
Consent required for all students; Advisor must have accepted student into their lab.
Prerequisite: Departmental approval of student transfer to ScM program and consent of prospective ScM advisor

120.895.01 MPH PRACTICUM: BIOCHEMISTRY AND MOLECULAR BIOLOGY
variable credits Students who have not met the practicum requirement, must register for at least two credits. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.

Upon successfully completing this course, students will be able to:
1. Demonstrate that they have had a mentored public health practicum experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Student must receive faculty advisor approval

Biostatistics
140.613.95 DATA ANALYSIS WORKSHOP I
2 credits - Course offered this year - Kyoto, Japan
Diener-West, Marie

Intended for students with a broad understanding of biostatistical concepts used in public health sciences who seek to develop additional data analysis skills. Emphasizes concepts and illustration of concepts applying a variety of analytic techniques to public health datasets in a computer laboratory using Stata statistical software. In the first workshop (140.613), students learn basic methods of data organization/management and simple methods for data exploration, data editing, and graphical and tabular displays. Additional topics include comparison of means and proportions, simple linear regression and correlation. Enrollment limited: students must have a laptop computer with Stata 13.0 or 14.0 installed.

Upon successfully completing this course, students will be able to:
1. Create, save and edit STATA datasets, log files and do files
2. Use STATA to perform exploratory data analysis for continuous and dichotomous variables
3. Use STATA do files to create reproducible analyses
4. Explain the distinction between and appropriate uses of the binomial, Poisson and normal probability models
5. Use STATA to perform paired and unpaired t-tests for differences in group means
6. Describe the appropriate use of paired and unpaired t-tests and the interpretation of the resulting STATA output
7. Use STATA to perform a chi-squared test and compute confidence intervals for differences in group proportions, relative risks and odds ratios
8. Describe the appropriate use of chi-squared tests and the interpretation of the resulting STATA output
400.614.95 DATA ANALYSIS WORKSHOP II
2 credits - Course offered this year - Kyoto, Japan
Diener-West, Marie
Intended for students with a broad understanding of biostatistical concepts used in public health sciences who seek to develop additional data analysis skills. Emphasizes concepts and illustration of concepts applying a variety of analytic techniques to public health datasets in a computer laboratory using Stata statistical software. In the second workshop (400.614), students will master advanced methods of data analysis including analysis of variance, analysis of covariance, nonparametric methods for comparing groups, multiple linear regression, logistic regression, log-linear regression, and survival analysis. Enrollment limited: students must have a laptop computer with Stata 13.0 or 14.0 installed.
Upon successfully completing this course, students will be able to:
1 Use STATA to visualize relationships between two continuous measures
2 Use STATA to fit simple linear regression models, and interpret relevant estimates from the results
3 Use STATA to fit multiple linear regression models to relate a continuous outcome to multiple predictors in one model and to help assess confounding, interaction, and goodness-of-fit
4 Interpret the relevant estimates from multiple linear regression
5 Use STATA to graph lowess smoothing functions to relate the probability of a dichotomous outcome to a continuous predictor
6 Use STATA to fit multiple logistic regression models to relate a dichotomous outcome to multiple predictors in one model and to help assess confounding, interaction, and goodness-of-fit
7 Setup cohort study data into STATA survival analysis format
8 Use STATA to graph Kaplan-Meier curves and perform log-rank tests
9 Use STATA to fit Cox regression models to relate time-to-event data to multiple predictors in one model and to help assess confounding, interaction, and goodness-of-fit
10 Interpret the confounding estimates from Cox regression

Email: mdiener@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Experience in using a statistical analysis package; 400.611-612; enrollment limited to 20 students enrolled in an SPH degree program

140.616.01 STATISTICS FOR LABORATORY SCIENTISTS II
4 credits - Course offered this year - East Baltimore
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 Conduct a test to compare two population proportions
2 Identify the appropriate form of analysis of variance for a particular experiment, and calculate and interpret an ANOVA table
3 Perform simple and multiple linear regression and interpret the results
4 Identify and assess the appropriateness of the assumptions underlying ANOVA and linear regression
5 Use the statistical software, R, to display and analyze data

Email: iruczins@jhsph.edu
Lecture: M W F 10:30 AM - 11:20 AM

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 9 of 149
Lab Section: 01 W 1:30 PM-2:20 PM  
Lab Section: 02 W 2:30 PM-3:20 PM  
Enrollment: Minimum 8, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Letter Grade or Pass/Fail  
Prerequisite: 140.615  

For the required once a week lab: Students will attend either the Wednesday at 1:30 session (held in one of the School’s computer labs) OR the Wednesday at 2:30 session (held in one of the School’s classrooms).

140.624.01 STATISTICAL METHODS IN PUBLIC HEALTH IV  
4 credits - Course offered this year - East Baltimore  
Tonascia, James  
Expands students’ abilities to conduct and report the results of a valid statistical analysis of quantitative public health information. Develops more advanced skills in multiple regression models, focusing on log-linear models and on techniques for the evaluation of survival and longitudinal data. Also presents methods for the measurement of agreement, validity, and reliability.  
Upon successfully completing this course, students will be able to:  
1 Frame a scientific question about the dependence of a continuous, binary, count, or time-to-event response on explanatory variables in terms of linear, logistic, log-linear, or survival regression model whose parameters represent quantities of scientific  
2 Design a tabular or graphical display of a dataset that makes apparent the association between explanatory variables and the response  
3 Choose a specific linear, logistic, log-linear, or survival regression model appropriate to address a scientific question and correctly interpret the meaning of its parameters  
4 Appreciate that the interpretation of a particular multiple regression coefficient depends on which other explanatory variables are in the model  
5 Estimate the unknown coefficients and their standard errors using maximum (or partial) likelihood and perform tests of relevant null hypotheses about the association with the response of particular subsets of explanatory variables  
6 Check whether a model fits the data well; identify ways to improve a model when necessary  
7 Use several models for the analysis of a dataset to effectively answer the main scientific questions  
8 Describe how longitudinal data differ from cross-sectional data and why special regression methods are sometimes needed for their analysis  
9 Summarize in a table, the results of linear, logistic, log-linear, and survival regressions and write a description of the statistical methods, results, and main findings for a scientific report  
10 Perform data management, including input, editing, and merging of datasets, necessary to analyze data in STATA  
11 Complete a data analysis project, including data analysis and a written summary in the form of a scientific paper  
Email: jtonasci@jhsph.edu  
Lecture: T TH 10:30 AM - 11:50 AM  
Lab Section: 01 T 3:30 PM-5:20 PM  
Lab Section: 02 W 3:30 PM-5:20 PM  
Lab Section: 03 TH 1:30 PM-3:20 PM  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Letter Grade or Pass/Fail  
Prerequisite: 140.621, 140.622 and 140.623  
OR  
140.611, 140.612, 140.613. 140.614, AND 140.620  

IT IS NOT NECESSARY TO REGISTER SEPARATELY FOR LABS. Instructional labs are Tuesday (3:30-5:20), Wednesday (3:30-5:20), or Thursday (1:30-3:20). Computing labs are Monday - Friday, 2:30-4:20. Course Materials Fee is $40.00. Students will use the Stata statistical analysis software for problem sets; Stata is installed for their use in the computer labs and also available for purchase via the Stata educational GradPlan.

140.630.01 INTRODUCTION TO DATA MANAGEMENT  
3 credits - Course offered this year - East Baltimore  
Hackman, Andre
Introduces students to the principles and skills required to collect and manage research data in a public health setting. Topics focus on tools for collecting data that range from spreadsheets to web-based systems, database fundamentals, data collection form design, data entry screen design, proper coding of data, strategies for quality control and data cleaning, protection and sharing of data, and integrating data from external sources. Includes practical and hands-on exercises that require some entry-level computer programming.

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

1. Evaluate and select the appropriate tools for collection and management of study data.
2. Describe data design issues involved in collecting research data.
3. Develop strategies for maintaining data quality, protecting and sharing data.
4. Manage and manipulate research study data.

Email: ahackman@jhsph.edu

Lecture: M W 10:30 AM - 11:50 AM

Enrollment: Minimum 5, Maximum 20, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for non-Biostatistics students

140.632.01 INTRODUCTION TO THE SAS STATISTICAL PACKAGE

3 credits - Course offered this year - East Baltimore

McDermott, Aidan

Designed for students with no experience with SAS. Familiarizes them with the skills needed for effective data management and data analysis. First covers performing exploratory analysis on data including the creation of tables and graphs. Proceeds next to creating new datasets and altering old datasets. The final part of the course covers building regression models (linear, logistic, and Poisson), interpreting results and criticizing such models and attempting to improve them.

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

1. Use the SAS statistical package, mastering the skills needed for effective data management, data manipulation, and data analysis.
2. Write and execute programs using SAS syntax.
3. Read and transform data in preparation for statistical analysis.
4. Create tabular and graphical displays of data.
5. Perform simple statistical analyses such as linear and logistic regression.

Email: amcderm1@jhu.edu

Lecture: T 1:30 PM - 2:50 PM

Lab Section: 01 TH 1:30 PM-2:50 PM

Enrollment: Minimum 4, Maximum 25, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 140.622 or 140.652 (may be taken concurrently), or former 140.602

Both the lecture and lab will be held in one of the School's computer labs.

140.632.02 INTRODUCTION TO THE SAS STATISTICAL PACKAGE

3 credits - Course offered this year - East Baltimore

McDermott, Aidan

Designed for students with no experience with SAS. Familiarizes them with the skills needed for effective data management and data analysis. First covers performing exploratory analysis on data including the creation of tables and graphs. Proceeds next to creating new datasets and altering old datasets. The final part of the course covers building regression models (linear, logistic, and Poisson), interpreting results and criticizing such models and attempting to improve them.

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

1. Use the SAS statistical package, mastering the skills needed for effective data management, data manipulation, and data analysis.
2. Write and execute programs using SAS syntax.
3. Read and transform data in preparation for statistical analysis.
4. Create tabular and graphical displays of data.
5. Perform simple statistical analyses such as linear and logistic regression.

Email: amcderm1@jhu.edu
140.649.01 ESSENTIALS OF PROBABILITY AND STATISTICAL INFERENCE IV
4 credits - Course offered this year - East Baltimore
Wang, Mei-Cheng
Builds on the concepts discussed in 140.646 and 140.647 to lay out foundation for both classical and modern theory/methods for drawing statistical inference. Includes classical unbiased estimation, unbiased estimating equations, likelihood and conditional likelihood inference, information theory and other extended topics. Includes mathematical proofs but will not emphasize highly technical details. Extended discussion, interpretation of results, and examples for illustration will be provided.
Upon successfully completing this course, students will be able to:
1. Describe the theoretical basis for the current methods used in statistical analysis
Email: mcwang@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.646-648 or 140.611-12 or 140.621-24 or 140.651-54 or 140.671-74; working knowledge of calculus
One 1-hour lab per week (time TBA)

140.654.01 METHODS IN BIOSTATISTICS IV
4 credits - Course offered this year - East Baltimore
Zeger, Scott
Covers regression analysis for continuous and discrete outcome data using generalized linear models including: logistic models for binary responses, log-linear models for incidence rates and contingency tables; and survival analysis for time to event responses. Also covers strategies for formulating regression analyses that effectively address scientific questions. Methods are learned through lectures and multiple problem sets/data analyses abstracted from important public health studies.
Upon successfully completing this course, students will be able to:
1. Formulate a scientific question about the relationship of a response variable Y and predictor variables X in terms of the appropriate logistic, log-linear or survival regression model
2. Interpret the meaning of regression coefficients in scientific terms as if for a substantive journal. For binary responses collected in clusters, distinguish between marginal and cluster-specific regression coefficients estimated by ordinary and conditional logistic regression
3. Develop graphical and/or tabular displays of the data to show the evidence relevant to describing the relationship of Y with X. For survival data, produce Kaplan-Meier and complimentary log, log plots of survival functions with standard errors
4. Estimate the model using a modern statistical package such as R and interpret the results for substantive colleagues. Derive the estimating equations for the maximum likelihood estimates for the class of generalized linear models and state the asymptotic distributions of the regression coefficients and linear combinations thereof
5. Give a heuristic derivation of the Cox proportional hazards estimating function in terms of Poisson regression for grouped survival data
6. Check the major assumptions of the model including independence and model form (mean, variance, proportional hazards) and make changes to the model or method of estimation and inference to appropriately handle violations. For example, use robust variance estimates for violations of independence or variance model
7. Use regression diagnostics to determine whether a small fraction of observations is having undue influence on the results
8. Correctly interpret the regression results to answer the specific substantive questions posed in terms that can be understood by substantive experts
9. 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
10 Critique the methods and results from the perspective of the statistical methods chosen and alternative approaches that might have been used

Email: szeger@jhsph.edu

Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 W 3:30 PM-4:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.651-653

140.656.01 MULTILEVEL STATISTICAL MODELS IN PUBLIC HEALTH
4 credits - Course offered this year - East Baltimore

Colantuoni, Elizabeth
Explores conceptual and formal approaches to the design, analysis, and interpretation of studies with a “multilevel” or “hierarchical” (clustered) data structure (e.g., individuals in families in communities). Develops skills to implement and interpret random effects, variance component models that reflect the multi-level structure for both predictor and outcome variables. Topics include: building hierarchies; interpretation of population-average and level-specific summaries; estimation and inference based on variance components; shrinkage estimation; discussion of special topics including centering, use of contextual variables, ecological bias, sample size and missing data within multilevel models. STATA and SAS software are supported.

Upon successfully completing this course, students will be able to:
1 Define multilevel data
2 Implement and interpret results associated with Multi-level Statistical Models (MLMs)
3 Identify when and why MLMs can or should be used when they are unnecessary or possibly dangerous
4 Describe the implications of centering, contextual variables, missing data and ecological bias within MLMs

Email: ejohnson@jhsph.edu

Lecture: M W 10:30 AM - 11:50 AM
Lab Section: 01 W 9:00 AM-10:20 AM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.621-24 or 140.651-4 required; 140.655 required.

140.664.81 CAUSAL INFERENCE IN MEDICINE AND PUBLIC HEALTH I
4 credits - Course offered this year - Internet

Stuart, Elizabeth
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

Email: estuart@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.611-12-13-14-20; or 140.621-624; or 140.651-654; or consent of the instructor
Jointly offered with MH

140.665.01 CAUSAL INFERENCE IN MEDICINE AND PUBLIC HEALTH II
3 credits - Course offered this year - East Baltimore

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 13 of 149
Frangakis, Constantine

Presents principles, methods, and applications in drawing cause-effect inferences with a focus on the health sciences. Building on the basis of 140.664, emphasizes statistical theory and design and addresses complications and extensions, aiming at cultivating students’ research skills in this area. Includes: detailed role of design for causal inference; role of models and likelihood perspective for ignorable treatment assignment; estimation of noncollapsible causal effects; statistical theory of propensity scores; use of propensity scores for estimating effect modification and for comparing multiple treatments while addressing regression to the mean; theory and methods of evaluating longitudinal treatments, including the role of sequentially ignorable designs and propensity scores; likelihood theory for instrumental variables and principal stratification designs and methods to deal with treatment noncompliance, direct and indirect effects, and censoring by death.

Upon successfully completing this course, students will be able to:
1. Describe causal problems as potential interventions, through the framework of potential outcomes and assignment mechanisms
2. Discuss the role of designs and of different modes of statistical inference
3. Implement efficient (likelihood) methods with ignorable assignment of treatments
4. Describe the role of outcome models and of propensity score models
5. Assess when and how comparisons of longitudinal treatments can be designed as having sequentially ignorable assignment, and learn ways to estimate their causal effects
6. Master efficient methods for estimating effects in studies with noncompliance to treatment, direct and indirect effects, and censoring by death

Email: cfrangak@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.654 or equivalent for matrix representation of multiple linear and logistic regression

140.674.01 INTRODUCTION TO STATISTICAL THEORY II (Discontinued)

4 credits - Course offered this year - East Baltimore
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.

Upon successfully completing this course, students will be able to:
1. Describe foundations and to discuss classical theory/methods for drawing statistical inference
2. Describe the statistical reasoning and theoretical justification behind two main streams in inference: hypothesis testing and estimation (point and interval)

Email: cfrangak@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.671-673
Grade for 140.673 and 674 given at completion of 140.674.

140.683.01 PRINCIPLES AND METHODS OF FUNCTIONAL NEUROIMAGING II

4 credits - Course offered this year - East Baltimore
Lindquist, Martin
Continues where Principles and Methods of Functional Neuroimaging I (140.682) leaves off. Presents a theoretical overview of human fMRI research and includes key aspects of the design, data collection, processing, analysis and publication of a human subjects fMRI experiment. Focuses on multivariate statistical analysis of fMRI data. Describes both functional and effective connectivity analysis, graph-based analysis of fMRI data, and algorithms for performing brain decoding. Also discusses preparation of methods and results from fMRI experiments for peer-reviewed publication, and how to critically evaluate research methods and results of human subjects fMRI studies in the published literature. Provides a practical application of these concepts to sample fMRI datasets via weekly labs.

Upon successfully completing this course, students will be able to:
1. Perform individual subject and group level multivariate statistical analysis of fMRI data
2. Perform both functional and effective connectivity analysis, and interpret the results of graph-based analysis of fMRI data
3. Prepare methods and results sections describing the analyzed data, suitable for publication in a peer-reviewed article
Critically evaluate research methods and results of human subjects fMRI studies in published literature

Email: mlindqui@jhsph.edu
Lecture: M W 9:00 AM - 10:20 AM
Lab Section: 01 F 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Successful completion (B or better) of the course Principles and Methods of Functional Neuroimaging I (140.682)

140.688.01 STATISTICS FOR GENOMICS
3 credits - Course offered this year - East Baltimore
Hansen, Kasper
Introduces statistical genomics with an emphasis on next generation sequencing and microarrays. Covers the key capabilities of the Bioconductor project (a widely used open source software project for the analysis of high-throughput experiments in genomics and molecular biology and rooted in the open source statistical computing environment R). Also introduces statistical concepts and tools necessary to interpret and critically evaluate the bioinformatics and computational biology literature. Includes an overview of preprocessing and normalization, batch effects, statistical inference, multiple comparisons. Intended for students with a background in statistics or biology, but not necessarily both. Assumes some familiarity with the R statistical language (a student without any experience in this language can still take the class but will need to set aside additional time to learn R).

Upon successfully completing this course, students will be able to:
1. Describe the basics of how various high-throughput assays works, including microarrays and next generation sequencing
2. Critique existing methodology for the analysis of high-throughput biological data
3. Write R code to import and analyze microarray and next generation sequencing data

Email: khansen@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Some familiarity with the R statistical language will be assumed; a student without any experience in this language can still take the class but will need to set aside additional time to learn R. A suitable background class is 140.776.01 – Statistical Computing

140.699.01 SPATIAL ANALYSIS IV: SPATIAL DESIGN AND APPLICATION
2 credits - Course offered this year - East Baltimore
Curriero, Frank
Expands students’ abilities to design, conduct and report the results of a complete public health related spatial analysis. Focuses on further developing and integrating components of the spatial science paradigm, Spatial Data, GIS and Spatial Statistics. Introduces relevant topics in GIS, spatial data technologies and spatial statistics not previously covered in Spatial Analysis I-III.

Upon successfully completing this course, students will be able to:
1. Describe how spatial information and spatial analysis can be included into public health research and practice
2. Frame a scientific question and/or hypothesis about spatial relationships into the appropriate spatial statistical methodology, the results and interpretations of which represent quantities of scientific interest
3. Complete a spatial analysis project that includes all components of the spatial science paradigm and a written summary in the form of a scientific paper

Email: fcurrier@jhsph.edu
Lecture: TH 3:30 PM - 5:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.696 Spatial Analysis I: ArcGIS; 340.697 Spatial Analysis II: Spatial Data Technologies; 140.698 Spatial Analysis III: Spatial Statistics

Jointly offered with EPI
Use of personal laptops is strongly encouraged.
140.724.01 PROBABILITY THEORY IV
3 credits - Course offered this year - East Baltimore
Louis, Thomas A.
Covers basic stochastic processes including martingales and Markov chains, followed by consideration of Markov Chain Monte Carlo (MCMC) methods.
Upon successfully completing this course, students will be able to:
1. Assess the convergence of a sequence or series of random variables using martingale theory
2. Classify the states and derive the transition probabilities of a Markov chain
3. Derive the stationary distribution of certain Markov chains
4. Evaluate a basic MCMC algorithm
Email: tlouis@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students who are not in the Biostatistics PhD program
Prerequisite: Calculus, real analysis; 140.721-3
The course will include three lab sessions scheduled for three of the lecture periods.

140.734.01 STATISTICAL THEORY IV
4 credits - Course offered this year - East Baltimore
Rosenblum, Michael
Focuses on the asymptotic behavior of estimators, tests, and confidence interval procedures. Specific topics include: M-estimators; consistency and asymptotic normality of estimators; influence functions; large-sample tests and confidence regions; nonparametric bootstrap
Upon successfully completing this course, students will be able to:
1. Give conditions for consistency and asymptotic normality of M-estimators
2. Determine the asymptotic distribution of M-estimators
3. Construct tests and confidence regions for parameters of generalized linear models
4. Determine when the nonparametric bootstrap is appropriate, and apply it in such cases
Email: mrosenbl@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for any students who are not in the Biostatistics PhD program
Prerequisite: Linear algebra; matrix algebra; real analysis; calculus; 140.731-33
One 1-hour lab per week

140.754.01 ADVANCED METHODS IN BIOSTATISTICS IV
4 credits - Course offered this year - East Baltimore
Ji, Hongkai
Extends topics in 140.753 to encompass generalized linear mixed effects models and introduces nonparametric smoothing, functional data analysis and data mining. Foundational topics include: linear mixed model, generalized linear mixed model, models for longitudinal data, prediction and classification, and functional data analysis. Emphasizes both rigorous methodological development and practical data analytic strategies. Related computational methods and skills developed in the concurrent computing/data lab.
Upon successfully completing this course, students will be able to:
1. Use modern statistical concepts such as linear mixed model (LMM) and generalized linear mixed models (GLMM) for inference
2. Describe the relationship between LMM and GLMM
3. Extend models to account for clustering and correlation
4. Learn techniques for solving prediction problems
5. Understand and use nonparametric smoothing models

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 16 of 149
6 Describe modern statistical methods for complex datasets including functional data analysis and data mining
7 Improve computational and analytic skills through analysis of simulated and real data sets

Email: hji@jhsph.edu
Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 T 9:00 AM-10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.751-753

140.763.01 BAYESIAN METHODS II
3 credits - Course offered this year - East Baltimore
Rosner, Gary; Scharpf, Robert
Builds upon the foundation laid in Bayesian Methods I (140.762). Discusses further current approaches to Bayesian modeling and computation in statistics. Describes and develops models of increasing complexity based on linear regression, generalized linear mixed effects, and hierarchical models. Acquaints students with advanced tools for fitting Bayesian models, including non-conjugate prior models. Includes examples of real statistical analyses.
Upon successfully completing this course, students will be able to:
1 Develop Bayesian models for the analysis of complex problems, including repeated measurement data and latent data models
2 Create computer programs to run analyses
3 Calculate posterior distributions of parameters of scientific interest
4 Conduct Bayesian analyses of complex data sets

Email: grosner@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.653-4

Learning Materials:
(Book) First Course in Bayesian Statistics
Hoff, Peter
Amazon $48.51

140.774.01 FOUNDATIONS OF STATISTICS II (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Rohde, Charles
Investigates the foundations of statistics as applied to assessing the evidence provided by an observed set of data. Topics include: law of likelihood, the likelihood principle, evidence and the likelihood paradigm for statistical inference; failure of the Neyman-Pearson and Fisherian theories to evaluate evidence; marginal, conditional, profile and other likelihoods; and applications to common problems of inference.
Upon successfully completing this course, students will be able to:
1 Compare and criticize the basic paradigms of statistical inference
2 Formulate and contrast concepts of statistical evidence

Email: crohde1@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.773

140.800.01 MPH CAPSTONE BIOSTATISTICS
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Upon successfully completing this course, students will be able to:
1. Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience

Lecture: TBA

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: 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).

140.820.01 Thesis Research Biostatistics
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

140.830.01 Postdoctoral Research Biostatistics
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

140.840.01 Special Studies and Research Biostatistics
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

140.850.01 Advanced Special Topics in Biostatistics
variable credits Number of credits will depend on the material being covered - Course offered this year - East Baltimore

Departmental Faculty

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

Upon successfully completing this course, students will be able to:
1. Identify the central issues
2. Demonstrate knowledge of key models, estimation strategies, theoretical properties, and data displays
3. Describe steps for implementing analyses of relevant data
4. Engage in related statistical research

Lecture: TBA

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
For Biostatistics PhD students only
Grading Options: 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
140.895.01 MPH PRACTICUM: BIOSTATISTICS

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

Departmental Faculty

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

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

1. Demonstrate that they have had a mentored public health practicum experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

Clinical Investigation

390.675.01 OUTCOMES AND EFFECTIVENESS RESEARCH (Cancelled - Department)

3 credits - Course offered this year - East Baltimore
Singh, Sonal

Provides an overview of outcomes and effectiveness research. Emphasizes conceptual, design, and analytical aspects of research including policy implications. Covers both experimental (randomized) and observational designs, with greater emphasis on the latter. Examines alternative approaches to addressing confounding in controlled observational studies. Explores methods for evaluating the effectiveness and safety of medications using experimental, observational designs and evidence synthesis. Considers a wide range of outcomes, including time to event outcomes (survival analysis), patient preferences and patient-reported outcomes.

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

1. Develop skills needed to critically evaluate the strengths and weaknesses of outcomes and effectiveness research
2. Craft a preliminary design for an outcomes or effectiveness study
3. Recognize how various epidemiological methods meets study aims
4. Describe a wide variety of innovative approaches to outcomes and effectiveness investigation
5. Understand the implications of outcomes and effectiveness studies for end-users

Email: ssingh31@jhu.edu
Lecture: T 5:30 PM - 8:30 PM
Enrollment: Minimum 15, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students not in the GTPCI or SOCI programs.
Prerequisite: Introductory biostatistics course sequence (e.g., 140.611-612 or 140.621-623), SOCI student, or consent of instructor.

One of the 7 courses offered in the SOCI Award Program.

390.678.01 INTRODUCTION TO QUALITY IMPROVEMENT & KNOWLEDGE TRANSLATION RESEARCH

3 credits - Course offered this year - East Baltimore
Lubomski, Lisa; Needham, Dale

Introduces the basic principles of quality improvement/knowledge translation (QI/KT) research, and focuses on efforts aimed at increasing the extent to which patients receive evidence-based therapies. Didactic presentations and in-class discussions of the concepts, methods, and applications of QI/KT theory and practice use examples and methods from real-world QI/KT projects. Faculty with expertise in QI/KT research and interventions facilitate course sessions. Students taking the course for a grade develop a research paper and give a brief presentation related to one of the following criteria: outlines the development of a research proposal for a specific QI/KT topic; critically appraises a published guideline; systematically reviews of the literature around a QI/KT topic.

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

1. Summarize the importance of and point of view regarding quality improvement/knowledge translation for policymakers, providers, and the public
2. Describe one conceptual framework for quality improvement/knowledge translation research
3. Identify and assess barriers and facilitators for quality improvement/knowledge translation interventions
4. Discuss issues regarding the selection, tailoring, and implementation of quality improvement/knowledge translation interventions
5. Apply the concepts and tools to a quality improvement/knowledge translation project of the student's choosing

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 19 of 149
390.703.01 PRESENTATION SKILLS
1 credits - Course offered this year - East Baltimore
Punjabi, Naresh
Prepares students to organize and deliver an effective scientific presentation. Focuses on designing a scientific talk, including preparing effective visual aids. Compliments 390.721-722, at the end of which students are required to present their work. Upon successfully completing this course, students will be able to:
1. Apply effective ways of organizing and delivering scientific presentation
2. Design a scientific talk, including preparing effective visual aid

Email: npunjabi@jhmi.edu
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
GTPCI degree students and SOCI training program students only.
Grading Options: Letter Grade or Pass/Fail

390.711.01 BIOMEDICAL WRITING II
2 credits - Course offered this year - East Baltimore
Poynton, Sarah
Introduces the process of writing peer-reviewed research papers and provides a brief overview of grant proposal writing. Emphasizes a logical organization, clear writing, and an understanding of readers’ and reviewers’ expectations. Students prepare selected sections of a first draft of a research paper based on their own research, and they receive feedback on their drafts through in-class discussion and written comments from the instructor.
Upon successfully completing this course, students will be able to:
1. Write a high quality biomedical research paper for submission to a peer-reviewed journal
2. Demonstrate logical organization, clear and effective writing, and an understanding of readers’ and reviewers’ expectations
3. Describe the content that reviewers expect to see in each of the main sections of a peer-reviewed biomedical research paper
4. Demonstrate the ability to edit texts, figures and tables for content, form and style
5. Critically analyze, and recommend revisions to, a draft of a biomedical research paper written by a peer, to improve its organization and style

Email: spoynton@jhsph.edu
Lecture: T 1:30 PM - 3:20 PM
Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No
Restricted to GTPCI students.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Permission is required of all non-GTPCI students
Prerequisite: 390.710
Multi-term with 390.710
Final grade applies to all terms

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 20 of 149
Upon successfully completing this course, students will be able to:

1. Write a high quality biomedical research paper for submission to a peer-reviewed journal
2. Demonstrate logical organization, clear and effective writing, and an understanding of readers’ and reviewers’ expectations
3. Describe the content that reviewers expect to see in each of the main sections of a peer-reviewed biomedical research paper
4. Demonstrate the ability to edit texts, figures and tables for content, form and style
5. Critically analyze, and recommend revisions to, a draft of a biomedical research paper written by a peer, to improve its organization and style

Email: spoynton@jhsph.edu
Lecture: W 10:00 AM - 11:50 AM

Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No
max of 2 non-GTPCI students
Grading Options: Pass/Fail
Consent required for some students; Permission is required of all non-GTPCI students
Prerequisite: 390.710
Multi-term with 390.710
Final grade applies to all terms
same as 390.711.01; This section, .02, is held in Carnegie 321

390.722.01 PRINCIPLES OF GRANT WRITING II
4 credits - Course offered this year - East Baltimore
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.

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

Email: npunjabi@jhmi.edu
Lecture: M 1:30 PM - 5:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Must be GTPCI MHS
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 390.721
Multi-term with 390.721
Final grade applies to all terms
Grade for 390.721 and 722 given at completion of 390.722.

390.820.01 THESIS RESEARCH IN CLINICAL INVESTIGATION
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

390.840.01 SPECIAL STUDIES AND RESEARCH IN CLINICAL INVESTIGATION
variable credits - Course offered this year - East Baltimore

Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Pass/Fail  

390.855.01 RESEARCH FORUM  
1 credits - Course offered this year - East Baltimore  
Adkinson, Franklin  
A monthly research forum, lasting one hour, in which advanced fellows will present interim research findings and plans for discussion with colleagues and faculty.  
Information not required for this course type  
Email: fadkinso@jhsph.edu  
Lecture: W 9:30 AM - 10:50 AM  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
This course is restricted to GTPCI students.  
Grading Options: Pass/Fail  

Environmental Health and Engineering  

180.605.01 FOOD SYSTEM SUSTAINABILITY PRACTICUM  
3 credits - Course offered this year - East Baltimore  
Neff, Roni  
Students learn first-hand about food system sustainability issues by engaging with organizations working for positive change. They broaden their learning through classroom education, readings and assignments covering: food system sustainability, with emphasis on content areas relevant to student projects; skills and context relevant to working with these organizations; and reflection on service-learning experiences.  
Upon successfully completing this course, students will be able to:  
1 Describe concepts of food system environmental (and social) sustainability, including important threats, barriers to change, and approaches to addressing these barriers.  
2 Describe the operation of a program or project, including the site’s relationship with its community.  
3 Reflect on the student’s own role as a professional engaging with an organization, including identifying strengths and areas for further improvement.  
4 Discuss the contributions to food system environmental sustainability of the programs other students in the class worked with, and otherwise draw broader lessons from these site experiences.  
5 Critically evaluate tradeoffs and potential unintended consequences from interventions.  
6 Discuss selected topics in food system sustainability in depth.  
Email: rneff@jhsph.edu  
Lecture: F 1:30 PM - 3:20 PM  
Enrollment: Minimum 10, Maximum 20, Waitlist Enabled: Yes  
Grading Options: Letter Grade or Pass/Fail  
Consent required for all students; All students must obtain consent.  

180.606.81 CASE STUDIES IN FOOD PRODUCTION AND PUBLIC HEALTH  
4 credits - Course offered this year - Internet  
Nachman, Keeve  
Focuses on food production practices in the United States and the associated public health risks and benefits; discussions on animal and crop agriculture and food processing encompass both historical practices and modern methods. Presents case studies which delve deeper into specific topics, including industrial food animal production, aquaculture, veterinary drugs, agricultural policy, chemical exposures, rural communities and food animal worker health, and sustainable production methods. Lectures draw from the literature, and from the firsthand experiences of lecturers in research translation and agricultural production.  
Upon successfully completing this course, students will be able to:  
1 Describe in detail the major steps of the food production process, from farm to retail  
2 Identify practices associated with crop and food animal production that may threaten public health  
3 Inventory the pathways by which hazardous agents from farms reach humans  
4 Categorize impacts of food production practices by affected population subgroups  
5 Identify alternative farming and distribution practices that may protect public health  

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 22 of 149
180.608.01 PUBLIC HEALTH RESPONSES TO ENVIRONMENTAL INCIDENTS AND DISASTERS
3 credits - Course offered this year - East Baltimore
Silbergeld, Ellen
Focuses on population exposures to and health impacts of non-infectious agents. Prepares students for applying methodologies for public health response and acquiring skills in developing standardized protocols to effectively recognize, evaluate and respond to public health emergencies and reported clusters of disease. Presents basic aspects of applied environmental health and policy frameworks for decision-making in environmental health. Provides competencies in finding and using web-based data sources, applying geospatial and other methodologies in analyzing information on exposures and health outcomes; identifying resources for coordinated response to environmental incidents; and communicating findings to decision-makers and the public. Equips students to participate in responding to disasters, reported outbreaks and apparent clusters. Provides experience in establishing exposure registries.
Upon successfully completing this course, students will be able to:
1. Identify and assess population exposures to environmental exposures in the form of disasters, outbreaks, and apparent clusters
2. Establish and access data systems that provide information on environmental exposures and health outcomes
3. Utilize these systems and other information to evaluate associations between exposures and health outcomes
4. Investigate reported outbreaks and clusters of environmentally associated health outcomes
5. Establish registries for longer term follow-up
6. Monitor trends in both environmental noninfectious exposures and disease
7. Effectively communicate information and findings related to outbreaks to policymakers, health officials and the public

180.628.81 INTRODUCTION TO ENVIRONMENTAL AND OCCUPATIONAL HEALTH LAW
4 credits - Course offered this year - Internet
Locke, Paul
Examines US and international environmental and occupational health laws and regulations. Covers significant US federal laws, such as the Clean Air Act, the Occupational Safety and Health Act, Superfund, the Toxic Substances Control Act, Safe Drinking Water Act, the Resource, Conservation and Recovery Act and significant international treaties and laws, such as the European Union’s REACH legislation, with a particular emphasis on how they influence public health intervention strategies. Also introduces students to the agencies that administer worker health and environmental protection programs.
Upon successfully completing this course, students will be able to:
1. Identify and describe significant environmental and occupational health laws and regulations
2. Identify and describe the significant agencies and institutions charged with protecting environmental and worker health
3. Discuss the strengths and weaknesses of these laws and regulations
4. Compare U.S. and international legal approaches to environmental and occupational health protection

180.631.01 ENVIRONMENTAL AND OCCUPATIONAL HEALTH POLICY SEMINAR
3 credits - Course offered this year - East Baltimore
Silbergeld, Ellen

Uses a case-study approach to discuss the political, economic and scientific contexts of environmental and occupational health policy making. Covers the regulation of chemical and pesticide production and use, waste management, occupational health and safety, food safety, and international aspects of policy making. Emphasizes the critical analysis of specific case studies, involving specific decisions and current controversy, including the roles of risk assessment, cost benefit analysis, and the precautionary principle. Also covers the interactions of environmental and occupational health policy with international affairs, specifically trade and development.

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

1. Describe the institutions, laws, and processes that are utilized in occupational and environmental health policy in the U.S. a. Describe the national, state, and local institutions involved in making environmental and occupational health policies b. Describe
2. Critically evaluate the objectives and performance of policy making a. Explain policy documents (regulations, executive orders, court decisions, etc.) b. Identify and analyze the role of stakeholders in policymaking c. Perform a policy analysis using critical thinking
3. Apply policy making methods to problem identification and policy formulation a. Formulate environmental and occupational health problems in the terms of policy objectives b. Analyze the relationship between policies and problems c. Compare policy making
4. Understand the international aspects of environmental and occupational health policy a. Describe the international aspects of environmental and occupational health issues b. Identify institutions and processes in international policy making c. Evaluate in

Email: esilberg@jhsph.edu

Lecture: TH 3:30 PM - 6:20 PM

Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Requires consent if student has not taken 180.629.

Prerequisite: 180.629 or consent of the instructor.

Jointly offered with HPM

180.654.81 NANO-TECHNOLOGY RISK ANALYSIS

2 credits - Course offered this year - Internet

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

Email: rwhite@jhsph.edu

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes

Undergraduate student enrollment is limited to upper level (4th year) students, with permission of the instructor required.

Grading Options: 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 Online Learning and Introduction to the Risk Sciences and Public Policy (317.600)

Jointly offered with HPM

180.661.01 WRITING SCIENTIFIC PAPERS I

1 credits - Course offered this year - East Baltimore

Silbergeld, Ellen
Enables doctoral students to attain skills in writing successful scientific papers—that is, papers that are accepted by peer-reviewed journals. Confers skills in identifying and using online information sources. Informs participants on different publication options, including open source journals. Explains NIH requirements for notification and access. Through problem based learning and review of successful scientific papers, conveys the elements of successful scientific papers, including formats, data presentation, citations and acknowledgements. Demonstrates successful response to reviewer comments.

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

1. Effectively and efficiently use online information sources, including PubMed, ToxLine, Google Scholar, government websites (EPA, FDA, USDA, etc.)
2. Use computer-based systems to build an archive of information and references
3. Recognize the elements of scientific writing, including structure and language, data presentation, and citation management
4. Critically review literature and identify what makes an effective publication
5. Read and respond to literature reviews
6. Explain open source publishing and NIH requirements for access

Email: esilberg@jhsph.edu

Lecture: W 12:00 PM - 1:20 PM

Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
EHE PhD students only
Grading Options: Pass/Fail
Final grade applies to all terms
Will be held in departmental space - W7023

**180.662.01 WRITING SCIENTIFIC PAPERS II (Discontinued)**

1 credits - Course offered this year - East Baltimore

Silbergeld, Ellen

Enables doctoral students to attain skills in writing successful scientific papers, including dissertations, grant, and papers that are accepted by peer-reviewed journals. Confers and utilizes skills acquired in Quarter 3 course to access and select relevant scientific literature from online information sources for writing. Informs participants on different publication options, including open source journals. Explains NIH requirements for notification and access to data. Through problem based learning and review of successful scientific papers, conveys the elements of successful scientific writing, including grammar, sentence structure, formats, data presentation, citations and acknowledgements. Demonstrates successful response to reviewer comments.

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

1. Use computer-based systems to build an archive of information and references.
2. Recognize the elements of scientific writing, including structure and language, data presentation, and citation management.
3. Critically review literature and identify what makes an effective publication.
4. Read and respond to literature reviews.
5. Explain open source publishing and NIH requirements for access.

Email: esilberg@jhsph.edu

Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
EHS PhD students only
Grading Options: Pass/Fail
Prerequisite: Writing scientific papers I (3rd term- part of this multi-term course)
Multi-term with 180.661
Final grade applies to all terms
Will be held in departmental space

**180.670.01 INTRODUCTION TO PUBLIC HEALTH EMERGENCY PREPAREDNESS**

3 credits - Course offered this year - East Baltimore

Barnett, Dan

Provides an introduction to public health emergency preparedness, including natural disasters, unintended human acts, terrorism, and emerging threats such as a pandemic. Focuses on the critical issues facing public health professionals and policy makers.
Upon successfully completing this course, students will be able to:

1. Identify and describe the main public health activities in preparing for and responding to public health emergencies
2. Identify chemical, biological, radiological, nuclear, and explosive terrorist weapons
3. Describe the roles of public health agencies in emergencies, and interactions with public safety and other agencies
4. Describe the consequences of recent disasters

Email: dbarnett@jhsph.edu
Lecture: T TH 9:00 AM - 10:20 AM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

Jointly offered with HPM

180.800.01 MPH CAPSTONE ENVIRONMENTAL HEALTH SCIENCES
2 credits - Course offered this year - East Baltimore

Departmental Faculty

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

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

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

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: 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 THESIS RESEARCH ENVIRONMENTAL HEALTH SCIENCES
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

180.830.01 POSTDOCTORAL RESEARCH ENVIRONMENTAL HEALTH SCIENCES
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

180.840.01 SPECIAL STUDIES AND RESEARCH ENVIRONMENTAL HEALTH SCIENCE
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

180.860.01 SPECIAL STUDIES MHS ESSAY
1 credits - Course offered this year - East Baltimore

Departmental Faculty

Required of all students in the departmental MHS degree program. Provides the opportunity for the student to work with his/her advisor to formulate, research, finalize, and gain approval of the required essay.
180.880.01 SPECIAL STUDIES IN ENVIRONMENTAL HEALTH/COMMUNITY OUTREACH
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. - Course offered this year - East Baltimore
Trush, Michael
In the first and second terms, introduces concepts of environmental justice and community outreach in environmental health by emphasizing ongoing projects in Baltimore. Presentations are by researchers or project directors and their community partners as well as representatives from city and state government. In the third and fourth terms, students have the opportunity to participate in ongoing community-based research projects. This may serve as an MPH integrating experience.
Email: mtrush@jhsph.edu
Lecture: T 4:00 PM - 6:00 PM

180.895.01 MPH PRACTICUM: EHS
variable credits Students who have not met the practicum requirement, must register for at least two credits - Course offered this year - East Baltimore
Departmental Faculty
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Upon successfully completing this course, students will be able to:
1 Demonstrate that they have had a mentored public health practicum experience

182.614.01 INDUSTRIAL HYGIENE LABORATORY
5 credits - Course offered this year - East Baltimore
Lees, Peter; Rule, Ana Maria
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
Email: arule1@jhu.edu
Lecture: T TH 1:30 PM - 4:50 PM
**Grading Options:** Letter Grade or Pass/Fail  
**Prerequisite:** College chemistry and physics

**182.622.01 VENTILATION CONTROLS**  
4 credits - Course offered this year - East Baltimore  
Bowes, Stephen M.; Rule, Ana Maria  
Covers the principles of industrial ventilation and engineering controls for airborne hazards. Provides competency in general ventilation and industrial ventilation design.  
Upon successfully completing this course, students will be able to:  
1. Discuss the occupational/environmental health approach to risk management  
2. Define the characteristics of local exhaust and general dilution ventilation  
3. Analyze the performance of ventilation systems  
4. Select an appropriate exhaust hood, balance flow in ducts, determine exhaust fan requirements, and choose the appropriate air cleaning technology to use for standard industrial operations  
5. Design a balanced local exhaust ventilation system integrating all components  

Email: arule1@jhu.edu  
Lecture: F 1:30 PM - 5:20 PM  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Letter Grade or Pass/Fail  
Prerequisite: College chemistry and physics w/labs, math through differential and integral calculus

**182.625.81 PRINCIPLES OF OCCUPATIONAL AND ENVIRONMENTAL HYGIENE**  
4 credits - Course offered this year - Internet  
Breysse, Patrick; Williams, D'Ann  
Introduces concepts, terminology, and methodology in the practice of industrial hygiene, and identifies resource materials. Includes lectures, typical problems, demonstrations, and a walk-through survey.  
Upon successfully completing this course, students will be able to:  
1. Describe the legal, professional, and ethical framework for the practice of industrial hygiene  
2. Define basic terms and technical concepts integral to the practice of industrial hygiene  
3. Explain the differences between chemical (gases/vapors, dusts/mists/fumes), physical, and biological agents in the workplace  
4. Calculate time-weighted averages  
5. Convert between various units of exposure (for example, mg/m³ to ppm)  
6. Calculate and interpret noise exposures and doses  
7. Identify the basic concepts of workplace exposure assessment  
8. Describe the hierarchy of controls and how it applies to hazard control  
9. Integrate various concepts into a broader occupational/environmental health practice  

Email: dlwillia@jhsph.edu  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Letter Grade or Pass/Fail  
Prerequisite: Introduction to Online Learning.  
Not designed to prepare you for the Certified Industrial Hygienist qualifying exam.

**182.638.01 ENVIRONMENTAL AND HEALTH CONCERNS IN WATER USE AND REUSE**  
4 credits - Course offered this year - East Baltimore  
Schwab, Kellogg  
Provides an overview of environmental and public health issues related to water use and reuse, and describes the different strategies for treating both drinking water and wastewater to meet regulatory standards and ensure the health of both human populations and the environment. Since two key issues in public and environmental health are sustainable access to clean drinking water and safe reclamation of wastewater, respectively, students learn core principles of water quality engineering that are critical for protecting human populations from waterborne pathogens.  
Upon successfully completing this course, students will be able to:  
1. Explain the basic concepts of drinking water and wastewater treatment approaches
2 Characterize challenges related to direct and indirect potable water reuse
3 Characterize waterborne pathogens and health risks related to their waterborne transmission

Email: kschwab@jhsph.edu
Lecture: W F 8:30 AM - 10:20 AM

Enrollment: Minimum 6, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

182.810.01 FIELD PLACEMENT ENVIRONMENTAL HEALTH ENGINEERING
variable credits 1-10 - Course offered this year - East Baltimore

Focuses on a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Upon successfully completing this course, students will be able to:
1 Demonstrate that they have had a mentored public health practicum experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

182.820.01 THESIS RESEARCH ENVIRONMENTAL HEALTH ENGINEERING
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

182.830.01 POSTDOCTORAL RESEARCH ENVIRONMENTAL HEALTH ENGINEERING
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

182.840.01 SPECIAL STUDIES/RESEARCH ENVIRONMENTAL HEALTH ENGINEERING
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

182.850.01 SPECIAL STUDIES ENVIRONMENTAL HEALTH ENGINEERING MSPH ESSAY
variable credits 1-2 credits. Students choose credits based on the milestones for completing the MHS OEH Essay. The number of credits will be chosen by the advisor. - Course offered this year - East Baltimore

Departmental Faculty

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
3 Prepare a professional report on their findings

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 29 of 149
Present in an oral seminar setting

Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Consent required for all students; Instructor consent required
The student's advisor serves as course instructor. Successful completion of the MHS Essay is required for graduation from the program.

182.860.81 SPECIAL STUDIES SEMINAR IN OCCUPATIONAL AND ENVIRONMENTAL HYGIENE
1 credits - Course offered this year - Internet
Lees, Peter
Faculty, students, and guest speakers present scientific papers from the current and/or classic literature dealing with occupational and environmental hygiene professional practice and research. These presentations serve to integrate various courses taken as a part of the online MSPH in OEH program and to familiarize students with state-of-the-art practice procedures and guidelines.
Upon successfully completing this course, students will be able to:
1 Read and critically evaluate scientific papers
2 Critique analytical methods in the public literature
3 Describe the strengths and weaknesses of various methodological approaches used in the practice of occupational and environmental hygiene
Email: plees@jhsph.edu
Enrollment: Minimum 1, Maximum 20, Waitlist Enabled: Yes
Registration restricted to students enrolled in MSPH OEH PTIB program.
Grading Options: Pass/Fail
Consent required for some students; Instructor consent is required for students not in the MSPH OEH PTIB Program
Prerequisite: Introduction to Online Learning.

183.631.81 FUNDAMENTALS OF HUMAN PHYSIOLOGY
4 credits - Course offered this year - Internet
Tankersley, Clarke
Encompasses the integration of a variety of organ systems. Invites leading scientists in different fields of physiology to offer exceptional and up-to-date lectures that quickly move through the basic mechanistic principles. Applies basic mechanistic principles of each organ system to current public health issues and environmentally relevant topics.
Upon successfully completing this course, students will be able to:
1 Use their discussion of functional principles at the genetic, cellular and organ levels to describe the concepts of integrated systems physiology in humans
2 Apply these basic physiological principles to strategies for the solution of current and emerging relevant environmental health issues
3 Explain and discuss the significance of these principles in interaction with a broad spectrum of public health professionals
Email: drclarke@comcast.net
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Student's must contact instructor before enrolling for this course.
Prerequisite: Introduction to Online Learning.

183.641.01 THE HEALTH EFFECTS OF INDOOR AND OUTDOOR AIR POLLUTION (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Spannhake, Ernst
Provides background on respiratory tract defense mechanism and the factors that control inhalation exposures to environmental pollutants and their influences on health and diseases. Topics include oxidant pollutants, sulfur dioxide and acid aerosols, particulates, bioaerosols, building-related illness, volatile organic compounds, environmental tobacco smoke and radon. Also covers host susceptibility factors, risk assessment, the influence of global warming, and regulation and public policy.

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 30 of 149
Upon successfully completing this course, students will be able to:

1. Describe the general anatomy and physiology of the human respiratory track, including its primary innate host-defense mechanisms, and factors that may affect individual susceptibility to adverse health effects linked to airborne exposures.

2. Describe the various categories of indoor and outdoor pollutants, their primary sources, levels and distribution within the environment, and methods by which they are measured.

3. Explain the physical and chemical characteristics of pollutant agents that influence their distribution, deposition and toxic effects within the airways and elsewhere in the body.

4. Discuss the mechanisms through which exposures to selected environmental pollutants can initiate, maintain and/or exacerbate human disease.

Email: espannha@jhsph.edu

Lecture: T TH 3:00 PM - 4:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

183.642.01 THE CARDIOPULMONARY SYSTEM UNDER STRESS

2 credits - Course offered this year - East Baltimore

Fitzgerald, Robert

Identifies the responses of the cardiopulmonary system to physiological and environmental stress, presenting information from both human and research laboratory model experimentation. Reviews hypoxia and some common air pollutants (e.g. ozone) as a prototypical environmental stress factors, and exercise as an example of physiologic stress. Discusses epithelial, circulatory, and ventilatory responses of the pulmonary system, as well as susceptibility factors and biomarkers to stress.

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

1. Assess the varied responses of the cardiopulmonary system to physiological and toxicological stresses such as: emotion, isometric and isotonic exercise, changes in gravity, diving, altitude, viral cardiac infections, air pollution (e.g., ozone) on lung function, oxidative stress on the lung, stress encountered with hyperoxic assisted ventilation, and, finally, the impact of social stress on the heart and on asthma.

Email: rfitzger@jhsph.edu

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

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; Consent is required if student has not taken 183.638.

Prerequisite: 183.638 - Mechanisms of Cardiopulmonary Control or consent of instructor

183.643.01 ESSENTIALS OF PULMONARY FUNCTION MEASUREMENTS

3 credits - Course offered this year - East Baltimore

Mitzner, Wayne

Presents the theory and fundamentals underlying the measurement of pulmonary function in clinical and experimental studies. Discussions address pulmonary function, lung disease, asthma and lung pathology. The course considers the following topics and measurements; lung elasticity, lung volumes, spirometric indices, ventilation, perfusion, diffusion, and imaging assessments of lung function. Instructional material includes books, scientific papers, and practical demonstrations.

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

1. Describe the anatomy, physiology, and theory underlying the measurement of pulmonary function in clinical and experimental studies.

2. Explain why we bother to make such measurements and what they might tell us about lung function and disease.

3. Accurately interpret pulmonary function tests at the level of most pulmonary physicians and basic researchers.

Email: wmitzner@jhsph.edu

Lecture: TBA

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Basic course in mammalian physiology

183.820.01 THESIS RESEARCH PHYSIOLOGY

Variable credits - Course offered this year - East Baltimore

Information not required for this course type.

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 31 of 149
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

183.830.01 POSTDOCTORAL RESEARCH PHYSIOLOGY
variable credits - Course offered this year - East Baltimore
Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

183.840.01 SPECIAL STUDIES AND RESEARCH PHYSIOLOGY
variable credits - Course offered this year - East Baltimore
Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

185.621.60 METHODS IN THE EXPOSURE SCIENCES
3 credits - Course offered this year - East Baltimore
Davis, Meghan; Koehler, Kirsten
Students apply principles of the exposure sciences related to environmental and occupational health contexts. They design an exposure assessment study and interpret exposure data. Students explain routes of exposure and biological mechanisms that influence sampling strategies, and present methods in the context of applications such as policy and regulation and evaluate how exposure studies impact various stakeholders and inform policy decision-making.

Upon successfully completing this course, students will be able to:
1. Describe exposure methods used to quantify physical, chemical and biological exposures of relevance to human health.
2. Design studies to measure exposure, and interpret data obtained from such studies.
3. Assess exposures using quantitative and qualitative methods.
4. Link area and personal exposure assessment to biomarkers of internal dose or effect.
5. Apply exposure assessment techniques in occupational and regulatory contexts.

Email: kkoehler@jhsph.edu
Lecture: T 3:30 PM - 5:20 PM
Enrollment: Minimum 3, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent is required for students who have not taken prerequisite courses. Consent is not required for all other students.
Prerequisite: 180.609 PRINCIPLES OF ENVIRONMENTAL HEALTH or 180.601 ENVIRONMENTAL HEALTH or an equivalent introductory course in environmental health
This class blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. This class will meet once a week. Students are expected to spend one hour a week on class work in addition to regular homework.

185.801.01 EXPOSURE SCIENCES & ENVIRONMENTAL EPI JOURNAL CLUB
1 credits - Course offered this year - East Baltimore
Heaney, Christopher
Provides a forum for students and multiple faculty to keep up-to-date on the latest environmental health research and get feedback on their research ideas and projects. Emphasizes active participation in discussions of the peer-reviewed literature, the most up-to-date research, and the process of research development.

Upon successfully completing this course, students will be able to:
1. Critique peer-reviewed manuscripts
2. Explain the peer review process
3. Discuss and provide feedback on research ideas and projects
Email: cheaney1@jhu.edu

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 32 of 149
**185.921.01 QUANTITATIVE METHODS IN THE EXPOSURE SCIENCES LABORATORY**

1 credit - Course offered this year - East Baltimore

Davis, Meghan; Koehler, Kirsten

In this quantitative laboratory, students will apply principles of the exposure sciences related to environmental and occupational health contexts. Students will learn how to design an exposure assessment study and how to analyze and model quantitative and semi-quantitative data. Students will analyze spatial and temporal dependency structure in the data and mixed exposure scenarios.

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

1. Apply the principles of exposure assessment to quantify physical, chemical and biological exposures of relevance to human health.
2. Perform exploratory data analysis on data obtained from exposure studies, with particular attention to data transformation and imputation methods typical to the field.
3. Model exposures, including those with spatial and temporal dependency, using quantitative and semi-quantitative methods.

Email: kkoehler@jhsph.edu

Lecture: TH 3:30 PM - 6:20 PM

Enrollment: Minimum 3, Maximum 40, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

**186.805.01 TOXICOLOGY, PHYSIOLOGY & MOLECULAR MECHANISMS JOURNAL CLUB & SEMINAR**

1 credit - Course offered this year - East Baltimore

Kohr, Mark

Provides a platform for doctoral and postdoctoral students (postdoctoral fellows) and faculty to present and discuss impactful scientific papers from the current literature that deal with mechanisms underlying environmental disease along with accompanying methods. Papers are organized around a term-specific theme selected by the course directors.

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

1. Critically read and evaluate scientific papers, and identify criteria for assessing the quality of the science.
2. Analyze and assess new methodological approaches in the areas of biochemistry, physiology, biophysics, cell and molecular biology, genomics, epigenetics, proteomics, metabolomics, etc.
3. Evaluate the pathophysiologic pathways of environmental disease at the molecular, cellular, tissue, whole organ-whole animal, and individual-to-population levels.
4. Give a high quality presentation that effectively conveys scientific results.

Email: mkohr1@jhu.edu

Lecture: M 4:00 PM - 5:00 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Pass/Fail

Consent required for some students; yes, for students not in EHS

Held in departmental space

**187.620.01 ENVIRONMENTAL TOXICOLOGICAL PATHOLOGY** (Cancelled - Department)

4 credits - Course offered this year - East Baltimore

Gabrielson, Kathleen

Focuses on pathophysiology and pathologic responses of toxicity induced by toxins of the cardiovascular, pulmonary, reproductive, neurological, immune, and gastrointestinal systems. A review of normal histology for the specific organ systems is compared to examples of acute and chronic toxicity to illustrate light microscopic and ultrastructural damage with correlation to altered physiology and function. The course integrates into each organ system studied a review of standard techniques used in toxicity studies including the use of animal necropsy, histology/pathology, various tissue molecular biological techniques, transgenic mice, and noninvasive physiological monitoring.

Upon successfully completing this course, students will be able to:
187.621.01 PUBLIC HEALTH TOXICOLOGY: ADVANCED TOPICS  
**Discontinued**
1 credits - Course offered this year - East Baltimore
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

Email: jbressle@jhsph.edu
Lecture: M 4:00 PM - 5:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

Students must register for all four terms of this course.

187.625.81 ANIMALS IN RESEARCH: LAW, POLICY, AND HUMANE SCIENCES  
**Cancelled - Minimum Not Met**
2 credits - Course offered this year - Internet
Stephens, Martin; Zurlo, Joanne

Introduces students to the principles, laws, and policies that influence the use of animal and alternative, non-animal-based (humane sciences) research techniques in biomedical research.

Upon successfully completing this course, students will be able to:
1. Describe the principles that govern the use of laboratory animals in research
2. Identify the steps by which biomedical research involving animals is reviewed by Institutional Animal Care and Use Committees (IACUCs)
3. Explain the guiding principles of humane science, including the “3Rs” -- reduction, refinement and replacement
4. Assess the ways in which the application of humane science principles in biomedical research can lead to more robust scientific methodology and results

Email: jzurlo@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.

187.641.01 IMMUNOLOGY OF ENVIRONMENTAL DISEASE  
**Cancelled - Department**
3 credits - Course offered this year - East Baltimore
Fairweather, DeLisa

Examines the effect of natural and chemical environmental agents on the immune system that result in chronic diseases like cardiovascular disease, cancer, allergy/asthma and autoimmune diseases like diabetes. Students learn basic immunology, toxicology and the pathogenesis of disease and apply their knowledge to analyze manuscripts in environmental immunology.

Upon successfully completing this course, students will be able to:
1. Define the basic components of the immune system
2. Explain a basic immune response to environmental agents
3. Describe the relationship between environmental agents and pathologic changes associated with major diseases like heart disease and cancer
4. Analyze manuscripts in environmental immunology

---

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 34 of 149
187.650.81 ALTERNATIVE METHODS IN ANIMAL TESTING
3 credits - Course offered this year - Internet
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.

Upon successfully completing this course, students will be able to:
1. Identify concerns in designing in vitro methods used to replace or supplement in vivo methods
2. Evaluate tissue culture methods for their ability to provide useful data
3. Define the strengths and limitations of bioinformatic techniques for reducing the numbers of animals in applied basic research
4. Explain the regulatory process in approving, verifying, and validating in vitro methods

Email: jbressle@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: A background in biology and chemistry.

187.655.01 EVIDENCE-BASED TOXICOLOGY (Discontinued)
3 credits - Course offered this year - East Baltimore
Hartung, Thomas; Smirnova, Lena
Provides students with fundamental knowledge about EBT approaches currently in use (or in development) that integrate and utilize diverse sources of data. These approaches include meta-analysis and systematic reviews, as used in evidence-based medicine. Introduces, explains and expands upon techniques such as risk of bias, QA/QC, good laboratory practice and validation, and the role that these tools and techniques play in assuring maximum confidence in evidence-based approaches.

Upon successfully completing this course, students will be able to:
1. Discuss the advantages of evidence-based and bioinformatics approaches
2. Describe the principles of systematic review and meta-analysis
3. Explain quality assurance schemes in scientific work
4. Explain the basis of validation processes
5. Identify reasons for bias in scientific work
6. Apply quality scoring to published studies

Email: lsmirno1@jhu.edu

Lecture: M W 1:30 PM - 2:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; students not in the MSPH Program Track require instructor consent
Prerequisite: 187.610 Public Health Toxicology

187.655.81 EVIDENCE-BASED TOXICOLOGY
3 credits - Course offered this year - Internet
Smirnova, Lena
Provides students with fundamental knowledge about EBT approaches currently in use (or in development) that integrate and utilize diverse sources of data. These approaches include meta-analysis and systematic reviews, as used in evidence-based medicine. Introduces, explains and expands upon techniques such as risk of bias, QA/QC, good laboratory practice and validation, and the role that these tools and techniques play in assuring maximum confidence in evidence-based approaches.
Upon successfully completing this course, students will be able to:

1. Discuss the advantages of evidence-based and bioinformatics approaches
2. Describe the principles of systematic review and meta-analysis
3. Explain quality assurance schemes in scientific work
4. Explain the basis of validation processes
5. Identify reasons for bias in scientific work
6. Apply quality scoring to published studies

Email: Ismirno1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 187.610 Public Health Toxicology

187.661.01 ENVIRONMENTAL HEALTH IN NEUROLOGICAL AND MENTAL DISORDERS
3 credits - Course offered this year - East Baltimore

Bressler, Joseph

Covers physical and chemical factors in our environment that contribute to neurodevelopmental disorders, mental health disease, and neurodegeneration. Lectures include a brief introduction to neurobiology, experimental studies in neurotoxicology, and studies on human populations.

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

1. Describe intracellular and intercellular mechanisms underlying normal brain function
2. Explain mechanisms underlying associations between mental disorders/neurological diseases and exposure to environmental pollutants
3. Discuss developmental, senescent, and genetic factors that increase the individual’s risk to environmental pollutants
4. Analyze data from experimental and epidemiological studies

Email: jbressle@jhsph.edu

Lecture: T TH 10:30 AM - 11:50 AM

Enrollment: Minimum 6, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 187.610 or consent of instructor

187.820.01 THESIS RESEARCH TOXICOLOGICAL SCIENCES
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

187.830.01 POSTDOCTORAL RESEARCH TOXICOLOGICAL SCIENCES
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

187.840.01 SPECIAL STUDIES AND RESEARCH TOXICOLOGICAL SCIENCES
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

188.681.01 OCCUPATIONAL HEALTH
5 credits - Course offered this year - East Baltimore
Agnew, Jacqueline; Lees, Peter

Lectures, discussions, and visits to various industrial sites present approaches to evaluating the industrial environment, including industrial process, hazards, organization, and management structure. Stresses the importance of interdisciplinary cooperation in the development of occupational health programs, with reference to the U.S. workplace in the next decade.

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

1. Practice in collaboration with other disciplines within the field of occupational practice
2. Evaluate the industrial environment, including industrial processes, hazards, labor issues, and corporate structure in the context of worker health and safety
3. Analyze examples of workplace and other environmental exposures in the context of regulations, laws, and policies
4. Formulate a program and a feasible implementation plan to control occupational health hazards
5. Recommend risk management approaches, including regulatory, engineering, and behavioral/risk communication options
6. Assess the effectiveness of interventions that have been instituted to modify risks associated with workplace and other environmental hazards
7. Identify the association between social, behavioral, and organizational factors and health outcomes in the workplace

Email: jagnew@jhsph.edu
Lecture: W 8:30 AM - 4:50 PM
Lecture: M 8:30 AM - 11:50 AM

Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required for all students
Prerequisite: 188.680, 187.610 and 182.625 are recommended.

188.682.01 A BUILT ENVIRONMENT FOR A HEALTHY AND SUSTAINABLE FUTURE (Discontinued)
3 credits - Course offered this year - East Baltimore
Parker, Cindy

Addresses the role that the built environment plays in public health. Specifically examines how building design, community planning and design, land use, and transportation networks contribute to energy use, water supply degradation, climate change, ecosystem degradation, and public health. Explores the contributions of suburban sprawl to adverse environmental and public health outcomes. Also examines how the built environment could and must change if we are to stabilize the climate and move into a sustainable future.

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

1. Analyze how land use and transportation networks contribute to adverse public health outcomes
2. Explain the role of health impact assessment in addressing these issues
3. Use Systems Thinking to explain the relationships between the built environment, climate change, equity, and public health
4. Distinguish the focus, tools, and solutions offered by the green architecture, the New Urbanism, and smart growth approaches to the environmental and public health impacts of the built environment
5. Develop a framework for considering different strategies of creating or transforming the built environment for a sustainable future

Email: CindyParker@jhu.edu
Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 180.611 The Global Environment, Climate Change and Public Health, 180.607 Climate Change and Public Health, or consent of instructor

188.682.81 A BUILT ENVIRONMENT FOR A HEALTHY AND SUSTAINABLE FUTURE
3 credits - Course offered this year - Internet
Parker, Cindy

Addresses the role that the built environment plays in public health. Specifically examines how building design, community planning and design, land use, and transportation networks contribute to energy use, water supply degradation, climate change, ecosystem degradation, and public health. Explores the contributions of suburban sprawl to adverse environmental and public health outcomes. Also examines how the built environment could and must change if we are to stabilize the climate and move into a sustainable future.
Upon successfully completing this course, students will be able to:

1. Analyze how land use and transportation networks contribute to adverse public health outcomes.
2. Explain the role of health impact assessment in addressing these issues.
3. Use Systems Thinking to explain the relationships between the built environment, climate change, equity, and public health.
4. Distinguish the focus, tools, and solutions offered by the green architecture, the New Urbanism, and smart growth approaches to the environmental and public health impacts of the built environment.
5. Develop a framework for considering different strategies of creating or transforming the built environment for a sustainable future.

Email: CindyParker@jhu.edu

Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 180.611 The Global Environment, Climate Change and Public Health, 180.607 Climate Change and Public Health, or consent of instructor.

188.688.01 GLOBAL SUSTAINABILITY & HEALTH SEMINAR
1 credits - Course offered this year - East Baltimore

Parker, Cindy

Students and faculty discuss the causes, consequences, and implications of key global environmental challenges that we are facing and that are likely to become more challenging over time. Specifically addresses how land use (e.g., patterns of urban growth and suburban sprawl), energy use, food production and distribution, water use, and population growth are causing climate change, ecosystem degradation, biodiversity losses, species extinctions, and other resource depletion, and how all this is in turn is a threat to human health as individuals, in communities, and globally. Focuses on discussion and not lectures and will utilize a mix of movies, guest discussants, and student directed discussions.

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

1. Define the aspects of land use, energy use, food production and distribution, water use, and population growth that contribute to environmental degradation.
2. Analyze how peak petroleum (AKA "after peak oil"), political obstacles, economic interests, and federal indebtedness influence how we address these issues.
3. Define how the "drivers" in #1 above cause climate change, ecosystem degradation, species losses, biodiversity losses, and other resource depletions.
4. Begin to develop an analytic framework for how we should address these issues to prevent the major health risks they present.

Email: CindyParker@jhu.edu
Lecture: W 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite: Global Environment and Public Health, 180.611.01

188.810.01 FIELD PLACEMENT OCCUPATIONAL AND ENVIRONMENTAL HEALTH
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

188.820.01 THESIS RESEARCH OCCUPATIONAL AND ENVIRONMENTAL HEALTH
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

188.830.01 POSTDOCTORAL RESEARCH OCCUPATIONAL AND ENVIRONMENTAL HEALTH
variable credits - Course offered this year - East Baltimore

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 38 of 149
188.840.01 SPECIAL STUDIES AND RESEARCH OCCUPATIONAL AND ENVIRONMENTAL HEALTH
variable credits - Course offered this year - East Baltimore

Information not required for this course type

188.860.01 TUTORIAL IN TISSUE INJURY, INFLAMMATION, AND REPAIR (Discontinued)
3 credits - Course offered this year - East Baltimore
Dannenberg Jr., AM
Covers the biochemical and pathophysiological mechanisms of acute and chronic inflammation, including immediate and delayed hypersensitivity and the response to physical, chemical, and microbial tissue damage. Discusses cell membrane function; capillary permeability; histamine, kinins, plasmin, complement, icosanoids; blood clotting; chemotaxis; and other inflammatory mediators produced by various blood cells.

Upon successfully completing this course, students will be able to:
1. Assess how tissues respond to injury
2. Analyze what starts and stops the inflammatory process
3. Identify how tissues repair
4. Integrate assigned readings with emerging knowledge of tissue pathology through one-on-one discussion

Email: artdann@jhsph.edu
Lecture: TH 5:30 PM - 7:30 PM

Enrollment: Minimum 10, Maximum 15, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Jointly offered with MMI

Outside Work: Students will be responsible for understanding about 400 pages of Majno's 1000-page textbook on Inflammation. In the two-hour session each week, they will discuss with the instructor each chapter that they are assigned. This is in addition to homework assignments.

Epidemiology

340.600.01 STATA PROGRAMMING
2 credits - Course offered this year - East Baltimore
Massie, Allan; Segev, Dorry
Teaches Stata programming in a systematic way to students who have had exposure to Stata or another statistical package, but may not have the tools to perform complex analytical projects independently. Covers data management, programming concepts, procedural programming, Stata-specific commands and constructs, and project workflow.

Upon successfully completing this course, students will be able to:
1. Demonstrate STATA commands that are necessary for analysis, but that students may not encounter in the core biostatistics/epidemiology series: reshape, collapse, encode, insheet; variable formats (strings, ints, floats, dates); factor variables; advanced graphing
2. Produce STATA programming to make work more efficient and less error-prone: loops; macros, .ado files; text file output; automating table/figure generation
3. Create project workflow so that data are not lost and results are reproducible: logging, commenting, versioning, file organization

Email: dorry@jhmi.edu
Lecture: TH 3:30 PM - 5:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Auditors and those without the prerequisites.
Prerequisite: 340.751-752 or 34.721-722; 140.621-622 or 140.651-652 or permission from instructors

340.616.01 EPIDEMIOLOGY OF AGING (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Gross, Alden; Schrack, Jennifer
Addresses the rapidly increasing need for specialized knowledge among epidemiologists in order to effectively promote the health of the aging society in the US (in 2020, 20% of the US population will be 65 or older). Introduces the epidemiology of aging and age-related disorders, including overviews of the public health impact of an aging society and the demographics and biology of aging. Covers the descriptive and analytic epidemiology of prevalent chronic conditions in the aged, methodologic challenges essential to consider in research on older adults, and strategies for prevention of age-related disorders.
Upon successfully completing this course, students will be able to:
1. Discuss and evaluate the public health significance and challenges of an aging population and the associated of changes that make health issues for older persons unique.
2. Describe the epidemiology of major geriatric syndromes, including physical disability, falls, and cognitive decline and their public health implications
3. Discuss opportunities for prevention of diseases and syndromes in the context of the aging phenotypes of older adults
4. Integrate general epidemiologic methods and specific gerontology knowledge when evaluating epidemiological literature pertaining to older adults.
Email: jschrack@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Auditors only are required to obtain consent
Prerequisite: 1 graduate course each in Epidemiology and Biostatistics (340.601 & 140.621 recommended).

340.616.81 EPIDEMIOLOGY OF AGING
3 credits - Course not offered until 2017 - 2018 - Internet
Gross, Alden; Schrack, Jennifer
Addresses the rapidly increasing need for specialized knowledge among epidemiologists in order to effectively promote the health of the aging society in the US (in 2020, 20% of the US population will be 65 or older). Introduces the epidemiology of aging and age-related disorders, including overviews of the public health impact of an aging society and the demographics and biology of aging. Covers the descriptive and analytic epidemiology of prevalent chronic conditions in the aged, methodologic challenges essential to consider in research on older adults, and strategies for prevention of age-related disorders.
Upon successfully completing this course, students will be able to:
1. Discuss and evaluate the public health significance and challenges of an aging population and the associated of changes that make health issues for older persons unique.
2. Describe the epidemiology of major geriatric syndromes, including physical disability, falls, and cognitive decline and their public health implications
3. Discuss opportunities for prevention of diseases and syndromes in the context of the aging phenotypes of older adults
4. Integrate general epidemiologic methods and specific gerontology knowledge when evaluating epidemiological literature pertaining to older adults.
Email: jschrack@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Auditors only are required to obtain consent
Prerequisite: 1 graduate course each in Epidemiology and Biostatistics (340.601 & 140.621 recommended).

340.639.01 ASSESSING EPIDEMIOLOGIC IMPACT OF HUMAN RIGHTS VIOLATIONS
2 credits - Course offered this year - East Baltimore
Beyrer, Chris; Wirtz, Andrea
Using a case-based approach, investigates interactions of epidemics, public health, and human rights. Explores how human rights violations and failed public policies can affect the health of populations and the efficacy of public health efforts. Examines epidemiologic methods to investigate and describe these interactions, including qualitative assessments and interview approaches, population level measures, indirect measures for use in conflict areas, and new tools of molecular epidemiology. Case studies include the stalled response to cholera in Zimbabwe; HIV/AIDS in Burma; HIV, STIs, and violence in relation to human trafficking and sex work; HIV prevention for drug users in Russia, the CIS and China; and the policies of limiting condom availability for prisoners in the US, Russia, and Thailand.

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

1. Explain the mechanisms through which policies and rights abrogations can worsen epidemics, of the benefits of using a rights-based approach to public health problems, and of current epidemiologic tools to study these complex issues

Email: cbeyrer@jhsph.edu

Lecture: T TH 1:30 PM - 2:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

Learning Materials:
(Book) Public Health & Human Rights: Evidence-Based Approaches
Beyrer, Chris
Matthews Book Center $31.30
Comment: price is quoted by Amazon.com

340.644.01 EPIDEMIOLOGY OF DIABETES AND OBESITY
2 credits - Course offered this year - East Baltimore
Lazo-Elizondo , Mariana; Yeh, Hsin-Chieh (Jessica)
Describes the epidemiology and prevention of diabetes, obesity, and associated complications. Discusses methodological issues associated with evaluating these in epidemiologic studies. Designed to cover the global epidemics of diabetes and obesity, environmental and genetic risk factors, as well as interventions to improve diabetes outcomes and weight management. Includes lectures from several expert faculty members in the School of Public Health and the School of Medicine.

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

1. Describe the epidemiology and prevention of diabetes, obesity, and associated complications
2. Discuss methodological issues associated with evaluating these in epidemiological studies
3. Apply methodological principles when implementing research studies or interpreting the scientific literature

Email: hcyeh@jhsph.edu

Lecture: T 3:30 PM - 5:20 PM

Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.601 or equivalent

340.648.01 CLINICAL TRIALS MANAGEMENT
3 credits - Course offered this year - East Baltimore
Scherer, Roberta
Provides an overview of methods related to the day-to-day conduct of multicenter randomized clinical trials with an emphasis on the Coordinating Center perspective. Using case studies of multicenter clinical trials for illustration, emphasizes topics related to practical applications such as organizational models, use of standardization, and performance monitoring. Discussion of methods is encouraged, including alternatives to usual practice.

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

1. Apply competencies gathered throughout this and other epidemiology or biostatistics courses on key components of multicenter clinical trials
2. Describe developing strategies applicable at most participating centers in a multicenter setting including writing study policies and procedures
3. Conduct multicenter trials
Email: rscherer@jhsph.edu

Lecture: T TH 2:00 PM - 3:20 PM

Enrollment: Minimum 5, Maximum 35, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Prerequisite: Students may take either 340.601 or 340.751, but they must also take 340.645. (n.b. Some concepts covered in this course are also covered in 340.660 offered 1st term.)

Learning Materials:

(Book) A Clinical Trials Manual from the Duke Clinical Research Institute: Lessons from a Horse Named Jim
Liu, Margaret B
Amazon $70.37

(Book) Clinical Trials: Design, Conduct, and Analysis
Meinert, Curtis L
Amazon $128.25

Comment: other prices found, including 1st ed. for $0.19.

340.651.01 EMERGING INFECTIONS
2 credits - Course offered this year - East Baltimore
Nelson, Kenrad

Explores the factors promoting the emergence of new infectious diseases and the re-emergence of some of the more traditional infections. Evaluates agent, host, environmental and ecological factors in the emergence of infectious diseases. Presents methods of surveillance and early recognition of several important emerging infections. Lecturers with considerable experience in the investigation of specific emerging infections discuss the issues specific emerging infections. Following each one hour lecture, students present and discuss a paper describing an investigation of an Emerging Infection. Presents, describes, and analyzes the factors related to the emergence of infectious diseases, new and old, that have emerged as important public health problems, or which have the potential for major epidemic spread. Explains possible methods for the rapid recognition, prevention, and control.

Upon successfully completing this course, students will be able to:
1. Demonstrate clear discussing of the major factors leading to he emergence of new infectious diseases, or re-emergence of infectious diseases in humans
2. Describe and discuss the means of transmission and reservoirs of several new emergent infections in humans and how data pertaining to the means of transmission and reservoir of these newly emergent infectious diseases were obtained and interpreted
3. Evaluate the positive features and limitations of various methods to control or prevent the emergence of infectious diseases

Email: kenelson@jhsph.edu
Lecture: W 3:30 PM - 5:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

340.653.01 EPIDEMIOLOGIC INFERENCE IN OUTBREAK INVESTIGATIONS
3 credits - Course offered this year - East Baltimore
Jennings, Jacky; Taha, Taha

Using lectures, seminars, and lab discussions, provides students with practical understanding and set of epidemiologic tools to detect, investigate, and interpret infectious disease outbreaks. Provides skills for examining field data and deriving inferences from infectious disease epidemics and outbreak investigations. Discusses steps in investigating an outbreak and reviews some large and small outbreaks, mostly from the distant past. Focuses on the application of epidemiologic skills to real infectious disease outbreak case studies.

Upon successfully completing this course, students will be able to:
1. Conduct an outbreak investigation
2. Successfully examine data pertaining to outbreaks
3. Use the epidemic curve to identify the epidemic type, incubation period, and potential mode of transmission
4. Review, analyze and derive inferences from several epidemics and outbreak investigations
5. Summarize data reports

Email: ttaha@jhsph.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Students must have basic knowledge of infectious diseases. Knowledge of introductory epidemiology and biostatistics is essential.

Learning Materials:
(Book) Control of Communicable Diseases Manual
Heymann, David L
Amazon $42.93
Comment: Mathews Book Center $50.00

340.666.81 FOUNDATIONS OF SOCIAL EPIDEMIOLOGY
3 credits - Course not offered until 2017 - 2018 - Internet
Celentano, David; Latimore, Amanda
Students learn to apply social epidemiologic concepts, introduced through weekly online lectures and readings, through the use of discussions, group activities, case studies and labs. Prepares students to understand and appreciate the contribution of social factors to disease etiology, course and the distribution of states of health in populations. After reviewing the conceptual and theoretical underpinnings of social epidemiology from an historical perspective, focuses on the scientific findings in the field from the 1970s until today. The influence of social context on behavior is well-known, and forms the backbone for most health promotion interventions; we focus initially on how the social environment influences behavior, by shaping norms, reinforcing social control, providing environmental opportunity, and coping strategies.

Upon successfully completing this course, students will be able to:
1 Explain the historical and theoretical underpinnings of the field of social epidemiology and discuss the major unsolved issues confronting the field
2 Demonstrate the quality and limitations of measurement of key social conditions influencing health and illness of populations
3 Distinguish between psychological (individual-based) approaches to discussing health disparities from the social perspective (community-based), and demonstrate how the empirical literature critically supports these differences for a particular health or disease state.
4 Operate within and facilitate a discussion group format
Email: dcelent1@jhu.edu

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.751 or 340.601 or equivalent. Students must complete Introduction to Online Learning prior to enrolling in this course.
Students must have some background in social science theory and methods. Students who have not had college level social science (sociology, psychology, anthropology) should consult with the course director before signing up for this course.

340.677.01 INFECTIOUS DISEASE DYNAMICS: THEORETICAL AND COMPUTATIONAL APPROACHES
3 credits - Course offered this year - East Baltimore
Lessler, Justin
Focuses on the dynamic processes that affect the spread of infectious disease. Presents basic conceptual approaches and a survey of specific theoretical and computational methods for simulating the spread of diseases. Specific topics include simulations of disease in small populations, and of the impacts of interventions; social networks and the links between transmission dynamics and the evolution of pathogens. Methods include deterministic, stochastic, age-structured and spatially structured models, social network theory, and other tools of systems epidemiology. Particular focus is paid to simple models of transmission and estimation of parameters describing the dynamics of transmission. Students will be comfortable constructing their own simulations of disease transmission. Concepts and methods are applied to historical epidemics, current emerging diseases and diseases of international public health importance.

Upon successfully completing this course, students will be able to:
1 Assess computational and theoretical studies of infectious diseases that appear in the literature
2 Develop simple computational models of infectious disease to simulate the spread of an infectious disease in a population
3 Distinguish between existing computational approaches and describe the relative strengths and weaknesses of each
Email: jlessler@jhsph.edu
Lecture: M F 3:30 PM - 4:50 PM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Biostatistics 621-623 or 651-653 or consent of instructors. In addition, one year of calculus is recommended.

**340.680.01 ENVIRONMENTAL AND OCCUPATIONAL EPIDEMIOLOGY**

4 credits - Course offered this year - East Baltimore

Guallar, Eliseo; Heaney, Christopher

Introduces the key health effects of environmental and occupational exposures and the epidemiologic methods used to identify and estimate those effects. Emphasizes the interplay of methodological issues, including the assessment of environmental exposures and the understanding of specific disease processes in identifying the health impact of environmental exposures in the population. Students learn about environmental and occupational exposures (including water and air pollution, food contamination, ionizing radiation, persistent environmental pollutants and emergent environmental exposures) and key methodological issues relevant for these exposures in population studies (including study design, exposure assessment and biomonitoring, disease clusters, dose-response relationships, susceptibility, geographic analysis, and evidence synthesis).

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

1. Identify the major environmental and occupational risk factors for health-related outcomes in human populations
2. Explain the key methodological issues relevant to the identification and estimation of the burden of disease caused by environmental factors
3. Describe the pattern of burden of disease in a country using standard fertility and mortality indicators, estimates of disease burden measured in Disability-Adjusted Life Years (DALYs), data on disease incidence, prevalence, risk factors and geographic distribution and the concept of epidemiologic transition
4. Describe and analyze environmental and occupational health problems, and discuss exposure-disease relationships in human populations

Email: eguallar@jhsph.edu

Lecture: M W 1:30 PM - 3:20 PM

Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Either 340.601 Principles of Epidemiology and 340.608 Observational Epidemiology, OR 340.751 Epidemiologic Methods 1, 340.752 Epidemiologic Methods 2, and 340.753 Epidemiologic Methods 3

Jointly offered with EHE

**340.688.01 PRACTICAL EPIDEMIOLOGY FOR BASIC SCIENTISTS**

3 credits - Course offered this year - East Baltimore

Moss, William

Introduces students of laboratory sciences to the population science of epidemiology, including methods and approaches to measurement, study design and inference. Similar in content to other introductory courses in the Department of Epidemiology but it introduces several topics of particular interest to laboratory scientists, and examples often highlight the interface between epidemiology and laboratory sciences.

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

1. Distinguish study, target, and source populations.
2. Calculate and interpret basic epidemiologic measures of disease frequency, validity and precision.
3. Identify distinguishing features of fundamental study designs including randomized clinical trials, cohort studies, and case-control studies.
4. Calculate basic measures used to compare disease frequencies, identify and classify sources of information and selection bias, identify concepts and frameworks useful for inferring causation, and define confounding.
5. Identify the contributions of laboratory methods to epidemiologic studies and the similarities and differences in scientific methods.

Email: wmoss@jhsph.edu

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

Enrollment: Minimum 30, No maximum enrollment required, Waitlist Enabled: No

Restricted to students in EHS, MMI, and BMB only

Grading Options: Letter Grade or Pass/Fail

Prerequisite: none

Students interested in a more in-depth understanding of epidemiology should consider taking Principles of Epidemiology (340.601) or Epidemiologic Methods (340.751) esp. students in the departments of PFRH, IH, MH, HBS, CI, Biost.
340.692.01 PRISONS, PUBLIC HEALTH, AND HUMAN RIGHTS
2 credits - Course offered this year - East Baltimore
Eber, Gabriel; Rubenstein, Len
Explores the public health implications of mass incarceration and discusses the human rights and ethical ramifications of providing health care to men, women, and children in jails, prisons, and detention centers both in the United States and internationally. Takes a systems approach to addressing the basic health needs of the prison population, including infection control, care for acute and chronic medical conditions, and mental health care. Students apply problem-solving skills and explore the challenges of providing care in incarcerated settings. Emphasizes the roles of human rights principles and professional ethics in public health.
Upon successfully completing this course, students will be able to:
1. Explain the intersection of prisons, public health practice and policy, and human rights principles
2. Describe the key elements of prison health care systems and the challenges of providing care in the correctional setting
3. Recognize the ethical conflicts faced by health care professionals who treat incarcerated patients.
4. Describe the role of public health ethics in the correctional context, including the tension between patient autonomy and the coercion inherent in incarceration
5. Identify the special health needs of women, the elderly, and lesbian, gay, bisexual, transgender and intersex (LGBTI) prisoners
6. Apply public health principles to improve specific processes, including intake screening and reentry into the community
7. Assess the epidemiology of infectious diseases and mental illness in correctional populations
Email: geber1@jhu.edu
Lecture: M 5:30 PM - 7:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Jointly offered with IH
Formerly known as 221.618; students who have taken 221.618 should not repeat the course.

340.700.01 ADVANCED STATA PROGRAMMING
1 credits - Course offered this year - East Baltimore
Massie, Allan; Segev, Dorry
Presents advanced topics in Stata Programming to expand upon the material in 340.600. Topics include simulations, advanced programming, file manipulation, and code optimization.
Upon successfully completing this course, students will be able to:
1. Use advanced Stata syntax
2. Create and run simulations using Stata
3. Write powerful and flexible programs to automate analytical tasks in Stata
4. Optimize Stata code for faster runtime and minimal memory/disk usage
5. Generate hypertext output using Stata (HTML, LaTeX)
Email: amassie@jhsph.edu
Lecture: T 4:00 PM - 5:00 PM
Enrollment: Minimum 8, Maximum 25, Waitlist Enabled: Yes
The course is restricted to students concurrently enrolled in 340.600.
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Instructors to assess background knowledge
Prerequisite: Concurrent enrollment in 340.600 and at least 1.5 years' experience with Stata, or familiarity with Stata and knowledge of another programming language
Course is an offspring of 340.600
340.701.81 EPIDEMIOLOGIC APPLICATIONS OF GIS (Cancelled - Department)

2 credits - Course offered this year - Internet
Castillo-Salgado, Carlos

Presents the methods and uses of epidemiology towards the development and application of Geographic Information Systems (GIS) in public health. Emphasizes the potential of GIS as an epidemiological analysis tool for describing the magnitude of priority health problems, identifying health determinants and supporting health decision-making. Specific topics include epidemiological risk assessment and GIS, thematic mapping of unmet health needs, malaria risk assessment and GIS application for identifying public health problems. Includes hands-on experience and laboratory exercises using public domain and ESRI software.

Upon successfully completing this course, students will be able to:
1. Apply the concepts of GIS in public health surveillance and health situation analyses, including assessment of health needs and priorities
2. Use the SIGEpi software as a GIS tool for producing and editing health thematic maps, tables and graphs
3. Carry out queries for epidemiological analyses from maps and tables, using the basic aspects of the structured query language (SQL)
4. Carry out basic spatial analyses of epidemiological information from different cartographic layers through different GIS tools and procedures
5. Create and edit quality thematic maps for final presentation

Email: ccastil3@jhu.edu

Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Basic knowledge of epidemiology and biostatistics and of use of spreadsheets and tabulations.

A required GIS textbook is available in the online library. Students must bring a laptop to class. Should not be taken by students who completed 223.842 in winter 2001 or 340.881.11 in the Epidemiology and Biostatistics Summer Institute.

340.715.01 PROBLEMS IN THE DESIGN OF EPIDEMIOLOGIC STUDIES: PROPOSAL DEVELOPMENT AND CRITIQUE

5 credits - Course offered this year - East Baltimore
Alexander, G. Caleb; McKay, Heather

Presents the methodologic and logistic problems involved in designing and conducting epidemiologic studies. Students participate in the preparation of a research protocol for a study in a human population. Offers an opportunity to critically evaluate the adequacy and scientific merit of research protocols, develop an appreciation of the ethical aspects of conducting research involving human subjects, and apply methods and principles learned in earlier (340.751 - 753) and current courses to specific epidemiologic problems.

Upon successfully completing this course, students will be able to:
1. Describe the methodological and logistic problems involved in designing and conducting epidemiologic studies
2. Prepare a research protocol for study in a human population modeled after the National Institutes of Health grant application format
3. Critically evaluate the adequacy and scientific merit of research protocols

Email: galexand@jhsph.edu

Lecture: M W F 1:30 PM - 3:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

2nd year doctoral students in Dept. Epidemiology

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for non-Epidemiology doctoral students
Prerequisite: 340.751 - 340.753 and 340.863 (3 terms)
The course cannot be taken as pass/fail by doctoral students in Epidemiology.
There are some scheduled days that the course doesn't meet. Email instructor for the specific days.
340.722.81 EPIDEMIOLOGIC INFERENCE IN PUBLIC HEALTH II
4 credits - Course offered this year - Internet
Gange, Stephen; Golub, Elizabeth T.

Expands knowledge beyond introductory level epidemiologic concepts and methods material, using examples from the published literature. Emphasizes interpretation and the ability to critically evaluate issues related to populations/study design, measurement, population comparisons and inference, including: modern cohort study designs; advanced nested designs; novel techniques for exposure assessment; interpretation and utility of measures of impact; sources of bias and methods for their prevention; descriptive and analytical goals for observational study inference; the counterfactual model for defining exchangeability, cause, and confounding; and synthesis of inferences from observational studies.

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

1. Critically analyze public health literature and utilize a framework to illustrate strengths and limitations in the epidemiologic approach
2. Compare and contrast advanced aspects of randomized clinical trials, cohort, and nested study designs, with an emphasis on methods for participant selection, data summarization and population comparisons based on these designs
3. Identify and differentiate sources of bias resulting from participant selection, measurement and misallocation of person-time, describe the impact of these biases on epidemiologic inferences, and identify approaches for ameliorating their influence
4. Articulate concepts and terminology used to define a ‘cause’ in epidemiology; utilize graphical tools (e.g., DAGs) to illustrate and explain causal inference concepts
5. Distinguish and illustrate confounding, effect modification, and mediation, and contrast ‘classical’ (e.g., regression-based) and modern (e.g., propensity-score) approaches for addressing these phenomena
6. Evaluate the strengths and weakness of epidemiological investigations with non-causal inferential goals, including ‘risk-factor’ studies and prediction

Email: egolub@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.601 or 340.721 or 340.751; 140.621 or equivalent.
Course replaces 340.608 Observational Epidemiology. Students who have successfully completed 340.608 should not take this course. This is the second course in the Professional Epidemiology methods sequence.

340.734.01 PRINCIPLES OF GENETIC EPIDEMIOLOGY 4
2 credits - Course offered this year - East Baltimore
Tin, Adrienne; Wojciechowski, Robert

Discusses current topics in genetic epidemiology methods. Builds on the knowledge gained in Principles of Genetic Epidemiology 1-3 and provides an opportunity for students to drive the discussion and understand the details of the methods they have learned, as well as gain exposure to specialized topics still evolving in genetic epidemiology and genomics.

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

1. Evaluate the various approaches to gene-gene and gene-environment interaction, and enrichment analyses such as gene set analysis and pathway analysis
2. Conduct enrichment analyses such as gene set analysis
3. Develop and utilize analytical techniques suitable for trans-ethnic and admixed population samples
4. Discuss and determine epigenetics
5. Conduct analysis of sequence data
6. Communicate the nuances of ethical, legal and social implications (ELSI) of genetic and genomics studies
7. Incorporate novel genetic technologies in various study designs

Email: rwojciec@jhsph.edu

Lecture: TH 1:30 PM - 3:20 PM
Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Please contact Dr. Wojciechowski for confirmation of eligibility.
robertw@jhu.edu
Prerequisite: 340.733; 340.753, 140.623 or 653. Or instructor consent.

340.754.01 METHODOLOGIC CHALLENGES IN EPIDEMIOLOGIC RESEARCH (Cancelled - Department)
5 credits - Course offered this year - East Baltimore
Abraham, Ali; Lau, Bryan
Integrates and extends material learned in the three-course Epidemiologic Methods sequence. Focuses on the application of strategies for addressing key methodologic challenges that arise when carrying out epidemiologic research. Incorporates experiential learning components, including computer-based laboratory exercises and a practicum, which require working knowledge of R or STATA.

Upon successfully completing this course, students will be able to:
1. Identify complex methodologic problems in epidemiologic research, such as (a) missing data, (b) information bias, (c) confounding bias, (d) selection bias, (e) longitudinal repeated measures, and (f) competing risks, and state implications of inappropriate handling.
2. Apply appropriate analytic tool(s) (e.g., multiple imputation, propensity scores, inverse probability weighting, regression calibration, multilevel models and competing risk models) to diagnose and account for complex methodologic problems, such as those listed above.
3. Evaluate the sensitivity of an etiologic inference to possible bias due to complex methodologic problems, such as those listed above.

Email: alison.abraham@jhu.edu
Lecture: M W 8:30 AM - 9:50 AM
Enrollment: Minimum 30, Maximum 72, Waitlist Enabled: Yes
No auditors permitted.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for special students and non-JHSPH students.
Prerequisite: Epidemiologic Methods 1-3 (340.751 – 340.753) and either Statistical Methods in Public Health I-III (140.621 – 140.623) or Methods in Biostatistics I-III (140.651 – 140.653).

Grading Options: Letter Grade or Pass/Fail (Letter grade gets preferential enrollment);
The course consists of a series of lectures, discussions, practicum sessions, and laboratory exercise sessions. Lectures will be held from 8:30 a.m. to 9:50 a.m. on Mondays and Wednesdays. Practicum sessions will be Mondays from 10:00 a.m. to 11:50 a.m. Lab sessions will be Fridays from 8:30 a.m. to 9:50 a.m. followed by discussion sessions from 10:00 a.m. to 11:50 a.m.

340.765.01 PROFESSIONAL EPIDEMIOLOGIC METHODS: EPIDEMIOLOGIC INTELLIGENCE AND POPULATION HEALTH ASSESSMENTS
2 credits - Course offered this year - East Baltimore
Fain, Kevin
Focuses on practical skills for epidemiological assessments of population health, which include methods for monitoring epidemiological profiles and health trends, using public health information systems for measuring health burden, developing epidemiological profiles and conducting health situation analyses.

Upon successfully completing this course, students will be able to:
1. Identify, critically evaluate and use public health information systems to develop epidemiological and population health profiles.
2. Identify the main epidemiological metrics and tools needed for measuring population health burden.
3. Locate and interpret the main sources of vital and health statistics.
4. Employ tools and measurements to evaluate the quality of public health information systems.
5. Explain and recognize how epidemiologic evidence is identified and assessed by public health agencies for population health.

Email: kfain1@jhu.edu
Lecture: F 1:30 PM - 3:20 PM
Enrollment: Minimum 15, Maximum 120, Waitlist Enabled: Yes
Department of Epidemiology ScM, MHS, DrPH, PhD, and ScD students only. Students who have taken 340.763.01 or 340.873.18 may not register for this course.
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.722 or 340.752
Course is an offspring of 340.769
The course will be mainly lab focused with outside readings required prior to class. Some class sessions will be lecture-based as well.

340.800.01 MPH CAPSTONE EPIDEMIOLOGY
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Upon successfully completing this course, students will be able to:
1  Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: 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).

340.803.01 ADVANCED TOPICS IN CARDIOVASCULAR DISEASE EPIDEMIOLOGY
2 credits - Course offered this year - East Baltimore
Miller, Edgar R.; Sharrett, A Richey
Provides a forum for in-depth discussion of current research on cardiovascular diseases etiology. Selected topics, to be chosen together by students and faculty, include the major factors predicting coronary heart disease and stroke. Students review literature and present to the class information on specific hypotheses and their biological plausibility, and evaluate the population-based evidence to support them.
Upon successfully completing this course, students will be able to:
1  Gain familiarity with research challenges in cardiovascular research
2  Apply epidemiologic methods to address these challenges
Email: rsharret@jhsph.edu
Lecture: T 8:30 AM - 10:20 AM
Enrollment: Minimum 8, Maximum 14, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Dr. Sharrett requires pre-screening of students for eligibility.
Prerequisite: 340.753 and 340.607 waivers may be granted only on permission of the instructor.

340.810.01 FIELD PLACEMENT EPIDEMIOLOGY
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

340.820.01 THESIS RESEARCH EPIDEMIOLOGY
variable credits - Course offered this year - East Baltimore
Upon successfully completing this course, students will be able to:
1  Write a publishable quality manuscript
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

340.830.01 POSTDOCTORAL RESEARCH EPIDEMIOLOGY
variable credits - Course offered this year - East Baltimore
Upon successfully completing this course, students will be able to:

1. Conduct post-graduate research and write papers for publication

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**340.840.01 SPECIAL STUDIES AND RESEARCH EPIDEMIOLOGY**

Variable credits - Course offered this year - East Baltimore

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

1. Become proficient in field of research; perform literature reviews; or conduct secondary data analysis at an advanced level

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**340.855.01 SS/R: BIOLOGICAL BASIS OF CARDIOVASCULAR DISEASE EPIDEMIOLOGY**

2 credits - Course not offered until 2017 - 2018 - East Baltimore

Maruthur, Nisa
Overview of cardiovascular pathophysiology specifically geared for students without a clinical medicine background. Topics covered include cardiovascular physiology, coronary heart disease, hypertension, heart failure, kidney disease, stroke, cardiovascular imaging, and electrocardiograms. Topics are covered by a combination of selected readings, invited speakers, and class discussions.

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

1. Discuss normal and abnormal cardiac and vascular anatomy and physiology
2. Describe pathophysiologic processes involved in common cardiovascular disease states, including atherosclerosis, coronary artery disease, and heart failure
3. Describe biological mechanisms through which cardiovascular risk factors, including hypertension, kidney disease and diabetes, affect the cardiovascular system
4. Identify the diagnostic techniques used to assess common cardiovascular disease states, including invasive and non-invasive imaging techniques

Email: nmaruthu@jhsph.edu
Lecture: M 3:30 PM - 5:20 PM

Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Consent required for all students; Screening and scheduling required prior to start.
Prerequisite: 340.751, 340.752, 340.753
Location: Welch Center: 2024 E Monument St; Whelton Conf Room 2-600

**340.860.01 CURRENT TOPICS IN EPIDEMIOLOGIC RESEARCH**

1 credits - Course offered this year - East Baltimore

Deal, Jennifer
Provides an overview of current research in the Department and in the field of epidemiology, and offers an opportunity for discussion and clarification of epidemiologic methods as applied in research settings.

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

1. Discuss current epidemiologic research being conducted by or in collaboration with the JHSPH Department of Epidemiology
2. Interact with Department faculty and epidemiologic researchers
3. Discuss topics related to professional development as an epidemiologist

Email: jdeal@jhsph.edu
Lecture: F 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite: Concurrent or prior introductory epidemiology course.
Meets every Friday during the term. Seminars begin promptly at 12:15. Attendance of 7 sessions is required.

340.871.01 WELCH CENTER RESEARCH SEMINAR
1 credits - Course offered this year - East Baltimore
Selvin, Elizabeth

Students, postdoctoral fellows, and faculty present scientific papers from the current and/or classic literature dealing with epidemiologic research, with a focus 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. Media reporting/coverage in the lay and medical press is explicitly discussed related to the article. Provides a forum for the discussion of the appropriate use of statistical methods for various study designs.

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

Email: lselvin@jhsph.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
MHS, ScM, DrPH, PhD, and ScD students in the Department of Epidemiology only.
Grading Options: Pass/Fail
Consent required for some students; Course is restricted to current MHS, ScM, DrPH, PhD, and ScD degree students in the Department of Epidemiology only.

340.895.01 MPH PRACTICUM: EPIDEMIOLOGY
variable credits Students who have not met the practicum requirement, must register for at least two credits - Course offered this year - East Baltimore
Departmental Faculty

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

Upon successfully completing this course, students will be able to:
1. Demonstrate that they have had a mentored public health practicum experience

Email: vhongs@jhsph.edu
Lecture: F 2:30 PM - 5:30 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

Extradepartmental

550.002.01 ENGLISH FOR ACADEMIC PURPOSES II
0 credits - Course offered this year - East Baltimore
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

Email: vhongs@jhsph.edu
Lecture: F 2:30 PM - 5:30 PM

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 51 of 149
550.002.01 ENGLISH FOR ACADEMIC PURPOSES II
0 credits - Course offered this year - East Baltimore
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
Email: vhongs@jhsph.edu
Lecture: F 2:30 PM - 5:30 PM

550.608.95 PROBLEM SOLVING IN PUBLIC HEALTH
4 credits - Course offered this year - Kyoto, Japan
Departmental Faculty
Uses divergent public health issues to illustrate a systematic problem solving process for use in addressing public health problems. The problem solving process includes defining the problem, measuring its magnitude, understanding the key determinants, developing a conceptual framework of the relationships between the key determinants, identifying and developing intervention and prevention strategies (either interventions or policies), setting priorities among intervention options, understanding barriers to implementation and evaluation, and developing an effective communication strategy. Consists of lectures, discussions, small-group exercises, a group project, and individual assignments.
Upon successfully completing this course, students will be able to:
1. Analyze a public health problem and evaluate intervention/policy alternatives using the problem solving methodology outlined above
2. Compare and contrast the utility of the methodology to solve public health problems that emerge at different periods in the life cycle and in different cultures, including: HIV/AIDS, childhood immunization, radioactive iodine exposure and thyroid cancer, unintended injuries and their prevention, obesity prevention, tobacco abuse, screening mammography and breast cancer
3. Carry out a group project under the guidance of a Teaching Assistant (TA), in which student groups will research a specific public health problem, prepare a written report and present their recommendations to the class following the problem-solving methodology
4. Recognize the complexity of policy development, including a discussion of the politics of public health issues, the roles of interest groups and stakeholders, and the laws and social values that must be woven into successful policies
5. Integrate human rights and ethical principles into the analysis of public health problems and recommended strategies
6. Recognize the critical role of communication in public health practice
7. Work together in multi-disciplinary groups that model the way public health agencies conduct problem-solving activities
8. Demonstrate critical and analytical thinking by preparing three individual products (a self-assessment of the process, an individual critique of a paper submitted by another group, and a health and human rights assessment)

Enrollment: Minimum 5, Maximum 12, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Consent required for all students;
Multi-term with 550.001
Final grade applies to all terms
Restricted to MPH Cohort
Grading Options: Letter Grade or Pass/Fail
Jointly offered with EHS
Prospective students should note that there are several required prerequisite readings and an assignment to be completed prior to the first day of class, and there will be 3 short assignments due within 2 weeks following the last day of class. Please contact the course instructors for further information.

550.630.81 PUBLIC HEALTH BIOLOGY
3 credits - Course offered this year - Internet
Sullivan, David
Discusses the molecular, cellular, physiological, genetic and immunological determinants of human diseases and disease susceptibility, including infectious disease, nutritional deficiencies, reproductive and developmental anomalies, and effects of exposures to toxic environmental agents. Explores ecological principles that determine the distribution of infectious disease in human populations, and how principles of the human immune system provide the rationale for methods of immunization. Focuses how biological principles help to understand the development, treatment and prevention of disease, and to assess risk from potentially hazardous agents and behaviors.

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

1. Describe the molecular, cellular, and physiological bases of selected human diseases and conditions
2. Describe the ecological principles that determine the distribution of infectious disease in human populations
3. Explain the role of genetic determinants in human disease and disease susceptibility
4. Describe biological principles that underlie the development of disease prevention, control, and management programs
5. Describe biological principles that underlie risk assessment from potentially hazardous agents and behaviors

Email: dsulliv7@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to On-line Learning (550.02.81)
Jointly offered with MMI
Content similar to 550.630.01

550.845.20 COMPREHENSIVE OR PRELIMINARY ORAL EXAM FOR PART TIME INTERNATIONAL DRPH STUDENTS
2 credits - Course offered this year - East Baltimore
Departmental Faculty
Since US Immigration laws require that all International students must be enrolled full time when on campus, students must complete their departmental/program comprehensive examination or their School preliminary oral examination enrolled as a full-time student during the time period of the exam.

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Enrollment restricted to international part time Doctor of Public Health degree students who intend to be on campus to complete their departmental/program comprehensive exam or their Departmental or School preliminary oral exam.
Grading Options: Pass/Fail
Please enroll with your advisor. Full time enrollment for part time students engaged in on campus/in person academic activities is defined as 2 term credits (16 contact hours) per week.

550.860.82 ACADEMIC & RESEARCH ETHICS AT JHSPH
0 credits - Course offered this year - Internet module
Vernick, Jon
Examines academic and research ethics at JHSPH in a series of online interactive modules. Focuses on information about the academic ethics code and responsible conduct of research at the School. Explores issues of academic integrity such as proper ethical conduct and referencing, and discusses violations such as plagiarism and cheating, relative to case studies that illustrate situations faced by students and faculty in the academic setting. Addresses topics that include responsible conduct of research, authorship, data management, data ownership, guidelines for professional conduct, research fraud or scientific misconduct, federal and institutional guidelines related to research using human and animal subjects and ethical issues involving vulnerable subjects in research.

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

1. Describe and explain the policies and procedures that govern academic integrity and ethical conduct of research in the school

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhu.edu/courses - Page 53 of 149
2 Practice proper attribution when referencing sources in academic assignments and scholarly works
3 Avoid violations of academic and research integrity such as plagiarism, cheating, research fraud and scientific misconduct
4 Conduct research in a responsible and professional manner with attention to maintaining integrity relative to authorship, data management and ownership, and protection of human and animal rights

Email: jvernick@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Auditing not permitted
Grading Options: Pass/Fail
All students must complete during their first term of matriculation; failure to do so will result in blockage of further course registration.

550.862.81 CURRENT ISSUES IN PUBLIC HEALTH
1 credits - Course offered this year - Internet
McGinty, Meghan D.; Schoenrich, Edyth
Faculty experts present public health topics of current interest in both industrialized and developing nations, such as 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 and discuss the magnitude of the problem, recent relevant research findings, and intervention strategies

Email: mmcgint2@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

550.870.01 SS/R: OCCUPATIONAL MEDICINE RESIDENCY-PRACTICUM YEAR
variable credits Depends on rotations, courses, and research workload. - Course offered this year - East Baltimore
Schwartz, Brian
Occupational medicine resident physicians perform a series of clinical, administrative, regulatory, and plant-based rotations throughout the year.
Upon successfully completing this course, students will be able to:
1 Demonstrate that they have had a mentored occupational medicine practicum experience

Email: bschwart@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Residency training.
Grading Options: Pass/Fail

550.880.01 SS/R: GENERAL PREVENTIVE MEDICINE RESIDENCY-MPH
1 credits - Course offered this year - East Baltimore
Lam, Clarence
Forthcoming
Upon successfully completing this course, students will be able to:
1 Prepare residents in the theoretical, practical, and clinical knowledge and skills essential to leadership roles in the design, management, and evaluation of population-based approaches to health
2 Provide training in the teaching, research, and practice of preventive medicine
3 Instill in residents the ability to synthesize clinical and population-based approaches to disease prevention and health promotion
4 Enable residents to view health issues on a broad continuum from local to international perspective
5 Apply knowledge toward the protection of the public’s health
6 Provide residents with the management and epidemiologic skills needed to address the overall health needs of underserved populations

Email: ckl@jhu.edu
550.890.01 SS/R: GENERAL PREVENTIVE MEDICINE RESIDENCY-RESIDENCY YEAR
variably credits Range of 6-16 credits - Course offered this year - East Baltimore

Lam, Clarence

Prepare residents in the theoretical, practical, and clinical knowledge and skills essential to leadership roles in the design, management, and evaluation of population-based approaches to health.

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

1. Prepare residents in the theoretical, practical, and clinical knowledge and skills essential to leadership roles in the design, management, and evaluation of population-based approaches to health.
2. Provide training in the teaching, research, and practice of preventive medicine.
3. Instill in residents the ability to synthesize clinical and population-based approaches to disease prevention and health promotion.
4. Enable residents to view health issues on a broad continuum from local to international perspective.
5. Apply knowledge toward the protection of the public's health.
6. Provide residents with the management and epidemiologic skills needed to address the overall health needs of underserved populations.
7. Residents will participate in a core course of modules known as "Fundamentals of General Preventive Medicine." Approximately 10 modules will be offered annually. Examples include Health Care Delivery; Injury Epidemiology and Prevention; Health Promotion; and Public Health Preparedness.

Email: ckl@jhu.edu

550.895.01 MPH PRACTICUM (NON DEPARTMENTAL)
variable credits Credits are determined in conjunction with the MPH practicum coordinator - Course offered this year - East Baltimore

Departmental Faculty

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

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

1. Demonstrate that they have had a mentored public health practicum experience.

551.895.01 SOURCE PRACTICUM SPECIAL STUDIES
variable credits 1 credit if work 4 hours/week with community; 2 credit if work 8 hours/week with community; 3 credit if work 12 hours/week with community - Course offered this year - East Baltimore

Levin, Mindi

Special studies for practicum activities with SOURCE and participating Baltimore City community-based organizations.

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

1. Develop a collaboration with a community-based organization to address public health issues in Baltimore.

Email: mlevin@jhsph.edu

Enrollment: Minimum 1, Maximum 20, Waitlist Enabled: Yes
Grading Options: Pass/Fail

Consent required for all students; All students must seek permission from SOURCE Director, Mindi Levin. Students must have already identified collaboration/project with SOURCE non-profit

Prerequisite: Student must first be matched with a SOURCE partnering community-based organization.
Health Behavior and Society

410.611.01 UNDER PRESSURE: HEALTH, WEALTH & POVERTY

3 credits - Course offered this year - East Baltimore

Explores the relationship between health, wealth, poverty, and public policy in the U.S. as well as internationally; assesses past and future strategies to remedy inequities in health and health care. Addresses theories of social class; distribution of poverty across gender, age, and ethnic/racial groups; antipoverty programs and their effects; effects of changes in health care organization on the poor; and possible modifications to provide greater equity. Investigates how a dramatically changing media landscape influences patterns of belief about the causes of poverty and its remedies. Synthesizes scientific evidence with a variety of genres and disciplines including: history, psychology, political science, religious thought, philosophy, geography, literary theory, popular culture, film/media studies, and music.

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

1. Summarize competing definitions of health, wealth, poverty, class, & culture, how they originated, and each definition’s impact on public policy

2. Describe current social science and public health approaches to understanding poverty

3. Provide examples of how poverty, wealth, and health status are related to one another in the U.S. and internationally, particularly with respect to uneven development

4. Critique/appraise historical strategies, policies and programs undertaken to address the problems of the poor

5. Evaluate past, current, and future political strategies aimed at improving the health of poor and marginalized populations

6. Propose social programs and policies that target health disparities associated with social class

7. Explain how ideology conditions patterns in the ways groups of people filter and interpret evidence

8. Identify specific populations at risk of poverty and understand why they are specifically at risk

Email: abuttre1@jhu.edu

Lecture: TH 1:30 PM - 4:20 PM

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

410.620.81 PROGRAM PLANNING FOR HEALTH BEHAVIOR CHANGE

3 credits - Course offered this year - Internet

Provides an overview of the breadth of programs and diversity of settings in the field of health education in health promotion, and an opportunity to develop skills in program planning. Explains the importance of health behavior as a contributor to current public health problems and the role of health education and health promotion programs in addressing them. prepares students to use planning frameworks (PRECEDE/PROCEED and Social Marketing) for conducting needs assessments and designing and evaluating health promotion programs. Introduce theories of health behavior change at the individual and community levels and illustrate the applications to health behavior change intervention. Presents examples of health education and health promotion programs from health care, school, and community settings.

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

1. Explain the importance of health behavior as a contributor to current public health problems

2. Describe the elements of at least two behavior change theories and their applicability to developing health education/health promotion programs

3. Describe at least three intervention methods and their applicability to successful health education/health promotion programs

4. Demonstrate skills in planning a health behavior change program by successfully completing a written needs assessment

Email: agielen1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introduction to Online Learning.
Learning Materials:
(Book) Health Behavior and Health Education: Theory, Research, and Practice
Glanz, Karen
Amazon $61.00

410.625.01 INJURY PREVENTION: BEHAVIORAL SCIENCES THEORIES AND APPLICATIONS
3 credits - Course not offered until 2017 - 2018 - East Baltimore
Gielen, Andrea
Expands students’ understanding of the role of behavioral sciences theories and methods in addressing the public health problem of injury. Both unintentional and intentional injuries have been the focus of a considerable body of behavioral science research and behavior change interventions. Students read and discuss selected examples of this work and enhance their skills in applying behavioral science theory and methods to research and practice in an injury area of interest to them. Topics include: historical overview of behavior and injury; behavioral risk factors, and examples of behavior change approaches to selected injury and violence problems; risk perceptions and their role in communicating about injury and violence prevention; and the application of specific theories (e.g., diffusion of innovations, community mobilization, stages of change) to a range of injury problems.
Upon successfully completing this course, students will be able to:
1. Describe the role of behavioral sciences and behavior change within a comprehensive approach to preventing unintentional injury and violence
2. Critically examine the breadth of work that has been done applying behavioral science theory to the problems of injury and violence
3. Apply concepts from behavioral sciences to designing injury prevention programs and/or research to address an injury or violence problem
Email: agielen1@jhu.edu
Lecture: W 5:00 PM - 8:00 PM
Enrollment: Minimum 6, No maximum enrollment required, Waitlist Enabled: No
Undergraduate students are not eligible for enrollment
Grading Options: Letter Grade or Pass/Fail

410.630.01 IMPLEMENTATION AND SUSTAINABILITY OF COMMUNITY-BASED HEALTH PROGRAMS
3 credits - Course offered this year - East Baltimore
Bowie, Janice
Uses projects primarily from domestic settings to illustrate and evaluate the program component delivery process and continuation or sustainability of activities and benefits of community-based disease prevention and health promotion programs after initial funding ends. Covers theories of innovation and organizational change; community participation and involvement; programmatic, cost-benefit, and ethical considerations related to the goal of sustainability; program characteristics associated with sustainability; and the relationships between investments in health and overall community development.
Upon successfully completing this course, students will be able to:
1. Describe the fundamental concepts, approaches and limitations of community health programs.
2. Describe concepts for the implementation of effective health interventions and discuss the importance of these concepts to health outcomes.
3. Demonstrate increased understanding of the types, usages, and importance of evaluation particularly as it relates to program implementation.
4. Recognize the indicators of the capacity to maintain health interventions through sustainable programs.
5. Through the completion of course assignments, examine, discuss with other students, and apply factors related to the implementation, evaluation, and sustainability of community-based health interventions.
Email: jbowie@jhsph.edu
Lecture: M W 9:00 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

410.640.81 GLOBAL TOBACCO CONTROL
3 credits - Course offered this year - Internet
Stillman, Frances A.

Introduces tobacco control strategies, policies, and practices to provide an understanding of what is being done to address this public health problem. Provides a historical context in which to understand the consequences of smoking and tobacco use. Provides a framework to understand how tobacco control has evolved and to understand practical approaches to tobacco prevention, control, cessation, advocacy, surveillance, and evaluation being implemented in the U.S. and in other countries. Discusses the transnational tobacco companies and their role in undermining actions to control tobacco use. Examines international tobacco control issues including the determinants of tobacco addiction, tobacco control strategies, tobacco products such as novel tobacco products (e.g., e-cigarettes), tobacco industry strategies, the Framework Convention on Tobacco Control (FCTC), legal foundations for regulation, and basic surveillance and evaluation methods using lectures, case studies, and discussion.

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

1. Identify the concepts and principles of tobacco control and describe the components of a comprehensive tobacco control approach
2. Describe the scope of the social, health, and economic burden of tobacco use worldwide
3. Describe the historical context upon which current evidence-based policies and practices are built
4. Discern the different approaches occurring in the U.S. and in other regions of the world
5. Discuss different types of tobacco products as well as use by different populations
6. Identify the interference employed by transnational tobacco companies to undermine tobacco control

Email: fstillma@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

410.652.01 INTERPERSONAL INFLUENCE IN MEDICAL CARE

2 credits - Course offered this year - East Baltimore
Roter, Debra

Focuses on the patient-provider relationship and its social, cognitive, attitudinal, behavioral, and clinical correlates. Discusses communication during the medical encounter; professional preparation and socialization; patient expectations for care and emerging consumerist trends; and evaluation of physician performance in relation to patient and provider outcomes. Emphasizes patient recall, compliance, utilization, and clinical outcomes.

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

1. Discuss theoretical models of the patient-provider relationship
2. Describe the effect of patient identity characteristics, such as gender, ethnicity and culture, age, health status and literacy on physician-patient communication
3. Describe the effect of physician identity characteristics, such as gender, ethnicity and culture, and experience on physician-patient communication
4. Gain insight into the lived experience of patients and physicians through the reading of a “patient pathography” and analysis of the power of narratives
5. Explain the structure and functions of the medical visit and the nature of the medical dialogue in routine medical care from both a qualitative and quantitative perspective
6. Discuss patient and physician interventions to enhance the medical dialogue and effectiveness of care

Email: droter1@jhu.edu
Lecture: M 1:30 PM - 3:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

410.655.01 HEALTH COMMUNICATION PROGRAMS II: IMPLEMENTATION AND EVALUATION

4 credits - Course offered this year - East Baltimore
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 interventions. Involves lectures, readings, and computer exercises.
FOURTH TERM - COURSE SCHEDULE 2016-2017

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 work plan 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

Email: dstorey@jhu.edu
Lecture: T 1:30 PM - 5:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 410.654
Multi-term with 410.654

410.657.01 COMMUNICATION STRATEGIES FOR SEXUAL RISK REDUCTION
3 credits - Course offered this year - East Baltimore
Babalola, Stella
Focuses on strengthening students' understanding of sexual risk-taking and provides a solid foundation in communication strategies for sexual risk-reduction from an international perspective. The literature and examples emphasize HIV and STI risk reduction. Adopts a seminar format and consists of readings, discussions, presentations, video viewing, case studies, and critiques of literature on sexual risk-taking and protective behaviors. Includes hands-on analyses and interpretation of empirical data on sexual risk-taking and development of a communication strategy.

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

1. Critique leading theories and models of sexual risk reduction from a communication perspective
2. Compare the antecedents of sexual risk-taking in adolescence and adulthood
3. Identify the characteristics of effective sexual risk-reduction communication strategies
4. Analyze empirical data on sexual risk-taking
5. Develop a strategy for sexual risk-reduction

Email: sbabalol@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 5, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.621 and 140.622 or equivalent

410.660.01 LATINO HEALTH: MEASURES AND PREDICTORS
3 credits - Course offered this year - East Baltimore
Fonseca-Becker, Fannie
Examines the measures and predictors of health for the U.S. Latino population. Students develop a conceptual model to better understand how psychosocial and other individual-level factors, as well as socio/political, community, and health care delivery factors, influence an individual’s success in accessing the health care system in a sustainable manner. Using case studies that take into consideration the heterogeneity of the Latino population, students learn key steps to design, implement, and evaluate health care programs to decrease the health disparities gap.

Information not required for this course type
Email: ffonseca@jhsph.edu
Lecture: M W 2:00 PM - 3:20 PM
Enrollment: Minimum 5, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

410.663.01 MEDIA ADVOCACY AND PUBLIC HEALTH: THEORY AND PRACTICE
3 credits - Course offered this year - East Baltimore
Jernigan, David

Broadens students’ understanding of health communication to include the strategic use of the news media to support community organizing to change public health policy. Builds on theoretical and empirical work in mass communications, and uses case examples in a number of health policy areas to show how the strategies and tools of media advocacy may be applied to specific public health policy campaigns. Ample opportunities are provided for students to “practice” media advocacy, in the form of writing letters to the editor and opinion pieces, role-playing interviews, and so on. Introduces students to research literature about news media forms and practices; to framing techniques to influence news content and gain access to news channels; and to the relationship between media advocacy and other forms of health communication.

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

1. View news coverage critically, and discuss and identify how different story frames direct attention to different kinds of solutions to social and health problems
2. Grasp from a theoretical and practical perspective newsroom practices and constraints, and their impact on public health policy and practice
3. Shape news stories to maximize the possibility that they will not only attract news coverage but also move forward public debate in ways that are consistent with public health goals
4. Participate in public debate in the news media through vehicles such as pitching stories, writing letters to the editors and interviewing
5. Apply principles of framing to the process of preparing for and participating in public and media debates about public health policies

Email: djernigan@jhu.edu

Lecture: M 3:30 PM - 5:20 PM
Lab Section: 01 M 6:00 PM-8:00 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Doctoral and master's students
Grading Options: Letter Grade or Pass/Fail

410.675.01 CRITICAL ANALYSIS OF POPULAR DIETS AND DIETARY SUPPLEMENTS

3 credits - Course offered this year - East Baltimore

Cheskin, Lawrence

Focuses on the dietary supplements and diets purporting to promote health, induce weight loss, or treat specific health concerns are widely used by Americans, which are often minimally regulated. Students apply the tools of nutritional science to a critical analysis of popular diets and supplements. Students explore the following: nutrient analysis, dissecting several example diets and supplements in class discussions, preparing a comprehensive written analysis of a specific diet or supplement of their choosing, and presenting their findings orally.

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

1. Describe the complex interrelationships that control appetite and feeding in humans
2. Critically appraise the scientific literature pertaining to both diets and dietary supplements, and provide an opinion based on the evidence as to whether the diet or supplement is worthy of recommendation

Email: lcheskin@jhsph.edu

Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 7, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 222.641 or equivalent; 140.611-612 or equivalent
Jointly offered with IH

410.678.60 THEORY AND PRACTICE IN CAMPAIGNING AND ORGANIZING FOR PUBLIC HEALTH II

4 credits - Course offered this year - East Baltimore

Greisen, Cassie; Jernigan, David

Provides a practical introduction to campaigning and organizing for public health. Combines experiential learning (through participation in an actual campaign) with traditional learning (online lectures, in-class discussions and readings). Uses case studies to review the history of organizing for public health. Introduces campaign planning and management, discusses the role of research and coalition-building, and explores different types of organizing. Part of a two-term sequence that prepares students to participate in and critically assess public health campaigns to change the policies and structures that set the contexts in which people make their decisions about health.

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

1. Describe the role and history of campaigning and organizing in public health
2 Identify the purpose and methods of campaign planning and execution
3 Describe the role and types of research in public health campaigning and organizing
4 Describe campaigning and organizing principles as they apply to real world situations
5 Explain the restrictions on lobbying for recipients of federal and state funding
6 Identify the strengths and weaknesses of coalition-building as a strategy for engaging partners
7 Critically analyze grassroots and grasstops approaches to organizing
8 Evaluate a specific approach to a campaign and/or organizing strategy to address a real-world public health problem

Email: djernigan@jhu.edu

Lecture: TH 4:30 PM - 5:20 PM

Enrollment: Minimum 7, Maximum 10, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Consent required for all students; This offering of the course is limited to 10 students (due to limited availability of practicum placements). Permission may be obtained by contacting the lead instructor.

Multi-term with 410.677
Final grade applies to all terms
This course blends traditional classroom time with outside-of-class time with a corresponding reduction in class sessions. This class will meet once a week. Students are expected to participate in a 6-hour per week practicum in addition to other course work (online lectures, readings, and assignments). Students may not enroll in both 410.672.81 Introduction to Campaigning & Organizing for Public Health and this course.

**410.680.01 SOCIAL ECOLOGICAL APPROACHES TO HEALTH REGIMEN ADHERENCE IN CHRONIC CONDITIONS**

*(Cancelled - Department)*

3 credits - Course offered this year - **East Baltimore**

Eng, Maria; Knowlton, Amy

Addresses social approaches to promoting sustained adherence to health regimens among persons living with chronic conditions. Addresses prescribed use of medications, lifestyle changes, and retention in healthcare over time among persons living with HIV/AIDS, hypertension, and other chronic conditions. Enables students to: (1) assess adherence to health regimens, (2) identify correlates of adherence at the individual, interpersonal, and social network levels, and (3) assess major approaches and components of medical adherence interventions, and their linkage to theories of behavior change. Explores social factors impacting vulnerable populations’ medical adherence and health disparities, drawing examples from both domestic and international contexts.

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

Email: aknowlt1@jhu.edu
Lecture: TH 1:30 PM - 4:20 PM

Enrollment: Minimum 7, No maximum enrollment required, Waitlist Enabled: No
Graduate students
Grading Options: Letter Grade or Pass/Fail

**410.682.01 INTEGRATING CHILDREN'S MENTAL HEALTH AND PRIMARY CARE: A SOCIAL AND BEHAVIORAL SCIENCE PERSPECTIVE**

3 credits - Course offered this year - **East Baltimore**

Wissow, Lawrence

Examines integration of mental health and primary care as both a solution to chronic shortfalls in the provision of children's mental health services and an example of the processes involved in making change in complex systems. Frames the change process as taking place at three social-ecologic levels: how care is designed to bring about health behavior change at the client/patient /consumer level; how interventions are implemented to influence staff/clinician behavior at the organizational level; and incentives and barriers at the inter-organizational and health systems level. Uses this three-level framework to analyze a range of integration models (the medical home, collaborative and stepped care, task shifting, screening and brief intervention, and co-location of services). Uses examples largely from both ongoing programs in Maryland, Massachusetts, and Ohio with which the instructors are involved, as well as international programs.

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

1 Define “integration” and identify some of the facilitators of and barriers to child and adolescent mental health care that integration initiatives seek to address
2 Explore and differentiate common models for integration of child mental health and primary care
3 Articulate key domains and principles of change in complex systems and apply these concepts to changing children's primary care to accommodate a greater role in mental health services
Select appropriate methods for assessing primary care readiness for mental health services and for measuring the process and outcomes of integration

Email: lwissow@jhsph.edu

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

Enrollment: Minimum 5, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Students should be prepared to identify either a clinical setting or type of service that can serve as a focus for their project on readiness.

**410.685.01 DATA ANALYSIS AND PRESENTATION IN SOCIAL AND BEHAVIORAL SCIENCES RESEARCH (Cancelled - Department)**

3 credits - Course offered this year - East Baltimore

Yang, Cui

Enables students to synthesize theories and methodologies from the social and behavioral sciences. Examines the process of conducting social and behavioral sciences research. Presents an overview of available statistical methods that address the challenges of conducting social and behavioral public health research (such as measurement issues, mediation and moderation, latent variables). Develops skills for evaluating research, and presenting and disseminating original research. Integrates and consolidates the first year coursework in theory, measurement, and applied social science methods in research. Prepares students to better understand the modern measurement theory (e.g., CFA) and SEM in second-year coursework (e.g., Statistics for Psychosocial Research).

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

1. Explain the importance of measurement theory in social and behavioral sciences
2. Construct and validate measures of their data using hands-on exercises
3. Develop skills in the application of psychometric theory to social and behavioral sciences research
4. Discuss conceptual motivation for mediating variables
5. Perform and evaluate mediation analysis in regression analysis
6. Explore concept of moderation in the social and behavioral sciences
7. Demonstrate improved skills and basic competence in professional writing and presentation

Email: cyang29@jhu.edu

Lecture: M W 1:30 PM - 2:50 PM

Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for non-HBS students
Prerequisite: 140.621-140.623 or higher level sequence of biostatistics

**410.686.01 ADVANCED QUANTITATIVE METHODS IN THE SOCIAL AND BEHAVIORAL SCIENCES: A PRACTICAL INTRODUCTION**

4 credits - Course offered this year - East Baltimore

Weir, Brian

Presents advanced analytic methods relevant to the social ecological model and other theoretical frameworks common in the social and behavioral sciences. Emphasizes multilevel analyses, longitudinal analyses, and propensity score methods. Introduces factor analysis, analysis of experimental studies, structural equation modeling, and complex surveys. Explores the suitability of these methods to address different research questions and study designs. Provides discussions of underlying concepts and assumptions and presents key issues in their application. Illustrates methods through critical review of published articles and by working through examples in Stata. Presents resources for continued advanced study, including methods courses offered through the school.

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

1. Describe statistical methods which can address the challenges of conducting social and behavioral public health research
2. Critically evaluate the use of advanced statistical methods in the literature
3. Propose appropriate methods for addressing complex research questions
4. Develop graphic representations of causal models and measurement models for specific hypotheses
5. Analyze data using advanced methods
6. Identify resources for continued training in advanced statistical methods

Email: bweir3@jhu.edu
Lecture: M W 1:30 PM - 3:20 PM
Enrollment: Minimum 7, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.621-623 or 140.651-653, or consent of instructor

Learning Materials:
(Book) Applied Multilevel Analysis: A Practical Guide
Twisk, Jos W.R.
Cambridge University Press $79.99
2006
(Book) Applied Longitudinal Data Analysis for Epidemiology: A Practical Guide
Twisk, Jos W.R.
Cambridge University Press $69.99
2013
(Book) Best Practices in Quantitative Methods
Osborne, Jack
http://dx.doi.org.proxy1.library.jhu.edu/10.4135/9781412995627 $0.00
2008

410.711.01 DOCTORAL SEMINAR IN MIXED METHODS FOR PUBLIC HEALTH RESEARCH
3 credits - Course offered this year - East Baltimore

German, Danielle
Introduces doctoral students to emerging discussions and interdisciplinary applications of mixed methods research in public health. Explores mixed methods as a third research paradigm that involves the utilization of both quantitative and qualitative methods within a single inquiry to enhance the researcher's ability to understand the problem at hand. Fosters synthesis of and engaged reflection on qualitative and quantitative research training. Specific topics include: history and language of mixed methods research; relevant paradigms and epistemological debates; mixed methods design and research questions; and analysis and dissemination considerations.

Upon successfully completing this course, students will be able to:
1 Interpret and use the language of mixed methods alongside the terminology of qualitative and quantitative designs
2 Explain the paradigms that have informed the development of mixed methods research and to assess how those paradigms might influence the student's own work
3 Discuss the philosophical aspects of a variety of research approaches as a means to enhance their development as independent researchers
4 Demonstrate an understanding of several typologies of mixed methods research
5 Choose an appropriate mixed-methods design and analytic strategy to address a relevant public health problem
6 Identify and understand relevant resources in the academic literature in order to continue learning new ideas and approaches for mixed methods research
7 Apply mixed methods to an idea of professional interest and to develop a mixed methods research proposal related to that idea

Email: danielle.german@jhu.edu

Lecture: F 9:00 AM - 11:50 AM
Enrollment: Minimum 7, Maximum 20, Waitlist Enabled: Yes
See consent note.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Postdoctoral and doctoral students who have not fulfilled these specific requirements, as well as master's students who have taken the prerequisite courses, should contact the instructor for permission to register.
Prerequisite: At least one of the following qualitative research methods courses: 410.710, 410.690, 224.690. And at least one course in quantitative research design and analysis.
Weekly half-page written reflection on the relevance of the readings for the development of the student’s future research; preparation as discussant for one class period (small group assignment); annotated outline of the content of a research proposal involving the application of a mixed methods approach to a research question of interest to the student; and class participation.

410.722.01 TRANSLATING RESEARCH INTO PUBLIC HEALTH PROGRAMS II
2 credits - Course offered this year - East Baltimore
Holtgrave, David; Weir, Brian
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 methods that can be used to aid policy makers and program administrators who must make these decisions
5. Conduct a basic decision tree analysis
6. Conduct a basic threshold analysis
7. Conduct a basic cost analysis
8. Conduct a basic cost-utility analysis
9. 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
10. Apply the methods to a public health area of interest to the learner

Email: david.r.holtgrave@jhu.edu
Lecture: T 8:30 AM - 10:20 AM
Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 410.721
Multi-term with 411.721
Final grade applies to all terms

410.752.01 CHILDREN, MEDIA, AND HEALTH
3 credits - Course offered this year - East Baltimore
Lagasse, Lisa
Reviews children’s media use, with a particular focus on television, print, and digital media. Describes the role of media in shaping a variety of health-related behaviors and outcomes relevant to childhood and adolescence. Acquaints students with variety of social and behavioral perspectives on child development. Examines how media content frame critical issues related to child and adolescent health. Introduces policy and advocacy initiatives addressing the form and content of children’s media.
Upon successfully completing this course, students will be able to:

1. Describe the developmental stages of childhood from infancy to adolescence, and identify what types of media children use during each
2. Describe the social and contextual influences influencing children’s media use.
3. Explain the impact of media exposure across a range of health-related behaviors and outcomes, including sexuality, body weight, aggression, and substance use.
4. Critically analyze the content of media and recognize its role in framing key issues in child and adolescent health.
5. Identify policy-oriented measures to regulate the media and its impact on child and adolescent health.
6 Identify potential benefits of early exposure to media.
Email: lprokop1@jhu.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduates only.

410.755.81 HEALTH COMMUNICATION PROGRAMS
4 credits - Course offered this year - Internet
Lozare, Benjamin
Focuses on the step-by-step design, implementation, evaluation, and critique of communication programs designed to change behavior. Allows students to create actual health communication campaigns guided by P-Process worksheets.
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 P-Process worksheets
4 Assess the strengths and weaknesses of a health communication plan according to a systematic set of rubrics
Email: blozare@jhsph.edu
Enrollment: Minimum 12, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.
Course must be taken for letter grade, not audit.

410.800.01 MPH CAPSTONE HEALTH, BEHAVIOR AND SOCIETY
2 credits Number of credits depends upon the scope and nature of their project. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Upon successfully completing this course, students will be able to:
1 Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: 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
variable credits - Course offered this year - East Baltimore
McDonald, Eileen
Information not required for this course type
Email: emcdonal@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

410.820.01 THESIS RESEARCH IN HEALTH BEHAVIOR AND SOCIETY
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
410.830.01 POSTDOCTORAL RESEARCH IN HEALTH BEHAVIOR AND SOCIETY
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

410.840.01 SPECIAL STUDIES AND RESEARCH IN HEALTH BEHAVIOR AND SOCIETY
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

410.850.01 MHS RESEARCH PRACTICUM IN HEALTH BEHAVIOR AND SOCIETY
variable credits Can vary per term depending on hours spent on research practicum - Course offered this year - East Baltimore

German, Danielle; Smith, Katherine Clegg

Introduces MHS Social Factors students to hands-on social science research for public health. Provides an opportunity to work extensively with a doctorally trained research mentor. Prepares students to participate in social science research initiatives. Builds students' research knowledge and skills.

Upon successfully completing this course, students will be able to:
1. Participate in a social factors research initiative

Email: kasmith@jhsph.edu

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
HBS MHS students
Grading Options: Pass/Fail

410.860.01 GRADUATE SEMINAR IN SOCIAL AND BEHAVIORAL SCIENCES
2 credits - Course offered this year - East Baltimore

Knowlton, Amy

Explores and debates theoretical concepts and orientations in the social and behavioral sciences and their application to public health research and practice through readings, discussion, and writing assignments.

Upon successfully completing this course, students will be able to:
1. Critically discuss theoretical concepts and orientations in the social and behavioral sciences
2. Present syntheses and critiques of foundational social and behavioral science texts
3. Develop a theoretically driven argument in the form of an original essay or manuscript

Email: aknowlt1@jhu.edu
Lecture: TH 1:30 PM - 3:20 PM

Enrollment: Minimum 5, Maximum 20, Waitlist Enabled: Yes
Restricted to HBS doctoral students
Grading Options: Letter Grade or Pass/Fail

410.861.01 GRADUATE SEMINAR IN COMMUNITY-BASED RESEARCH
1 credits - Course offered this year - East Baltimore

Bone, Lee; 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 and also community patrons.

Email: aknowlt1@jhu.edu
Lecture: TH 1:30 PM - 3:20 PM

Enrollment: Minimum 5, Maximum 20, Waitlist Enabled: Yes
Restricted to HBS doctoral students
Grading Options: Letter Grade or Pass/Fail
Upon successfully completing this course, students will be able to:

1. Engage with students, faculty, scholars, and community members from different disciplines and backgrounds in scholarly exchange on issues of community-based research.

2. Apply CBPR principles across the continuum of the research process, including planning, implementation, evaluation, dissemination and policy implications.

3. Explain the need for and added value of using CBPR.

4. Discuss the strengths and challenges associated with community-university partnerships, as well as the successful co-development and impact of interventions to address community issues.

Email: lbone@jhsph.edu

Lecture: M 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Pass/Fail

This seminar is open to all divisions in the University and community.

**410.863.01 DOCTORAL SEMINAR IN SOCIAL AND BEHAVIORAL RESEARCH AND PRACTICE**

1 credits - Course offered this year - East Baltimore

Knowlton, Amy

Explores and critiques social and behavioral sciences research and practice, emphasizing key constructs and methods of department faculty through presentations, readings, and group discussions.

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

1. Discuss key social and behavioral science theoretical constructs and methods used by department faculty in their research and practice

2. Develop and model oral presentation skills in social and behavioral sciences

Email: aknowlt1@jhu.edu

Lecture: TH 12:00 PM - 1:20 PM

Enrollment: Minimum 7, No maximum enrollment required, Waitlist Enabled: No

HBS students only

Grading Options: Pass/Fail

**410.864.01 CRITICAL ISSUES IN HEALTH DISPARITIES**

1 credits - Course offered this year - East Baltimore

Thorpe, Roland

Provides an opportunity for students, postdoctoral trainees, and faculty to present scientific papers from the current and/or classic health disparities literature. Emphasizes presentation skills and the ability to critically evaluate scientific papers. Requires participants 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. Lead discussions and present research related to health and/or healthcare disparities

3. Describe patterns of health outcomes by race, geography, and socioeconomic status

Email: rthorpe@jhsph.edu

Lecture: T 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Pass/Fail

**410.884.01 MHS SEMINAR IN SOCIAL FACTORS IN HEALTH IV**

1 credits - Course offered this year - East Baltimore

German, Danielle; Smith, Katherine Clegg

Advances students’ understanding of the relationship between social factors and health outcomes and experiences. Exposes students to research pertinent to social factors in health. Provides MHS students with opportunities to explore applications of public health research skills in a variety of research and practice settings.

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

1. Discuss the design and implementation of research to examine social factors in health
Identify agencies and programs where social and behavioral research is conducted and applied for the promotion of public health

Critically examine and discussion the strengths and limitations of social scientific and behavioral research in public health

Email: kasmith@jhsph.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite: MHS in Social Factors in Health Seminars I-III

410.895.01 MPH PRACTICUM: HEALTH BEHAVIOR AND SOCIETY

variable credits Students who have not met the practicum requirement, must register for at least two credits - Course offered this year - East Baltimore
Departmental Faculty
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Upon successfully completing this course, students will be able to:
1 Demonstrate that they have had a mentored public health practicum experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

415.614.92 INTRODUCTION TO MEDICAL GENETICS II

2 credits - Course offered this year - NIH - Bethesda, MD
Hart, Suzanne
Builds upon the material in 415.613, and emphasizes other organ systems. Includes a patient panel where individuals discuss the impact of a genetic disorder on their lives and the lives of their family. Includes the following topics: neurogenetics, cardiac defects, cancer genetics, orofacial clefting, genitourinary disorders, skeletal dysplasias, connective tissue disorders because knowledge of the genetic contribution to disorders within these categories is critical to the work of genetic counselors and medical geneticists. Prepares students for the board certification exam given by the American Board of Genetic Counseling upon completion of the ScM in genetic counseling.
Upon successfully completing this course, students will be able to:
1 Explain genetics in neurogenetics, cardiac defects, cancer genetics, orofacial clefting, genitourinary disorders, skeletal dysplasias, connective tissue disorders
2 Discuss impact of a genetic disorder upon an individual and their family
3 Compile differential diagnoses based upon major findings of a patient
4 Distinguish among genetic conditions specific to a body system
5 Differentiate the features of the more common genetic disorders
6 Target family and medical histories to disease systems
Email: shart@mail.nih.gov
Lecture: T 5:30 PM - 7:30 PM
Enrollment: Minimum 5, Maximum 50, Waitlist Enabled: Yes
No undergraduates
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students other than ScM in Genetic Counseling students
Prerequisite: 415.611, 415.612, and 415.613
Jointly offered with NIH

415.619.92 NEW GENETIC TECHNOLOGIES AND PUBLIC POLICY

3 credits - Course not offered until 2017 - 2018 - NIH - Bethesda, MD
Departmental Faculty
Examines the potential for harmful effects of usage of genetic technologies. Considers the role of patent policy, the biotechnology industry, the media, and other forces in disseminating new discoveries as well as policies for assuring the safety and effectiveness of new genetic technologies.
Upon successfully completing this course, students will be able to:
1. Identify and analyze complex public policy issues related to genetics and genomics
2. Discuss the history of genetics related to public policy
3. Discuss the federal legislative and regulatory process related to biomedical research issues
4. Evaluate the pros and cons of various public policy options
5. Explain the basic concepts of genetic counseling to a lay or policy audience

Lecture: F 12:00 PM - 1:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: none

415.624.01 ETHICAL, LEGAL AND SOCIAL IMPLICATIONS IN GENETICS AND GENOMICS OVER TIME
3 credits - Course offered this year - East Baltimore
Mathews, Debra

Examines the ethical, legal and social implications (ELSI) of human genetics and genomics through the lens of significant and field-defining periods and events in the history of the field. Examines the ELSI raised by those events, and how the events have shaped and defined the current state of the science and emerging scientific, ethical, policy and public health issues.

Upon successfully completing this course, students will be able to:
1. Identify some of the defining moments in the ELSI history of human genetics, and discuss why they are important
2. Analyze the ethical, legal and social issues at play during these moments in history
3. Discuss how these defining moments have influenced contemporary and emerging issues in the genetic sciences

Email: dmathews@jhu.edu
Lecture: TH 9:00 AM - 11:50 AM

Enrollment: Minimum 8, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students not in ScM in Genetic Counseling program
Prerequisite: It is recommended, though not required, that students have taken a genetics course.

415.650.92 FACILITATING FAMILY ADAPTATION TO LOSS AND DISABILITY I
2 credits - Course offered this year - NIH - Bethesda, MD
Similuk, Morgan

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. Analyze pre/perinatal loss cases in terms of attachment theory, theory of pregnancy, grief theory, and patterns of grief, within the context of culture and gender
2. Develop and practice counseling interventions for individuals, couples, children, and families who have sustained prenatal or perinatal losses
3. Recognize their own history of loss, including attitudes, behaviors, and counter-transference issues that affect their development as a genetic counselor involved in helping others with grief issues

Email: morgan.similuk@nih.gov
Lecture: W 1:30 PM - 3:20 PM

Enrollment: Minimum 10, Maximum 12, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students not in ScM in Genetic Counseling program
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH
415.675.92 CANCER GENETICS: MANAGING THE RISKS THROUGH TESTING AND COUNSELING
2 credits - Course offered this year - NIH - Bethesda, MD
Nusbaum, Rachel

Equips graduate students enrolled in the JHU/NHGRI Genetic Counseling Program and medical genetics fellows with the genetic principles of common, complex disease using cancer as the example. Introduces key concepts throughout the course through case-based learning. Provides background for future clinical cancer genetics rotations.

Upon successfully completing this course, students will be able to:
1. Explain the principles of genetic components to common disease using cancer as the example
2. Explain the contribution of major gene mutations to the development of cancer
3. Describe the multi-faceted aspects of genetic testing for cancer susceptibility
4. Use case examples to assess cancer risk
5. Explain the psychological aspects of living at increased risk for cancer
Email: rnuusbaum@genedx.com
Lecture: F 11:00 AM - 12:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

415.820.92 THESIS RESEARCH: GENETIC COUNSELING
variable credits - Course offered this year - NIH - Bethesda, MD

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Jointly offered with NIH

415.840.92 SS/R: GENETIC COUNSELING
variable credits - Course offered this year - NIH - Bethesda, MD

Departmental Faculty
Information not required for this course type
Lecture: TBA

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

Jointly offered with NIH

415.851.92 SUPERVISED CLINICAL ROTATIONS: GENETIC COUNSELING
variable credits Students should register for 4 credits in terms 1-4 and 2 credits in the summer term. - Course offered this year - NIH - Bethesda, MD
Erby, Lori

Offers clinical placements in adult, pediatric, and prenatal genetic centers in the Baltimore-Washington area. Provides opportunity to learn about genetic conditions by their impact on individuals and their families, and about roles of the genetic counselor. Provides a wide range of clinical experiences over the course of multiple placements.

Upon successfully completing this course, students will be able to:
1. Demonstrate skills required to practice in a clinical genetic counseling setting
2. Critique developing counseling skills
Email: lerby@jhsph.edu

Enrollment: Minimum 10, Maximum 15, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH

415.861.92 GENETIC COUNSELING SEMINAR: TOPICS IN THE FIELD
2 credits - Course offered this year - NIH - Bethesda, MD
Biesecker, Barbara

Offers a dynamic forum for discussion that focuses on genetic counseling research, policy, and education and their impact on clinical practice. Invites a diverse group of professionals to present topics well suited for class discussion. Includes student-led case presentations to highlight the psychological, social, and ethical issues in genetic counseling. Exposes students to a variety of client attitudes, reactions, and experiences by including clients who have personal experience with a genetic condition or familial risk as speakers.

Upon successfully completing this course, students will be able to:
1. Present concise case summaries and exchange impressions of the psychological, social, and ethical aspects of genetic counseling
2. Establish relationships with other students to facilitate mentoring, strategizing, and camaraderie
3. Describe provocative issues in the field of genetic counseling
4. Explain the types of cases and professional issues encountered by genetic counselors
5. Describe the variety of genetic counseling research topics
6. Describe programs in policy and ethics related to genetic counseling
7. Describe the personal experiences of those with genetic conditions or living at increased risk

Email: barbarab@mail.nih.gov
Lecture: F 2:30 PM - 4:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
ScM in Genetic Counseling students
Grading Options: Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH
Students must register for all four terms.

415.867.92 CURRENT TOPICS IN MOLECULAR GENETICS II

1 credits - Course offered this year - NIH - Bethesda, MD
Hart, Suzanne

Builds upon the material presented in 415.866. Provides a review of molecular diagnosis of common hereditary or neoplastic disorders for which DNA-based diagnosis is now in routine use, including FGFR3 disorders, fetal blood typing, thrombophilias, hemochromatosis, fragile X syndrome, polyglutamine disorders, hereditary breast cancers, Charcot Marie Tooth and spinal muscular atrophy, PraderWilli and Angelman syndromes, mitochondrial diseases, Duchenne and Becker muscular dystrophy, cystic fibrosis, and Smith-Lemli-Opitz Syndrome. Includes instruction in genetic risk prediction, using linkage and Bayesian analysis as well as DNA forensics and paternity testing.

Upon successfully completing this course, students will be able to:
1. Compare the types of techniques used in molecular genetic diagnostic laboratories, including the limitations of each assay
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 thrombophilias
3. Calculate residual risks after molecular testing
4. Discuss the issues underlying molecular diagnosis for a variety of disorders
5. Discuss how to interpret molecular genetic results

Email: shart@mail.nih.gov
Lecture: W 4:00 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 415.610-.613; Must be enrolled in ScM in Genetic Counseling Program
Multi-term with 415.866
Final grade applies to all terms
Jointly offered with NIH

415.870.01 GENETIC COUNSELING CLINICAL SUPERVISION

1 credits - Course offered this year - East Baltimore

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhspwh.edu/courses - Page 71 of 149
Biesecker, Barbara
Assists the student in recognizing the impact of personal styles and biases on the counseling process through individual supervision sessions. Uses audiotapes and/or videotapes of student counseling sessions to review, analyze, and process student-client interactions throughout the student's clinical rotations, and develop strategies for addressing barriers in the counseling process.

Upon successfully completing this course, students will be able to:
1. Demonstrate professional growth in establishing a therapeutic relationship with clients
2. Recognize the impact of personal styles and biases on the counseling process
3. Demonstrate strategies to best meet each individual client's needs
4. Provide genetic counseling services using techniques that are consistent with the student's developing personal style

Email: barbarab@mail.nih.gov

Enrollment: Minimum 10, Maximum 15, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program; students must register for four terms.
Jointly offered with NIH

415.870.92 GENETIC COUNSELING CLINICAL SUPERVISION
1 credits - Course offered this year - NIH - Bethesda, MD

Biesecker, Barbara
Assists the student in recognizing the impact of personal styles and biases on the counseling process through individual supervision sessions. Uses audiotapes and/or videotapes of student counseling sessions to review, analyze, and process student-client interactions throughout the student's clinical rotations, and develop strategies for addressing barriers in the counseling process.

Upon successfully completing this course, students will be able to:
1. Demonstrate professional growth in establishing a therapeutic relationship with clients
2. Recognize the impact of personal styles and biases on the counseling process
3. Demonstrate strategies to best meet each individual client's needs
4. Provide genetic counseling services using techniques that are consistent with the student's developing personal style

Email: barbarab@mail.nih.gov

Enrollment: Minimum 10, Maximum 15, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program; students must register for four terms.
Jointly offered with NIH

415.880.01 GENETIC COUNSELING PROGRAM THESIS PROPOSAL DEVELOPMENT I
2 credits - Course offered this year - East Baltimore
Erby, Lori
Discusses the primary elements that comprise a research proposal; how topics for research are selected, pursued, and justified; and how study hypotheses are derived from the existing literature. Includes discussion of the conceptual elements of primary research articles. Provides skills necessary to support the development of a research proposal.

Upon successfully completing this course, students will be able to:
1. Conduct literature review to support a social science research proposal
2. Critique published research
3. Identify gaps in scientific knowledge
4. Demonstrate skills necessary to conduct an independent research project
5. Analyze a research problem
6. Develop a rationale for a research question

Email: lerby@jhsph.edu
Lecture: T 8:30 AM - 10:20 AM

Enrollment: Minimum 2, Maximum 8, Waitlist Enabled: Yes
ScM in Genetic Counseling students
Grading Options: Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH

415.880.92 GENETIC COUNSELING PROGRAM THESIS PROPOSAL DEVELOPMENT I
2 credits - Course offered this year - NIH - Bethesda, MD
Erby, Lori
Discusses the primary elements that comprise a research proposal; how topics for research are selected, pursued, and justified; and how study hypotheses are derived from the existing literature. Includes discussion of the conceptual elements of primary research articles. Provides skills necessary to support the development of a research proposal.

Upon successfully completing this course, students will be able to:
1 Conduct literature review to support a social science research proposal
2 Critique published research
3 Identify gaps in scientific knowledge
4 Demonstrate skills necessary to conduct an independent research project
5 Analyze a research problem
6 Develop a rationale for a research question
Email: lerby@jhsph.edu
Lecture: T 1:30 PM - 3:20 PM
Enrollment: Minimum 3, Maximum 8, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Consent required for all students;
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with National Inst. Health

Health Policy and Management
300.651.81 INTRODUCTION TO THE U.S. HEALTHCARE SYSTEM
4 credits - Course offered this year - Internet
Herring, Bradley
Focuses on the organization, financing, and delivery of healthcare in the U.S. Contrasts the private and public sectors and examines the effects of market competition and government regulation. Examines the ways that medical providers are paid, and explores the major issues currently facing physicians, hospitals, and the pharmaceutical industry. Also discusses several potential small and large scale reforms to the U.S. healthcare system and evaluates their likely effects on healthcare spending, quality of care, and access to care.

Upon successfully completing this course, students will be able to:
1 Apply basic economic concepts related to health insurance coverage
2 Explain how both private health insurance and public health insurance are financed
3 Evaluate the ways in which private and public health insurers reimburse medical providers
4 Assess private and public models of financing and delivery of healthcare services
5 Analyze various aspects of the hospital, physician, and pharmaceutical drug sectors
6 Explain how nonprofit status, competition, quality, and safety affect medical providers
7 Identify the various determinants of access to care for low-income and vulnerable populations
8 Evaluate how specific policy proposals will likely affect access to care and healthcare spending
9 Critique how the political process affects how healthcare reform is undertaken in the U.S.
Email: bherring@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Undergraduate students are not permitted in this class
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.
300.652.01 POLITICS OF HEALTH POLICY
4 credits - Course offered this year - East Baltimore
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. Analyzes 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

Email: vnavarro@jhsph.edu
Lecture: F 8:00 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No undergraduates not permitted
Grading Options: Letter Grade or Pass/Fail

300.703.01 READINGS IN HEALTH SERVICES RESEARCH
3 credits - Course offered this year - East Baltimore
Kasper, Judith
Presents key concepts and theories in health services research to HPM doctoral students.

Upon successfully completing this course, students will be able to:
1. Describe the contributions to health services research of classic articles in the field
2. Identify and critique methodological strengths and weaknesses in a published article
3. Give a brief, well-organized presentation on the methodological strengths and weaknesses of a published article

Email: jkasper@jhsph.edu
Lecture: TH 1:30 PM - 4:20 PM
Enrollment: Minimum 3, Maximum 25, Waitlist Enabled: Yes
HPM doctoral students
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students other than HPM doctoral students.
This course will be offered in departmental space

300.704.01 HPM PHD CAPSTONE COURSE
1 credits - Course offered this year - East Baltimore
Anderson, Gerard
Helps HPM doctoral students synthesize course content from their first year with a specific focus on problem identification and the development of testable hypotheses; how to develop a conceptual model; approaches for conducting a literature review and synthesis. Provides an overview of the HPM Department Qualifying Examination.

Upon successfully completing this course, students will be able to:
1. Identify a public health problem and develop testable hypotheses
2. Develop conceptual models
3. Conduct literature reviews and synthesis
4. Understand the components of the HPM Department qualifying exam

Email: ganderso@jhsph.edu
Lecture: W 9:00 AM - 10:20 AM
Enrollment: Minimum 5, Maximum 12, Waitlist Enabled: Yes
HPM 1st year PhD students only

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 74 of 149
300.715.01 RESEARCH AND EVALUATION METHODS IN HEALTH POLICY II
3 credits - Course offered this year - East Baltimore
Castillo, Renan; Crifasi, Cassandra
Builds upon the principles and skills introduced in Research and Evaluation Methods I to prepare students to develop research and evaluation proposals. Topics include approaches for assessing the impact of health policy and health program implementation; survey research techniques; qualitative research methods; quality of care and outcomes measurement; use of existing health and safety data; measurement issues of reliability and validity; and basic cost benefit and effectiveness analysis with the intent of making students better conductors of research.
Upon successfully completing this course, students will be able to:
1. Develop an appropriate study design for a research or evaluation project
2. Describe different types of study design, including observational, pre-experimental and experimental designs, and their inherent threats to internal and external validity
3. Describe the basic issues related to measurement of variables
4. Identify problems with measurement reliability and validity
5. Discuss how survey research is used in health services research and evaluation including choice of sampling techniques, determination of sample size, and approaches to writing survey questions
6. Demonstrate the basic concepts of cost benefit and cost-effectiveness analysis
7. Identify appropriate secondary data and existing information sources in research projects
Email: rcastill@jhsph.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Prerequisite: 300.713 RESEARCH AND EVALUATION METHODS IN HEALTH POLICY I
students must register for both 300.713 and 300.715 in order to receive grade at the conclusion of 300.715
Final grade applies to all terms
300.800.01 MPH CAPSTONE HEALTH POLICY AND MANAGEMENT
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Upon successfully completing this course, students will be able to:
1. Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: 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).
300.830.01 POSTDOCTORAL RESEARCH HEALTH POLICY AND MANAGEMENT
variable credits credit registration is negotiated with faculty mentor - Course offered this year - East Baltimore
Departmental Faculty
Information not required for this course type
Lecture: TBA
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

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

variable credits student and faculty determine appropriate number of credits for each registration period - Course offered this year - **East Baltimore**

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

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
For MPH students who register for SS/R in HPM.
Grading Options: Pass/Fail
For non-departmental students who register for SS/R in HPM.

**300.871.01 THE RESEARCH AND PROPOSAL WRITING PROCESS II**

2 credits - Course offered this year - **East Baltimore**
Shi, Leiyu

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

Upon successfully completing this course, students will be able to:
1. Describe the essential elements of dissertation proposal development and the preliminary oral exam process
2. Constructively critique a dissertation proposal
3. Make progress on writing their dissertation proposals
4. Involve one’s faculty advisor to assist in achieving the objectives above

Email: lshi@jhsph.edu
Lecture: TH 10:30 AM - 11:50 AM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to 2nd year HPM doctoral students, or consent of department.
Grading Options: Pass/Fail
Prerequisite: 300.870
Multi-term with 300.870
Final grade applies to all terms

**300.895.01 MPH PRACTICUM: HPM**

variable credits Students who have not met the practicum requirement, must register for at least two credits - Course offered this year - **East Baltimore**
Departmental Faculty

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

Upon successfully completing this course, students will be able to:
1. Demonstrate that they have had a mentored public health practicum experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**301.645.01 HEALTH ADVOCACY**

3 credits - Course offered this year - **East Baltimore**
Horwitz, Josh

Prepares health professionals, (from government health officials, business leaders, non-profit organization representatives to scientists) to advance public health policy improvements. Through lectures, extensive group exercises and a "mock" congressional hearing, students develop the skills to evaluate the policymaking process, create opportunities to inform and influence policymaking, and become more effective in translating and communicating in a policymaking environment.

Upon successfully completing this course, students will be able to:
1. Assess a public health problem and determine tactically when to solve the problem with policy strategies versus behavioral education
2 Analyze the legislative, administrative and judicial intervention points for policymaking and identify where to effectively target advocacy efforts

3 Identify and evaluate advocacy strategies, such as coalitions, grassroots, and paid and earned media outreach, in order to create specific advocacy campaigns

4 Dissect policy-oriented communications and develop personal skills to effectively translate and advocate for public health improvements to policymakers, the press and the public

Email: jhorwitz@jhsph.edu
Lecture: TH 5:30 PM - 8:00 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students ONLY

301.820.01 THESIS RESEARCH IN HEALTH POLICY AND MANAGEMENT
variable credits students and faculty determine appropriate number of credits of registration for each term - Course offered this year - East Baltimore

PhD students register after successful passing of the school-wide preliminary oral exam to conduct their dissertation work.
Upon successfully completing this course, students will be able to:
1 Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

301.861.01 GRADUATE SEMINAR IN HEALTH AND PUBLIC POLICY
1 credits - Course offered this year - East Baltimore
Rutkow, Helaine
Reviews and critiques current literature in health and public policy and evaluates studies from a methodological and conceptual basis.
Upon successfully completing this course, students will be able to:
1 Knowledgeable of the faculty of Health and Public Policy and their research and practice interests
2 Familiar with the literature that pertains to HPP subject areas
3 Provided with a forum for discussing that literature and for understanding relationships between health policy and other areas within public health
4 Exposed to an environment that welcomes and promotes a strong, engaged cohort of doctoral students within the HPP faculty
5 Identify and develop skills that facilitate the translation of public health research into policy and practice
Email: lrutkow@jhu.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to Health & Public Policy concentration HPM PhD students.
Grading Options: Pass/Fail

305.607.81 PUBLIC HEALTH PRACTICE
4 credits - Course offered this year - Internet
Resnick, Beth A.
Builds on the course prerequisite and satisfies the MPH practicum requirement through hands-on application of knowledge and skills to real-world practice concerns and settings in collaboration with a public health practice organization. Students engage in a significant experience through addressing public health priority areas pre-identified by the collaborating organization. All practicum work is shared with the collaborating organization for use at their discretion. Students complete the public health practicum under the direction and supervision of the course faculty. Practicum work is designed with a pre-identified collaborating organization around pre-identified priority areas and projects; students are not able to select topics/projects outside of the pre-identified options. This course does not offer the option for students to identify their own collaborating organizations or develop their own projects.
Upon successfully completing this course, students will be able to:
1 Assess population health of a specific jurisdiction
2 Develop strategies and approaches to address public health priorities
Apply public health and social determinants of health knowledge and theory to address specific public health challenges

Assess and develop public health communications to targeted audiences

advance personal career growth and development, using the core competencies for public health professionals as a framework

Email: bresnick@jhu.edu

Enrollment: Minimum 20, No maximum enrollment required, Waitlist Enabled: No undergraduate students are not permitted in this course

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 300.615.01 (on-line) Tools of Public Health Practice or 300.603.98 (Barcelona) Tools of Public Health Practice and Decision Making. If a student that has not completed the prerequisite, please check with the course faculty for make-up information

This course fulfills the MPH practicum requirement. Note, students taking the course for practicum credit are required to submit a Practicum Learning Plan Proposal Form available at: www.tinyurl.com/mph-practicum-learning-plan

**305.615.01 OCCUPATION INJURY PREVENTION AND SAFETY PRACTICE**

2 credits - Course offered this year - East Baltimore

Lippy, Bruce

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. Describe the roles of industry, government, public health professionals, labor unions, consensus organizations and the media in preventing occupational injuries
4. Apply the hierarchy of controls to develop intervention strategies for occupational injury prevention
5. Explain and apply several hazard assessment tools used by safety professionals to prevent injuries
6. Review the literature on a specific hazard for a target population and propose research to measure the impact of a public health intervention

Email: blippy@cpwr.com

Lecture: T 3:30 PM - 5:20 PM

Enrollment: Minimum 8, No maximum enrollment required, Waitlist Enabled: No undergraduate students are not permitted in this course

Grading Options: Letter Grade or Pass/Fail

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

**305.630.01 TRANSPORTATION POLICY AND HEALTH**

2 credits - Course offered this year - East Baltimore

Pollack, Keshia

Provides an overview of the significant effect of transportation on health in terms of safety, air quality, physical activity, noise pollution, and equitable access to opportunities, and importance of this sector for public health. Covers topics including transportation policies that (a) promote safe travel by vehicle, aviation, and rail, (b) foster active transportation (e.g., walking, bicycling), (c) expand public transportation, (d) address air quality and the built environment; and (e) promote equitable access. Uses case studies to highlight transportation policies that have been developed and implemented at the federal, state, and local levels, and describes how they have promoted health or had the unintended consequence of adversely affecting health.

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

1. Summarize the significant effects of transportation on public health
2. Explain how transportation policies at the local, state, and federal levels can maximize the health-promoting aspects of transportation and mitigate its adverse health impacts
3. Analyze a specific transportation policy and its effects on health

Email: kpollack@jhsph.edu

Lecture: T 1:30 PM - 3:20 PM

Enrollment: Minimum 8, No maximum enrollment required, Waitlist Enabled: No
undergraduates are not permitted in this course

Grading Options: Letter Grade or Pass/Fail

305.861.01 GRADUATE SEMINAR IN INJURY RESEARCH AND POLICY
1 credits - Course offered this year - East Baltimore
Rutkow, Helaine; Vernick, Jon

Students attend weekly seminars sponsored by the Center for Injury Research and Policy that advance one’s understanding of injury, violence, and resulting disability as public health problems. Seminar topics include methodological approaches, occupational injury, violence prevention, disability, and emerging topics, as well as the application of policy, law, and practice for injury and violence prevention. Students hear from leading experts in the field and read literature provided to accompany each presentation.

Upon successfully completing this course, students will be able to:
1. Explain the epidemiology of specific injuries and related consequences in the population
2. Identify effective or promising strategies for preventing injury and disability
3. Describe how injury research informs policy and practice to reduce the burden of injury in the population

Email: jvernick@jhsph.edu
Lecture: M 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

306.655.01 ETHICAL ISSUES IN PUBLIC HEALTH (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Kahn, Jeff

Lectures and small group discussions focus on ethical theory and current ethical issues in public health and health policy.

Upon successfully completing this course, students will be able to:
1. Identify and define moral issues in the context of public health practice
2. Distinguish between a moral issue or argument and other types of issues or arguments
3. Articulate moral arguments for or against public health policies or practices

Email: jkahn@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Undergraduates must obtain permission of instructor to enroll in this class.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Undergraduates must obtain permission of instructor to register

306.660.01 LEGAL AND PUBLIC HEALTH ISSUES IN THE REGULATION OF INTIMACY
3 credits - Course offered this year - East Baltimore
Rosen, Joanne

Examines the ways in which the state regulates intimate and private relations and the justifications for such regulation. Particularly focuses on the attention paid to the public health and morality justifications offered by the state for the enactment and enforcement of privacy laws. Topics include: when state regulation of intimate decisions, actions and relationships is justified; the regulation of consensual sexual activity; the regulation of contraception and abortion; the regulation of same-sex sexual activity; and the regulation of same-sex marriage.

Upon successfully completing this course, students will be able to:
1. Define the constitutional concept of “privacy” as protected by the 14th Amendment of the Constitution
2. Evaluate the state justifications for regulating intimate and private decisions, actions and relations
3. Describe the complex relationship between individual autonomy and the public good
4. Analyze the substantive law on privacy topics, including abortion, contraception, marital and non-marital intimate relations, same-sex intimate relations and same-sex marriage
5. Evaluate the reasoning of judicial opinions on privacy topics

Email: jrosen@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM

Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 79 of 149
Priority given to MPH students; open to undergraduates when space is available
Grading Options: Letter Grade or Pass/Fail

306.662.01 PUBLIC HEALTH AGENCIES: LAW, POLICY AND PRACTICE
3 credits - Course offered this year - East Baltimore
Rutkow, Helaine
Explores the important and expanding role that regulatory or administrative agencies, such as FDA and EPA, play in protecting and promoting the public’s health. Examines agencies’ ability to create and implement health policy, and discusses the legal limits on agency powers. Discusses how agencies develop regulations and employ other regulatory tools. Uses case studies to illustrate key concepts, such as the role of science in the regulatory process and the influence of politics on agency actions. Class sessions involve the interpretation and analysis of judicial opinions, regulations, and other administrative materials. Focuses on U.S. regulatory policy, but also examines examples and implications for international health policy. This course builds on the skills introduced in 306.650, and exposes students to new public health law and policy topics relevant to regulatory agencies.

Upon successfully completing this course, students will be able to:
1. Explain the role of governmental agencies and actions they may take to promote the public’s health
2. Identify and interpret public health regulations and other administrative materials
3. Prepare materials suitable to be submitted in the notice and comment process
4. Analyze examples of how the law facilitates or limits governmental agencies’ activities
5. Assess how politics may influence governmental agencies’ development and implementation of health policy

Email: lrutkow@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; undergrads permitted with consent of instructor
Prerequisite: Public Health and the Law (306.650) or consent of instructor

306.663.01 LEGAL AND ETHICAL ISSUES IN HEALTH SERVICES MANAGEMENT
3 credits - Course offered this year - East Baltimore
Lee, Stacey
Provides students with an overview of the legal environment as it affects medicine and business. Utilizes cutting-edge cases as students explore medical mal-practice, negligence, liability (physician, product, and corporate), the changing physician-patient relationship, the care of vulnerable and high-risk populations, intellectual property, criminal aspects of health care, patient consent and rights, and health care reform.

Upon successfully completing this course, students will be able to:
1. Identify how business law 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) on the various elements of the delivery system and the legal and ethical implications of health service delivery through tax-exempt and for profit corporate structures.
2. Summarize the 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. Cite legislative and judicial responses to conflicts in health care as an expression of public policy and societal concerns
4. Explain 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

Email: stalee@jhsph.edu
Lecture: T 8:00 AM - 10:20 AM
Enrollment: Minimum 12, Maximum 40, Waitlist Enabled: Yes
undergraduates are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students must receive consent to register.
306.861.01 GRADUATE DOCTORAL SEMINAR IN BIOETHICS
1 credits - Course offered this year - East Baltimore

Taylor, Holly
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. Understand the literature in bioethics and public health
2. Analyze arguments in existing bioethics literature and respond to them independently
3. Synthesize literature across different content areas of bioethics in order to provide linkages in the field
4. Critique one another's work and scholarly arguments

Email: htaylor@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for some students; non-bioethics doctoral students required to obtain permission
Prerequisite: There is no formal prerequisite for the course, although it is recommended that students have taken Public Health and the Law, 306.650, Ethical Issues in Public Health, 306.655, and/or Legal and Ethical Issues in the Evolving Health Care System, 306.663.

306.864.01 FOGARTY BIOETHICS FELLOWS SEMINAR
1 credits - Course offered this year - East Baltimore

Hyder, Adnan; Kass, Nancy
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

Email: nkass@jhsph.edu
Lecture: TH 9:30 AM - 10:50 AM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Fogarty African Bioethics Training Program Fellows
Grading Options: Pass/Fail
Consent required for all students; to ensure students have prerequisites
Prerequisite: Prior or concurrent enrollment in:
306.665 and 306.655
Jointly offered with IH
Course is held in Deering Hall.

308.610.01 THE POLITICAL ECONOMY OF SOCIAL INEQUALITIES AND ITS CONSEQUENCES FOR HEALTH AND QUALITY OF LIFE
3 credits - Course offered this year - East Baltimore

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.

Upon successfully completing this course, students will be able to:
1. Understand how globalization impacts the economy
2 Distinguish the difference between the globalization and regionalization of economies
3 Identify what changes are occurring in public health and social policies that are attributable to the process of globalization
4 Identify the causes of the recent growth in social inequalities
5 Distinguish what are the health and social consequences of greater inequality

Email: vnavarro@jhsph.edu
Lecture: T 5:30 PM - 8:00 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students must obtain consent of instructor prior to registering for this class.

308.702.01 DATA AND METHODS FOR STUDYING U.S. HEALTH POLITICS (Cancelled - Department)
1 credits - Course offered this year - East Baltimore
Barry, Colleen
Examines the topics discussed in the Role of Government in Health Policy course, focusing on the methods used to conduct research on health politics topics. Discusses: (1) developing research questions and testable hypotheses, (2) identifying data sources, and (3) choosing appropriate methods for analyzing data using examples from a range of current health politics topics. Topics are based on student interests and vary each year. Students gain experience writing a brief research proposal based on a research question of their choice, presenting the proposal in front of the class and leading an in-class discussion on the research topic.

Upon successfully completing this course, students will be able to:
1 Explain methodological approaches to conducting research on health politics topics
2 Critically evaluate research methods proposed for studying contemporary issues in health politics

Email: cbarry@jhu.edu
Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No
undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students are required to obtain consent from the instructor
Prerequisite: Concurrent enrollment in Role of Government in HP (308.602)

308.810.01 FIELD PLACEMENT HEALTH POLICY-MSPH
variable credits most students will register for 16 credits but on occasion, with program permission, fewer credits may be registered for - Course offered this year - East Baltimore
Resnick, Beth A.
Provides students with an intensive "hands on" extension of their academic training under the guidance of one or two senior level health policy professionals and program faculty. Students gain a deeper understanding of how health policies affect the public's health and further develop their professional health policy skills.

Upon successfully completing this course, students will be able to:
1 Contribute to the organization by participating in and completing all assigned work.
2 Discern their own role in the organization and explain how their work contributes to the mission of the organization
3 Recognize the role of the host organization within the health policy arena and how the organization fits into the "big picture" of health policy

Email: bresnick@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
matriculated MSPH/HP students
Grading Options: Pass/Fail
Consent required for all students; all students required to obtain permission to register to ensure field site is appropriate and approved

308.851.01 PHASE INTERNSHIP
variable credits credits are negotiated individually with each student depending on the internship placement and time commitment - Course offered this year - East Baltimore
Resnick, Beth A.
Public Health Applications for Student Experience (PHASE), offers students the opportunity to gain real world public health practice experience. PHASE internships require students to synthesize, integrate and apply academic theory in public health practice settings. By working on-site, students see first-hand how public health agencies function and engage in public health decision-making on a daily basis.

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. Write a concept paper outlining the project aims, objectives, timeline, and specific deliverables
3. Perform background research and data analysis as necessary
4. Synthesize the PHASE experience and project findings in a final paper
5. Present the project at the PHASE symposium

Email: bresnick@jhu.edu

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No, undergraduates not permitted
Grading Options: Pass/Fail
Consent required for all students; all students must obtain consent.

308.867.01 MSPH SEMINAR IN HEALTH POLICY
1 credits - Course offered this year - East Baltimore

Resnick, Beth A.
Introduces work undertaken in health policy settings and prepares students for professional career development.

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

1. Describe themselves, their strengths, and their personality preferences through use of MBTI and StrengthFinder 2.0 assessments.
2. Identify the Public Health Competencies and related skills
3. Develop a Career Development Action Plan

Email: bresnick@jhu.edu
Lecture: W 3:30 PM - 4:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No, Restricted to Masters students in HPM
Grading Options: Pass/Fail

309.617.81 INTRODUCTION TO METHODS FOR HEALTH SERVICES RESEARCH AND EVALUATION II
2 credits - Course offered this year - Internet

Chan, Kitty; Zhu, Junya
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

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 83 of 149
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

Email: kchan@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introduction to Online Learning.

Multi-term with 309.616

Final grade applies to all terms

Part I necessitates enrollment in Part II; grades given at end of Part II.

309.712.93 ASSESSING HEALTH STATUS AND PATIENT OUTCOMES

3 credits - Course offered this year - Beijing, China

Zhu, Junya

Provides an understanding of the conceptual basis for measures of health; some of the common measures, their properties, and strengths and weaknesses; and a framework for judging the appropriateness of a particular measure for students’ own work.

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

1. Describe the current methods of assessing health status

2. Discuss health status measurement

3. Judge the appropriateness of particular measures for their own or other’s work

Email: jzhu44@jhu.edu

Enrollment: Minimum 10, Maximum 31, Waitlist Enabled: Yes

Part-time DrPH students in the Tsinghua cohort only

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; enrollment restricted to students in the Tsinghua DrPH cohort

309.732.01 HUMAN FACTORS IN PATIENT SAFETY (Cancelled - Department)

3 credits - Course offered this year - East Baltimore

Dy, Sydney M.; Gurses, Ayse

Provides students with the essential concepts, methods and tools to enable them to design effective patient safety interventions and evaluate their impact.

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

1. Describe and apply concepts and methods in organizational and human factors literature

2. Assess the roles of organizational, system and human factors in patient safety and in provider/patient behavior change more broadly

3. Use appropriate qualitative and quantitative methods to identify and prioritize patient safety problems

4. Describe and propose designs for successful patient safety interventions

5. Identify and address barriers to improvement efforts

6. Identify appropriate team members for safety improvement efforts

7. Evaluate the outcomes of patient safety interventions

Email: agurses1@jhmi.edu

Lecture: M W 1:30 PM - 2:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

undergraduate students are not permitted in this course

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for students who have not taken 309.730.

Prerequisite: 309.730 is strongly recommended, or students must get instructor consent

309.861.01 GRADUATE SEMINAR IN HEALTH SERVICES RESEARCH AND POLICY
1 credits - Course offered this year - **East Baltimore**
Chan, Kitty; Wu, Albert
Provides opportunity to learn about faculty research, discuss issues and concepts relevant to the field of health services research, and learn skills important for academic and professional success in the field of health services research. Intended for doctoral students from the Department of Health Policy and Management who are 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
Email: awu@jhsphs.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
PhD students in HPM - Health Services Research and Policy program only
Grading Options: Pass/Fail

**309.864.01 QUALITY, PATIENT SAFETY, AND OUTCOMES RESEARCH PRACTICUM**
3 credits - Course offered this year - **East Baltimore**
Engineer, Lilly
Provides students in the Quality, Patient Safety, and Outcomes Research Certificate Program with an integrated experience in quality, patient safety, outcomes research, or a combination of the 3 domains in any one of a wide variety of settings in the health service delivery environment. Students are placed based on their individual goals and interests and the preceptors’ needs. Students join an active work group and are supervised directly or indirectly by the practicum preceptor.
Upon successfully completing this course, students will be able to:
1. Apply the skills and competencies learned over the entire certificate curriculum to the real world in a health care setting.
Email: lenginee@jhsphs.edu
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Students enrolled in the Quality, Patient Safety, and Outcomes Research Certificate only
Grading Options: Pass/Fail
Consent required for all students; practicum site must be approved and completion of required coursework confirmed prior to registration
Prerequisite: All certificate requirements must be taken before or concurrently with the practicum.
Students already in degree seeking programs may use their required capstone/practicum to count towards their Quality practicum as long as it is relevant to the field of Quality, Patient Safety, and Outcomes Research.

**311.820.01 THESIS RESEARCH HPM-DRPH**
variable credits Students register for thesis research credits per consultation with advisor. - Course offered this year - **East Baltimore**
Departmental Faculty
HPM/DrPH students conduct their thesis research.
Information not required for this course type
Lecture: TBA
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

**311.861.01 GRADUATE SEMINAR IN HEALTH CARE MANAGEMENT AND LEADERSHIP**
1 credits - Course offered this year - **East Baltimore**
Engineer, Lilly; Morlock, Laura
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)
Demonstrate change management, communication and leadership skills
Email: Lmorlock@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students;

312.603.81 FUNDAMENTALS OF BUDGETING AND FINANCIAL MANAGEMENT
3 credits - Course offered this year - Internet
Ward, William
Provides students with an understanding of budgeting as an important management tool. Focuses on budget development, evaluation of the financial status of a department or operating unit and the ability to determine what, if any, corrective actions need to be taken. Includes strategies for measuring and reporting skills. Considers the analytical tools used to support evaluation and decision-making including: volume adjusted variance analysis, benefit-cost ratio analysis, breakeven analysis, process flow analysis, benchmarking, and methods for building cost standards.
Upon successfully completing this course, students will be able to:
1 Explain budgeting as a key component of the administrative process
2 Develop budgets for service volume, revenues, salaries and supplies, and equipment
3 Evaluate the financial status of a department or operating unit and determine what, if any, corrective actions should be taken
4 Prepare marginal P&Ls, benefit-cost ratio analysis, and breakeven analysis and ad hoc financial analyses
5 Use benchmarking to improve operational performance
Email: Wward@jhsph.edu
Enrollment: Minimum 10, Maximum 120, Waitlist Enabled: Yes
Restricted to graduate students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.
Jointly offered with HPM, IH

312.621.01 STRATEGIC PLANNING
3 credits - Course offered this year - East Baltimore
Hough, Douglas
Focuses on principles of strategic management and competitive analysis to support strategy development for health care organizations. Considers how current business and management knowledge is applied to health care organizations to promote future success and competitive advantage. Examines contemporary theory and models to foster students’ abilities to assess and develop an organization’s mission and vision; perform an internal and external strategic assessment; evaluate competitive threats and responses; develop organizational strategies; and evaluate the decision-making approaches best able to develop and execute the best strategies.
Upon successfully completing this course, students will be able to:
1 Develop a strategic plan for an organization, including: Performing a situational assessment and competitive analysis; developing strategic options; and assessing and making strategic choices
2 Recognize – and avoid – the pitfalls of traditional strategic planning processes
3 Recognize – and use – appropriate decision-making tools for creating and implementing strategies
Email: Dhough@jhsph.edu
Lecture: W 3:30 PM - 6:20 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
undergraduates not permitted
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Due to enrollment max, all students must obtain permission before registering for this course.
Prerequisite: 312.600 or 312.603
Administrative Course Fee: 75.0000
fee covers the cost of the field trip
Learning Materials:
(Book) Healthcare Strategic Planning
Zuckerman, Alan M
Amazon $76.75
(Book) The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail (Management of Innovation and Change)
Christensen, Clayton M
Amazon $21.47
(Book) The Halo Effect ... and the Eight Other Business Delusions That Deceive Managers
Rosenzweig, Phil
Amazon $13.24

312.624.01 FINANCIAL MANAGEMENT IN HEALTH CARE II
3 credits - Course offered this year - East Baltimore
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. Identify the complexities and challenges of financing a healthcare business
2. Interpret the economic performance of the organization based on its financial statement
3. Develop operating plans as a result of financial trends and results
4. Present clear and concise conclusions and recommendations through oral presentation for action to a Board of Directors
5. Analyze the financial viability of a new business venture and how it contributes to the mission of the organization
6. Prepare business plans based upon multiple data points and business trends
7. Develop framework to measure and monitor organizational performance
8. Calculate an insurance premium and capitation payment
9. Demonstrate teamwork skills within a work team resulting in a completed case study
Email: joellis@jhsph.edu
Lecture: M 2:30 PM - 4:50 PM
Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students must receive consent to register.
Prerequisite: 312.617, 312.603 and 312.623

312.633.81 HEALTH MANAGEMENT INFORMATION SYSTEMS
3 credits - Course offered this year - Internet
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, health information exchange, and the future of healthcare computing.
Upon successfully completing this course, students will be able to:
1. Interpret healthcare industry challenges that have put healthcare IT and informatics into the national agenda; Design strategies and initiatives to respond to these challenges
2. Assess and compare public health initiatives requiring data collection, data analysis, and data visualization; recommend how efforts should be synchronized and integrated with clinical computing and workflows
3. Contrast and compare consumer and medical informatics; recommend how new types of software and data exchange between clinicians and patients can impact clinical care and outcomes

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 87 of 149
FOURTH TERM - COURSE SCHEDULE 2016-2017

4 Assess how modern computing and networks have created new risks and vulnerabilities; evaluate examples of IT issues impacted by ethics in the clinical care, research, and education areas

5 Discuss the impact of natural and man-made disasters and analyze what actions should be taken to protect computer resources; summarize mission critical computing and recommend policies, practices, and technologies to deliver high quality and dependable technology infrastructure

6 Explain the key elements of EHRs and their impact on clinical workflow and outcomes; assess current efforts to share patient information at a community level and define the value that can be generated by data sharing

7 Summarize what the secondary use of EHR data is and provide examples on how clinical data can be used to support research and improve the quality of care

8 Compare different types of disease registries, how they are being modernized, and why disease registries are important to improve clinical care and support research

9 Interpret the need to create and analyze population data sets and their role to improve the quality of care, improve public health processes, and support new types of clinical research

10 Discuss how genetics and large data sets are impacting research informatics, how technology supports clinical research, and the potential to further integrate research computing with clinical software and work flow

11 Assess technology options to support medical education

12 Summarize foundational governmental policies and investments in healthcare; and why the federal government is currently making significant investments in healthcare IT. Analyze various healthcare scenarios and suggest optimal technology strategies.

Email: mminear@jhsph.edu

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; due to enrollment cap, all students must obtain permission.
Prerequisite: Introduction to Online Learning.

312.635.01 HUMAN RESOURCES IN HEALTH ORGANIZATIONS
2 credits - Course offered this year - East Baltimore
Paulk, Pamela

Develops a basic understanding of human resources trends and issues in health care organizations. Addresses the strategic role that human resources management plays in helping an organization meet its goals. Considers human resource challenges and recognizes alternative strategies for addressing these challenges. Examines elements most associated with employee engagement and motivation. Introduces legal principles relating to human resources and all component functions that make up human resources.

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

1. Describe the role Strategic Human Resources Management in creating a great work place environment
2. Identify strategies to increase the health care labor supply and decrease labor demand
3. Analyze how the multiple functions of Human Resources Management, e.g. recruitment, selection, compensation, benefits, training and development contribute to employee performance and productivity
4. Recognize employment laws and how they affect Human Resource Management
5. Explain the similarity and difference in employee and management relations in a unionized and non-unionized environments
6. Apply motivation theories to enhance employee engagement
7. Create and evaluate a compensation model that motivates employees and addresses legal concerns
8. Apply Behavioral Event Interviewing to recruitment and selection

Email: papaulk@jhsph.edu
Lecture: TH 1:30 PM - 3:20 PM

Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students must receive consent to register.

312.655.01 ORGANIZATIONAL BEHAVIOR AND MANAGEMENT
2 credits - Course offered this year - East Baltimore
Bittle, Mark

4th term information is correct as of March 13 , 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 88 of 149
Explores organizational behavior perspectives and theories, which provide the framework for the critical study of management, and the interpersonal skills and knowledge required by managers in the dynamic health sector. Students develop an approach to thinking about health sector organizations and their complexity. Emphasizes current thinking and the application of theory to practice in the areas of management, employee motivation, group behavior and team development, power and influence plus conflict management and negotiation skills.

Upon successfully completing this course, students will be able to:
1. Explain alternate organizational behavior perspectives and conceptual frameworks
2. Explain how personality and perception influence behavior in organizations
3. Apply theories and concepts of motivation and teamwork to developing strategies for improving performance
4. Apply theories and concepts of conflict management and negotiation to improve organizational communication and performance
5. Assess the influence of organizational culture on management and employee behavior

Email: mbittle@jhmi.edu
Lecture: F 8:30 AM - 10:20 AM
Enrollment: Minimum 15, Maximum 35, Waitlist Enabled: Yes
Not open to undergraduate students; recommended for MPH leadership & management concentration and HFM certificate students
Grading Options: Letter Grade or Pass/Fail
Administrative Course Fee: 20.0000

To cover special materials that are distributed by the instructor in the class.

312.660.01 MARKETING IN HEALTH CARE ORGANIZATIONS
3 credits - Course offered this year - East Baltimore
Conduracci, Greg
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. Explain the purpose and value of the marketing function within a healthcare organization
2. Analyze trends within the industry and society and how to take best advantage of them
3. Apply modern marketing tools to analyze markets and to attract or influence people within them
4. Create an effective marketing plan
5. Employ group decision-making dynamics in class setting
6. Create an effective mission for an organization or a person
7. Explain the role and responsibilities of a marketing professional in the health sector
8. Describe the differences between sales, public relations and marketing and appreciate the essential role of each in a comprehensive marketing strategy
9. Develop a marketing plan for a specific product, service or program
10. Demonstrate basic sales techniques like questioning, listening, needs assessment, objection resolution, and positioning
11. Create an effective sales presentation

Email: gcondera@jhsph.edu
Lecture: M 5:30 PM - 8:30 PM
Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
undergraduates are not permitted in this course
Grading Options: Letter Grade or Pass/Fail

312.670.01 NEGOTIATION IN HEALTH CARE SETTINGS
3 credits - Course offered this year - East Baltimore
Lee, Stacey
Addresses the basic skills needed for effective negotiation of business relationships in health care and other settings. Focuses on understanding and developing a systematic approach to preparing for, structuring, and negotiating key business relationships. Presents basic process and conflict management skills needed for effective negotiation of business relationships in health care. Explores the ethics of negotiation.

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

1. Use negotiation techniques to assess, plan and conduct effective two-party and multi-party negotiations
2. Use conflict management techniques to assess and manage two-party and multi-party conflicts
3. Identify behavioral elements of their own negotiation and conflict handling style and analyze the potential impact of various style elements
4. Develop and apply strategies to strengthen use of negotiation and conflict management styles and techniques
5. Analyze others' behavior in negotiation and conflict and apply strategies that are effective responses to those behaviors
6. Apply ethical frameworks when engaging in negotiation

Email: stalee@jhsph.edu

Lecture: F 1:30 PM - 4:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

312.810.01 FIELD PLACEMENT - HEALTH ADMINISTRATION

variable credits students typically register for 16 credits but may be modified at the program's discretion - Course offered this year - East Baltimore

Schwartz, Teresa

Complements and reinforces the didactic portion of the MHA program by providing students with an opportunity to apply the knowledge gained during the first year, to develop skills in management according to individually designed learning objectives, and to work as part of a management team in a health care organization. Students are placed in a variety of professional settings, which may include: the community sector (community and university-affiliated hospitals), the for-profit sector (investor-owned hospitals, consulting firms, long-term care facilities, and managed care organizations.)

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

1. Translate and apply financial, economic, market and performance information and models to improve and optimize organizational performance
2. Demonstrate knowledge of the healthcare system and environment in which health services are provided
3. Develop and define a vision, take initiative, provide direction, manage change, and participate in the planning, development and monitoring required to establish and achieve organizational goals
4. Communicate effectively, manage relationships and influence individuals and groups to take action in the pursuit of organizational goals

Email: tschwart@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Pass/Fail

312.861.01 MHA CASE COMPETITION

3 credits - Course offered this year - East Baltimore

Hough, Douglas

Introduces students to the case competition early in the year as part of their seminar. Provides students with the opportunity to apply what they have learned in the classroom setting to a real-world case study.

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

1. Apply information gathering, research and critical thinking skills to managerial problem solving
2. Work effectively in a team to produce a professional and persuasive presentation
3. Demonstrate effective oral and written communication skills

Email: dhough@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

1st year MHA students only

Grading Options: Pass/Fail

Consent required for all students; course is restricted to 1st year MHA students ONLY
During Intersession and third term students work in their teams preparing for their 4th term presentations. Each presentation is approximately 20 minutes with a 10 minute Q&A.

312.862.01 MHA CAPSTONE
1 credits - Course offered this year - East Baltimore
Departmental Faculty
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, e.g. economic, financial, organizational and environmental factors
3. Identify implications of the trend for healthcare leaders

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
2nd year MHA students only
Grading Options: Pass/Fail
This written deliverable is a graduation requirement for all MHA students.

312.867.01 MHA SEMINAR IN HEALTH FINANCE AND MANAGEMENT
1 credits - Course offered this year - East Baltimore
Schwartz, Teresa
Introduces students to current health care finance and management issues through a series of discussion sessions with program directors and guest lecturers. Prepares students for the program’s fourth term case competition and the second year field placement requirement.

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

Email: tschwart@jhsph.edu
Lecture: M W 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to MHA students only
Grading Options: Pass/Fail
Administrative Course Fee: 25.0000
fee to cover cost of course materials

312.869.01 HEALTHCARE CONSULTING PRACTICUM
1 credits - Course offered this year - East Baltimore
Bittle, Mark
Students are required to meet with the client (hospital sponsor of the consulting project) to develop an understanding of the project requirements. Prior to beginning the consulting engagement students will a) devise a plan for carrying out the consultancy, b) prepare a scope letter describing the project, the scope of work, deliverables, timeline and fee arrangement.

Upon successfully completing this course, students will be able to:
1. Prepare a scope letter describing the project, the scope of work, deliverables, timeline and fee arrangement
2. Analyze a current operating challenge and make appropriate recommendations
3. Work effectively in a team to produce a professional presentation
4. Demonstrate effective oral and written communication skills

Email: mbittle@jhmi.edu

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 91 of 149
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
1st year MHA students only
Grading Options: Pass/Fail
Consent required for all students; restricted to 1st year MHA students only
Prerequisite:

**313.632.01 ECONOMIC EVALUATION III**
3 credits - Course offered this year - East Baltimore
de Lissovoy, Greg; Rao, Krishna
Third course in the economic evaluation sequence. Examines advanced methods as well as areas of controversy. Explores methods for performing cost-effectiveness analysis using data from prospective studies and observational data. Examines alternatives to conventional cost-effectiveness analysis, including cost-benefit analysis, stated preference methods, and multi-criteria decision analysis.

Upon successfully completing this course, students will be able to:
1. Perform a cost-effectiveness analysis based on data from a randomized clinical trial
2. Describe methods for cost-effectiveness analysis based on administrative data (e.g. health insurance paid claims database)
3. Demonstrate the use of stated preference methods and multi-criteria decision analysis in the allocation of health care resources
4. Describe the theoretical basis for cost-benefit analysis as differentiated from cost-effectiveness analysis

Email: gdeliss1@jhu.edu
Lecture: W F 10:30 AM - 11:50 AM

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Economic Evaluation I (313.630) and Economic Evaluation II (313.631) or permission of the instructor
Jointly offered with IH

A central activity in the course will involve analysis of data from a randomized clinical trial using Stata statistical software. Analytic tasks will include file creation, variable construction, calculation of descriptive statistics, statistical modeling using multivariate regression and bootstrapping, and presentation of findings in both tabular and graphic formats. Students should be comfortable performing these computing methods to satisfactorily complete the course.

**313.645.01 HEALTH ECONOMICS III**
3 credits - Course offered this year - East Baltimore
Rao, Krishna
Builds on the material taught in Health Economics I and II, and exposes students to a number of advanced topics relevant to public health. Draws upon a combination of seminal and contemporary readings, broadening students' awareness of health economics. Builds student skills in critically discussing academic contributions to the field. Uses lectures, student presentations and group discussions to integrate health economics material completed over the course of the sequence.

Upon successfully completing this course, students will be able to:
1. Describe the breadth of applications within the field of health economics
2. Apply economic theory, econometric modeling, and economic reasoning to a range of topics in public health.
3. Appraise and critique examples of theories and conceptual models used by health economists in the analysis of health policy.

Email: krao@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 313.641 and 313.644
Jointly offered with IH

**313.656.01 MICROECONOMIC MODELS IN PUBLIC HEALTH IV**
2 credits - Course offered this year - East Baltimore
Gaskin, Darrell J.; 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

Email: bherring@jhsph.edu

Lecture: F 1:30 PM - 3:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

no undergraduates permitted in this course

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; all students required to obtain consent prior to registration

Prerequisite: 313.653, 313.654 and 313.655

Multi-term with 313.653

final grade applies to all terms

Final grade applies to all terms

313.656.01 MICROECONOMIC MODELS IN PUBLIC HEALTH IV

2 credits - Course offered this year - East Baltimore

Gaskin, Darrell J.; 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

Email: bherring@jhsph.edu

Lecture: F 1:30 PM - 3:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

no undergraduates permitted in this course

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; all students required to obtain consent prior to registration

Prerequisite: 313.653, 313.654 and 313.655

Multi-term with 313.654

final grade applies to all terms

Final grade applies to all terms

313.656.01 MICROECONOMIC MODELS IN PUBLIC HEALTH IV

2 credits - Course offered this year - East Baltimore

Gaskin, Darrell J.; 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
313.790.81 INTRODUCTION TO ECONOMIC EVALUATION
3 credits - Course offered this year - Internet
Constenla, Dagna
Prepares students to read and interpret cost-effectiveness studies. Introduces the basic economic concepts that are needed in order to understand the recommendations from the United States Panel on Cost Effectiveness in Health and Medicine, such as the distinction between opportunity costs and budgetary costs. Considers review recommendations, particularly as they apply to cost-effectiveness research reports. Discusses the relationship between cost-effectiveness results and other elements of the health care policy decision-making process.
Upon successfully completing this course, students will be able to:
1 Read and interpret cost-effectiveness studies
2 Describe the methods for conducting scientifically-rigorous cost-effectiveness analyses
Email: dconsten@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
undergraduates are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 313.653, 313.654 and 313.655
Multi-term with 313.655
final grade applies to all terms
Final grade applies to all terms

313.861.01 PUBLIC HEALTH ECONOMICS SEMINAR
1 credits - Course offered this year - East Baltimore
Bridges, John
Exposes students to recent research in various areas of health economics. Provides opportunities for more in-depth study of the core economics courses being offered each term. Provides opportunities for professional development in the field.
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
3 Identify the health economics faculty and their research interests
4 Cite the literature that pertains to health economics
5 Discuss the literature and describe relationships between health economics and other areas within public health
6 Facilitate the translation of economics research into policy and practice
Email: jbridges@jhsph.edu
Lecture: F 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
undergraduates are not permitted
Grading Options: Pass/Fail
variable credits Students need to complete a total of 4 credits over 3rd and 4th terms to complete this program requirement. - Course offered this year - East Baltimore

Bridges, John

Produce a scholarly paper that provides a meaningful contribution to knowledge of the health economics. Affords the opportunity to work under the direction of a research mentor and presenting research results to a group of peers.

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

1. Integrate and apply the skills and competencies they have acquired to a public health/health economics problem
2. Develop a concise and cohesive written document that defines a health economics problem or issue
3. Conduct a comprehensive literature review and synthesize as appropriate for their selected topic or issue
4. Present results of research in a scholarly paper
5. Present the results of their research orally to peers

Email: jbridges@jhsph.edu

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Restricted to HPM MHS/health economics students
Grading Options: Letter Grade or Pass/Fail

315.709.81 HEALTH SCIENCES INFORMATICS, KNOWLEDGE ENGINEERING AND DECISION SUPPORT

3 credits - Course offered this year - Internet

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

Email: lehmann@jhmi.edu

Enrollment: Minimum 15, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to on-line learning
Jointly offered with ME
This is the same course as SOM 600.901

315.862.01 PUBLIC HEALTH INFORMATICS CERTIFICATE PRACTICUM

variable credits Students register for either 2 or 3 credits for the practicum, after consultation with the certificate director. - Course offered this year - East Baltimore

Bunker, Edward; Kharrazi, Hadi; Weiner, Jonathan

Provides students in the Public Health Informatics Certificate Program with an integrated experience on the use of information technology in a health sciences environment. Students have an opportunity to participate in informatics and information technology issues in real-world settings. Students are placed based on their individual goals and interests and the preceptors’ needs. Students join an active work group and are supervised directly or indirectly by the practicum preceptor. Students already in degree seeking programs may use their required capstone/practicum to count towards their Informatics practicum as long as it is relevant to the field of Informatics.

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

1. Apply the skills and competencies learned over the entire certificate curriculum to real world informatics in a public health setting

Email: Edward.Bunker@jhpiego.org

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Students enrolled in the Health Informatics Certificate only
Grading Options: Pass/Fail

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 95 of 149
Consent required for all students; practicum site must be approved and completion of required coursework confirmed prior to registration

Prerequisite: All Public Health Informatics Certificate requirements must be taken before or concurrently with the practicum.

317.610.81 RISK POLICY, MANAGEMENT AND COMMUNICATION

3 credits - Course offered this year - Internet
Burke, Thomas; Fox, Mary

Examines the role of the risk sciences in the public policy process. A case study approach presents the broad societal context of risk based decision making, including the scientific, social, economic, legal and political factors that drive the policy process. Provides an overview of risk management tools and the application of risk communication principles and strategies. The goal is to provide an understanding of how the risk sciences are applied in the formulation and implementation of public health risk policy in “the real world.”

Upon successfully completing this course, students will be able to:
1. Select and present scientific data to inform the policy development and decision-making processes
2. Prepare a health risk policy case study distinguishing among relevant policy options
3. Practice advantageous risk communication skills
4. Evaluate the influence of economic, social, and political factors on health risk policy debates

Email: mfox@jhsph.edu

Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Consent required for all students; To confirm student has met pre-requisites.
Prerequisite: 317.600.01 (or 317.600.81) Introduction to the Risk Sciences and Public Policy and Introduction to Online Learning.

Jointly offered with EHS

317.615.01 TOPICS IN RISK ASSESSMENT

2 credits - Course offered this year - East Baltimore
Fox, Mary; Nachman, Keeve

Uses a case study approach of a selected risk-based public health issue to integrate student's application of the skills in the risk sciences (risk assessment, risk management, and risk communication).

Upon successfully completing this course, students will be able to:
1. Identify and critically assess key science and policy issues involved in the application of the risk sciences to public health policy decision-making
2. Develop solutions for addressing public health problems

Email: mfox@jhsph.edu

Lecture: M 5:00 PM - 6:30 PM

Enrollment: Minimum 5, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Consent required for all students; due to enrollment cap, consent required for all students.
Prerequisite: 317.600, 317.605, 317.610

Jointly offered with EHS,EPI

This is the capstone experience to the four-course sequence required for the Certificate in the Risk Sciences and Public Policy.

318.613.01 STATISTICAL ANALYSIS FOR POLICY MAKING IV

3 credits - Course offered this year - East Baltimore
Giandrea, Michael

Presents the core tools that are used in conducting policy analysis. Focuses on the basics of regression analysis and the practical applications to public policy problems. sequence.

Upon successfully completing this course, students will be able to:
1. Apply statistics methods and tools to policy analysis
2. Identify the common difficulties faced in using the different statistical methods
3. Conduct a real-world data analysis project using the skills learned throughout the semester
4. Communicate statistical outcomes and results in accessible and policy-relevant ways

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 96 of 149
318.622.01 DATA ANALYSIS WORKSHOP IN PUBLIC POLICY II

Focuses on the application of statistical techniques learned in Statistical Analysis I – IV. Introduces students to STATA and develops skills in applying statistical techniques to a real-world data project. Concurrent registration with 318.612 and 318.613 required.

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

1. Explain the purpose of various STATA tools, including commands, do files and log files
2. Perform various statistical operations using STATA
3. Design a program to conduct a statistical analysis of a data set
4. Interpret output from STATA and identify the policy significance (if any) in the results
5. Use STATA to conduct a complete data analysis project that includes finding and cleaning the data set, creating variables, analyzing the data and completing a formal report on the findings

318.625.01 MANAGEMENT OF NONPROFIT ORGANIZATIONS

Provides the necessary tools to effectively manage a nonprofit organization. Emphasizes financial, personnel and operations management, focusing on skills necessary to be an executive running a program within a large institution or heading an independent nonprofit agency. Addresses budgeting (both grant and organizational), reading and interpreting financial reports, grant writing techniques and staff and compensation management. Also examines how to work with the legal restraints and opportunities to maximize organizational effectiveness within the laws and regulations that make nonprofits different from the government and for-profit sectors.

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

1. Identify and interpret data about the nonprofit sector
2. Assess the advisability of creating a US-based nonprofit and determining the necessary paperwork to start a new organization.
3. Apply strategic thinking principles to the management of a nonprofit
4. Interpret audits, 990's and other financial reports for a nonprofit
Analyze the financial health of a nonprofit organization

Develop and review a grant or contract budget

Identify the customers and products of a nonprofit and develop a social marketing plan

Establish a compensation analysis and develop human resource policies and plans

Explain the concept of social enterprise.

Email: nancyfhall@comcast.net

Lecture: W 5:30 PM - 8:30 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No undergraduates are not permitted in this class

Grading Options: Letter Grade or Pass/Fail

318.630.01 PUBLIC SCHOOLING IN THE U.S.: POLICY'S ROLE IN SHAPING ITS K-12 EDUCATIONAL INSTITUTIONS

Provides students with the information necessary to understand recent U.S. education policies. Traces government involvement in education from expansion of public elementary schooling through No Child Left Behind and state-level efforts to adopt a “Common Core.” Through specific policy examples, examines the path between policy and practice. Considers the social, economic, political and demographic factors that shaped the timing, contours and impact of these policies. Finally, discusses how larger societal forces and themes influence the development, implementation and effectiveness of education policy.

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

1. Speak and write knowledgeably about the development of public education in the US and the policies that shaped it, including major inflection points and intended and actual outcomes
2. Analyze individual experiences, beliefs, and biases –both conscious and implicit– about public education and understand how these contribute to their current notions of public education and how to improve it
3. Critique the major political, economic, demographic and social forces that have shaped US public education
4. Cite the development, adoption and implementation of recent education policies, with an understanding of the role played by federal, state and local governmental and non-governmental players, the factors that aided or prevented implementation of the policies, and the impact of these policies
5. Prepare education policy briefs, press releases, presentations, blog entries, issue summaries, and other materials for a wide variety of audiences and purposes students are likely to encounter as working professionals
6. Analyze and integrate articles, briefs, blogs, data and reports that represent a variety of views and perspectives on a contentious, current education issue and develop policy recommendations to address the issue
7. Prepare with classmates a city or state-level education policy agenda

Email: msundiu1@jhu.edu

Lecture: TH 3:30 PM - 6:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

318.864.01 CURRENT ISSUES IN POLICY ANALYSIS

Provides policy researchers with a set of analytical frameworks to gain a greater understanding of policy issues. Explores all aspects of a topical policy issue from its origins, transformations, and impact on health and social justice. Policy topics are determined each year according to faculty interest, student need, and policy saliency. Uses case studies, policy analysis readings, and discussions to foster student learning. Some sessions focus directly on translating policy research into policy alternatives while others focus on the political and social environment.

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

1. Identify complex problems and recognize priority issues by using a policy analysis lens.
2. Cite and explain the key factors that shape the debate on current policy issues
3. Demonstrate application of policy literacy
4. Identify social, cultural, economic, commercial and institutional factors that promote or hinder the design and implementation of public policies
5. Employ policy analysis tools to current public issues to create more meaningful opportunities for change
Analyze opportunities for action and potential objections to change

Email: msundiu1@jhu.edu

Lecture: W 3:30 PM - 5:20 PM

Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; those who have not completed the MPP core policy sequence must obtain consent from instructor
Prerequisite: MPP core policy course sequence or equivalent courses approved by the instructor

319.600.94 QUALITY MANAGEMENT IN HEALTH CARE
3 credits - Course offered this year - India
Gupta, Shiv D.

Teaches students the basic concepts of quality in health care, and also equips them with approaches and skills to implement sustainable quality assurance programs in the health system. Introduces students to various quality improvement approaches (QC, QA, CQI, TQM), role of standards and norms, use of quality improvement tools, methods of quality assessment, and approaches to operationalize and implement quality assurance programs. Explains the concepts of organization for quality improvement, including Quality Teams (QT) and Quality Control Circles (QCC).

Upon successfully completing this course, students will be able to:
1. Explain the importance of quality in improving effectiveness and efficiency of health services
2. Define quality and describe its attributes/dimensions
3. Explain relationship between patient satisfaction and utilization of services
4. Describe approaches of quality Improvement, QC, QA, CQI, and TQM
5. Discuss quality standards and monitoring indicators
6. Assess quality of services using quality improvement tools
7. Undertake problem identification, analysis, operationalization and implementation of quality improvement
8. Describe medical audit and accreditation

Email: shgupta@jhsph.edu

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

319.601.94 HEALTH INFORMATION MANAGEMENT AND DECISION-MAKING
3 credits - Course offered this year - India
Khanna, Anoop

Provides an overview of Health Information Management System, its structure and functions. Identify information needs and indicators in the health systems and public health. Describes uses of information for effective management of health services. Reviews framework and organizational structure of HMIS. Provides a critical review of current issues problems in information management in the health systems in the context of developing countries. Describes various decision models and reviews decision making process in health care; application of information in performance tracking and analysis; monitoring of services and programs, supervision and impact evaluation. The course emphasizes designing health information systems and uses of IT.

Upon successfully completing this course, students will be able to:
1. Describe the need and importance of information and information management and explain the meaning and purpose of information systems
2. Describe and assess the current issues and problems in information management use in health services
3. Describe the framework and organizational structure of HMIS and decision making models
4. Identify information needs and indicators at various levels in the health system
5. Explain the uses of information for effective management of health services

Email: anokhann@jhsph.edu

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

319.609.94 MANAGING NON-GOVERNMENTAL ORGANIZATIONS IN THE HEALTH SECTOR
3 credits - Course offered this year - India
Sadhu, Goutam
The course provides insight into the role of Non-Governmental Organizations (NGOs) in health and development; NGO concepts and philosophy; managerial challenges faced by non-government organizations; administrative, financial and organizational aspects of non-profit organizations. The course also covers the basic approaches of community participation and work being done by them, Community Based Organizations (CBOs) and development partners in this respect.

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

1. Explain role of NGOs in health, development, and community mobilization; describe management and organizational issues and problems in NGO management; skills for setting up goals and management systems for functioning of NGO; legal and institutional aspects.

Email: gsadhu@jhsph.edu

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

International Health

220.600.81 INTERNATIONAL TRAVEL PREPARATION, SAFETY, & WELLNESS

1 credits - Course offered this year - Internet
Kalbarczyk, Anna; Rosenstock, Summer

Prepares students who aim to work and live overseas. Explores the epidemiology of common morbidity and mortality among travelers. Examines key prevention, safety, and travel medicine principles and services to contextualize risks and maintain wellness. Reviews applicable interventions, appropriate vaccines, and personal protection methods to prepare students to respond to expected and unexpected situations. Assists students with personal preparations for travel through country-specific assignments. Challenges students to examine travel health and safety priorities through case studies and discussions.

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

1. Determine what resources and services (visas, consular services, insurance, travel assistance etc.) are required for international travel and work and understand when to engage them
2. Locate and evaluate resources for identifying region-specific health concerns, required immunizations, and travel medicine services
3. Practice safe travel protocols, including registering with your embassy, understanding different organizations’ evacuation plans, and traveling in groups
4. Create a travel plan using knowledge of risks, preventive measures, and interventions as applied to a country
5. Examine ethical dilemmas in global health field experiences
6. Define cultural competence and consider the impact of cultural differences on overseas experiences

Email: akalbarc@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite:

220.608.94 INTERNATIONAL AND GLOBAL HEALTH

4 credits - Course offered this year - India
Departmental Faculty

Introduces students to an international perspective of health, disease, injury, and health systems. Develops requisite knowledge and understanding of globalization and health, global disease burden and international health scenario. Using case studies, students perform a comparative analysis of disease burden in various countries, health systems and policies, in developed and developing countries, health sector reforms and country experiences.

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

1. Describe the global burden of disease and injury
2. Compare health scenarios in developed and developing countries
3. Chart the progress of MDGs; health inequities; comparative analysis of health systems and its components in selected countries; and significant health sector reforms

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

MPH / IIHMR program participants only

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 100 of 149
This course is part of the curriculum of the MPH program which is offered in cooperation with Indian Institute of Health Management Research. It is taught in India, at IIHMR. Only students enrolled in that program will be able to take this course.

**220.800.01 MPH CAPSTONE INTERNATIONAL HEALTH**  
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore  
Departmental Faculty  
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.  
Upon successfully completing this course, students will be able to:  
1. Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience  
Lecture: TBA  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: 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).

**220.810.01 FIELD PLACEMENT DRPH PROGRAM INTERNATIONAL HEALTH**  
variable credits - Course offered this year - East Baltimore  
Information not required for this course type  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Pass/Fail

**220.820.01 THESIS RESEARCH DRPH PROGRAM INTERNATIONAL HEALTH**  
variable credits - Course offered this year - East Baltimore  
Information not required for this course type  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Pass/Fail

**220.840.01 SPECIAL STUDIES AND RESEARCH DRPH PROGRAM INTERNATIONAL HEALTH**  
variable credits - Course offered this year - East Baltimore  
Information not required for this course type  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Pass/Fail

**220.895.01 MPH PRACTICUM: INTERNATIONAL HEALTH**  
variable credits Students who have not met the practicum requirement, must register for at least two credits. - Course offered this year - East Baltimore  
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.  
Upon successfully completing this course, students will be able to:  
1. Demonstrate that they have had a mentored public health practicum experience  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Pass/Fail  
Consent required for all students; Student must receive faculty advisor approval

**221.608.94 MANAGING NON-GOVERNMENTAL ORGANIZATIONS IN THE HEALTH SECTOR**
Sadhu, Goutam

Familiarizes students with the key competencies required for managing NGOs in the health sector. Though many of the situations described in the lectures are taken from the instructor's experiences in managing international NGOs in developing countries, the material presented is applicable in organizational settings in developed countries as well. Topics correspond to the key responsibilities of NGO or health program directors. Lectures present guidelines, best practices, and management tools for the area of responsibility followed by a discussion of the lecturer’s and students’ experiences on those topics. Readings, which provide background information, are assigned for each class.

Upon successfully completing this course, students will be able to:
1. Apply frequently used management tools to fulfill the responsibilities of NGO managers
2. Identify potentially difficult situations and apply appropriate strategies to either resolve them or reduce negative outcomes

Email: gsadhu@jhsph.edu

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Jointly offered with HPM, IH

---

Doocy, Shannon

Examines food aid, food insecurity, and nutritional deficiencies as they appear in different types of humanitarian emergencies. Discusses profiles of major international relief organizations involved in nutrition and food delivery and common programmatic interventions used in response to food crises. Presents data and issues related to current global food-shortages with an emphasis on development of practical skills and knowledge that can be applied in field settings. Students learn to appraise and compare nutrition content, cost, and logistical considerations associated with large-scale feeding programs, assess nutrition status, and consider factors contributing to food security at both the household and regional levels.

Upon successfully completing this course, students will be able to:
1. Define common nutritional deficiencies in emergencies, and specify how these should be corrected
2. Assess the nutrition status of a population and food security at the household level
3. Determine how a food should be distributed, monitored, and targeted
4. Discuss the dynamics of food aid in the emergency context, including policy factors, key organizations involved in provision of food assistance, determinants of receipt of aid, and the location and basis for current food shortages

Email: sdoocy@jhsph.edu

Lecture: W 8:30 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 221.613

---

Merritt, Maria

Provides a forum for discussion and deliberation about ethical issues in the practice of public health (including the conduct of research) in developing countries. Equip students to identify and analyze critical ethical issues and to consider systematically the ethical responsibilities of all parties involved.

Upon successfully completing this course, students will be able to:
1. Identify critical ethical issues in the practice of public health (including research) in developing countries
2. Apply selected conceptual resources to elucidate key ethical concepts operating in case examples of public health practice
3. Consider systematically the ethical responsibilities of actors with decision-making authority over the practice of public health in developing countries
4. Analyze case examples that call for the application of key ethical concepts to developing-country contexts

Email: mmerritt@jhsph.edu

Lecture: M 1:30 PM - 3:20 PM
Enrollment: Minimum 5, Maximum 60, Waitlist Enabled: Yes
No undergraduates
Grading Options: Letter Grade or Pass/Fail

221.616.81 ETHICS OF PUBLIC HEALTH PRACTICE IN DEVELOPING COUNTRIES
2 credits - Course offered this year - Internet
Merritt, Maria
Provides a forum for discussion and deliberation about ethical issues in the practice of public health (including the conduct of research) in developing countries. Equips students to identify and analyze critical ethical issues and to consider systematically the ethical responsibilities of all parties involved.
Upon successfully completing this course, students will be able to:
1. Identify critical ethical issues in the practice of public health (including research) in developing countries
2. Apply selected conceptual resources to elucidate key ethical concepts operating in case examples of public health practice
3. Consider systematically the ethical responsibilities of actors with decision-making authority over the practice of public health in developing countries
4. Analyze case examples that call for the application of key ethical concepts to developing-country contexts
Email: mmerritt@jhsph.edu
Enrollment: Minimum 5, Maximum 60, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: No prerequisites.

221.617.01 BEHAVIORAL ECONOMICS IN HEALTH DECISIONS
2 credits - Course offered this year - East Baltimore
Trujillo, Antonio
Guides students to challenge superficial intuitive judgments that are attractive because they make obvious sense but overlook important considerations that demand more analytical assessment. Human behaviors that then come into play in a more careful analysis are examined for their legitimacy and reasonableness in resolving questions that are traditionally considered to be economic in nature. Where behavioral factors are recognized as relevant we develop ways to blend them with economic perspectives and methods to design balanced action strategies.
Upon successfully completing this course, students will be able to:
1. Employ formal principles of decision analysis for appraisal of alternative courses of action
2. Identify and evaluate the appropriateness of behaviors that commonly affect courses of action that go beyond the application of principles of classical economics
3. Integrate economic and behavioral considerations globally into sound courses of action in practical situations covering varied political settings and income levels
Email: atrujill@jhsph.edu
Lecture: W 8:30 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Microeconomics (313.639) and Biostatistics (140.611 or 140.621) or equivalent

221.620.01 APPLYING SUMMARY MEASURES OF POPULATION HEALTH TO IMPROVE HEALTH SYSTEMS
4 credits - Course offered this year - East Baltimore
Hyder, Adnan
Explores the conceptual basis and application of summary measures of population health status. Presents approaches to measuring the burden of disease in populations and their use for guiding resource allocation and planning efficient and equitable health care systems. Lectures, discussions, and group exercises focus on composite indicators, exploring social and ethical value choices, and assessing the burden of disease at national level.
Upon successfully completing this course, students will be able to:
1. Present approaches to measuring the burden of disease in populations
2. Study the use of SMPH for guiding resource allocation and planning efficient and equitable health care systems
3. Explore social and ethical value choices in calculating SMPH
4. Assess the burden of disease at national level

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 103 of 149
FOURTH TERM - COURSE SCHEDULE 2016-2017

Email: ahyder@jhsph.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment: Minimum 5, Maximum 35, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

221.620.81 APPLYING SUMMARY MEASURES OF POPULATION HEALTH TO IMPROVE HEALTH SYSTEMS
4 credits - Course offered this year - Internet
Hyder, Adnan
Explores the conceptual basis and application of summary measures of population health status. Presents approaches to measuring the burden of disease in populations and their use for guiding resource allocation and planning efficient and equitable health care systems. Lectures, discussions, and group exercises focus on composite indicators, exploring social and ethical value choices, and assessing the burden of disease at national level.
Upon successfully completing this course, students will be able to:
1. Present approaches to measuring the burden of disease in populations
2. Study the use of SMPH for guiding resource allocation and planning efficient and equitable health care systems
3. Explore social and ethical value choices in calculating SMPH
4. Assess the burden of disease at national level
Email: ahyder@jhsph.edu

Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

221.624.81 URBAN HEALTH IN DEVELOPING COUNTRIES
3 credits - Course offered this year - Internet
Baqui, Abdullah
Explores the emerging public health issues associated with rapid growth of urban population in developing countries, with a particular focus on the urban poor. Includes urban demography, epidemiology, changes in urban physical and social environment and their consequences for health, nutritional issues, the inadequacy of conventional health services, and the design and implementation of a coordinated and cost-effective health care system. Introduces these concepts and presents case studies for analysis. Emphasizes sensitizing and capacity-building by exposing public health professionals and researchers to the unique urban health problems of developing countries.
Upon successfully completing this course, students will be able to:
1. Identify the key issues associated with rapid growth of urban population in developing countries
2. Critically analyze some of these issues and their implications for public health
3. Examine methods to deal with the emerging and complex issues of urban health in developing countries by reviewing successful case studies
4. Critically analyze the successes and weaknesses of each case study, the lessons learned from them, and learn to apply the lessons
Email: abaqui@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

221.642.01 MENTAL HEALTH ASPECTS OF DISASTER: PUBLIC HEALTH PREPAREDNESS AND RESPONSE
2 credits - Course offered this year - East Baltimore
Everly, George
Introduces students to core terms and concepts in preparing for the mental health consequences of disasters including psychological and behavioral reactions associated with mass disasters. Prepares students to differentiate between mild psychological and behavioral distress reactions and potentially incapacitating acute reactions and familiarizes students with the long-term mental health consequences of disasters. Examines the public health preparedness and response systems that are in place to address mental health aspects of disaster and explores the present capacity of systems. Reviews consensus recommendations and best practices for addressing mental health consequences of disasters. Identifies vulnerable populations and describes the needs of these populations. Discusses strategic planning for mental health consequences of disasters. Develops skills in Psychological First Aid to assist disaster victims.
Upon successfully completing this course, students will be able to:
1. Define core terms and concepts in mental health crises and disasters

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 104 of 149
Recognize and differentiate between mild psychological reactions and behaviors to disaster versus severe, potentially incapacitating reactions

Plan strategically for the psychological response and care of disaster victims

Identify psychologically vulnerable populations in disasters and plan for their care

Develop skills to perform Psychological First Aid for disaster victims

Email: geveryl@jhsph.edu

Lecture: M 1:30 PM - 3:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Jointly offered with MH

221.644.01 ECONOMETRIC METHODS FOR EVALUATION OF HEALTH PROGRAMS

4 credits - Course offered this year - East Baltimore

Trujillo, Antonio

Introduces students to the application of common econometric methods available to address questions of concern to policy makers, administrators, managers, and program participants regarding evaluation of health programs in low and middle-income countries. Students learn to apply econometric methods in their research and to recognize the limitations in applying the same methods in estimating the impact of a policy intervention. Combines a theoretical development of methods and a numerical application involving continuous dependent variables. Emphasizes the correct use of data in framing relevant questions and understanding the importance as well as the limitations of data analysis in order to equip students with the quantitative skills necessary to evaluate policy alternatives.

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

1. Apply methodological principles and statistical concepts as they relate to the field of program evaluation
2. Conduct econometric analyses of observational data in order to reach conclusions relevant for decision-making processes in international settings
3. Use computer packages to conduct empirical research in impact evaluation

Email: atrujill@jhsph.edu

Lecture: T TH 3:30 PM - 5:20 PM

Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 140.623 or 140.653

Personal laptops preloaded with Stata are required for use during class.

221.645.81 LARGE-SCALE EFFECTIVENESS EVALUATIONS OF HEALTH PROGRAMS

3 credits - Course offered this year - Internet

Baqui, Abdullah; Creanga, Andreea

Uses lecture, live talks, case studies and individual and small-group applications to: review past and current global efforts to evaluate public health programs, (emphasizing newborn and child health in low income countries); define the major methodological challenges in conducting large-scale effectiveness evaluations; describe frequently-used evaluation designs and approaches for data collection and modeling in impact evaluations; discuss interpretation of results and attribution of observed changes to the program being evaluated; and describe strategies for promoting the uptake of results by policy makers and program planners.

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

1. Explain the importance of evaluating the effectiveness of large-scale health programs
2. Prepare a conceptual model linking program inputs to health impact
3. Select appropriate indicators and data collection methods for a large-scale evaluation
4. Describe the main methodological approaches and methods for data collection
5. Assess the advantages and limitations of evaluation design options
6. Interpret the results of the evaluation and discuss whether these can be attributed to the program
7. Communicate effectively with policymakers and implementers throughout the evaluation cycle

Email: abaqui@jhsph.edu

Enrollment: Minimum 10, Maximum 60, Waitlist Enabled: Yes

No undergraduate students

Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning, Knowledge of basic biostatistics and epidemiology.

221.651.01 ECONOMETRICS I
4 credits - Course offered this year - East Baltimore
Trujillo, Antonio
Introduces students to the application of basic statistical methods to economic analyses. They use econometrics to support or reject theories from economics using empirical observation. Students cover the basic concepts behind linear regression models by studying cases where the dependent variable is continuous and is a linear function of the parameters of interest. Improves students' ability to conduct economic analysis using observational data, as economic studies rarely benefit from the availability of controlled experiments. Exercises provide hands-on experience in implementing well-crafted empirical analysis. Students learn to employ tools and methods and compare the results with respect to those obtained from initial estimations based on very restricted assumptions.

Upon successfully completing this course, students will be able to:
1. Apply methodological principles and statistical concepts as they relate to the field of health economics
2. Conduct linear regression analysis of observational data in order to reach conclusions relevant for decision-making processes in both national and international settings
3. Use the STATA computer software package to conduct solid applied empirical research

Email: atrujill@jhsph.edu
Lecture: T TH 8:30 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Recommended for this course are 140.623 or 140.653
Each week, the first section we will cover the conceptual foundation and in the second session students will apply the concepts using a specific dataset. Students will be asked to bring their laptop to the class.
Personal laptops preloaded with Stata are required for use during class.

221.653.81 HOSPITAL-BASED INJURY/TRAUMA SURVEILLANCE IN LOW- AND MIDDLE-INCOME COUNTRIES
3 credits - Course offered this year - Internet
Bachani, Abdulgafoor; Stevens, Kent
Examines the high, and growing, global injury burden with a focus on low- and middle-income countries. Establishes the need for and complexities of establishing and maintaining reliable injury surveillance systems in LMIC. Focuses on training students on the fundamentals of an injury surveillance system in LMIC settings – data needs, collection, coding, processing and use, as well as on evaluation of such systems, and how to sustain them. Prepares students to participate in designing and sustaining hospital-based injury/trauma surveillance systems in LMIC to inform health program planning at the local and national level. Uses case studies to compare and contrast injury surveillance systems in different LMIC settings.

Upon successfully completing this course, students will be able to:
1. Identify, retrieve, and manage injury-related data sources in LMICs
2. Define and understand trauma outcome metrics
3. Critically appraise the reliability and validity of different types of injury surveillance data
4. Develop proposals for the collection of injury data in resource-limited settings

Email: abachani@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Principles of Epidemiology (340.601.01) OR Epidemiologic Methods 1 (340.751.01) OR Fundamentals of Epidemiology (550.694.81 & 550.695.81) OR equivalent formal course in epidemiology

221.655.01 SURGICAL CARE NEEDS IN LOW AND MIDDLE INCOME COUNTRIES (Cancelled - Department)
2 credits - Course offered this year - East Baltimore
Burnham, Gilbert
Explores the components of health systems related to surgical care. Focuses on the global burden of surgical disease and trauma, and deficiencies in surgical capacity in LMICs. Case studies from the US, Sierra Leone and Rwanda illustrate common surgical conditions and needed components for a comprehensive health system. Specific topics include surgical care for Women’s Health, obstetrical or gynecological injury, and trauma care. Discusses the importance of planning for surgical interventions in disaster management and conflict, including the difference between war surgery and military surgery. Also addresses the economic cost and benefit of surgery and surgical care in LMICs.
Upon successfully completing this course, students will be able to:

1. Describe the global burden of surgical disease and identify gaps in current knowledge
2. Identify current research tools for measuring surgical capacity in LMICs
3. Discuss the different types of surgical cases for prevention and treatment of disease and how to plan and incorporate these into health system planning

Email: gburnham@jhsph.edu
Lecture: M 5:30 PM - 7:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Clinical background is not required

221.660.01 SYSTEMS SCIENCE IN PUBLIC HEALTH: BASIC MODELING AND SIMULATION METHODS
3 credits - Course offered this year - East Baltimore
Lee, Bruce; Paina, Ligia
Introduces students to mathematical and computational modeling and simulation methods that can help public health decision makers better understand and improve various systems in public health. Addresses the basic concepts of mathematical and computational modeling and simulation. Covers probability theory, decision analysis, Markov models, compartment models, and systems dynamics models, as well as basics of economic and operational modeling. Introduces TreeAge, and VenSim software. Offers examples of public health systems including both communicable and non-communicable disease control programs (e.g., vaccines, medications, and non-pharmaceutical interventions), dietary and physical activity behaviors and interventions, and healthcare systems and healthcare policy.

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

1. Evaluate and critique a mathematical or computational model and its results
2. Develop a basic mathematical/computational model and apply it to public health issue/questions
3. Translate modeling results to public health decision-making

Email: brucelee@jhu.edu
Lecture: W 3:30 PM - 6:20 PM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 221.654.81 Systems Thinking in Public Health

221.661.01 PROJECT DEVELOPMENT FOR PRIMARY HEALTH CARE IN DEVELOPING COUNTRIES
4 credits - Course offered this year - East Baltimore
Burnham, Gilbert; Edward, Anbrasi
Supplements 220.601 by focusing on the practical problems in the planning, design, implementation, and evaluation of primary health care programs in developing countries. Students design a primary health care program addressing community participation, needs assessment, training and supervision of CHWs, approaches to sustainability, logistics of service delivery, monitoring, and evaluation, and present them to the class.

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

1. Write realistic, appropriate and measurable project objectives
2. Develop an implementation strategy for a primary health care project
3. Create a health monitoring and evaluation component for the project
4. Write a budget and the narrative summary for the project you have designed
5. Conduct a 30-cluster household survey measuring child health indicators

Email: gburnham@jhsph.edu
Lecture: M W 3:30 PM - 5:20 PM
Enrollment: Minimum 10, Maximum 45, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

221.810.01 HEALTH SYSTEMS PRACTICUM
variable credits field placement - Course offered this year - East Baltimore
Alonge, Olakunle; Creanga, Andreea

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 107 of 149
Complements and reinforces the didactic portion of the MSPH program. Provides students with an opportunity to apply the knowledge gained during the first year, to develop skills in management of health programs in low- and middle-income countries according to individually designed learning objectives, and to work as part of a team in an applied research or practice project. Students are placed in a variety of professional settings, which may include: government, non-government organizations (NGOs), multi-lateral, private, and/or for-profit sector. Provide opportunity for feedback for student performance and placement experience

Upon successfully completing this course, students will be able to:
1. Integrate and apply methods and skills learned in courses taken on the first year of the MSPH in a practical setting.
2. Develop new skills essential for functioning as an effective global health professional, in assuming responsibility on the ground and becoming a reliable and collaborative member of a project team, an effective communicator, writer, trainer and implementer.
3. Evaluate a program or field project as it relates to the management and control of health problems of public health importance in resource poor settings
4. Develop a proposal, take initiative, provide direction, and participate in the implementation, evaluation and/or analysis required to establish and achieve project goals.
5. Communicate effectively, manage relationships and participate in teams
6. To allow for the seamless transition from student to public health professional.

Email: oalonge@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

221.820.01 THESIS RESEARCH HEALTH SYSTEMS
variable credits thesis research - Course offered this year - East Baltimore
Departmental Faculty

Students actively conduct research on topics of global health importance, including developing a research question, designing a study to answer the question, conducting the research and writing up the results in a scientific format.

This course will prepare you to be able to do the following:
1. Identify research questions of importance to health in underserved populations in low resource settings internationally and in the US.
2. Design a study or studies to answer the questions.
3. Develop an application to an Institutional Review Board to address human subjects research issues
4. Write up the results of research for the scientific literature

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

221.830.01 POSTDOCTORAL RESEARCH HEALTH SYSTEMS
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

221.840.01 SPECIAL STUDIES AND RESEARCH HEALTH SYSTEMS
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

221.850.01 MSPH CAPSTONE HEALTH SYSTEMS
variable credits 2-16 - Course offered this year - East Baltimore
Departmental Faculty
Offers students an opportunity to integrate and apply program skills and competencies to a public health problem in a format that approximates a professional practice experience. Fosters students’ ability to produce scholarly papers that provide a meaningful contribution to knowledge of the health of underserved populations. Guides students' development of tangible evidence of expertise that addresses specific applied topics relevant to international health.

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

1. Develop a concise and cohesive written document that defines a public health problem, a population of interest, and have a defined geographic scope
2. Conduct a comprehensive literature review
3. Synthesize relevant literature in a specific Public Health topic
4. Analyze and present public health data in a scholarly paper

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only for MSPH Health Systems students in their 2nd year
Grading Options: Pass/Fail
Prerequisite: All other MSPH HS requirements must be taken before or concurrently with the capstone project.

221.860.01 HEALTH SYSTEMS PROGRAM SEMINAR
1 credits - Course offered this year - East Baltimore
Constenla, Dagna; Rao, Krishna
Familiarizes Health Systems students with ongoing faculty research and activities, professionals and organizations in the field of international health, and provides a forum for discussion for current topics in health systems and international health.

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

Email: dconsten@jhsph.edu
Lecture: T 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Enrollment is restricted to MSPH and Doctoral students in the Health Systems Program area and International Health DrPH students.
Grading Options: Pass/Fail

221.861.01 DOCTORAL SEMINAR IN HEALTH SYSTEMS
1 credits - Course offered this year - East Baltimore
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

Email: crobinso@jhsph.edu
Lecture: TH 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

222.649.01 INTERNATIONAL NUTRITION
3 credits - Course offered this year - East Baltimore
Thorne-Lyman, Andrew; West, Keith
Presents major nutritional problems that influence the health, survival, and developmental capacity of populations in developing societies. Covers approaches implemented at the household, community, national, and international levels to improve nutritional status. Explores the degree to which malnutrition can be prevented or reduced prior to achieving full economic development through targeted public and private sector interventions that address the causes of malnutrition.

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

1. Describe and discuss contemporary public health nutrition problems facing low-income countries

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 109 of 149
2. Apply conventional epidemiologic, nutritional, demographic, and health economic concepts and indicators in characterizing nutrition problems and interventions in low income populations.

3. Develop a profile of nutrition and health problems in a low-income country and evaluate national approaches to prevention.

Email: kwest@jhsph.edu

Lecture: T TH 3:30 PM - 4:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: There are no formal prerequisites for taking the course. However, students are expected to be familiar with basic principles of human nutrition, nutritional assessment and the types and causes of malnutrition, and in resource constraints faced by many low-income countries. Students are strongly encouraged to use this opportunity to broaden their reading in these areas during the term in order to participate in an informed way in class discussions.

222.649.81 INTERNATIONAL NUTRITION (Cancelled - Department)

3 credits - Course offered this year - Internet

West, Keith

Presents major nutritional problems that influence the health, survival, and developmental capacity of populations in developing societies. Covers approaches implemented at the household, community, national, and international levels to improve nutritional status. Explores the degree to which malnutrition can be prevented or reduced prior to achieving full economic development through targeted public and private sector interventions that address the causes of malnutrition.

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

1. Describe and discuss contemporary public health nutrition problems facing low-income countries

2. Apply conventional epidemiologic, nutritional, demographic, and health economic concepts and indicators in characterizing nutrition problems and interventions in low income populations

3. Develop a profile of nutrition and health problems in a low-income country and evaluate national approaches to prevention

Email: kwest@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: There are no formal prerequisites for taking the course. However, students are expected to be familiar with basic principles of human nutrition, nutritional assessment and the types and causes of malnutrition, and in resource constraints faced by many low-income countries. Students are strongly encouraged to use this opportunity to broaden their reading in these areas during the term in order to participate in an informed way in class discussions.

222.652.81 NUTRITION IN DISEASE TREATMENT AND PREVENTION

3 credits - Course offered this year - Internet

Murray-Kolb, Laura

Reviews the underlying nutritional components and pathophysiology of common human diseases/disorders. Focuses on the metabolic disturbances occurring with these diseases. Also emphasizes nutrition therapy approaches for the prevention and care of these diseases. Topics include nutritional aspects of diabetes, GI diseases, obesity, renal diseases, cardiovascular disease, eating disorders, HIV and severe malnutrition among others.

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

1. Explain the underlying nutritional aspects of several common diseases

2. Define a nutrition therapy plan for each of these chronic diseases

3. Integrate pathophysiology into their nutrition therapy recommendations

4. Discuss prevention theories and guidelines for each of these diseases

5. Critically evaluate scientific literature dealing with nutritional aspects of selected disease states

Email: lmurrayk@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Undergraduate level courses on nutrition, metabolism and physiology (examples of some graduate level courses from JHSPH that qualify: Advanced Nutrient Metabolism - 222.651; Nutritional Biochemistry - 222.644; Principles of Human Nutrition - 222.641).
222.653.01 FOOD TECHNOLOGY AND HEALTH

3 credits - Course offered this year - East Baltimore

Fahey, Jed

Discusses nutritional, chemical, physical, and technological perspectives of food, food ingredients, food quality, food safety, and the regulation thereof. Focuses on the core constituents of foods, and examines the non-nutritional (phytochemical, flavor, pigment, texture and fragrance) constituents of whole foods and food products and their impact on health. Evaluates food delivery and production systems, and specific eating patterns. Critical discussions of food range from the history of food and global dietary staples to probiotics, prebiotics, and the gut microbiome. Sustainability and urban gardening are juxtaposed with institutional food preparation, additives, processing, product development, and the regulatory framework surrounding food and supplements.

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

1. Apply knowledge of food science and technology to food production and the functions of food ingredients
2. Apply microbiological and chemical considerations to process controls involved in food production, processing, preparation, storage, packaging, preservation, metabolism, and bioavailability
3. Balance the differing philosophies that impact our food supply, its regulation, and the food options and cultural aspects of food and eating
4. Describe the basics of sensory science and testing and evaluate how this impacts ingredient sourcing decisions, culinary techniques, and the promotion of pleasurable eating
5. Demonstrate the complexities of regulating food supplies

Email: jfahey@jhsph.edu

Lecture: M W 10:30 AM - 11:50 AM

Enrollment: Minimum 4, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Preference is given to Human Nutrition/RD students
Two local (lunch time) field trips required.

222.654.01 FOOD, CULTURE, AND NUTRITION

4 credits - Course offered this year - East Baltimore

Gittelsohn, Joel

Introduces the bio-cultural influences on nutrition and their relevance to international and domestic public health research and programs. Topics include theoretical and methodological issues in nutritional anthropology, an overview of social scientific contributions to nutrition focusing on cultural perspectives of infant feeding, social impacts on under- and overnutrition, comparisons of Eastern and Western traditions of nutrition and the role of nutritional anthropology in the development of public health interventions.

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

1. Understand the significance of culture as it relates to food behavior and nutritional status in contemporary human populations
2. Discuss how culture interacts conceptually with other aspects of human existence (behavior, social, historical, economic, etc.)
3. Describe some of the main theoretical approaches that have been used to guide nutrition interventions
4. Apply cultural and behavioral information to the development, implementation and evaluation of nutrition intervention programs

Email: jgittels@jhsph.edu

Lecture: M W 1:30 PM - 3:20 PM

Enrollment: Minimum 6, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Students must get consent from instructor prior to registering
2 credits - Course offered this year - **East Baltimore**
Caulfield, Laura
Examines the factors influencing dietary patterns and food choices in the U.S. and internationally. Focuses on modifying recipes, calculation of nutritional information for foods and recipes, and on planning, analyzing and evaluating dietary choices and patterns using the Nutrition Data System for Research (NDSR) software program and food composition tables, so that they meet guidelines for overall health and wellbeing.
Upon successfully completing this course, students will be able to:
1. Translate dietary recommendations into daily food choices to meet guidelines for healthy living in a public health setting.
2. Use the NDSR software program and food composition tables to modify recipes, calculate nutritional information for foods and recipes, and plan, analyze and evaluate dietary choices and patterns.
3. Explain the underlying principles for costing and scaling-up of recipes for volume food production.

Email: lcaulfie@jhsph.edu
Lecture: T 1:30 PM - 2:20 PM
Lab Section: 01 F 10:00 AM-11:50 AM
Enrollment: Minimum 4, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent is required for non-HN program students.
Prerequisite: Principles of Human Nutrition (222.641), Assessment of Nutritional Status (222.642), or Nutritional Epidemiology (222.647) or equivalent classes elsewhere.
Labs have changed from Thursday afternoon to Fridays 10a-12p. They will be held in a computer lab.

**222.810.01 HUMAN NUTRITION PRACTICUM**
variable credits field placement - Course offered this year - **East Baltimore**
Hurley, Kristen
Complements and reinforces the didactic portion of the MSPH program. Provides students with an opportunity to apply the knowledge gained during the first year, to develop field, laboratory, or clinical skills related to nutrition research or programs according to individually designed learning objectives, and to work as part of a team in an applied research or practice project. Students are placed in a variety of professional settings, which may include: government, non-government organizations (NGOs), university projects, and multi-lateral, private, and/or for-profit sector. Practicum locations exist in the US and typically most regions of the world. Provide opportunity for feedback for student performance and placement experience.
Upon successfully completing this course, students will be able to:
1. Integrate and apply methods and skills learned in courses taken on the first year of the MSPH in a practical setting.
2. Develop new skills essential for functioning as an effective global health professional, in assuming responsibility on the ground and becoming a reliable and collaborative member of a project team, an effective communicator, writer, trainer and implementer.
3. Evaluate a program or field project as it relates to public health nutrition.
4. Integrate and understand knowledge through critical literature reviews, and analysis and interpretation of scientific data.
5. Develop a proposal, take initiative, provide direction, and participate in the implementation, evaluation and/or analysis required to establish and achieve project goals.
6. Communicate effectively, manage relationships and participate in teams.
7. To allow for the seamless transition from student to public health professional.

Email: khurley@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**222.820.01 THESIS RESEARCH HUMAN NUTRITION**
variable credits thesis research - Course offered this year - **East Baltimore**
Departmental Faculty
Students actively conduct research on topics of global health importance, including developing a research question, designing a study to answer the question, conducting the research and writing up the results in a scientific format.
This course will prepare you to be able to do the following:
1. Identify research questions of importance to health in underserved populations in low resource settings internationally and in the US.
2. Design a study or studies to answer the questions.
3. Develop an application to an Institutional Review Board to address human subjects research issues.
4 Write up the results of research for the scientific literature

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

222.830.01 POSTDOCTORAL RESEARCH HUMAN NUTRITION
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

222.840.01 SPECIAL STUDIES AND RESEARCH HUMAN NUTRITION
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

222.850.01 MSPH CAPSTONE HUMAN NUTRITION
variable credits 2-16 - Course offered this year - East Baltimore

Departmental Faculty

Offers students an opportunity to integrate and apply program skills and competencies to a public health problem in a format that approximates a professional practice experience. Fosters students’ ability to produce scholarly papers that provide a meaningful contribution to knowledge of the health of underserved populations. Guides students’ development of tangible evidence of expertise that addresses specific applied topics relevant to international health.

Upon successfully completing this course, students will be able to:
1 Develop a concise and cohesive written document that defines a public health problem, a population of interest, and have a defined geographic scope
1 Conduct a comprehensive literature review
2 Synthesize relevant literature in a specific public health topic
3 Analyze and present public health data in a scholarly paper

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only for MSPH Human Nutrition students in their 2nd year
Grading Options: Pass/Fail
Prerequisite: All other MSPH HN requirements must be taken before or concurrently with the capstone project.

222.860.01 GRADUATE NUTRITION SEMINAR
1 credits - Course offered this year - East Baltimore

Palmer, Amanda

Exposes students to the breadth of interests represented by Center for Human Nutrition faculty, as well as a range of researchers, clinicians, policymakers, and practitioners from the larger Johns Hopkins community and organizations such as the US Department of Agriculture (USDA), the National Institutes of Health (NIH), and UN Agencies. Specific topics vary over time. Emphasizes active listening, as well as the critical evaluation of research, practice, and policy.

Upon successfully completing this course, students will be able to:
1 Cite examples of state-of-the-art research, policy, or practice in the field of public health nutrition based on presentations by faculty and/or visiting speakers
2 Identify areas of overlapping interest with seminar speakers that may be of relevance to MSPH practicums, MPH capstone projects, or doctoral research
3 Recognize the features of an engaging presentation

Email: apalme17@jhu.edu
Lecture: T 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
FOURTH TERM - COURSE SCHEDULE 2016-2017

Prerequisite:

**222.861.01 DOCTORAL SEMINAR IN PROPOSAL DEVELOPMENT**

1 credits - Course offered this year - **East Baltimore**

Caulfield, Laura

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

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

Email: lcaulfie@jhsph.edu

Lecture: TBA

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
doctoral students only

Grading Options: Pass/Fail

**223.632.01 METHODS FOR PLANNING AND IMPLEMENTING EVALUATIONS OF LARGE-SCALE HEALTH PROGRAMS IN LOW AND MIDDLE INCOME COUNTRIES**

4 credits - Course offered this year - **East Baltimore**

Amouzou, Agbessi; Munos, Melinda

Prepares students to design, implement, and analyze large-scale evaluations of health programs, focusing on low and middle income settings. Provides students with the skills to conduct household surveys, assessments of provider readiness and quality of care, and documentation of contextual factors, as well as overall planning, design, and analysis of program evaluations. Focuses on adaptation, development, and refinement of project-specific tools; sampling and sample size calculations; and various analytical methods appropriate for program evaluations.

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

1. Justify a rigorous, feasible, and appropriate evaluation design for a particular program, considering constraints due to time, budget, capacity, and program design.
2. Generate an evaluation plan and timeline
3. Identify an appropriate comparison area for a quasi-experimental evaluation, based on available data
4. Calculate the appropriate sample sizes for the overall evaluation and for individual data collection activities
5. Propose an appropriate sampling design for household and provider assessments for large-scale evaluations
6. Create program-specific instruments for measuring program implementation and quality of care
7. Create a program-specific household survey to measure intervention coverage and impact.
8. Perform analyses of evaluation data, including difference in differences analyses, hierarchical models, and small area estimation.

Email: mmunos@jhsph.edu

Lecture: T TH 8:30 AM - 9:50 AM

Lab Section: 01 TH 1:30 PM-3:20 PM

Lab Section: 02 TH 3:30 PM-5:20 PM

Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes

Graduate students only.

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for any student who has not taken one of the prerequisite courses.

Prerequisite: Students must have taken either 221.645 or 380.611 and must have taken 140.623 or 140.653 (or receive consent from the instructors)

Students must attend one of the lab times each week.
FOURTH TERM - COURSE SCHEDULE 2016-2017

223.672.81 DATA MGMT METHODS IN HEALTH RESEARCH STUDIES (Cancelled - Department)
5 credits - Course offered this year - Internet
Holt, Elizabeth
Presents data management techniques needed to implement a health research study in domestic and international settings. Discusses methods of designing and monitoring patient data flow, with an emphasis on data collection, editing, documentation, management, and preparation for analysis using database software packages. Involves lectures and completion of a tutorial designed to build data management skills. Geared to students preparing to undertake research.

Upon successfully completing this course, students will be able to:
1. Develop a coding guide for a data collection instrument
2. Edit collected data and document edit decisions
3. Design a double data entry system
4. Design a system to identify out-of-range and illogical values, document the related edit decisions, and produce a cleaned data table in preparation for analysis
5. Prepare administrative reports
6. Prep data for analysis
7. Evaluate an operations manual for a research study
8. Evaluate questionnaires for format, design, content, wording, coding, etc.

Email: eholt@jhsph.edu

Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
No audits.

223.680.01 GLOBAL DISEASE CONTROL PROGRAMS AND POLICIES
4 credits - Course offered this year - East Baltimore
Labrique, Alain
Presents the history, social and political context, organization, technical content, funding and evaluation of current, major, global initiatives for disease control. Emphasizes programs focused on health problems of the developing world and includes, initiatives for vaccines and immunization, non-communicable diseases, Integrated Management of Childhood Illness (IMCI) and Integrated Community Case Management (ICCM), safe motherhood and reproductive health, neonatal health, malaria, Neglected Tropical Diseases, HIV, TB, tobacco control, nutritional interventions and injury control. Also examines the process of policy formulation and resource allocation to international health and disease control.

Upon successfully completing this course, students will be able to:
1. Explain the development, organization and funding of global disease control programs
2. Describe programmatic approaches for controlling selected major causes of death and disability in developing countries
3. Discuss program and policy implementation obstacles and approaches to overcoming them
4. Critically evaluate the strengths, weaknesses and the sustainability of disease control programs and policies

Email: alabriqu@jhsph.edu

Lecture: M W 1:30 PM - 3:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.601 or 340.751 or 340.721

223.680.81 GLOBAL DISEASE CONTROL PROGRAMS AND POLICIES
4 credits - Course offered this year - Internet
Labrique, Alain
Presents the history, social and political context, organization, technical content, funding and evaluation of current, major, global initiatives for disease control. Emphasizes programs focused on health problems of the developing world and includes, initiatives for vaccines and immunization, non-communicable diseases, Integrated Management of Childhood Illness (IMCI) and Integrated Community Case Management (ICCM), safe motherhood and reproductive health, neonatal health, malaria, Neglected Tropical Diseases, HIV, TB, tobacco control, nutritional interventions and injury control. Also examines the process of policy formulation and resource allocation to international health and disease control.

Upon successfully completing this course, students will be able to:
1. Explain the development, organization and funding of global disease control programs
2. Describe programmatic approaches for controlling selected major causes of death and disability in developing countries
3 Discuss program and policy implementation obstacles and approaches to overcoming them

4 Critically evaluate the strengths, weaknesses and the sustainability of disease control programs and policies

Email: alabriqu@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introduction to Online Learning and 340.601 or 340.721

223.682.60 CLINICAL AND EPIDEMIOLOGIC ASPECTS OF TROPICAL DISEASES

4 credits - Course offered this year - East Baltimore

Sack, David; Talaat, Kawsar

Discusses major parasitic, viral, and bacterial diseases of developing countries. Presents clinical aspects of the disease, including diagnosis and treatment, and epidemiological aspects. Familiarizes students with the major infectious diseases that are prevalent and of public health importance in tropical and developing countries.

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

1 Recognize and cite examples of the major infectious diseases that are prevalent and of public health importance in tropical and developing countries

2 Differentiate the clinical presentations of many of the tropical diseases of public health importance, including their modes of transmission, geographic distribution, means of diagnosis and modes of treatment

3 Appraise and assemble the resources available for gathering information on other tropical diseases

4 Evaluate the general recommendations for travelers visiting developing countries where transmission of tropical diseases is a risk

5 Debate programmatic strategies for improved disease control of select agents

Email: ktalaat@jhsph.edu

Lecture: T TH 1:30 PM - 2:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Understanding of basic biomedical concepts and terminology

This course blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. This class will meet twice a week. Students are expected to spend 1 hour a week on class work in addition to regular homework.

Learning Materials:

(Book) Control of Communicable Diseases Manual
Heymann, David L
Amazon $42.93

Comment: Mathews Book Center $50.00

223.682.81 CLINICAL AND EPIDEMIOLOGIC ASPECTS OF TROPICAL DISEASES

4 credits - Course offered this year - Internet

Sack, David; Talaat, Kawsar

Discusses major parasitic, viral, and bacterial diseases of developing countries. Presents clinical aspects of the disease, including diagnosis and treatment, and epidemiological aspects. Familiarizes students with the major infectious diseases that are prevalent and of public health importance in tropical and developing countries.

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

1 Recognize and cite examples of the major infectious diseases that are prevalent and of public health importance in tropical and developing countries

2 Differentiate the clinical presentations of many of the tropical diseases of public health importance, including their modes of transmission, geographic distribution, means of diagnosis and modes of treatment
3. Appraise and assemble the resources available for gathering information on other tropical diseases.

4. Evaluate the general recommendations for travelers visiting developing countries where transmission of tropical diseases is a risk.

5. Debate programmatic strategies for improved disease control of select agents.

Email: ktalaat@jhsph.edu

Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes

Graduate students only. Undergraduates must take course 223.682.60

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introduction to Online Learning; Understanding of basic biomedical concepts and terminology

Learning Materials:

(Book) Control of Communicable Diseases Manual
Heymann, David L
Amazon $42.93
Comment: Mathews Book Center $50.00

223.689.01 BIOLOGIC BASIS OF VACCINE DEVELOPMENT

3 credits - Course offered this year - East Baltimore

Durbin, Anna

Provides an overview of the biologic basis for development and evaluation of new viral, bacteriologic, parasitic, and cancer vaccines. Lectures address the fundamental immunologic concepts of correlates of protective immunity underlying current and new strategies for immunization. Emphasizes the use of new technologies for expression of vaccine antigens, including recombinant DNA techniques and use of novel adjuvants and antigen-carrier systems to enhance the delivery/presentation of specific immunogens to effector sites.

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

1. Identify and describe the biological obstacles preventing development of effective vaccines for several important human pathogens
2. Identify, analyze, and critique cutting-edge strategies for approaching these obstacles
3. Describe several molecular mechanisms by which various adjuvants may potentiate vaccine induced immune responses
4. Identify and explain multiple differences between the natural immune response to pathogens and the vaccine induced immune response to targeted antigens
5. Analyze and explain the implications for bio-defense of vaccine related work on various pathogens
6. Describe the advantages and disadvantages of several viral and bacterial vectors for the delivery of recombinant vaccine antigens or DNA
7. Discuss the three signals necessary to trigger a primary immune response to a candidate vaccine antigen
8. Discuss the important role that vaccine type (i.e. live vs. killed vs. subunit) and route of administration (IM vs. ID) can play in determining the types of immune responses elicited by immunization

Email: adurbin@jhsph.edu

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

Enrollment: Minimum 8, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 260.611-612, or equivalent knowledge of principles of modern immunology

Jointly offered with Molecular Microbiology and Immunology

223.690.01 THE DESIGN AND ANALYSIS OF CLUSTER RANDOMIZED TRIALS

2 credits - Course offered this year - East Baltimore

Moulton, Lawrence

Covers the major concepts and methods in the design and analysis of trial in which the unit of randomization is a group of participants. Focuses on design: discusses unmatched, matched, stepped wedge, and other approaches, with particular attention paid to randomization and sample size considerations. Presents a variety of methods for the analysis of these correlated-outcomes studies. Includes special aspects of infectious disease interventions.

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 117 of 149
Upon successfully completing this course, students will be able to:

1. Identify when a cluster randomized trial may be preferable to an individually randomized trial
2. Determine optimal design strategies for enabling estimation of efficacy and effectiveness parameters of interest
3. Conduct and interpret statistical analyses appropriate to these designs

Email: lmoulton@jhsph.edu
Lecture: T 3:30 PM - 5:20 PM

Enrollment: Minimum 6, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Biostatistics 621, 622, 623, 624 or equivalent sequence.

223.691.01 MODELING CHANGE IN MATERNAL, NEONATAL AND CHILD MORTALITY (Cancelled - Department)
2 credits - Course offered this year - East Baltimore
Friberg, Ingrid

Introduces students to the new Lives Saved Tool (LiST) software, which is used widely in the international health and development field, and helps countries, NGOs, and other partners understand the causal impacts of health interventions on maternal, neonatal and child mortality in developing countries. Acquaints students with methods on using epidemiological data effectively in decision making; focuses on understanding both the input and outputs of the LiST tool, as well as examining limitations of this methodology; develops the skills to appropriately manipulate publicly available data to create population and health projections.

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

1. Explain the development of the Lives Saved Tool (LiST), including history, relevant data sources and methodology
2. Develop comprehensive country-specific projection models for the Spectrum software, including LiST, Demography, Family Planning and AIDS Impact (AIM) modules
3. Correctly interpret results derived from LiST and Spectrum and be able to troubleshoot their own and others projections
4. Identify the strengths, weaknesses, uses and limitations of the LiST model
5. Communicate accurately, and in a nuanced fashion, the results of a LiST analysis to policy makers

Email: ifriberg@jhsph.edu
Lecture: T 3:30 PM - 4:20 PM

Enrollment: Minimum 5, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: International health or equivalent required.

The Spectrum (LiST) software runs on Windows and is not compatible with MACs. For students without access to Windows, the software will be available on the computers in the two laboratory classrooms. If students wish to use a MAC, ‘Parallels’ can be used to run Windows. Access to a Spectrum (LiST) compatible computer will be needed for all laboratory sessions and homework assignments; all laboratory sessions will be held in the computer lab.

223.705.81 CLINICAL VACCINE TRIALS AND GOOD CLINICAL PRACTICE (GCP)
4 credits - Course offered this year - Internet
Chou, Victoria

Clinical Vaccine Trials and Good Clinical Practice (GCP) provides students with background and tools needed to guide conduct of Phase I and II clinical vaccine trials in a healthy population according to the standards of GCP. Addresses both FDA Code of Federal Regulations and ICH GCP Guidelines needed for domestic and international clinical trials. Introduces the following topics: vaccine administration and types, phases of clinical trials, GCP guidelines and human subjects protection including the responsibilities of ethical review committees and sponsors, steps to develop and implement a vaccine trial protocol including product management, data collection and management, quality assurance and quality control (QA/QC), recruitment and community outreach, and safety management and reporting.

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

1. Develop documents and resources required for the design, enrollment, and conduct of real-world clinical vaccine trials in accordance with the international GCP and the US Food and Drug Administration (FDA) regulations.
2. Understand the ethical framework and standards of GCP with special consideration given when clinical trials enroll children or are conducted in resource-poor settings.
3. Develop processes for operational tasks including: collection and management of study data, quality assurance/quality control (QA/QC) oversight, and proper maintenance and monitoring of study products.
4. Develop study procedures and related materials for the conduct of a trial from community education and recruitment of vaccine trial volunteers to enrollment and subsequent identification, management, documentation, and reporting of adverse events and serious adverse events.

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 118 of 149
FOURTH TERM - COURSE SCHEDULE 2016-2017

Email: vchou@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
No Undergraduate Students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Before enrolling in Clinical Vaccine Trials and Good Clinical Practice (GCP), you must have successfully completed Introduction to Online Learning (550.002.81), offered by the Distance Education Division. For more information and to register, go to http://courseplus.jhu.edu/core/index.cfm/go/course.home/cid/90/
No auditors or undergraduates.

Learning Materials:
(Other) FDA Good Clinical Practice Reference Guide
clinicalresearchresources.com $18.95

223.810.01 GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PRACTICUM
variable credits field placement - Course offered this year - East Baltimore
Tam, Yvonne
Complements and reinforces the didactic portion of the MSPH program. Provides students with an opportunity to apply the knowledge gained during the first year, to develop skills in epidemiologic and data analysis skills applied to diseases of importance in low and middle income countries according to individually designed learning objectives, and to work as part of a team in an applied research or practice project. Students are placed in a variety of professional settings, which may include: government, non-government organizations (NGOs), multi-lateral, private, and/or for-profit sector. Provide opportunity for feedback for student performance and placement experience
Upon successfully completing this course, students will be able to:
1  Integrate and apply knowledge, methods and skills learned in courses taken on the first year of the MSPH in a practical setting, to allow for the seamless transition from student to public health professional.
2  Develop new skills essential for functioning as an effective global health professional, in assuming responsibility on the ground and becoming a reliable and collaborative member of a project team, an effective communicator, writer, trainer and implementer.
3  Evaluate a program or field project as it relates to the socio-cultural and health context, behavioral and health impact, community involvement and program process.
4  Develop a proposal, and/or report, or other written document that analyzes and synthesizes public health data related to their practicum.
5  Take initiative, provide direction, and participate in the implementation, evaluation and/or analysis required to establish and achieve project goals.
6  Communicate effectively, manage relationships and participate in teams

Email: ytam@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

223.820.01 THESIS RESEARCH DISEASE CONTROL
variable credits thesis research - Course offered this year - East Baltimore
Departmental Faculty
Students actively conduct research on topics of global health importance, including developing a research question, designing a study to answer the question, conducting the research and writing up the results in a scientific format.
This course will prepare you to be able to do the following:
1  Identify research questions of importance to health in underserved populations in low resource settings internationally and in the US.
2  Design a study or studies to answer the questions.
3  Develop an application to an Institutional Review Board to address human subjects research issues
4  Write up the results of research for the scientific literature

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

223.830.01 POSTDOCTORAL RESEARCH DISEASE CONTROL
variable credits - Course offered this year - East Baltimore
223.840.01 SPECIAL STUDIES AND RESEARCH DISEASE CONTROL
variable credits - Course offered this year - East Baltimore

Information not required for this course type

223.850.01 MSPH CAPSTONE GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL
variable credits 2-16 - Course offered this year - East Baltimore
Departmental Faculty

Offers students an opportunity to integrate and apply program skills and competencies to a public health problem in a format that approximates a professional practice experience. Fosters students' ability to produce scholarly papers that provide a meaningful contribution to knowledge of the health of underserved populations. Guides students' development of tangible evidence of expertise that addresses specific applied topics relevant to international health.

Upon successfully completing this course, students will be able to:
1. Develop a concise and cohesive written document that defines a public health problem, a population of interest, and have a defined geographic scope
2. Conduct a comprehensive literature review
3. Synthesize relevant literature in a specific public health topic
4. Analyze and present public health data in a scholarly paper

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only for MSPH GDEC students in their 2nd year
Grading Options: Pass/Fail
Prerequisite: All other MSPH GDEC requirements must be taken before or concurrently with the capstone project.

223.860.01 GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM SEMINAR
1 credits - Course offered this year - East Baltimore
Tam, Yvonne; Yori, Pablo

Explores a variety of tools and methods applied by GDEC faculty to conduct public health research with a focus on hands-on skills building. Specific sessions address: data sources, including datasets that are publicly available; development of a basic statistical plan; use and interpretation of modeling tools; field data collection; data management methods; and data analysis.

Upon successfully completing this course, students will be able to:
1. Develop skills needed for public health practice, including problem-solving, analytic thinking, communication, and collaboration.
2. Interpret key publications related to global disease control programs and research
3. Apply new knowledge and problem-solving skills to address public health issues

Email: ytam@jhsph.edu
Lecture: M 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to Global Disease Epidemiology and Control MSPH students.
Grading Options: Pass/Fail
Consent required for all students; Limited to GDEC MSPH students

223.861.01 GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM DOCTORAL SEMINAR
1 credits - Course offered this year - East Baltimore
Mullany, Luke

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 120 of 149
Create a focused, small group environment for the entering PhD students, which actively engages them in relevant, challenging content necessary for success in the PhD program. The content of the seminar will support and extend beyond those topics taught in the classroom setting. The doctoral student education does not merely consist of successful completion of required courses—each student is expected to become a leading scientific expert during the years spent at JHU. It provides an opportunity to engage with senior faculty and move meaningfully toward selection of a dissertation topic and the skills necessary to successfully complete the PhD.

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

1. Engage in intellectual discussion on a range of topics, including research study design, aims, and methods, career trajectories, doctoral level skill-sets, etc.
2. Intelligently discuss the role of research in the improvement of the health status of populations throughout the world.
3. Constructively critique research methods employed by public health scientists.
4. Formulate research questions that may develop into dissertation topics.

Email: lmullany@jhsph.edu

Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
IH doctoral students
Grading Options: Pass/Fail

224.691.01 QUALITATIVE DATA ANALYSIS
3 credits - Course offered this year - East Baltimore
Harvey, Steve

Combines lecture and hands-on exercises and work with individual data to guide students through several approaches to managing and analyzing qualitative data in the context of both international and domestic public health research. Offers instruction in how to create efficient and accessible qualitative databases, apply different coding and other analytic strategies to different types of qualitative data, write analytical memos, and present qualitative results in forms appropriate for different target audiences—both academic and programmatic. Provides a brief introduction to the use of computer-aided qualitative data analysis software (CAQDAS).

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

1. Manage qualitative data in an efficient and accessible manner.
2. Develop a qualitative data analysis plan.
3. Choose and apply different inductive and deductive approaches to coding appropriate to the data type and the context in which results will be used.
4. Employ and write analytical memos to aid in interpretation of qualitative data.
5. Use the basic functions of computer-aided qualitative data analysis software.
6. Present qualitative findings in different settings using formats appropriate for different audiences.
7. Write a qualitative paper in the form of a peer-reviewed journal article or a consulting report for policy-makers or program implementers.

Email: sharvey@jhsph.edu
Lecture: M W 9:00 AM - 10:20 AM
Enrollment: Minimum 18, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Anyone who has not met the prerequisite
Prerequisite: 224.690 or permission of instructor
Terms graded individually

224.692.01 FORMATIVE RESEARCH FOR BEHAVIORAL AND COMMUNITY INTERVENTIONS
4 credits - Course offered this year - East Baltimore
Leontsini, Elli

Examines how to conduct formative research and use its findings in the many stages of developing, implementing and evaluating public health interventions. Discusses cross-cutting issues in study design, community entry and involvement, data sharing and use, as well as staff development and supervision. Presents and explores case studies of multi-method formative research, and the use of the data collected to develop more effective behavioral and community interventions. Examples presented and analyzed include programs to prevent and control HIV/AIDS, malaria, dengue hemorrhagic fever, diarrhea and neonatal mortality in Latin America, Africa and Asia.
Upon successfully completing this course, students will be able to:

1. Formulate formative research questions appropriate for each stage in intervention development, implementation and evaluation process.
2. Identify appropriate guiding theories and methodologies, and integrate them into a formative research protocol.
3. Prepare for coordinating a formative research component in the field, including capacity building, and sharing of data with community and partners in forums and meetings.
4. Review, learn and critique current theories and methodologies taken, and ways in which data are utilized, in selected case studies.

Email: eleontsi@jhsph.edu

Lecture: M F 10:30 AM - 11:50 AM
Lab Section: 01 F 9:00 AM-10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent is required if prerequisites are not met.
Prerequisite: 221.688 or 224.689 and 224.690-691; or consent of instructor

224.699.01 QUALITATIVE RESEARCH PRACTICUM III: ANALYZING AND WRITING QUALITATIVE FINDINGS

2 credits - Course offered this year - East Baltimore

Kennedy, Caitlin; Surkan, Pamela

Enables students to complete data collection, analysis and write-up of results from a qualitative research project in collaboration with a local community-based organization or JHU faculty. Discusses common challenges in qualitative research including analysis of qualitative data, writing qualitative papers and reports, presenting qualitative findings, and ethical issues related to fieldwork and authorship.

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

1. Describe common challenges in analyzing qualitative data and strategies for overcoming these challenges.
2. Write up findings from a qualitative research project.
3. Present qualitative data effectively in both written and oral formats.

Email: psurkan@jhsph.edu

Lecture: F 1:30 PM - 3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students who have met the prerequisite or are enrolled for the current academic year.
Grading Options: Pass/Fail
Prerequisite: 224.697.01: Qualitative Research Practicum I: Partnerships and Protocol Development and 224.698.01: Qualitative Research Practicum II: Collecting Qualitative Data.

This is a multi-term course with 224.697 and 224.698.

224.810.01 SOCIAL AND BEHAVIORAL INTERVENTIONS PRACTICUM

variable credits field placement - Course offered this year - East Baltimore

Leontsini, Elli

Complements and reinforces the didactic portion of the MSPH program. Provides students with an opportunity to apply the knowledge gained during the first year, to develop skills in the development, implementation, and evaluation of social and behavioral global health interventions, according to individually designed learning objectives, and to work as part of a team in an applied research or practice project. Students are placed in a variety of professional settings, which may include: government, non-government organizations (NGOs), multi-lateral, private, and/or for-profit sector. Provide opportunity for feedback for student performance and placement experience.

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

1. Integrate and apply knowledge, methods and skills learned in courses taken on the first year of the MSPH in a practical setting, to allow for the seamless transition from student to public health professional.
2. Develop new skills essential for functioning as an effective global health professional, in assuming responsibility on the ground and becoming a reliable and collaborative member of a project team, an effective communicator, writer, trainer and implementer.
3. Evaluate a program or field project as it relates to the socio-cultural and health context, behavioral and health impact, community involvement and program process.
4. Develop a proposal, report, or other written document.
5 Take initiative, provide direction, and participate in the implementation, evaluation and/or analysis required to establish and achieve project goals.

6 Communicate effectively, manage relationships and participate in teams

Email: eleontsi@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

224.820.01 THESIS RESEARCH SOCIAL AND BEHAVIORAL INTERVENTIONS
variable credits thesis research - Course offered this year - East Baltimore

Departmental Faculty

Students actively conduct research on topics of global health importance, including developing a research question, designing a study to answer the question, conducting the research and writing up the results in a scientific format.

This course will prepare you to be able to do the following:

1 Identify research questions of importance to health in underserved populations in low resource settings internationally and in the US.
2 Design a study or studies to answer the questions.
3 Develop an application to an Institutional Review Board to address human subjects research issues
4 Write up the results of research for the scientific literature

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

224.830.01 POSTDOCTORAL RESEARCH SOCIAL AND BEHAVIORAL INTERVENTIONS
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

224.840.01 SPECIAL STUDIES AND RESEARCH SOCIAL AND BEHAVIORAL INTERVENTIONS
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

224.850.01 MSPH CAPSTONE SOCIAL AND BEHAVIORAL INTERVENTIONS
variable credits 2-16 - Course offered this year - East Baltimore

Departmental Faculty

Offers students an opportunity to integrate and apply program skills and competencies to a public health problem in a format that approximates a professional practice experience. Fosters students’ ability to produce scholarly papers that provide a meaningful contribution to knowledge of the health of underserved populations. Guides students’ development of tangible evidence of expertise that addresses specific applied topics relevant to international health.

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

1 Develop a concise and cohesive written document that defines a public health problem, a population of interest, and have a defined geographic scope
2 Conduct a comprehensive literature review
3 Synthesize relevant literature in a specific public health topic
4 Analyze and present public health data in a scholarly paper

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only for MSPH SBI students in their 2nd year
Grading Options: Pass/Fail
Prerequisite: All other MSPH SBI requirements must be taken before or concurrently with the capstone project.
DOCTORAL SEMINAR IN BEHAVIOR, CHANGE AND HEALTH

3 credits - Course offered this year - East Baltimore

Departmental Faculty

Through readings and discussion of psycho-social theory, students explore the nature of health and human behavior as well as the role of both individual and environmental factors on the process of behavior change. Students work on developing a conceptual framework and theory section for their doctoral dissertation proposal.

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

1. Explore the nature of and influences on human behavior and how these factors impact changes in health, utilizing readings and discussion of social theory
2. Utilize social theory in the process of constructing and/or refining the conceptual framework and accompanying narrative of the doctoral dissertation research proposal

Lecture: F 1:30 PM - 4:30 PM

Enrollment: Minimum 4, Maximum 12, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Mental Health

PREVENTION OF MENTAL DISORDERS: PUBLIC HEALTH INTERVENTIONS

3 credits - Course offered this year - Internet

Ialongo, Nicholas

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.

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

Email: nialongo@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for undergraduates.

Prerequisite:

INTRODUCTION TO BEHAVIORAL AND PSYCHIATRIC GENETICS

3 credits - Course offered this year - East Baltimore

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 of major public health concern, including schizophrenia, personality and smoking.

Email: pzandi@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required of undergraduates.

330.615.01 DRUGS, SOCIETY AND POLICY: THE PAST 150 YEARS (Discontinued)
2 credits - Course offered this year - East Baltimore
Furr-Holden, Debra
Presents an overview of the highlights of the varied responses by different societies over time to the use of alcohol, opiates, cannabis, tobacco, cocaine, and some other psychoactive agents. Briefly describes the pharmacology and toxicology of various drug categories. Considers the goals of policy with regard to particular categories of drugs, the means selected to achieve those goals, and the forces that shaped the selection of goals and means. Emphasizes the American experience over the past 150 years, but also discusses the experiences of other nations and cultures. Fosters the further understanding of the role of historical and technological change in the shaping of current drug problems.

Upon successfully completing this course, students will be able to:
1 Demonstrate the uses of history for policy, and be able to analyze policy change over time.
2 Describe how technological changes can alter both the availability of drugs and consequences of drug use
3 Identify major writings and historical figures who have contributed to the evolution of current policies

Email: dholden@jhsph.edu
Lecture: T 3:30 PM - 5:20 PM
Enrollment: Minimum 8, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate registration
Jointly offered with HPM

330.618.01 MENTAL HEALTH IN LATER LIFE
3 credits - Course offered this year - East Baltimore
Rebok, George
Contrasts the definition, diagnosis, risk factors, natural history, functional implication, and settings of care for the major mental disturbances of late life, identifying gaps in knowledge and research approaches to fill them. Emphasizes measurement issues as applied to the older adult.

Upon successfully completing this course, students will be able to:
1 Classify the major mental disorders of late life and contrast the presentation of the major mental disorders of late life with presentation among younger persons
2 Describe the concepts of successful aging, wisdom, and quality of life as related to life transitions and mental status
3 Name the chief risk and protective factors associated with each of the major mental disorders of late life and factors associated with optimal mental functioning
4 Describe methods used to evaluate mental health in late life in epidemiologic surveys and the methodological issues involved in research on elderly
5 Identify gaps in knowledge of aging and mental health and the research approaches to fill these gaps
6 Differentiate the problems and opportunities inherent in the treatment settings in which older adults receive care for major mental disorders of late life
7 Apply concepts to the development and evaluation of preventive interventions for older adults

Email: grebok@jhsph.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Undergraduates only.
330.619.01 ANALYTIC STRATEGIES IN THE GENETICS OF PSYCHIATRIC, BEHAVIORAL AND OTHER COMPLEX DISEASES
3 credits - Course offered this year - East Baltimore
Maher, Brion
Addresses the rapidly changing landscape of the study of complex genetics diseases. Students explore the current state of the quantitative issues in complex disease genetics, so that they can translate their experiences into research practice. Analyzes genome-wide association scans, epigenetics, and next-generation sequencing, as well as approaches to power calculation, including the use of simulation. Students study the current literature as well as examples from real data sets. In addition to learning the analytic techniques, students also become familiar with the assumptions and limitations of these approaches.

Upon successfully completing this course, students will be able to:
1. Analyze data from genome-wide or candidate methylation studies
2. Perform systems-based and polygenic analyses from genome-wide association data
3. Perform genetic association studies using data generated next generation sequencing
4. Perform power calculations for genetic association studies
5. Apply simulation-based approaches to calculate statistical power or empirical significance to genetic studies

Email: brion@jhu.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

330.623.01 BRAIN AND BEHAVIOR IN MENTAL DISORDERS
3 credits - Course offered this year - East Baltimore
Carlson, Michelle
Examines the onset and clinical symptoms of mental disorders over the life course of the developing and aging brain to illustrate neurobiological systems involved in thinking, feeling, and acting. Increases understanding of behavioral disorders, their assessment, neurobiological underpinnings, and systemic influences. Reviews some common disorders, discussion (1) clinical and case studies; (2) definitions and diagnostic methods; treatment, epidemiologic evidence regarding etiology, and (3)challenges to examining brain-behavior relationships across disorders.

Upon successfully completing this course, students will be able to:
1. Describe and learn concepts, test instruments, and methods used to understand the fundamental principles of brain-behavior relationships and how they break down
2. Think critically about the onset of mental disorders across the life span in conjunction with brain developmental milestones

Email: mcarlson@jhsph.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required of undergraduates.

Learning Materials:
(Book) Fractured Minds: A Case-study Approach to Clinical Neuropsychology
Ogden, Jenni
Amazon.com $41.25

330.639.01 THE INTERSECTION OF MENTAL AND PHYSICAL HEALTH
3 credits - Course offered this year - East Baltimore
Daumit, Gail; Gallo, Joseph
Addresses the epidemiology, consequences, measurement, and implications for health service delivery of co-morbidity of mental and physical disorders. Employs a conceptual framework that emphasizes the potential psychological, behavioral, social, and biological mechanisms through which mental and medical illness interact to cause disability and death. This model has implications for development of new service delivery models that integrate the care of mental health disorders into the care of medical conditions such as cancer, cardiovascular disease, and diabetes. Students interact with investigators and clinicians in lecture format, examine case studies, and generate a paper related to a medical-psychiatric co-morbidity of their choosing.
Upon successfully completing this course, students will be able to:

1. Demonstrate knowledge of the descriptive epidemiology of the major mental disorders and co-occurring medical conditions: a) name the most commonly occurring co-morbid physical and mental disorders, b) name three risk factors for mental disorders among people.

2. Identify how mental health and illness interact with physical health and illness to affect health outcomes such as function, quality of life, and mortality: a) discuss the social, behavioral, psychological, and biological pathways through which mental health affects physical health.

3. Describe the impact of medical and mental illness co-morbidity on the use and organization of health services: a) discuss the evidence on medical co-morbidity and mental illness are managed in primary health care and in specialty psychiatric and non-psychiatric settings.

Email: jgallo@jhsph.edu

Lecture: M W 1:30 PM - 2:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; Consent required for all students

330.640.01 CHILDHOOD VICTIMIZATION: A PUBLIC HEALTH PERSPECTIVE

3 credits - Course offered this year - East Baltimore

Letourneau, Elizabeth

Examines childhood victimization across a wide spectrum of victimizations, including sexual and physical abuse, peer and sibling assaults, witnessing domestic violence and verbal abuse and neglect. Acquaints students with the epidemiology of childhood victimization, reviews existing victim and perpetrator-focused interventions, and explores established emerging prevention strategies. Reviews legal policies aimed at reducing childhood victimization, their strengths and weaknesses, and challenges to the notion that childhood victimization is, or can be, effectively addressed solely or primarily via criminal justice interventions.

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

1. Discuss how differences in the age and sex of perpetrators and victims link to different etiologies and consequences.

2. Identify factors associated with increased risk for childhood victimization and perpetration.

3. Explain the mechanisms of action by which interventions have an impact on clients (both victims and perpetrators).

4. Identify the primary components of effective prevention programs, including who is targeted and the expected mechanism of action.

5. Evaluate the quality and limitations of legal interventions that address childhood victimization.

6. Identify elements of a more comprehensive public health approach to childhood victimization.

Email: ElizabethLetourneau@jhu.edu

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

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

Learning Materials:

(Book) Childhood Victimization: Violence, Crime, and Abuse in the Lives of Young People
Finklehor, David
Amazon.com $23.70

330.654.01 SEMINAR ON DRUG ABUSE PROGRAM PLANNING IN DEVELOPING COUNTRIES IV (Discontinued)

3 credits - Course offered this year - East Baltimore

Alexandre, Pierre

Discusses conceptual and policy issues related to substance abuse in the U.S., including definitions of use and dependence; social and political contexts; scientific bases for public health response; national policy alternatives; public awareness, community action, and school-based approaches to prevention; and theories of treatment. Students give presentations on the extent of substance use and abuse in developing countries, including proposals to mitigate some aspect of substance abuse. Students also prepare a paper on a current topic.

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

Email: pialexan@jhsph.edu

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 127 of 149
Lecture: T TH 3:30 PM - 5:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Must be a Humphrey Fellows in drug abuse or have consent of instructor.
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Students not in Humphrey Fellows program.
Course is held in departmental space.

330.674.81 SUICIDE AS A PUBLIC HEALTH PROBLEM (Cancelled - Department)
3 credits - Course offered this year - Internet
Clarke, Diana; Wilcox, Holly
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, and preventive interventions.
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
Email: hwilcox@jhsph.edu
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

330.680.01 PROMOTING MENTAL HEALTH AND PREVENTING MENTAL DISORDERS IN LOW- AND MIDDLE-INCOME COUNTRIES (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Tol, Wietse
Focuses on research and intervention approaches in low- and middle-income countries in the field of mental health prevention and promotion. Particularly emphasizes populations exposed to adversity, and challenges students to bridge the gap between research and practice in this area. Discusses the determinants of mental health, and how they can be targeted: at different life stages and different socio-ecological levels (e.g., family, school, and neighborhood). Addresses such questions as ‘What is resilience, and how can it be promoted?’, ‘How can interventions prevent depression in women exposed to intimate partner violence?’, and ‘How do poverty, violence and malnutrition impact mental health?’. Uses real-world examples, and follows a case method approach.
Upon successfully completing this course, students will be able to:
1 Design assessment approaches or epidemiological studies to identify relevant social determinants of mental health in populations residing in low- and middle-income countries
2 Select and adapt appropriate intervention approaches that address such determinants
3 Develop monitoring and evaluation strategies or studies aimed at evaluating the prevention of mental disorders and promotion of mental health in low- and middle-income countries
Email: wtol@jhsph.edu
Lecture: F 1:30 PM - 4:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 128 of 149
Upon successfully completing this course, students will be able to:

1. Design assessment approaches or epidemiological studies to identify relevant social determinants of mental health in populations residing in low- and middle-income countries.
2. Select and adapt appropriate intervention approaches that address such determinants.
3. Develop monitoring and evaluation strategies or studies aimed at evaluating the prevention of mental disorders and promotion of mental health in low- and middle-income countries.

Email: wtol@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

330.800.01 MPH CAPSTONE MENTAL HEALTH
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore

Departmental Faculty

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

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

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

Email: grebok@jhsph.edu

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

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; consent is required for everyone
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
2 credits - Course not offered until 2017 - 2018 - East Baltimore

Rebok, George

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

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

1. Discuss models of improving care for patients with dementia
2. Describe biomarkers that have been examined in neurodegenerative disorders, and how they may be used to improve the conduct of clinical trials
3. Review the genetic causes and/or risks for the major neurodegenerative diseases
4. Discuss animal models of neurodegenerative disorders and how they can be used to find improved treatments for patients

Email: grebok@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; consent from the Capstone Supervisor is Required.
Prerequisite: Predoctoral and Postdoctoral students from A&S, SPH and Medicine students participating in training grant on age-related, cognitive and neuropsychiatric disorders.

330.805.01 SEMINAR ON STATISTICAL METHODS FOR MENTAL HEALTH
1 credits - Course offered this year - East Baltimore
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
3. Critically evaluate studies in this area

Email: rmusci1@jhu.edu
Lecture: TH 12:00 PM - 1:20 PM

Enrollment: Minimum 4, Maximum 30, Waitlist Enabled: Yes
Grading Options: 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.

**330.820.01 THESIS RESEARCH MENTAL HEALTH**
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**330.830.01 POSTDOCTORAL RESEARCH MENTAL HEALTH**
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**330.840.01 SPECIAL STUDIES AND RESEARCH MENTAL HEALTH**
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**330.895.01 MPH PRACTICUM: MENTAL HEALTH**
variable credits Students who have not met the practicum requirement, must register for at least two credits - Course offered this year - East Baltimore

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

Upon successfully completing this course, students will be able to:
1. Demonstrate that they have had a mentored public health practicum experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**Molecular Microbiology and Immunology**

**260.608.01 ADVANCED TOPICS IN AIDS RESEARCH (Discontinued)**
4 credits - Course offered this year - East Baltimore
Yu, Xiaofang  
Introduces students to the HIV lifecycle and the molecular events occurring during productive infection. Covers topics including the HIV life cycle (Entry, Reverse transcription, Integration, Assembly, Budding, and Maturation), viral regulatory proteins, host innate anti-HIV responses (Apobec and Trim5α), immune responses induced by vaccine and infection, recent progress in HIV vaccine development, origins of HIV, SIV, endogenous retroviruses, new insights in HIV pathogenesis, host factors influencing disease outcome, latency and persistence, transmission, and prophylactic strategies of prevention.  
Upon successfully completing this course, students will be able to:  
1 Define points of the viral lifecycle at which host proteins interfere with viral infection  
2 Understand replication cycle of HIV and contrast with other retroviruses  
3 Assess current vaccine strategies  
4 Analyze current literature  
5 Explain the influence of host factors on disease outcome  

Email: xfyu@jhsph.edu  

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Letter Grade or Pass/Fail  
Consent required for all students;  
Prerequisite: PH 260.623 or instructor consent  

260.624.01 ADVANCED VIROLOGY  
4 credits - Course offered this year - East Baltimore  
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  
Email: apekosz@jhsph.edu  
Lecture: T TH 1:30 PM - 3:20 PM  

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Letter Grade or Pass/Fail  
Consent required for all students; If prerequisite is not met.  
Prerequisite: 260.623 or consent of instructor  

260.656.81 MALARIOLOGY  
4 credits - Course offered this year - Internet  
Sullivan, David  
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  
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  
Email: dsullivan7@jhmi.edu  

Enrollment: Minimum 5, Maximum 150, Waitlist Enabled: Yes  
Grading Options: 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

260.657.01 VECTOR BIOLOGY AND DISEASE ECOLOGY LITERATURE
1 credits - Course offered this year - East Baltimore
McMeniman, Conor; Norris, Douglas
Reviews and discusses, in depth, historic and current publications in the field of vector biology, vector-borne diseases and disease ecology.

Upon successfully completing this course, students will be able to:
1. Critically evaluate instructor selected scientific literature in vector biology, vector-borne diseases and disease ecology, beginning with classic papers and ending with contemporary successes.
2. Assess a wide variety of experimental strategies ranging from field to laboratory studies as they are applied to discover/discuss arthropod- and vertebrate-borne disease transmission.
3. Discuss required readings in depth during class to evaluate the experimental techniques and critique the conclusions in light of the data and advancement of the field.

Email: dnorris@jhsph.edu
Lecture: W 9:00 AM - 9:50 AM
Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: General biology or consent of instructor

260.663.01 BIOLOGICAL RESPONSE TO BIOMATERIALS
3 credits - Course offered this year - East Baltimore
Frondoza, Carmelita
Focuses on the clinical applications of biomaterials as medical devices: (1) to repair, replace organs and tissues; and (2) to deliver drugs, growth factors and other agents to stimulate, enhance, and restore function. Discusses biomaterials used in clinical settings such as orthopedics, cardiovascular, dental, and reconstructive surgery. Covers chemical, physical and mechanical properties of currently used and new biomaterials. Presents biological responses (immune and non-immune) that determine success or failure of biomaterial devices. Provides state-of the art information on public health concerns with respect to the use of biomaterials in medicine.

Upon successfully completing this course, students will be able to:
1. Identify biomaterials used for tissue regeneration, repair and replacement and as delivery systems for restoration of function.
2. Explain tissue, organ, system response (non-immune, immune) to biomaterials.
3. Discuss regulatory issues for public health safety with the use of standard and new biomaterial compositions and combination devices.

Email: cfrondoz@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

260.664.01 MOLECULAR ENTOMOLOGY
2 credits - Course offered this year - East Baltimore
Dimopoulos, George
Provides a broad perspective on the molecular biology of insects and a specific focus on aspects relating to the transmission of insect-borne diseases. Also provides an introduction to insect physiology, developmental biology, genomics and molecular evolution and ecology. Includes several modules addressing molecular mechanisms implicated in insect – host and insect - pathogen interaction, which are essential for disease transmission. Provides background information on essential methodologies used in molecular entomological research and discusses the importance of molecular entomology for the development of disease control strategies. The basic developmental, genetic and genomic focused modules utilize the wealth of knowledge gained from studies in the model insect organism Drosophila, while modules focusing on insects’ role in disease transmission focus on the mosquito vector of malaria Anopheles.
Upon successfully completing this course, students will be able to:

1. Understand advanced concepts of medical molecular entomology.
2. Evaluate molecular entomology–based strategies for vector-borne disease control.
3. Design molecular entomology-based disease control strategies.

Email: gdimopou@jhsph.edu
Lecture: M F 3:30 PM - 4:50 PM
Enrollment: Minimum 5, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Students with a background in molecular biology or biochemistry.

260.701.81 ANATOMY OF SCIENTIFIC ERROR
2 credits - Course offered this year - Internet
Bosch, Gundula; Casadevall, Arturo
Examines sources of error in scientific practice (misconduct or honest mistakes, methodological or systematic errors). Presents real-world examples to analyze errors that cause problems in science across the disciplines. Introduces methodological and mathematical approaches to error reduction. Explores the review- and retraction mechanisms for journal articles and grants as methods of science self-correction. Discusses historic and contemporary cases where errors constitute sources of innovation.

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

1. Define the current understanding of experimental rigor, the meaning of academic ethics and the limits of reproducibility in an interdisciplinary context
2. Describe the sources of error in scientific practice as well as approaches for reducing errors
3. Formulate recommendations for avoiding mistakes and misconduct in scientific practice
4. Explain the procedures, advantages and disadvantages of review and retraction mechanisms for scientific journal articles
5. Appraise the role of errors in discovery and innovation

Email: gbosch@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: none

260.711.01 PRINCIPLES OF NEUROIMMUNOLOGY
3 credits - Course offered this year - East Baltimore
Stins, Monique
Briefly covers the role of specific cells of the central nervous system (CNS), immune functions of CNS cells, and trafficking of leukocytes into the CNS, both in health and disease. Subsequently, it discusses various immune cells, e.g. monocytes, T cells, B cells, inflammatory molecules like cytokines, chemokines, metalloproteinases, and prostaglandins in more detail focusing on their role in either protecting from neurological disease or in causing CNS disease pathologies, including cognitive dysfunction. Presentations from experts in the field address topics such as multiple sclerosis, the role of the Blood Brain Barrier in neurological disease, autism, HIV and other neurotropic microbes.

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

1. Explain how the immune system and cellular brain components contribute to neurological disease
2. Describe the types and effector functions of resident and peripheral immune cells in the human brain, in health and disease

Email: mstins@jhmi.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Basic knowledge of biology
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Basic knowledge of brain anatomy, physiology and biology.

260.712.01 CLINICAL IMMUNOLOGY
3 credits - Course offered this year - East Baltimore
Cihakova, Daniela; Talor, Eyal

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 133 of 149
Lectures and student-led discussions survey methods for evaluating immune competence and immune function; the immunocompromised host, including congenital and acquired immunodeficiencies such as AIDS; applications of immunogenetics; human transplantation; cancer immunology; allergic and autoimmune disease processes; and prophylaxis of infectious diseases, including vaccines and vaccine development.

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

1. Analyze clinical immunology topics
2. Describe the immune response in relation to different disease etiologies
3. Explain immune-based disease management and Case Report interpretation
4. Define immune-based approach to vaccine development
5. Analyze different immune-based diseases, causes, diagnosis and therapies

Email: dcihako1@jhmi.edu

Lecture: W 9:00 AM - 11:50 AM

Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; NOT Required for Full time Students who have all prerequisites. Undergrad and Special Students require pre-approval to register.

Prerequisite: a course in Basic Immunology or an equivalent

260.717.01 GRADUATE IMMUNOLOGY: THE IMMUNE RESPONSE

3 credits - Course offered this year - East Baltimore

Bream, Jay; Zavala, Fidel

Presents advanced topics concerning the immunologic system; the cellular basis of the immune response; effector functions of antibody, lymphocytes, and macrophages; regulation of the immune response; and immunologic diseases. Lectures and readings develop a well-rounded view of the interrelated elements comprising the immune system.

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

1. Survey the structure of the immune system, the molecular and cellular bases of immune recognition, the effector functions and regulation of the immune response
2. Relate the function of the immune system to its applications in protection, transplantation and immunological diseases
3. Critically review articles in recent literature

Email: jbream@jhsph.edu

Lecture: T TH 9:00 AM - 10:20 AM

Enrollment: Minimum 6, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 260.611-612, ME260.709, ME340.703, or consent of instructor

260.800.01 MPH CAPSTONE MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore

Departmental Faculty

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

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

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

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: 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).

260.810.01 FIELD PLACEMENT MOLECULAR MICROBIOLOGY AND IMMUNOLOGY

variable credits - Course offered this year - East Baltimore
260.811.01 FIELD STUDIES IN ECOLOGY AND BEHAVIOR
variable credits 3-6 - Course offered this year - East Baltimore
Norris, Douglas
Presents practical aspects of ecology and comparative behavior, particularly in relation to problems encountered in public health and conservation of natural resources. Covers measurement of environmental factors in collecting, marking, and census methods of wild populations; in statistical methods for field ecology; and in special techniques. Students work under the direction of a faculty advisor.

Upon successfully completing this course, students will be able to:
1. Explain how to appropriately acquire samples the field taking into account ecological and/or environmental constraints.
2. Employ field and laboratory pre-processing techniques that are widely used in the areas of infectious disease research.
3. Compare and contrast different methodologies in order to solve biological/sampling/logistical issues with field collections.

Email: dnorris@jhsph.edu

260.815.01 THE BUSINESS OF ACADEMIC BIOMEDICAL RESEARCH
1 credits - Course offered this year - East Baltimore
Dimopoulos, George
Addresses topics related to business aspects of academic biomedical research, and focuses specifically on organizational, managerial, political, strategic and economical characteristics of academic biomedical research. Prepares students for a career in academic biomedical research by discussing essential features for success, other than the actual science.

Upon successfully completing this course, students will be able to:
1. Analyze the economics of academic biomedical research at an institutional and national scale
2. Explain basic concepts of research institutions organizational structure and behavior
3. Assess the quality of leadership and management styles in an academic research environment
4. Develop competitive research project portfolios
5. Define basic funding and publishing strategies
6. Perform effective career planning and management

Email: gdimopou@jhsph.edu
Lecture: F 10:30 AM - 11:20 AM

260.820.01 THESIS RESEARCH MOLECULAR MICROBIOLOGY AND IMMUNOLOGY
variable credits - Course offered this year - East Baltimore

Information not required for this course type

260.821.01 RESEARCH FORUM IN MOLECULAR MICROBIOLOGY AND IMMUNOLOGY
1 credits - Course offered this year - East Baltimore
Casadevall, Arturo
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.

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

1. Become skilled in presenting research data to a diverse audience
2. Become familiar with the research conducted in departmental laboratories

Email: acasade1@jhu.edu
Lecture: M 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Required for MMI students.

**260.822.01 SEMINARS IN RESEARCH IN MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**

1 credit - Course offered this year - **East Baltimore**

Casadevall, Arturo

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.

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

1. Become familiar with current research in microbiology, immunology and infectious diseases

Email: acasade1@jhu.edu
Lecture: TH 12:00 PM - 1:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Required for MMI students.

**260.830.01 POSTDOCTORAL RESEARCH MOLECULAR MICROBIOLOGY AND IMMUNOLOGY**

Variable credits - Course offered this year - **East Baltimore**

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

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

Variable credits - Course offered this year - **East Baltimore**

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**260.851.01 LABORATORY ROTATIONS**

4-8 credits - Course offered this year - **East Baltimore**

Departmental Faculty

All departmental Sc.M. and doctoral students spend two and three terms, respectively, participating in the research activities of departmental faculty's laboratories. Students select appropriate rotations in consultation with their academic advisors and the departmental Graduate Program Committee.

Information not required for this course type

Lecture: TBA

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Consent of rotation supervisor required.
Required for MMI students.
260.895.01 MPH PRACTICUM: MMI
variable credits Students who have not met the practicum requirement, must register for at least two credits - Course offered this year - East Baltimore

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

Upon successfully completing this course, students will be able to:
1 Demonstrate that they have had a mentored public health practicum experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

Online Programs for Applied Learning

600.711.86 PUBLIC HEALTH STATISTICS I
4 credits - Course offered this year - Internet
McGready, John
Provides students with a broad overview of Biostatistical methods and concepts used in the public health sciences. Emphasizes the interpretation and conceptual foundations of statistical estimation and inference. Covers summary measures, measures of association, confidence intervals, p-values, and statistical power.

Upon successfully completing this course, students will be able to:
1 Calculate standard normal scores and resulting probabilities
2 Suggest and interpret appropriate numerical and visual measures to summarize data for a given data type and study design
3 Distinguish between variability of individual study observations and variability in sample summary measures across multiple studies of individual observations
4 Calculate and interpret confidence intervals for single population measures (e.g., means, proportions, incidence rates) and for measures of association comparing two populations (e.g., differences in means, differences in proportions, relative risk, odds ratio, incidence rate ratio)
5 Interpret p-values from hypothesis tests, and connect these results to the corresponding confidence intervals
6 Explain the factors that determine the statistical power of a study designed to compare two or more populations

Email: jmcgread@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students enrolled in OPAL programs
Grading Options: Letter Grade or Pass/Fail

601.931.86 SPATIAL ANALYSIS LAB 1
2 credits - Course offered this year - Internet
Shields, Timothy
Expands on GIS concepts and skills previously learned with more hands-on practice with epidemiological applications. Focuses on translating an epidemiological problem or getting into a set of spatial objectives that align with our spatial science paradigm. Surveys and summarizes the literature on spatial applications in public health. Prepares students to design a protocol to help identify a public health problem and accompanying data for their MAS Integrative Activity.

Upon successfully completing this course, students will be able to:
1 Perform a GIS based analysis appropriate for investigating a specific epidemiological research question
2 Communicate the limitations of a GIS based analysis in both epidemiological and biostatistical terms
3 Summarize the literature to gain an understanding of the wide-ranging use of spatial science in public health applications
4 Design a protocol for identifying potential projects to be used for their MAS Integrative Activity

Email: tshields@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students enrolled in the MAS in Spatial Analysis Program
Grading Options: Pass/Fail
Prerequisite: Spatial Analysis for Public Health (601.731.86), Spatial Data Technologies for Mapping (601.732.86), Introduction to Epidemiology (600.701.86). Prior or concurrent enrollment in Public Health Statistics 1 (600.711.86).
380.612.01 APPLICATIONS IN PROGRAM MONITORING AND EVALUATION
4 credits - Course offered this year - East Baltimore
Crowne, Sarah Shea; Palaia, Anne
Builds on 380.611, Fundamentals of Program Evaluation, by introducing more advanced evaluation methods using concrete illustrations from real world evaluations of public health initiatives. Includes interactive learning opportunities, guest speakers, and lectures. Students learn how to carry out common tasks in designing and implementing evaluations of public health programs based in real world examples, emphasizing problem solving to address challenges, maximize efficiency, and promote the usefulness of results. Students apply knowledge of evaluation theory, design and implementation to real world public health interventions.

Upon successfully completing this course, students will be able to:
1. Explain challenges in working with stakeholders to design and carry out evaluations, and principles and strategies to address these challenges
2. Critique evaluation designs and published studies
3. Design rigorous and useful evaluation plans
4. Effectively communicate evaluation plans to stakeholders

Email: scrowne@jhsph.edu
Lecture: F 1:30 PM - 4:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 380.611

380.616.01 CHILD HEALTH EPIDEMIOLOGY
3 credits - Course offered this year - East Baltimore
Donohue, Pamela
Explores conditions and diseases that compromise children’s health from birth (congenital anomalies) through adolescence (violence/bullying). Presents methodological challenges to estimating the burden of disease, including the strengths and weaknesses of standardized outcome measures. Analyzes preventive strategies and treatment modalities considering the social context of disease. Encourages creative thinking about needed research and discusses the public health implication of childhood disease. Focuses on domestic health but presents data on the global burden of childhood conditions/diseases, when available.

Upon successfully completing this course, students will be able to:
1. Identify the current health conditions and diseases that threaten childhood well being.
2. Explain methodological challenges in child health epidemiology and how they influence research findings.
3. Critically review epidemiologic research concerning selected child health conditions.
4. Apply epidemiologic considerations to clinical and public health practice.

Email: pdonohu2@jhmi.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students.
Prerequisite: 340.601 Principles of Epidemiology

380.626.01 SEMINAR IN CHILD HEALTH (Discontinued)
3 credits - Course offered this year - East Baltimore
Van Dyck, Peter
Explores children’s health outcomes and factors that promote optimal health for children, from infancy through adolescence. Primarily focuses on the translational process by which child health sciences and research inform public policy and practice. Child health issues may include such topics as assessing child health status, morbidity and chronic illness; child nutrition; environmental exposures and their consequences; injury and violence; immunizations and infectious diseases; chronic diseases and disabilities; and access to and quality of health care. Examines the underlying determinants and health concerns for children in advanced nations and developing countries. Examines literature from several fields, including epidemiology, health services research, policy analysis, developmental and social sciences, and intervention research, to better understand and address these health problems among children.
Upon successfully completing this course, students will be able to:

1. Describe children’s health, using a developmental, life-course, multiple-determinants framework that emphasizes population health, biological pathways, environmental influences and underlying principles of equity and justice.

2. Describe the translational process by which the “knowledge-base” is used to inform policy and practice, using the analytical tools of epidemiology, clinical pediatrics, health-services research, developmental and demographic sciences.

3. Compare approaches and solutions to these child health problems in other countries and the U.S.

4. Apply policy analysis to solve child health problems.

5. Communicate policy analyses and evidence-based program approaches through written analytical reports & policy analyses, oral presentations, and research briefs targeted to relevant audiences.

6. Integrate information and methodological skills learned in other PFRH and school-wide courses to improve children’s health.

7. Use the methods of active learning in a seminar format to encourage “self-learning” rather than teaching.

Email: pvandyc@jhsph.edu

Lecture: W 3:30 PM - 6:30 PM

Enrollment: Minimum 5, Maximum 25, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; Permission of instructor is required. Contact Dr. Van Dyck at pvandyc@jhsph.edu.

Prerequisite: While there are no formal prerequisite courses required, some previous course work on the health of children and women is desirable.

380.635.01 INTRODUCTION TO URBAN HEALTH (Cancelled - Department)

3 credits - Course offered this year - East Baltimore

Blum, Robert

Introduces students to the historic forces associated with the rise of the modern city and fundamental characteristics of urban living in the United States, and discusses the implications for healthcare and population health resulting from the increase (now more than half the world’s population) in urban populations. Examines broad health indices in the inner cities, such as mortality rate, infant mortality rate, and overall life expectancy, as well as matters of social and racial inequality. Also examines factors associated with urban health such as poverty, poor nutrition, inadequate and unsafe housing, exposure to violence, and lack of a social services infrastructure. Enables students to appreciate the complexity and diversity of the major determinants of health among domestic urban populations.

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

1. Describe the contemporary/historic social, economic and societal forces that led to the rise of the modern city.

2. Outline the major positive/negative health impacting characteristics of contemporary urban living in the U.S.

3. Discuss the relative importance/impact of these characteristics on the health of urban populations.

4. Outline the limitations of the traditional healthcare system and medical research to addressing health issues in the urban environment.

5. Articulate major research gaps and opportunities in the field of Urban Health.

Email: rblum@jhsph.edu

Lecture: F 9:00 AM - 11:50 AM

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes

No auditors

Grading Options: Letter Grade or Pass/Fail

380.651.01 METHODS AND MEASURES IN POPULATION STUDIES

4 credits - Course offered this year - East Baltimore

Liu, Li

Covers six areas regarding population studies including: population composition, fertility, migration, population projections, an introduction to stable populations, and measures of population health. Draws examples from data from both developed and developing countries.

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

1. Decompose changes in rates into composition and rate effects.

2. Calculate and discuss basic measures of fertility from vital registration or birth history data.

3. Calculate and discuss measures of migration and residential segregation.

4. Calculate and discuss the correct uses of various measures in population health and health disparities.
5 Project a national or sub-national population
Email: lliu26@jhu.edu
Lecture: M W 10:00 AM - 12:00 PM
Enrollment: Minimum 1, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 380.650 Fundamentals of Life Tables and 380.600 Principles of Population Change are highly recommended.
Course is held in departmental space.

Learning Materials:
(Book) Demography: Measuring and Modeling Population Processes
Preston, Heuveline and Guillot, Samuel, Patrick, and Michael
Amazon $61.72

380.664.01 REPRODUCTIVE AND PERINATAL EPIDEMIOLOGY
4 credits - Course offered this year - East Baltimore
Moreau, Caroline; Strobino, Donna
Focuses on current research, controversial issues and methodological approaches about the epidemiology of reproductive and perinatal health. Selected topics include, but are not limited to, conception, infertility, contraception, hormone supplementation, reproductive related cancers, complications of pregnancy, and adverse pregnancy outcomes. Includes short lectures on selected topics, followed by student-directed discussion of research readings and their public health implications.
Upon successfully completing this course, students will be able to:
1 Review the fundamental biologic and methodological underpinnings of reproduction health concerns and pregnancy and perinatal outcomes
2 Apply key conceptual paradigms and methodological challenges in reproductive and perinatal epidemiology and evaluate how they affect study findings about selected outcomes
3 Evaluate the contribution of sociodemographic, behavioral, and biologic risk factors for adverse outcomes, and the mechanisms for observed epidemiologic associations
4 Critically review epidemiologic research about selected reproduction health concerns and of pregnancy and perinatal outcomes and different forms of evidence in reproductive and perinatal epidemiology
5 Apply the findings of epidemiologic findings and concepts to clinical and public health policies and controversies.

Email: cmoreau@jhsph.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Explanation:
Permission required for registration after the 1st week of add/drop.
Prerequisite: 340.721.60, 340.721.81; 340.751 or 340.601 or equivalent
Permission required for registration after the 1st week of add/drop.

380.667.01 WOMEN'S HEALTH POLICY
3 credits - Course offered this year - East Baltimore
Strobino, Donna
Provides an overview of selected, timely policy issues related to women’s health in both developed and developing countries. Covers the history of selected policy concerns, frameworks for viewing these concerns, and policy concerns related to selected women’s health issues such as family planning, welfare reform, employment and workplace conditions, and disabilities. Topics may change yearly depending on the primacy of the topic or issue.
Upon successfully completing this course, students will be able to:
1 Describe and apply general policy orientation to women’s health and definitions of women’s health in current use
2 Describe and apply a gender justice framework for viewing women’s health policies in developed and developing countries
3 Describe and apply a policy lens to topics such as work and employment, family planning, disability, intimate partner violence and special populations in developing and developed countries
4 Describe and apply an understanding of varying stakeholder’s perspectives on current and critical issues pertaining to women’s health policy
380.712.01 METHODS IN ANALYSIS OF LARGE POPULATION SURVEYS
3 credits - Course offered this year - East Baltimore
Ahmed, Saifuddin
Introduces the practical aspects of design and analysis of large sample surveys. Covers statistical issues of complex surveys involving stratification and clustering, methods of handling missing data, weighting, sample size estimation and allocation, design-based analysis of frequency tables and multivariate methods for complex surveys. Emphasizes applied, rather than theoretical derivation.
Upon successfully completing this course, students will be able to:
1. Take survey design into consideration during analysis and perform design-based analyses of data from complex surveys, such as multistage national surveys
2. Estimate variances with Taylor linearizations, jackknife, and bootstrapping methods in univariate and multivariate statistics
3. Explain advantages and disadvantages and apply design weights
4. Examine data missingness patterns and use appropriate imputation methods for missing data
5. Compare and contrast design-based analyses to multilevel and marginal models for addressing intraclass correlation and design-effects

380.721.01 SCHOOLS AND HEALTH
3 credits - Course offered this year - East Baltimore
Marshall, Beth
Highlights schools as public health contexts in three ways: shaping development and behavioral outcomes of youth, delivery of health information and services, and research. Explores the school context using the ten-component Whole School, Whole Community, Whole Child (WSCC) framework developed by the Centers for Disease Control and the Association for Supervision and Curriculum Development. Requires students to visit a school and explore the practical program implementation challenges related to provision and promotion of health in a school setting. Examines the research on the impact school health programs have on the health and wellbeing of school-age children using WSCC framework. Explores conducting research in schools and how that impacts knowledge of what works in school contexts through combination of introductory lectures, discussion, presentations, and a school site visit.
Upon successfully completing this course, students will be able to:
1. Explore the reciprocal relationship between health and education
2. Analyze the structure and function of school health frameworks (including the Whole School, Whole Child, Whole Community framework (WSCC))
3. Analyze how each of the WSCC components contributes to the health and academic outcomes of students, schools, families, and communities
4. Identify the methodological challenges to conducting research and program evaluation in the school context

Email: bmarsha2@jhu.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 8, Maximum 35, Waitlist Enabled: Yes
Graduate students only. Auditors not permitted.
380.725.01 THE SOCIAL CONTEXT OF ADOLESCENT HEALTH AND DEVELOPMENT
3 credits - Course offered this year - East Baltimore
Powell, Terri
Identifies the social ecological model as a tool to understand adolescent health, principally focusing on the interpersonal, organizational and community levels of influence. Explores the influences of specific contexts, such as the family, school, neighborhood, church, and media on adolescent health and well-being. Examines empirical work to consider the role of context in prevention and interventions aimed at adolescents.

Upon successfully completing this course, students will be able to:
1. Identify the social determinants of adolescent health and development
2. Describe how interpersonal, intrapersonal and environmental factors interact to shape trajectories of development and well-being throughout adolescence
3. Explain the role of contextual factors in shaping adolescent health and development
4. Evaluate the science relevant to contemporary issues in adolescent health
5. Integrate contextual factors into public health prevention and intervention strategies aimed at adolescents

Email: terri.powell@jhu.edu
Lecture: M 1:30 PM - 4:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Masters, Doctoral and Adolescent Health Certificate students only
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

380.742.01 FAMILY - HEALTH, PUBLIC HEALTH AND POLICY
3 credits - Course offered this year - East Baltimore
Davis, Anna; Riley, Anne
Focuses on understanding how programs and policies are likely to affect the capacities of families to develop and maintain health, and on teaching students to apply analytic methods to evaluate the relative value and impact of various programs or policies.

Upon successfully completing this course, students will be able to:
1. Understand the role of family capacities in shaping family health and the health of family members
2. Apply Family Impact Analysis methodology to evaluate the likely effects of proposed policies on different types of families
3. Plan ways to include a family orientation in public health surveillance and assurance efforts

Email: ariley@jhsph.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 7, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

Learning Materials:
(Book) Family Policy Matters: How Policymaking Affects Families and What Professionals Can Do
Bogenschneider, Karen
Amazon $51.44

380.747.81 INTERNATIONAL ADOLESCENT HEALTH
3 credits - Course offered this year - Internet
Blum, Robert; Mmari, Kristin
Focuses on the major health issues that affect adolescents and the effective interventions/policies to address these issues in the developing world. Explores the meaning and health of adolescence from various contexts around the world through lectures, readings, video clips, panels, and discussions.

Upon successfully completing this course, students will be able to:
1. Define the meaning of adolescence and critically discuss ‘adolescence’ from the context of various world regions
2 Critically analyze the major global forces that affect adolescent health, including changes in education, marriage, and childbearing
3 Identify the major public health issues affecting adolescents throughout the globe, with a particular focus on sexual and reproductive health issues, vulnerable youth populations, mental health problems, and migration/immigration issues
4 Describe different types of intervention strategies for selected adolescent health issues and their potential impact in various cultural contexts

Email: kmmari@jhsph.edu

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

380.749.01 ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH
3 credits - Course offered this year - East Baltimore
Burke, Anne; Trent, Maria
Explores key topics in adolescent sexual and reproductive health (ASRH). Topics range from the impact of adolescent physical, sexual, and social development on sexual risk-taking behavior to policy and ethical issues influencing adolescent sexual health outcomes. Using a public health framework, important clinical topics such as contraception, teen pregnancy, abortion, and sexually transmitted infections are discussed from a domestic and global perspective.

Upon successfully completing this course, students will be able to:
1 Identify a range of social scientific research approaches adopted by public health agencies
2 Identify a range of public health agencies where social science research is conducted

Email: mtrent@jhsph.edu
Lecture: TH 9:00 AM - 11:50 AM

Enrollment: Minimum 10, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

380.758.81 DEMOGRAPHIC ESTIMATION FOR DEVELOPING COUNTRIES
4 credits - Course offered this year - Internet
Becker, Stan; Helleringer, Stephane; Perez-Patron, Maria
Introduces students to defects or deficiencies often experienced in demographic data for developing countries, and how to quantify the magnitude of errors. Describes approaches to data adjustment, with emphasizing the underlying theory and modeling. Also describes unconventional or indirect methods for estimating basic demographic parameters from robust indicators. Heavily emphasizes practical applications and quantitative calculations.

Upon successfully completing this course, students will be able to:
1 Describe errors typical of demographic data for developing countries
2 Evaluate data errors and adjust for them
3 Explain methods to estimate fertility, mortality and migration from deficient or defective data
4 Select appropriate methodologies
5 Apply appropriate methods

Email: sheller7@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning and 380.603 Demographic Methods for Public Health (online or on site) or its equivalent

380.761.81 SEXUALLY TRANSMITTED INFECTIONS IN PUBLIC HEALTH PRACTICE
4 credits - Course offered this year - Internet
Rompalo, Anne
Provides a comprehensive and current synthesis of sexually transmitted infections (STIs) in the United States and globally. Examines biologic, behavioral, social, and epidemiologic aspects of sexually transmitted infections (STIs). Focuses, throughout the course, on the diverse factors that contribute to STI prevention and control. Discusses how biologic and behavioral factors influence preventability and control of STIs. Introduces a number of STI prevention and control interventions with an emphasis on evaluation of these interventions. Data-focused and driven by current research study findings and surveillance data. Particularly focuses on considering strengths and weakness of various data sources and study designs and on thinking critically about what’s going on ‘behind the numbers.'
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

Email: arompalo@jhmi.edu

Enrollment: Minimum 16, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning; Principles of Epidemiology (340.601 or equivalent) Public Health Biology 550.630 or equivalent which may include professional experience.
Jointly offered with EPI
Live Talk Session attendance is required as sessions are used for group discussion and student presentations.

380.762.81 HIV INFECTION IN WOMEN, CHILDREN, AND ADOLESCENTS
4 credits - Course offered this year - Internet
Brahmbhatt, Heena
Presents the epidemiology of AIDS and HIV infection, risk factors, and social context for women, children, and adolescents, demonstrating how the epidemic in these three populations are linked biologically, epidemically, socially, and politically. Discusses prevention issues, the theoretical bases of prevention programs, and programatic and policy issues. Emphasizes the epidemiological and behavioral factors that have shaped the current epidemic of HIV infection. Expert guest speakers present their work.

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

1. Discuss distribution and determinants of HIV/AIDS infection among pediatric, adolescent, and female populations
2. Explain some issues in the clinical practice of HIV/AIDS medicine among pediatric, adolescent, and female populations
3. Describe issues unique to HIV-infected females, such as childbearing, breastfeeding, and domestic violence

Email: hbrahmbh@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

380.765.81 PREVENTING INFANT MORTALITY AND PROMOTING THE HEALTH OF WOMEN, INFANTS AND CHILDREN
3 credits - Course offered this year - Internet
Matone, Meredith
Focuses on the historical problems and interventions associated with infant mortality. Describes the scientific basis for maternal and infant mortality. Analyzes causes and consequences in a population and development of a programmatic and policy approach.

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

1. Describe the scientific basis for infant mortality and for the interventions currently being used to address this problem
2. Analyze the causes and consequences of high infant mortality in a population
3. Develop programmatic approaches and policies to reduce infant mortality rates in a population

Email: mmatone1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: An introductory course in epidemiology is suggested. Knowledge of statistics and familiarity with research methods is also recommended.

380.771.01 UNDERSTANDING AND CHANGING INTERNATIONAL REPRODUCTIVE HEALTH POLICY
3 credits - Course offered this year - East Baltimore
Fredrick, Beth; Gillespie, Duff
Introduces students to policy analysis and issues in reproductive health, especially international family planning. Students learn how to analyze policymaking processes and ways to influence these processes through evidence-based advocacy. Case studies are used to analyze policies. Focuses on FP2020, the international partnership launched at the London Summit on Family Planning in 2012. The instructors present an “insider’s” perspective for most cases and will draw heavily on Advance Family Planning (AFP), a multi-country advocacy initiative. Training in the AFP SMART approach to advocacy is a core part of the course.

Upon successfully completing this course, students will be able to:
1. Analyze the reproductive health policymaking process of the U.S. government, the United Nations, and selected developing countries;
2. Analyze how reproductive health policies affect programmatic and budgetary decisions;
3. Explain how reproductive health policies are different from other health and development policies;
4. Identify external factors that influence the reproductive health policymaking process and its implementation;
5. Develop an advocacy plan for influencing the reproductive health policy process, and;
6. Develop evidence-based messages designed to influence policymakers.

Email: dgillesp@jhsph.edu
Lecture: W 9:00 AM - 11:50 AM
Enrollment: Minimum 8, Maximum 20, Waitlist Enabled: Yes
No undergraduates
Grading Options: Letter Grade or Pass/Fail

380.800.01 MPH CAPSTONE POPULATION, FAMILY AND REPRODUCTIVE HEALTH
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

Upon successfully completing this course, students will be able to:
1. Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: 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).

380.810.01 FIELD PLACEMENT IN POPULATION, FAMILY AND REPRODUCTIVE HEALTH
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

380.820.01 THESIS RESEARCH IN POPULATION, FAMILY AND REPRODUCTIVE HEALTH
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

380.821.01 PFRH PROPOSAL WRITING SEMINAR
2 credits - Course offered this year - East Baltimore
Hughes, M. E.
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, both quantitative and qualitative
4. Identify data sets or setting for data collection
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

Email: mehughes@jhsph.edu
Lecture: TH 12:00 PM - 1:20 PM
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
PFRH Doctoral Students only.
Prerequisite: Must be PFRH Doctoral Student; must have completed second year comprehensive exams.
Grading Options: Pass/Fail

380.822.01 PFRH FIRST YEAR DOCTORAL SEMINAR
1 credits - Course offered this year - East Baltimore
Powell, Terri
Examines and demystifies the research process using case examples from existing research conducted by faculty members within the department. Introduces departmental and school-wide resources for conducting effective literature searches, developing sound research designs, funding research, addressing IRB concerns, and disseminating research findings. Encourages the use of critical and creative thinking skills to develop personal research agendas.

Upon successfully completing this course, students will be able to:
1. Develop a research concept based on their individual interests
2. Link scientific questions with appropriate research designs
3. Discuss strategies for obtaining and managing research funding
4. Evaluate different approaches used to communicate research findings
5. Create a plan for their research career both as a student and later as a professional

Email: terri.powell@jhu.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No
Department of Population, Family and Reproductive Health 1st year doctoral students
Grading Options: Pass/Fail

380.830.01 POSTDOCTORAL RESEARCH IN POPULATIONAL, FAMILY AND REPRODUCTIVE HEALTH
variable credits - Course offered this year - East Baltimore

Information not required for this course type

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
380.840.01 SPECIAL STUDIES AND RESEARCH IN POPULATION, FAMILY AND REPRODUCTIVE HEALTH  
variable credits - Course offered this year - East Baltimore  

Information not required for this course type  

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Pass/Fail  

380.845.01 SEMINAR IN ADOLESCENT HEALTH (Cancelled - Department)  
3 credits - Course offered this year - East Baltimore  
Marcell, Arik  
Synthesizes knowledge acquired across a range of courses in adolescent health and development and focuses that knowledge in a public health framework from both a domestic and international perspective. Explores ethical issues in research with adolescents, cultural competency in adolescent health and the impact of policy on adolescent health using case studies and interactive discussion.  

Upon successfully completing this course, students will be able to:  
1. Describe ethical issues in research with adolescents (e.g., minor consent, parental notification, research with especially vulnerable populations certificates of confidentiality)  
2. Recognize the role cultural identity plays in one’s discussing of researcher perspectives/assumptions and those of culturally divergent subjects in adolescent health  
3. Apply a conceptual approach to discuss the role that policies play in improving adolescent health using industrialized and developing world examples (e.g., Title X, graduated driver licensure, school health policies)  

Email: amarcell@jhsph.edu  
Lecture: F 9:00 AM - 11:50 AM  

Enrollment: Minimum 8, Maximum 15, Waitlist Enabled: Yes  
No undergraduates  
Grading Options: Letter Grade or Pass/Fail  

380.870.01 PFRH SPECIAL STUDIES IN PUBLIC HEALTH PRACTICE  
variable credits Credits will vary according to scope of activity. The preceptor/advisor will determine the number of units. - Course offered this year - East Baltimore  

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 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Pass/Fail  

380.883.01 LESSONS IN LEADERSHIP: APPLICATIONS FOR POPULATION, FAMILY AND REPRODUCTIVE HEALTH IV  
1 credits - Course offered this year - East Baltimore  
Blum, Robert  
Focuses 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  
5. Explain team dynamics and effectively use small work groups  
Email: rblum@jhsph.edu  

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 147 of 149
Focuses 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
5. Explain team dynamics and effectively use small work groups

Email: rblum@jhsph.edu

Lecture: M 4:30 PM - 7:00 PM
Enrollment: Minimum 15, Maximum 30, Waitlist Enabled: Yes
Restricted to graduate students. Preference is given to second year graduate students.
Grading Options: Letter Grade or Pass/Fail
Multi-term with 380.881
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.

4th term information is correct as of March 13, 2017. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 148 of 149
380.895.01 MPH PRACTICUM: PFRH

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

Departmental Faculty

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

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

1. Demonstrate that they have had a mentored public health practicum experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Pass/Fail