SCHEDULE INFORMATION
This schedule includes all courses expected to be offered by the Johns Hopkins Bloomberg School of Public Health during the 3rd Term of academic year 2018-19. The listing is based on data supplied by the academic departments and approved by the subcommittee of the Committee on Academic Standards as of December 18, 2018. 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.jhsp.edu/courses/

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

REGISTRATION INFORMATION
Continuing students may register for 3rd Term through January 11, 2019 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. 3rd Term tuition payments are due via the web [https://sis.jhu.edu/sswf] by Saturday, February 23, 2019. Changes to 3rd Term registrations for full-term courses may be processed via Self-Service during the published Add/Drop period for 3rd Term: Monday, January 21 – Friday, February 1, 2019.

School of Medicine Post Doctoral Fellows cannot register via Self-Service; they must register in person prior to the January 11 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.jhsp.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 $1128 per credit unit. Students receive a 100% tuition refund for any withdrawals made prior to the end of the Add/Drop period; however, there is no tuition refund after the Add/Drop period. A fee of $100 will be assessed for registering after the January 11 deadline and a fee of $50 will be assessed for making changes after the change/ course withdrawal 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 January 16, 2019
COURSE LISTING CODES
Course listings consist of the following: a three character department code—the second two characters identify the
department in which the course is offered, the third character may be used to indicate a division or cluster within the
department. Refer to the list below for department/division codes.

DEPARTMENT/DIVISION CODES

120 Biochemistry and Molecular Biology
140 Biostatistics
180-188 Environmental Health Engineering
220 International Health
260 Molecular Microbiology and Immunology
300 Health Policy and Management
330 Mental Health
340 Epidemiology
380 Population and Family Health Sciences
390 Clinical Investigation
410 Health Behavior and Society
550 Adjunct Studies
600 Online Programs for Applied Learning
700 Bioethics (Berman Institute)

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

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

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

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

AS Krieger School of Arts and Sciences (KSAS)
BU Carey Business School (Carey)
ED School of Education
EN Whiting School of Engineering (EN)
ME School of Medicine (SOM)
NR School of Nursing (SON)
SA School of Advanced International Studies (SAIS)

(Example: ME 330.702 denotes a School of Medicine course, in the Department of Pharmacology and Molecular Sciences)
700.604.01 METHODS IN BIOETHICS
3 credits - Course offered this year - East Baltimore
Sugarman, Jeremy
Introduces some of the main methods used in bioethics research, scholarship and practice, including conceptual and empirical methods. Describes the strengths and weaknesses of these methods in addressing bioethical questions or problems. Illustrates each method with contemporary topical examples. In addition, discusses one cross-cutting example of an issue addressed by all of these methods.
Upon successfully completing this course, students will be able to:
1 Describe methods commonly used in bioethics research, scholarship and practice
2 Select an appropriate method for approaching particular bioethics research questions
3 Appraise the benefits of addressing a bioethics issue using different methods
4 Understand what constitutes rigor in bioethics scholarship
Email: jsugarma@jhsph.edu
Lecture: W 1:30 PM - 4:20 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:
Course meets in Deering Hall; LLC Room

700.625.01 BIOETHICS AND THE LAW (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Ali, Joseph; Persad, Govind
Examines central legal cases that address issues in bioethics. Topics covered include reproductive rights, end of life decision-making, informed consent, ownership of human cells, and others. Explores challenges that emerging biotechnologies (e.g., neuroimaging) pose for existing legal doctrine. Discusses evolving regulatory frameworks for oversight of human subjects research. Considers the relationship between legal reasoning and ethical reasoning, with some of the legal literature supplemented by readings from the bioethics literature.
Upon successfully completing this course, students will be able to:
1 Articulate the rulings of landmark legal cases in bioethics
2 Identify general principles of constitutional and common law
3 Critically discuss judicial opinions
4 Consider how courts may approach new cases that bear on bioethics issues
5 Describe the relationship between ethics and law
Email: jali@jhu.edu
Lecture: W 3:30 PM - 6:20 PM
Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes
Enrollment priority given to MBE students. This course is restricted to students who do not already have formal legal training.
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

700.801.01 BIOETHICS PROGRAM THESIS SEMINAR
3 credits - Course offered this year - East Baltimore
Rieder, Travis
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

Email: trieder@jhu.edu
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
Grading Options: Pass/Fail
Prerequisite: None
Consent required for all students; Consent required for all students

700.895.01 BIOETHICS PROGRAM PRACTICUM
3 credits - Course offered this year - East Baltimore
Rieder, Travis
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

Email: trieder@jhu.edu

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**

**120.608.01 GENE EDITING, THERAPY AND MANIPULATION**

3 credits - Course offered this year - East Baltimore

Bailey, Scott

Introduces genes and genetics, and their role in the genetic basis of human health and disease. Explores the current status of gene editing and gene therapy technologies both in the context of therapeutics and as tools in the life sciences. A large focus of the class centers on the impact of CRISPR on these technologies. Discuss the ethical implications of these technologies.

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

1. Explain the basic principles of genetics and the genetic basis of disease
2. Describe current approaches and challenges for gene therapy and gene editing
3. Explain how CRISPR-Cas technology has influenced genome editing
4. Discuss the ethical issues surrounding the recent advances in genome editing

Email: scott.bailey@jhu.edu

Lecture: T TH 1:30 PM - 2:50 PM
Lab Section: 01 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: A college level course in molecular biology.

**120.613.01 NUCLEIC ACID CHEMISTRY**

3 credits - Course offered this year - East Baltimore

Bryant, Randy

Discusses nucleic acid structure, and also describes techniques for manipulating and analyzing nucleic acids, including gel electrophoresis, PCR, and DNA sequencing. Reviews methods used to synthesize nucleosides, nucleotides and oligonucleotides, and chemical reactions that lead to modifications of nucleic acids. Additional topics include: nucleic acid molecular beacons and molecular wires; antisense and antigene oligonucleotides; nucleic acid nanostructures and "machines", and nucleic acid aptamers.

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

1. Design schemes to synthesize nucleosides, oligonucleotides and oligonucleotide conjugates
2. Predict the products of reactions between nucleic acids and various chemical agents, ionizing and ultraviolet radiation
3. Describe the design and function of antisense and antigene oligonucleotides, siRNAs, and nucleic acid aptamers
4. Describe how ribozymes and DNAzymes catalyze chemical reactions
5. Describe the design, synthesis and function of nucleic acid nanostructures and machines

Email: fbryant1@jhu.edu

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

Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for non-JHSPH students
Prerequisite: Organic Chemistry and Biochemistry and/or Molecular Biology

**120.627.01 STEM CELLS AND THE BIOLOGY OF AGING AND DISEASE**

3 credits - Course offered this year - East Baltimore

Drummond-Barbosa, Daniela
Exposes students to cutting-edge topics in stem cell biology through a combination of lectures and discussions based on primary literature. Topics include basic stem cell biology in an invertebrate and vertebrate systems, including germline, neural, and epithelial stem cells; the regulation of stem cells by physiology and aging; the connection between stem cells, telomerase, and cancer; and ethical issues pertaining to potential therapeutic applications of stem cells.

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

1. Explain some of the basic cellular and molecular mechanisms that ensure self-renewal of stem cells
2. Compare and contrast the regulation and function of stem cells in different systems
3. Explain how physiology and aging impacts stem cell behavior and function
4. Discuss how telomerase function is relevant to stem cells and cancers
5. Raise some of the ethical issues in stem cell research and its therapeutic applications.

Email: dbarbosa@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
Prerequisite: Course in biochemistry, molecular biology, or cell biology at undergraduate or graduate level.

120.627.81 STEM CELLS AND THE BIOLOGY OF AGING AND DISEASE
3 credits - Course offered this year - Internet
Zirkin, Barry; Wright, William

Exposes students to cutting-edge topics in stem cell biology through a combination of lectures and discussions based on primary literature. Topics include basic stem cell biology in an invertebrate and vertebrate systems, including germline, neural, and epithelial stem cells; the regulation of stem cells by physiology and aging; the connection between stem cells, telomerase, and cancer; and ethical issues pertaining to potential therapeutic applications of stem cells.

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

1. Explain some of the basic cellular and molecular mechanisms that ensure self-renewal of stem cells
2. Compare and contrast the regulation and function of stem cells in different systems
3. Explain how physiology and aging impacts stem cell behavior and function
4. Discuss how telomerase function is relevant to stem cells and cancers
5. Raise some of the ethical issues in stem cell research and its therapeutic applications.

Email: brzirkin@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
Prerequisite: Course in biochemistry, molecular biology, or cell biology at undergraduate or graduate level.

This is an online version of an existing course. The same individuals who teach onsite are teaching online.

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

**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

**120.822.01 SEMINARS IN RESEARCH IN BIOCHEMISTRY AND MOLECULAR BIOLOGY**

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

Matunis, Michael

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

**120.825.01 ADVANCED MHS STUDENT RESEARCH**

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

Jordan, Phil

Builds upon existing basic research skills in biomedical sciences and emphasizes more independent hands-on research working under the guidance of a faculty member in the Department of Biochemistry and Molecular Biology or affiliated principle investigator. Provides further experience for future research pursuits at JHU and beyond.

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
4. Propose future research endeavors related to current research
5. Relate research to relevant current literature

Email: pjordan8@jhu.edu

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
**120.830.01 POSTDOCTORAL 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

**120.840.01 SPECIAL STUDIES AND RESEARCH BIOCHEMISTRY**
variable credits Based on other coursework taken. - 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.

Information not required for this course type

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

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

Upon successfully completing this course, students will be able to:
1. Develop critical thinking skills and the ability to design hypothesis driven research questions
2. Develop the ability to design experiments to test hypothesis driven research questions
3. Master basic laboratory skills, including maintenance of an effective laboratory notebook
4. Develop effective written and oral communication skills

Lecture: TBA

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

**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

Bryant, Randy; Bryant, Randy

Provides a complement to the BCMB core curriculum. Student reads research papers relating to a core lecture topic. Discussions are led by a student while a faculty member from Biochemistry or MMI act as facilitator. Helps students to develop skills in reading the primary literature and provides an introduction to the experimental paradigms underlying the concepts presented in the core course.

Upon successfully completing this course, students will be able to:
1. Read and critically evaluate primary research literature in Biochemistry, Molecular and Cellular Biology

Email: fbryant1@jhu.edu

Lecture: T 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; Any students not in the BMB PhD program.

Requirement for students in the Department of Biochemistry & Molecular enrolled in core curriculum

**120.860.01 MHS THESIS PREPARATION**
2 credits - Course offered this year - East Baltimore
Departmental Faculty

Evans, Janice

Students engage in one-on-one independent study with a departmental faculty member who will be the student's thesis supervisor. Prepares students for completing the MHS using independent reading of papers from current literature, combined with meetings with the thesis supervisor to discuss the reading and how to recognize this research to develop the MHS thesis.

Upon successfully completing this course, students will be able to:
1. Undertake the library-based research required for the MHS thesis and will complete either an outline or a draft of the MHS thesis.

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite: None.

Students should register with their thesis advisor for this course.

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

140.612.94 STATISTICAL REASONING IN PUBLIC HEALTH II

3 credits - Course offered this year - India

Departmental Faculty

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

Upon successfully completing this course, students will be able to:
1. Interpret the results from simple linear regression to assess the magnitude and significance of the relationship between a continuous outcome variable and a binary, categorical or continuous predictor variable
2. Assess the strength of a linear relationship between two continuous variables via the coefficient of determination (R squared) and/or its counterpart, the correlation coefficient
3. Interpret the results from simple logistic regression to assess the magnitude and significance of the relationship between a binary outcome variable and a binary, categorical or continuous predictor variable
4. Interpret the results from simple Cox regression to assess the magnitude and significance of the relationship between a time to event variable and a binary, categorical or continuous predictor variable
5. Explain the assumption of proportional hazards, and what this means regarding the interpretation of hazard (incidence rate) ratios from Cox regression models
6. Explain how most of the hypotheses tests covered in Statistical Reasoning 1 can be expressed as simple regression models
7. Describe the conditions necessary for an exposure/outcome relationship to be confounded by one or more other variables
8. Explain how to interpret an adjusted association
9. Explain the concept of effect modification, and how it differs from confounding
10. Describe the process for assessing whether an outcome/exposure association is modified by another factor
11 Discuss why multiple regression techniques allow for the analysis of the relationship between an outcome and a predictor in the presence of confounding variables.

12 Utilize the results from all regression types covered (linear, logistic and Cox) to assess confounding and effect modification.

13 Use the results from linear regression models to predict the mean value of a continuous outcome variable for different subgroups of a population defined by different predictor set values.

14 Use the results from logistic regression models to predict the probability of a binary condition for different subgroups of a population defined by different predictor set values.

15 Explain what a propensity score is, and how it can be useful for estimating an adjusted outcome/exposure relationship in the presence of potentially many confounders.

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

Only students enrolled in the MPH program with IIHMR, Jaipur are permitted in this section.

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 140.611

This section is offered in Jaipur, India.

**140.613.20 DATA ANALYSIS WORKSHOP I**

2 credits - Course offered this year - East Baltimore

Kong, Xiangrong

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/IC versions 13.0, 14.0, or 15.0 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
9. Use STATA to visualize relationships between two continuous measures
10. Use STATA to fit simple linear regression models, and interpret relevant estimates from the results

Email: xkong4@jhu.edu

Days & Times with Start & End Dates: Feb 07, 2019 - Feb 09, 2019

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

Enrollment: Minimum 10, Maximum 45, Waitlist Enabled: Yes

Part-time DrPH students in the Tsinghua cohort only

Grading Options: Letter Grade or Pass/Fail

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

Prerequisite: Experience in using a statistical analysis package; 140.611-612

This course will be offered over a 2-day period in Baltimore. Students may be required to complete assignments prior to the start of class.

**140.614.20 DATA ANALYSIS WORKSHOP II**

2 credits - Course offered this year - East Baltimore

Kong, Xiangrong
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 (140.614), 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/IC versions 13.0, 14.0, or 15.0 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: xkong4@jhu.edu

Days & Times with Start & End Dates: Feb 10, 2019 - Feb 12, 2019
Lecture: T 8:30 AM - 5:00 PM
Enrollment: Minimum 10, Maximum 45, Waitlist Enabled: Yes
Part-time DrPH students in the Tsinghua cohort only
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; restricted to students in the Tsinghua DrPH cohort only
Prerequisite: 140.613

This course will be offered over a 2-day period in Baltimore. Students may be required to complete assignments prior to the start of class.

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

Email: iruczin1@jhu.edu

Lecture: M W F 10:30 AM - 11:20 AM
Lab Section: 01 W 1:30 PM-2:20 PM
Enrollment: Minimum 8, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Computer lab is 1:30-2:20. Students should bring a laptop, to take full advantage of the computer lab.

140.623.01 STATISTICAL METHODS IN PUBLIC HEALTH III
4 credits - Course offered this year - East Baltimore
Diener-West, Marie
Presents use of generalized linear models for quantitative analysis of data encountered in public health and medicine. Specific models include analysis of variance, analysis of covariance, multiple linear regression, logistic regression, and Cox regression.
Upon successfully completing this course, students will be able to:
1 Recognize the influence of sample size on statistical inferences
2 Appreciate the importance of relying upon many regression models to capture the relationships among a response and predictor in observational studies
3 Critique a proposed public health hypothesis to determine its suitability for testing using regression methods and the available data
4 Formulate and correctly interpret a multivariable linear, logistic or survival regression model to estimate a health effect while minimizing confounding and identifying possible effect modification
5 Distinguish between the underlying probability distributions for modeling time-to-event data
6 Employ Kaplan-Meier and Cox proportional hazards regression models to describe associations between risk factors and time to event data
7 Employ life-table methods and Poisson regression models to describe associations between risk factors and grouped survival data
8 Conduct a survival regression and correctly interpret the regression coefficients and their confidence intervals
9 Use statistical methods for inference to correctly interpret regression coefficients and their confidence intervals in order to draw valid public health inferences from data
10 Create and interpret tables of regression results including unadjusted and adjusted estimates of coefficients with confidence intervals from many models
11 Recognize the key assumptions underlying a multivariable regression model and judge whether departures in a particular application warrant consultation with a statistical expert
12 Use the statistical analysis packages Stata or R to perform univariate, bivariate and multivariable regression models and to document and archive the steps of the statistical analysis

Email: mdiener@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 M 1:30 PM-3:00 PM
Lab Section: 02 T 1:30 PM-3:00 PM
Lab Section: 03 W 1:30 PM-3:00 PM
Lab Section: 04 TH 1:30 PM-3:00 PM
Lab Section: 05 F 1:30 PM-3:00 PM
Lab Section: 06 M 3:30 PM-5:00 PM
Lab Section: 07 T 3:30 PM-5:00 PM
Lab Section: 08 W 3:30 PM-5:00 PM
Lab Section: 09 TH 3:30 PM-5:00 PM
Lab Section: 10 F 3:30 PM-5:00 PM
Special Lab Number: 140.923
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
For MPH, DrPH, "special students" and MHS degree candidates in departments to be determined
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for any non-SPH person who is not an undergraduate PH major
Prerequisite: 140.622
Administrative Course Fee: 40.0000
One 90-minute lab per week, lab is 140.923. As soon as you register for the course, please also register for one section of 140.923. Course Materials Fee is $40.00. 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.

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 10 of 154
140.623.02 STATISTICAL METHODS IN PUBLIC HEALTH III

4 credits - Course offered this year - East Baltimore

Jager, Leah

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

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

1. Recognize the influence of sample size on statistical inferences
2. Appreciate the importance of relying upon many regression models to capture the relationships among a response and predictor in observational studies
3. Critique a proposed public health hypothesis to determine its suitability for testing using regression methods and the available data
4. Formulate and correctly interpret a multivariable linear, logistic or survival regression model to estimate a health effect while minimizing confounding and identifying possible effect modification
5. Distinguish between the underlying probability distributions for modeling time-to-event data
6. Employ Kaplan-Meier and Cox proportional hazards regression models to describe associations between risk factors and time to event data
7. Employ life-table methods and Poisson regression models to describe associations between risk factors and grouped survival data
8. Conduct a survival regression and correctly interpret the regression coefficients and their confidence intervals
9. Use statistical methods for inference to correctly interpret regression coefficients and their confidence intervals in order to draw valid public health inferences from data
10. Create and interpret tables of regression results including unadjusted and adjusted estimates of coefficients with confidence intervals from many models
11. Recognize the key assumptions underlying a multivariable regression model and judge whether departures in a particular application warrant consultation with a statistical expert
12. Use the statistical analysis packages Stata or R to perform univariate, bivariate and multivariable regression models and to document and archive the steps of the statistical analysis

Email: ljager@jhu.edu

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

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

For PhD, ScM and MHS degree candidates in departments to be determined

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for any non-SPH person who is not an undergraduate PH major

Prerequisite: 140.622

Administrative Course Fee: 40.0000

One 90-minute lab per week, lab is 140.923. As soon as you register for the course, please also register for one section of 140.923. Course Materials Fee is $40.00. 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

Clemens, Gwendolyn

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: gclemen1@jhu.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
Consent required for some students; Consent required for non-Biostatistics students
Prerequisite:

140.631.01 THE SAS STATISTICAL PACKAGE: A SURVEY FOR STATISTICIANS
3 credits - Course offered this year - East Baltimore
McDermott, Aidan
Introduces students to the SAS statistical package in a Microsoft Windows environment. Using examples of public health data students learn to write programs to summarize and present data and to perform simple statistical analyses. Emphasizes the creation and manipulation of database structures suitable for statistical analyses. Using the interactive matrix language, introduces students to computation within a matrix environment and the development of modular programming techniques.
Upon successfully completing this course, students will be able to:
1 Write and execute programs using SAS syntax
2 Read and transform data in preparation for statistical analysis
3 Create tabular and graphical displays of data
4 Perform simple statistical analyses such as linear regression
5 Utilize the SAS matrix language to perform matrix computations
6 Employ optimization procedures and functions to maximize simple likelihoods
Email: amcderm1@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 1, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students must obtain consent
Prerequisite: 140.651 or 140.652

140.634.81 NON-INFERIORITY AND EQUIVALENCE CLINICAL TRIALS (Cancelled - Department)
2 credits - Course offered this year - Internet
Day, Simon; Foulkes, Mary
Presents the important differences between superiority trials and those intended to show either equivalent effect, or to show that one therapy is no worse than another (but might be better). Explores the problems of setting equivalence margins, preservation of some proportion of active control effect, and emphasizes the use of confidence intervals to interpret the results of studies. Discusses special issues of quality of the trial conduct, assay sensitivity, historical evidence of treatment effects and assumptions of constancy of treatment effects over time. Compares sample size requirements between superiority trials, equivalence trials and non-inferiority trials. Discusses the use of different analysis populations (ITT and per-protocol) and issues of changing conclusions between non-inferiority and superiority. Discusses the regulatory aspects of trial design and interpretation, and reviews existing regulatory guidance.
Upon successfully completing this course, students will be able to:
1 Define “superiority,” “equivalence,” and “non-inferiority” clinical trials
2 Assess the adequacy of published examples of equivalence and non-inferiority trials
3 Design equivalence and non-inferiority trials, knowing what special features are required
4 Present results from trials so that equivalence or non-inferiority can be adequately interpreted
Email: simon.day@CTCT-Ltd.co.uk
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite: Introduction to Online Learning. Good understanding of clinical trials. Possible background course could be 140.633 (Biostatistics in Medical Product Regulation).
Jointly offered with EPI
Course is pass/fail only, no letter grades. Students must have access to appropriate web tools to take on-line lectures, quizzes (which constitute 15% of the total grade) and exam, and to take part in LiveTalks.

140.640.01 STATISTICAL METHODS FOR SAMPLE SURVEYS
3 credits - Course offered this year - East Baltimore
3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 12 of 154
Ahmed, Saifuddin

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

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

1. Design and implement surveys with the following sampling designs: simple random, systematic, stratified, cluster and multistage
2. Estimate sample size for different sampling designs in order to estimate population level point estimates and testing null hypothesis
3. Explain and apply intra-class correlation and design-effects (DEFF) for complex surveys
4. Estimate design weights and adjust for non-response

Email: sahmed3@jhu.edu

Lecture: W 3:30 PM - 4:20 PM
Lecture: M 3:30 PM - 5:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.622, former 140.602, or 140.652
Jointly offered with PFRH

140.642.01 DESIGN OF CLINICAL EXPERIMENTS
3 credits - Course offered this year - East Baltimore

Sugar, Elizabeth

Introduces the process for developing biomedical experiments from a statistical perspective. Stresses methods of controlling for bias and variability through outcome selection, design, sample size calculation, and analysis. Emphasizes clinical trials and other types of medical experiments likely to be encountered by biometric researchers. Discusses elements of analysis as related to the design principles.

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

1. Frame a scientific hypothesis that evaluates the question of interest and addresses issues of equipoise, feasibility, and the stage of development of the intervention
2. Assess outcome variables for quantifying the scientific question of interest with an eye for bias, variability, duration, and availability
3. Discuss basic clinical trial design principles including bias control, random error control, randomization, blocking and masking
4. Describe specific types of designs of practical and historical interest including dose-finding, safety and efficacy, and comparative trials
5. Have a working knowledge of the quantitative properties of clinical trials including precision of estimation, power, and sample size
6. Discuss the importance of design and its relation to analysis of clinical trials
7. Describe the techniques for addressing analysis issues including missing data

Email: esugar2@jhu.edu

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

Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.621-23 or 140.611-14

140.644.01 STATISTICAL MACHINE LEARNING: METHODS, THEORY, AND APPLICATIONS
4 credits - Course offered this year - East Baltimore

Zipunnikov, Vadim

Introduces statistical and computational foundations of modern statistical machine learning. Acquaints students with modern statistical machine learning models and their statistical and theoretical underpinnings. Topics covered include: regression and classification, resampling methods (cross-validation and bootstrap), model and variable selection, tree-based methods for regression and classification, functional regression models, unsupervised learning, support vector machines, ensemble methods, deep learning, visualization of large datasets. Example applications include cancer prognosis from microarray data, graphical models for data visualization, a prediction of survival using high-dimensional predictors.

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

1. Identify the appropriate machine learning methods to address major scientific questions.
2. Interpret the results obtained by the common machine learning methods.
3. Describe methods to evaluate and compare the performance of the machine learning models.
4. Implement all analyses and methods within R.

Email: vzipunn1@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

Prerequisite: Students are expected to be familiar with the following topics to comfortably complete this class: Linear Algebra, Intermediate Statistics, and Basic R. If you do not know these topics, it is your responsibility to do background reading to make sure you understand these concepts.

140.648.01 ESSENTIALS OF PROBABILITY AND STATISTICAL INFERENCE III: THEORY OF MODERN STATISTICAL METHODS
4 credits - Course offered this year - East Baltimore
Scharfstein, Daniel

Builds on the concepts discussed in 140.646 and 140.647 to lay out the foundation for both classical and modern theory/methods for drawing statistical inference. Includes classical unbiased estimation, unbiased estimating equations, likelihood and conditional likelihood inference, linear models and generalized linear models, and other extended topics. De-emphasizes mathematical proofs and replaces them with extended discussion of interpretation of results and examples for illustration.

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

1. Describe the theoretical basis for the current methods used in statistical analysis.

Email: dscharf@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

Consent required for some students; Consent required only for students who have not taken 140.646 and 140.647
Prerequisite: Working knowledge of calculus
One 1-hour lab per week (time TBA)

140.653.01 METHODS IN BIOSTATISTICS III
4 credits - Course offered this year - East Baltimore
Zeger, Scott

Focuses on regression analysis for continuous and discrete responses, and data analyses that integrate the methods learned in 140.651-652. Regression topics include simple linear regression; a matrix formulation of multiple linear regression; inference for coefficients, predicted values, and residuals; tests of hypotheses; graphical displays and regression diagnostics; specific models, including polynomial regression, splines, one- and two-way ANOVA; variable selection; non-parametric regression; log-linear models for incidence rates and contingency tables; logistic regression; and generalized linear models.

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

1. Formulate a scientific question about the relationship of a continuous response variable Y and predictor variables X in terms of the appropriate linear regression model. Use indicator variables, linear and cubic regression splines, and interaction terms to represent major scientific questions in terms of a linear regression model.
2. Interpret the meaning of regression coefficients in scientific terms as if for a substantive journal. Explicitly define the epidemiologic terms “confounding” and “effect modification” in terms of multiple regression coefficients.
3. Develop graphical and/or tabular displays of the data to display the evidence relevant to describing the relationship of Y with one X controlling for others. Use an adjusted variables plot to explain the meaning of a multiple regression coefficient.
4. Estimate the model using a modern statistical package such as STATA or R and interpret the results for substantive colleagues. Derive the least squares estimators for the linear model and the distribution of coefficients, predicted values, residuals and linear functions of them.
5 Check the major assumptions of the model including independence and model form (mean, variance and distribution of residuals) and make changes to the model or method of estimation and inference to appropriately handle violations of standard assumptions. Use weighted least squares for situations with unequal variances. Use robust variance estimates for violations of independence or variance or distributional assumptions. Use regression diagnostics to prevent a small fraction of observations from having undue influence on the results.

6 Write a methods and results section for a substantive journal, correctly describing the regression model in scientific terms and the method used to specify and estimate the model. Correctly interpret the regression results to answer the specific substantive questions posed in scientific terms that can be understood by substantive experts.

7 Critique the methods and results from the perspective of the statistical methods chosen and alternative approaches that might have been.

Email: sz@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 T 3:30 PM-4:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.652

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

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

Email: ejohnso2@jhmi.edu
Lecture: M W 10:30 AM - 11:50 AM
Lab Section: 03 W 9:00 AM-10:20 AM
Enrollment: Minimum 8, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.621-624 or 140.651-654

The Advanced Topics lab sequence (Monday 9:00 - 10:20) is required for Biostatistics students; interested non-Biostatistics students may attend. The Implementation and Interpretation of Analysis of Longitudinal Data (Wednesday 9:00 - 10:20) is highly recommended for all students. The course faculty request that all cell phones be silenced during class time out of respect for both the faculty and students. The lecture notes will be posted as powerpoint and pdf files. The course faculty feel use of laptops during class time is fine for taking electronic notes.

140.664.01 CAUSAL INFERENCE IN MEDICINE AND PUBLIC HEALTH I
4 credits - Course offered this year - East Baltimore
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

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 15 of 154
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
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.621-624 or 140.651-654, or consent of the instructor
Jointly offered with MH

140.682.01 PRINCIPLES AND METHODS OF FUNCTIONAL NEUROIMAGING I (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Lindquist, Martin
Introduces the principles of functional magnetic resonance imaging (fMRI) as applied to human subjects research. 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 describing all aspects of an fMRI study from the initial experimental design, through data collection and pre-processing, to statistical analysis. Describes the goals and limitations for fMRI studies, the data format and how it is processed prior to statistical analysis. Focuses on preforming individual subject and group level univariate statistical analysis of fMRI data with appropriate thresholding and multiple comparison correction. Weekly labs provide a practical application of these concepts to sample datasets and prepares students for the analysis of fMRI data.

Upon successfully completing this course, students will be able to:
1 Describe key aspects of fMRI experimental design, and design and prepare a human subjects fMRI experiment
2 Explain the specific methods, source of MR signal, goals and limitations and research design issues for fMRI studies
3 Import and pre-process fMRI data including slice-timing correction, motion correction and registration
4 Perform individual subject and group-level univariate statistical analysis of fMRI data with appropriate thresholding and multiple comparison correction
5 Critically evaluate research methods and results of human subjects fMRI studies in published literature

Email: mlindquist@jhu.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: An introductory statistics class and a working knowledge of regression

140.698.01 SPATIAL ANALYSIS III: SPATIAL STATISTICS
4 credits - Course offered this year - East Baltimore
Curriero, Frank
Introduces statistical techniques used to model, analyze, and interpret public health related spatial data. Analysis of spatially dependent data is cast into a general framework based on regression methodology. Topics covered include the geostatistical techniques of kriging and variogram analysis and point process methods for spatial case control and area-level analysis. Although the focus is on statistical modeling, students will also cover topics related to clustering and cluster detection of disease events. Although helpful, knowledge of specific GIS software is not required. Instruction in the public domain statistical package R, (to be used for analysis), is provided.

Upon successfully completing this course, students will be able to:
1 Describe the concept of spatial dependence and apply techniques to quantify it with different types of spatial data
2 Conduct routine spatial statistical analysis using extended regression techniques within the R Statistical Computing Environment software
3 Identify the potential consequences of overlooking spatial information when conducting certain types of public health research

Email: fcurriero@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
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: 140.621.-623 (enrollment in 140.623 may be concurrent with enrollment in this course)
Jointly offered with EPI
The course schedule includes 2 lecture periods and one lab per week. The lab hour is devoted mostly to computing for the assigned problem sets.

140.723.01 PROBABILITY THEORY III
3 credits - Course offered this year - East Baltimore
Tomasetti, Cristian
Presents the second part of the classical results of probability theory: central limit theorems, Poisson convergence, coupling, Stein-Chen method, densities, derivatives and conditional expectations.
Upon successfully completing this course, students will be able to:
1. Derive the probability distribution to which a sequence of distributions or a series converge
2. Derive a bound on the distance between a random variable and a Poisson
3. Define and derive conditional expectations

Email: ctomase2@jhmi.edu
Lecture: T TH 3:30 PM - 4:20 PM
Lab Section: 01 W 9:30 AM-10:20 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: Calculus, real analysis; 140.721-2

140.733.01 STATISTICAL THEORY III
4 credits - Course offered this year - East Baltimore
Frangakis, Constantine
Derives the large sample distribution of the maximum likelihood estimator under standard regularity conditions; develops the delta method and the large sample distribution of functions of consistent estimators, including moment estimators; introduces the theory of estimation in semiparametric regression models based on increasing approximation of parametric models; develops likelihood intervals and confidence intervals with exact or approximate properties; develops hypothesis tests through decision theory.
Upon successfully completing this course, students will be able to:
1. Derive the normal approximation to the distribution of the maximum likelihood estimator of a scientific quantity
2. Identify whether the normal approximation is expected to give accurate inference
3. Formulate semiparametric models for regression problems without relying on normality and homoscedasticity; and derive consistent estimators, with approximate variance estimates, for the regression parameters
4. Approximate the variance of functions of estimators
5. Derive confidence intervals/joint confidence regions and tests for quantities of interest, robust to assumptions of normal approximations

Email: cfranga1@jhu.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: Calculus, real analysis; 140.721-2
Final grade applies to all terms
One 1-hour lab per week (time TBA)

140.753.01 ADVANCED METHODS IN BIOSTATISTICS III
4 credits - Course offered this year - East Baltimore
Ji, Hongkai
Introduces generalized linear model (GLM). Foundational topics include: contingency tables, logistic regression for binary and binomial data, models for polytomous data, Poisson log-linear model for count data, and GLM for exponential family. Introduces methods for model fitting, diagnosis, interpretation and inference and expands on those topics with techniques for handling overdispersion, quasi-likelihood and conditional likelihood. Introduces the role of quantitative methods and sciences in public health, including how to use them to describe and assess population health, and the critical importance of evidence in advancing public health knowledge.

Upon successfully completing this course, students will be able to:
1. Use generalized linear model (GLM) to analyze continuous, categorical and count data
2. Construct, fit and interpret different types of GLM in the context of scientific and public health applications
3. Understand connections and differences between logistic regression, Poisson log-linear regression and linear regression
4. Conduct statistical inference in these models
5. Diagnose model assumptions
6. Deal with overdispersion in GLM
7. Expand the model and inference tools with quasi-likelihood and conditional likelihood
8. Extend linear model to account for clustering using random effects
9. Apply theoretical concepts to scientific data using R software
10. Improve computational and analytic skills through analysis of simulated and real data sets
11. Explain the role of quantitative methods and sciences in describing and assessing a population’s health
12. Explain the critical importance of evidence in advancing public health knowledge

Email: hji@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 T 9:00 AM-10:20 AM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.751-752; Students must also register for 140.754

140.762.01 BAYESIAN METHODS I
3 credits - Course offered this year - East Baltimore
Rosner, Gary;Scharpf, Robert
Illustrates current approaches to Bayesian modeling and computation in statistics. Describes simple familiar models, such as those based on normal and binomial distributions, to illustrate concepts such as conjugate and noninformative prior distributions. Discusses aspects of modern Bayesian computational methods, including Markov Chain Monte Carlo methods (Gibbs' sampler) and their implementation and monitoring. Bayesian Methods I is the first term of a two term sequence. The second term offering, Bayesian Methods II (140.763), develops models of increasing complexity, including linear regression, generalized linear mixed effects, and hierarchical models.

Upon successfully completing this course, students will be able to:
1. Explain the difference between the Bayesian approach to statistical inference and other approaches
2. Develop Bayesian models for combining information across data sources
3. Write and implement programs to run analyses
4. Evaluate the influence of alternative prior models on posterior inference
5. Plot and interpret posterior distributions for parameters of scientific interest

Email: grosner1@jhmi.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Biostatistics 140.651 and 140.652, or instructor consent

140.773.01 FOUNDATIONS OF STATISTICAL INFERENCE
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: 140.772

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

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

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 19 of 154
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

390.721.01 PRINCIPLES OF GRANT WRITING I

2 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: T 8:30 AM - 10:20 AM

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

Must be GTPCI students

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; This course is restricted to GTPCI students.

Multi-term with 390.722

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**

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 20 of 154
Environmental Health and Engineering
180.601.81 ENVIRONMENTAL HEALTH
5 credits - Course offered this year - Internet
Bressler, Joseph
Summarizes the concepts and principles underlying environmental health sciences, characterizes the major environmental agents and vectors affecting public health, and introduces major ecologic, scientific, and political issues from selected topical areas of environmental health. Presents the major concepts and principles that are environmentally mediated and that constitute a risk to humans —emphasizing the chemical, biological, and physical agents and factors. Then, considers sources, environmental pathways of transmission, exposure-dose relationships, adverse health effects, and particularly susceptible populations. Identifies the principles and methods of risk assessment and risk management, and uses these as a unifying theme.

Upon successfully completing this course, students will be able to:
1. Identify the major environmental contaminant (i.e. environmental chemical, biological, and physical agents that cause adverse effects on human health) and their sources
2. Explain the transport and fate of these contaminant in the environment, and identify the carriers or vectors (air, water, soil, and food) that promote the transfer of these agents from the environment to the human
3. Explain the toxicokinetics of these contaminants in the body, including the effect of route of entry (inhalation, ingestion, absorption)
4. Explain the toxicodynamics of these contaminant, including biotransformation and the mechanisms by which they exert adverse health effects, and the use of models for prediction of the magnitude of adverse effects
5. Identify and explain the steps in the risk assessment process, including both exposure and dose-response assessment, and the sources and magnitude of uncertainty
6. Identify the process involved in developing regulations for protecting the environment
7. Apply the information from the lectures to your life choices and those of your of your neighbors
8. Critique the ethical issues in conducting policies affecting the environment

Email: jbress11@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning; college courses in general biology, algebra, and physics or chemistry.

This course is offered in two venues: summer term in East Baltimore and third term online. The third term distance education venue is a pure internet course, with all lectures, discussions, and other interactions occurring via the web. The summer term East Baltimore venue is a combination face-to-face class session for delivery of selected lectures and for all question and answer and discussion sessions, along with Internet delivery of all other lectures.

This course’s lecturers are internationally known experts in the fields of exposure assessment, biomarkers, and toxicology. For a list of specific course topics, please refer to the schedule.

180.602.01 ENVIRONMENT AND HEALTH IN LOW AND MIDDLE INCOME COUNTRIES
2 credits - Course offered this year - East Baltimore
George, Christine
Introduces how environmental health hazards can affect human health in low and middle income settings. Core concepts are exposure assessment, environmental epidemiology, and mitigating exposure. Topics include: heavy metals, water sanitation and hygiene, waterborne and related diseases, energy resources and health, air pollution, and second-hand smoke.

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 21 of 154
Upon successfully completing this course, students will be able to:

1. Explain how toxicology, microbiology, and epidemiology can be used to identify environmental exposures and how they can adversely affect human health.
2. Critically review and synthesize scientific publications on environmental health.
3. Identify environmental health hazards in low and middle income countries.
4. Identify and critically analyze mitigation options.
5. Identify a position on a topic related to environmental health and utilize available scientific evidence to organize an oral and written defense of your position.

Email: cgeorg19@jhu.edu
Lecture: F 1:30 PM - 3:20 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Jointly offered with IH

180.623.01 INFECTIOUS DISEASE THREATS TO GLOBAL HEALTH SECURITY
3 credits - Course offered this year - East Baltimore
Nuzzo, Jennifer

This course will introduce students to the major health security threats that face the US and other countries and the strategies, policies and organizations that are in place to defend against them. Throughout the course, we will make notes of areas where approaches to health security have evolved. We will also examine where important gains in health security preparedness have been made and identify areas in which progress is still needed. Given their particular challenges and frequency with which they occur, preparedness for and response to biological threats to health security will be a large focus of this class. Discussions of other health security threats and sharing of experiences from students are welcome.

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

1. Articulate the importance of public health to national security.
2. Describe major global health security threats and characterize the human, social, economic and political risks they pose to societies.
3. Describe the origin and evolution of major US and international organizations and initiatives to prevent, detect, and respond to health security threats.
4. Identify those areas of global health security where preparedness is strongest and where additional progress is needed.
5. Complete a scholarly analysis of a specific current topic in global health security and make recommendations for needed improvements.
6. Communicate important health security information in a way that enables political leaders and policy-makers to take appropriate action.

Email: jnuzzo1@jhu.edu
Lecture: W F 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

180.624.01 BIOTECHNOLOGY AND HEALTH SECURITY
3 credits - Course offered this year - East Baltimore
Gronvall, Gigi

Prepares students to examine the complex issues surrounding the security of advances in the biological sciences, and their impact on public health. Acquaints students with medical and public health options that may be possible as a result of biotechnology advances—for example, to rid areas of malaria-carrying mosquitoes. Will also acquaint students with the difficult history of past bioweapons programs in the 20th century, and the continuing effect that history has on current biodefense and health security efforts. Introduces the concept of the dual-use dilemma—that is, how biotechnologies may have applications for good and harm—and explores how current biotechnology advances may be applied towards security aims, or could be misused. Topical issues in science and security policy, including genetically modified organism (GMO) controversies, will be explored, researched, and debated. Encourages application of critical thinking skills through class discussions and written assignments.

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

1. Identify biotechnological developments and trends that will help improve prevention and response efforts for biological threats.
2. List at least 3 current biotechnology efforts underway that will affect public health.
3 Compare and contrast biosafety and biosecurity
4 Explain the dual-use dilemma in the biosciences and biotechnology
5 Critique several US and international policy mechanisms for reducing biosecurity vulnerabilities
6 Identify biases in news articles describing biosecurity vulnerabilities and potential responses
7 Describe in layman’s terms several major drivers of the dual-use dilemma in the biosciences, including synthetic biology, gene editing technologies, and DNA synthesis
8 Link possible policy options to current biosecurity threats, and craft memos to describe them

Email: ggronvall@jhu.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

180.625.01 COMMUNITY-DRIVEN EPIDEMIOLOGY AND ENVIRONMENTAL JUSTICE
3 credits - Course offered this year - East Baltimore
Heaney, Christopher
Introduces principles, concepts, and methods in community-driven environmental justice research. Presents current environmental justice research and future research needs. Offers practice opportunities for active involvement in problem-solving in environmental justice research. Provides students an opportunity to develop facility with analytic methods needed to conduct research into community environmental justice concerns.
Upon successfully completing this course, students will be able to:
1 Identify conceptual and methodological issues related to environmental justice research, including issues of race and class in environmental health and the history of environmental justice movements
2 Identify key principles of community-based participatory research and explain and analyze how these have been integrated into environmental justice movements
3 Synthesize and integrate information from community members about their environmental justice concerns
4 Identify, describe, and choose environmental and occupational epidemiologic study designs and analyses that are appropriate for investigations into community environmental justice concerns
5 Develop research questions or testable hypotheses that respond to community concerns about disproportionate impacts and environmental injustice
6 Complete analyses and prepare reports that address community environmental justice and policy needs

Email: cheaney1@jhu.edu
Lecture: W F 1:30 PM - 2:50 PM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
No undergraduate students may enroll
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Students not enrolled in an EHE degree program
Prerequisite: Completion of 550.600 Responsible Conduct of Research, 180.609 Principles of Environmental Health OR 180.601 Environmental Health.
Additionally, it is highly recommended that students have completed or are enrolled in 340.751-340.753 Epidemiologic Methods 1-3 (preferred) OR 340.721-340.722 Epidemiologic Inference in Public Health I – III. Also highly recommended are 140.621–623 Statistical Methods in Public Health I–III OR 140.711-140.722 Advanced Data Science I-II.

180.629.01 ENVIRONMENTAL AND OCCUPATIONAL HEALTH LAW AND POLICY (Discontinued)
4 credits - Course offered this year - East Baltimore
Locke, Paul
Examines the legal systems, institutions and policies upon which environmental and occupational health protection are based. Focuses on how US and international environmental, and occupational health laws, regulations and policies apply to public health and evaluates the strengths and weaknesses of laws as intervention tools. Topics covered include significant US federal environmental and occupational health statutes (for example, the Clean Air Act, Superfund, Community Right-to-Know, Safe Drinking Water Act, Occupational Safety and Health Act), international environmental law principles and treaties, international human rights issues, how laws deals with emerging health issues and environmental justice and facility siting.
Upon successfully completing this course, students will be able to:
1 Discuss how to use laws, regulations and policies for public health intervention
2 Discuss the strengths and weaknesses of these laws, regulations and policies
3 Analyze how legal institutions, such as the courts and agencies, affect public policy and decision-making
4 Evaluate how laws and policies influence environmental health decision-making

Email: plocke@jhu.edu
Lecture: M W 3:30 PM - 5:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Students who take 180.628.81, Introduction to Environmental and Occupational Health Law can not take this course.

180.640.01 MOLECULAR EPIDEMIOLOGY AND BIOMARKERS IN PUBLIC HEALTH
4 credits - Course offered this year - East Baltimore
Strickland, Paul
Emphasizes the scientific basis of molecular epidemiology and provides examples of the application of molecular biology, analytical chemistry, and toxicology to the study of chronic disease etiology and its public health application, including examples in human cancer, cardiovascular, immunological, and neurological diseases. Also discusses methodological and study design problems.
Upon successfully completing this course, students will be able to:
  1. Describe how and when molecular and chemical biomarkers can be applied in public health biomonitoring and in epidemiological studies
  2. Articulate the difference between biomarkers of exposure, dose, effect, and susceptibility in various chronic diseases
  3. Discuss methodological and study design problems in applying biomarkers in epidemiological studies
  4. Compare the attributes and deficiencies of particular biomarker assays for biomonitoring and molecular epidemiology
  5. Determine if you should sacrifice banked serum samples to analysis by a particular biomarker assay
  6. Explain the importance of the half-life of a biomarker to an epidemiological study design
  7. Discuss the validation process for new biomarkers prior to application in formal studies

Email: pstrick1@jhu.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
Prerequisite: 340.601-602 or consent of instructor
Additional 1 hour TBA

180.651.01 ENERGY, ENVIRONMENT, AND PUBLIC HEALTH
2 credits - Course offered this year - East Baltimore
Chaitkin, Stuart
Examines why energy policy choices are so important to human health and well-being. Explores how the impacts of energy exploration, generation, and usage patterns are tied directly to economic prosperity, the condition of the environment, the health of the population, and even aspects of national and international security, for developed as well as developing nations. Discusses and presents potential solutions to the three biggest energy challenges: (1) meeting the basic energy needs of the world’s poorest people in a more healthful manner, (2) de-carbonizing electricity generation, and (3) reducing oil dependence. Emphasizes that energy is the core of the environment problem and environment is the core of the energy problem.
Upon successfully completing this course, students will be able to:
  1. Define the basic linkages between energy impacts and public health
  2. Identify the principal negative impacts associated with energy exploration, generation, and consumption in developing as well as developed countries
  3. Distinguish between potentially valid and overly hyped claims about energy performance, energy impacts, or energy technologies
  4. Assess a range of policy choices for reducing the impacts of energy consumption on public health

Email: schaitk1@jhmi.edu
Lecture: M 1:30 PM - 3:20 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Enrollment restricted to graduate students and undergraduate students in their senior year
Grading Options: Letter Grade or Pass/Fail
180.655.01 BALTIMORE FOOD SYSTEMS: A CASE STUDY OF URBAN FOOD ENVIRONMENTS
4 credits - Course offered this year - East Baltimore
Neff, Roni
Students look closely at Baltimore City's complex food environment using discussion, experiential learning, discussion, lectures and related texts. Students consider improvements to these systems to assure access to nutritious, adequate, affordable and sustainably produced foods, and to increase supply and demand of these foods; to address diet related disease; and to reduce food system environmental harms. Students "go backstage" with tour guides at sites around the city. Class sessions are primarily discussion-oriented, but also include lectures and guest visits. Students consider the relative impacts of access, demand, cost, stakeholder interests, administrative issues, history, and power, and consider the relative strengths of voluntary, governmental, legal and other strategies. They also consider applicability of lessons from Baltimore to other area food systems.

Upon successfully completing this course, students will be able to:
1 Analyze responses to challenges and opportunities within Baltimore's food system
2 Discuss key factors that have shaped food systems in Baltimore and other urban locales
3 Describe from first-hand experience the clientele, operations, key opportunities, and challenges in advancing positive change in Baltimore food and agriculture system sites
4 Discuss innovative food system interventions being considered in Baltimore and elsewhere
5 Describe how food systems and food environments relate to public health broadly and environmental public health more specifically
6 Conduct and document oral history interviews
7 Comment on how the city's history has contributed to the current food system

Email: rneff1@jhu.edu
Lecture: W F 10:00 AM - 11:50 AM
Enrollment: Minimum 9, Maximum 20, Waitlist Enabled: Yes
No auditors allowed.
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students should obtain consent.
We provide time for students to arrange transportation with other students for the field trips, service learning; you do not need a car to participate.

180.660.01 INTRODUCTORY PRINCIPLES OF ENVIRONMENTAL HEALTH
3 credits - Course offered this year - East Baltimore
Departmental Faculty
Provides an introduction to the concepts and principles of environmental health -- the effects of the environment on human health. Presents the major concepts and principles of environmental health, and their relation to the practice of public health. Course utilizes selected environmental agents and vectors as exemplars of these concepts and principles. Intended for MHS students (this course does not meet the Environmental Health requirement for the MPH program).

Upon successfully completing this course, students will be able to:
1 Define the types, sources, and distribution of environmental agents
2 Identify the media in which agents are transmitted, and describe how these agents interact with biological systems, and the mechanisms by which they exert adverse effects
3 Understand the nature of an agent’s adverse effects from its physical, chemical or infectious properties, and how the effects may manifest in public and environmental health
4 Describe the models used for prediction of the magnitude of adverse effects
5 Identify significant gaps in the current knowledge base concerning health effects of environmental agents, and areas of uncertainty in the risk assessment process
6 Describe selected current legislation and regulation regarding environmental issues

Lecture: TH 5:00 PM - 8:00 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
This course does not meet the EHS requirement for the MPH program

180.664.01 GRANT WRITING II
1 credits - Course offered this year - **East Baltimore**

Wills-Karp, Marsha

Enables doctoral students to attain skills in writing successful funding proposals—that is, proposals that are likely to receive approval for funding. Introduces students to grant writing, funding sources, types of NIH grants, how to read an RFA, PA or other announcements, and develop a biosketch. Explores the requirements of a successful NIH style grant proposal.

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

1. Identify the appropriate grant mechanism for his or her idea
2. Analyze and interpret Requests For Applications (RFAs)
3. Distinguish the appropriate study sections for submissions
4. Ascertained scoring systems and review processes for a variety of proposals
5. Construct an F31 Proposal in the requested format

Email: mwkarp@jhu.edu

Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
EHS PhD students only
Grading Options: Pass/Fail
Consent required for some students; Consent is required for students not in EHS
Prerequisite: 180.661.01 WRITING SCIENTIFIC PAPERS I
180.662.01 WRITING SCIENTIFIC PAPERS II
180.663.01 GRANT WRITING I
Final grade applies to all terms
to be held in departmental space

**180.820.01 DOCTORAL THESIS RESEARCH**

variable credits 1-22 - Course offered this year - **East Baltimore**

Departmental Faculty

Provides an opportunity to actively conduct research in environmental health

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

1. Write a publishable manuscript

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Doctoral students in EHE only
Grading Options: Pass/Fail
Register with adviser

**180.840.01 DOCTORAL SPECIAL STUDIES & RESEARCH**

variable credits 1-22 - Course offered this year - **East Baltimore**

Departmental Faculty

Provides a forum for students to get feedback on their research ideas and projects. Acquaints students with research of leading environmental health experts.

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

1. Identify areas of interest for current and future research

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Doctoral students in EHE only
Grading Options: Pass/Fail
Register with adviser

**180.860.01 EHE STUDENT SEMINAR & GRAND ROUNDS**

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

Departmental Faculty

Provides a forum for students to present their current research project and receive feedback from faculty and students. Introduces students to research of leading environmental health experts.
Upon successfully completing this course, students will be able to:

1. Discuss and provide feedback on research proposals and projects

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

Only students in EHE may enroll

181.845.01 MHS SPECIAL STUDIES & RESEARCH
variable credits 1-22 - Course offered this year - East Baltimore
Departmental Faculty
Provides a forum for students to receive feedback on essay topics and outlines.
Upon successfully completing this course, students will be able to:

1. Identify an essay topic relevant to environmental health

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
MHS students in the Department of Environmental Health & Engineering
Grading Options: Pass/Fail
Register with adviser as the instructor

MHS students will enroll in this course during terms 2 and 3.

181.850.01 MHS ESSAY
1 credits - Course offered this year - East Baltimore
Departmental Faculty
Provides the opportunity for the student to work with their adviser to formulate, research, finalize, and gain approval of the required essay.
Upon successfully completing this course, students will be able to:

1. Identify and propose solutions to environmental health issues
2. Apply analytical and technical skills to conducting literature reviews
3. Produce a high quality written document

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
MHS students in EHE only
Grading Options: Pass/Fail
The student's adviser serves as course instructor.

182.613.01 EXPOSURE ASSESSMENT TECHNIQUES FOR HEALTH RISK MANAGEMENT
3 credits - Course offered this year - East Baltimore
Ramachandran, Gurumurthy
Prepares the students to use techniques of exposure assessment to quantitatively estimate exposures in occupational and non-occupational settings. Students will be introduced to concepts of exposure variability and its implications for interpreting small exposure data sets. Students will apply advanced techniques such as mathematical modeling of exposures using exposure determinant information, analysis of variance for between- and within-subject variability, Monte Carlo analysis of uncertainty, Bayesian decision analysis using small data sets, exposure assessment strategies in occupational settings. Students will analyze case studies to assess exposures in real-life scenarios using multiple methods. Students will critically evaluate key scientific papers on exposure assessment strategies.
Upon successfully completing this course, students will be able to:

1. Understand the nature of exposure problems in occupational and non-occupational environments
2. Understand principles and methodologies of exposure analysis
3. Design studies to measure exposure, and interpret data obtained from such studies
4. Develop effective exposure assessment strategies for occupational hygiene decision-making
5. Understand the sources and nature of variability in worker exposure data
6. Be proficient in the use of mathematical models for quantifying exposures
7. Be able to select proper techniques to estimate exposures to chemical, physical, and biological agents

Email: gramach5@jhu.edu

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 27 of 154
THIRD TERM COURSE SCHEDULE 2018-2019 -- January 22 - March 15, 2019

Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, 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
Industrial Hygiene lab course (182.614.01)

182.613.81 EXPOSURE ASSESSMENT TECHNIQUES FOR HEALTH RISK MANAGEMENT
3 credits - Course offered this year - Internet
Ramachandran, Gurumurthy
Prepares the students to use techniques of exposure assessment to quantitatively estimate exposures in occupational and non-occupational settings. Students will be introduced to concepts of exposure variability and its implications for interpreting small exposure data sets. Students will apply advanced techniques such as mathematical modeling of exposures using exposure determinant information, analysis of variance for between- and within-subject variability, Monte Carlo analysis of uncertainty. Bayesian decision analysis using small data sets, exposure assessment strategies in occupational settings. Students will analyze case studies to assess exposures in real-life scenarios using multiple methods. Students will critically evaluate key scientific papers on exposure assessment strategies.

Upon successfully completing this course, students will be able to:
1. Understand the nature of exposure problems in occupational and non-occupational environments
2. Understand principles and methodologies of exposure analysis
3. Design studies to measure exposure, and interpret data obtained from such studies
4. Develop effective exposure assessment strategies for occupational hygiene decision-making
5. Understand the sources and nature of variability in worker exposure data
6. Be proficient in the use of mathematical models for quantifying exposures
7. Be able to select proper techniques to estimate exposures to chemical, physical, and biological agents

Email: gramach5@jhu.edu

Enrollment: Minimum 10, 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
Industrial Hygiene lab course (182.614.01)

182.615.01 AIRBORNE PARTICLES (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Koehler, Kirsten
Describes the basics of airborne particles. Explores properties of gases, particle motion, size statistics, Brownian motion and diffusion, curvilinear motion of particles, particle deposition and clearance in the human respiratory system, filtration, aerosol samplers, and sampling methodology, optical properties and electrical properties of aerosols.

Upon successfully completing this course, students will be able to:
1. Calculate properties of gases, particle motion, size statistics, Brownian motion, and diffusion
2. Analyze particle deposition and clearance in humans
3. Assess particle filtration, aerosol samplers, and sampling
4. Assess the usefulness and limitations of optical and electric methods for aerosol sampling

Email: kkoehle1@jhu.edu
Lecture: W F 1:30 PM - 3:20 PM
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: College physics or consent of instructor

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 28 of 154
182.623.01 OCCUPATIONAL HEALTH MANAGEMENT (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Averill, Dennis
Examines modern Lean management methodology and how it can be leveraged to design and implement an effective health, safety, and environmental (HSE) management system in an organization. Delves into Lean management methods and tools and how they impact organizational structure, SHE planning, risk assessment, training, and continuous HSE improvement.

Upon successfully completing this course, students will be able to:
1. Demonstrate an understanding of the evolution of management thought and how it has influenced occupational health, safety, and environmental (HSE) management
2. Demonstrate an understanding of and apply Lean management methodology to improving health, safety, and sustainability performance in organizations
3. Apply continuous improvement and Lean management tools to occupational health and safety including: loss trees, root cause analysis, OPLs, 5S, visual methods, and Kaizen
4. Utilize current concepts of leadership and change management to improve HSE management
5. Demonstrate an understanding of HSE risk assessment methods

Email: daveril1@jhu.edu
Lecture: M 1:30 PM - 3:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

182.623.81 OCCUPATIONAL HEALTH MANAGEMENT
3 credits - Course offered this year - Internet
Averill, Dennis
Examines modern Lean management methodology and how it can be leveraged to design and implement an effective health, safety, and environmental (HSE) management system in an organization. Delves into Lean management methods and tools and how they impact organizational structure, SHE planning, risk assessment, training, and continuous HSE improvement.

Upon successfully completing this course, students will be able to:
1. Demonstrate an understanding of the evolution of management thought and how it has influenced occupational health, safety, and environmental (HSE) management
2. Demonstrate an understanding of and apply Lean management methodology to improving health, safety, and sustainability performance in organizations
3. Apply continuous improvement and Lean management tools to occupational health and safety including: loss trees, root cause analysis, OPLs, 5S, visual methods, and Kaizen
4. Utilize current concepts of leadership and change management to improve HSE management
5. Demonstrate an understanding of HSE risk assessment methods

Email: daveril1@jhu.edu
Lecture: M 1:30 PM - 3:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

182.626.01 ISSUES FOR WATER AND SANITATION IN TROPICAL ENVIRONMENTAL HEALTH
2 credits - Course offered this year - East Baltimore
Schwab, Kellogg
Introduces major environmental health problems in the tropical areas of the world and discusses some solutions in detail. Covers engineering, human behavior, and public health approaches to providing potable water and sanitation including simple water supplies, sanitary latrines, the relationship of water supply and sanitation to diarrheal diseases, disaster sanitation, and techniques for disinfection. Demonstrates field treatment of water supplies and water microbiology. Each student develops a case study drawn from current events and designs a field project for an environmental control measure to reduce disease in a community.

Upon successfully completing this course, students will be able to:
1. Define some engineering and behavior health and environmental problems confronting populations living in poorer parts of the world
2. Analyze some relevant situations and develop interventions to manage some of these situations

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 29 of 154
3 Describe what factors contribute to the spread and proliferation of fecal and waterborne disease in developing countries

4 Explain the role of improved sanitation and adequate water supplies in improving quality of life and discuss what is meant by appropriate technology and village level of maintenance

5 Describe some factors that affect local availability of water and improved water supplies by observing examples and through class discussion and debate of current case studies

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

Email: kschwab1@jhu.edu
Lecture: T 8:30 AM - 10:20 AM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Instructor consent required for undergraduate students

182.637.81 NOISE AND OTHER PHYSICAL AGENTS IN THE ENVIRONMENT
4 credits - Course offered this year - Internet
Anna, Daniel
Addresses noise-related topics such as physics of noise propagation and control, noise measurement, hearing physiology, and noise-induced hearing loss. Covers ionizing and non-ionizing radiation, lasers, and heat stress.
Upon successfully completing this course, students will be able to:
1 Describe the components of an acceptable hearing conservation program
2 Define the mechanisms by which noise induces hearing loss
3 Calculate noise exposure metrics and compare them to acceptable exposure criteria
4 Operate sound level meters and noise dosimeters
5 Define the hazard classification system for laser safety programs
6 Assess the acceptability of exposures to radiofrequency non-ionizing radiation
7 Describe basic radiation health concepts and methods for detecting ionizing radiation
8 Assess occupational heat stress risk
Email: danna1@jhu.edu
Enrollment: Minimum 5, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 182.640.01 FOOD- AND WATER-BORNE DISEASES

182.640.01 FOOD- AND WATER- BORNE DISEASES
3 credits - Course offered this year - East Baltimore
Schwab, Kellogg
Discusses food- and water-borne intoxicants and infections, diseases linked to eating and drinking, and prevention of food and water-borne diseases. Topics include transmission of disease via food and water, disease processes in food- and water-related illness, microbial toxins, mycotoxins, chemical toxins, bacterial infections (salmonellosis, shigellosis, vibrio, listeria, etc.) virus and parasitic infections, organizing safe food and water supplies, and issues in food and water safety.
Upon successfully completing this course, students will be able to:
1 Identify the pathogens and chemicals of human health concern present in water and food
2 Distinguish the primary features of microorganisms and chemicals that facilitate their persistence in water and food matrices and induce illness in humans
3 Describe how safe food and drinking water are produced and the mechanisms for treatment and disposal of waste
4 Define key components of successful food and waterborne outbreak investigations by the critical review of selected case studies
5 Characterize the effectiveness of the food and water legislative programs and regulations established to protect human health
Email: kschwab1@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
Consent required for some students; Consent required for undergraduate students.

**182.810.01 MSPH FIELD PLACEMENT**

variable credits 1-22 - Course offered this year - **East Baltimore**

Departmental Faculty

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 1, No maximum enrollment required, Waitlist Enabled: No

MSPH students in EHE only

Grading Options: Pass/Fail

Register with adviser

**182.845.01 MSPH SPECIAL STUDIES AND RESEARCH**

variable credits 1-22 - Course offered this year - **East Baltimore**

Departmental Faculty

Prepares students to identify and research the central issues in environmental health.

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

1. Identify areas of interest for current and future research

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No

MSPH students in EHE only

Grading Options: Pass/Fail

Register with adviser

**182.850.01 MSPH ESSAY**

variable credits 1-22 - Course offered this year - **East Baltimore**

Departmental Faculty

Students work with their adviser 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.

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

1. Augment their training by pursuing an independent project within their particular area of interest or specialized competency
2. Prepare a professional report on their findings
3. Present in an oral seminar setting

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No

MSPH students in EHE only

Grading Options: Pass/Fail

Register with adviser

**183.638.01 MECHANISMS OF CARDIOPULMONARY CONTROL**

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

Fitzgerald, Robert

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

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

1. Identify and explain at least on a basic level the role of the various receptors, afferent pathways, centers, and efferent pathways to the effectors of the cardiopulmonary control system, in both the sympathetic and parasympathetic nervous systems
2 Explain in detail several examples of the interaction between the cardiovascular and pulmonary systems
3 Demonstrate the effect of anesthesia on the control of the cardiopulmonary system's response to stimuli (e.g., hypoxia)

Email: rfitzger@jhu.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
Prerequisite: 183.631 - Fundamentals of Physiology or Consent of Instructor; ME 360.720 - Physiology, recommended

183.825.01 SCM THESIS RESEARCH
variable credits 1-22 - Course offered this year - East Baltimore
Departmental Faculty
Provides an opportunity to actively conduct research in environmental health
Upon successfully completing this course, students will be able to:
   1 Write a publishable manuscript
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Only students in the ScM program in EHE may enroll
Grading Options: Pass/Fail
Register with adviser

183.840.01 SCM SPECIAL STUDIES & RESEARCH
variable credits 1-22 - Course offered this year - East Baltimore
Departmental Faculty
Provides a forum for students to receive feedback on research ideas and projects. ScM students enroll in this course prior to passing the written comprehensive exam.
Upon successfully completing this course, students will be able to:
   1 Identify areas of interest for current and future research
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
EHE ScM students only
Grading Options: Pass/Fail
Register with adviser as the instructor

184.830.01 POSTDOCTORAL RESEARCH ENVIRONMENTAL HEALTH AND ENGINEERING
variable credits 1-22 - Course offered this year - East Baltimore
Offers an opportunity for postdoctoral students to conduct research and write papers for publication
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

185.801.01 EXPOSURE SCIENCES & ENVIRONMENTAL EPI JOURNAL CLUB
1 credits - Course offered this year - East Baltimore
Smith, Genee; Buckley, Jessie
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
185.805.01 TOXICOLOGY, PHYSIOLOGY & MOLECULAR MECHANISMS JOURNAL CLUB & SEMINAR
1 credits - Course offered this year - East Baltimore
Kohr, Mark; Sille, Fenna
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 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for some students; Consent required for students not in EHE
Consent required for students not in EHE
Held in departmental space

186.800.01 MPH CAPSTONE: ENVIRONMENTAL HEALTH & ENGINEERING
2 credits - Course offered this year - East Baltimore
Departmental Faculty
Provides students with the opportunity to work on a public health practice project on a chosen 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).

186.895.01 MPH PRACTICUM: EHE
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
187.645.81 TOXICOLOGY 21: SCIENTIFIC APPLICATIONS
3 credits - Course offered this year - Internet
Smirnova, Lena
Familiarizes students with the novel concepts being used to revamp regulatory toxicology in response to a breakthrough National Research Council Report "Toxicity Testing in the 21st Century: A Vision and a Strategy". Presents the latest developments in the toxicology field: moving away from animal testing toward human relevant, high content, high throughput integrative testing strategies. Active programs from EPA, NIH and the scientific community work-wide illustrate the dynamics of safety sciences.

Upon successfully completing this course, students will be able to:
1. Debate and criticize the shortcomings of the current approach to hazard assessment
2. Evaluate the technologies entering the regulatory arena
3. Explain the challenges of toxicology 21st century to change the paradigm in toxicology
4. Explain mechanism of toxicity and toxicokinetics as the basis for testing strategies
5. Describe novel types of data and bioinformatics entering regulatory evaluations
6. Implement Tox21 (PubChem, Data Visualization and integration suites) and ToxCast (iCSS Dashboard) interactive web applications to mine and assess Tox21 and ToxCast high-throughput chemical screening data

Email: lsmirno1@jhu.edu

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

Upon successfully completing this course, students will be able to:
1. Recognize adverse health effects of environmental and occupational toxicants in individual patients and/or populations
2. Develop a public health-based approach to clinical assessment that includes
3. Obtain a detailed occupational/environmental history
4. Utilize a resource base, including the Internet
5. Discuss the application of appropriate diagnostic tests, such as biomarkers
6. Define an evaluation and management plan for exposed patients and/or populations

Email: Ariver28@jhu.edu
Lecture: W F 1:30 PM - 2:50 PM

188.840.01 SPECIAL STUDIES AND RESEARCH ENVIRONMENTAL HEALTH & ENGINEERING
variable credits 1-22 - Course offered this year - East Baltimore
Prepares students to identify and research the central issues in environmental health

Upon successfully completing this course, students will be able to:
1. Identify areas of interest for current and future research
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

188.861.01 ADVANCED TOPICS IN TOXICOLOGY AND PHYSIOLOGY
1 credits - Course offered this year - East Baltimore
Sille, Fenna; Mitzner, Wayne; Tang, Winnie Wan-ye
Reviews the unique and advanced topics in toxicology and physiology. Presents students with guidelines for understanding the basic knowledge as well as the advanced methodology in toxicology and physiology. Prepares students to be able to identify the environmental health problems and present the critical reviews on the original peer-review papers in selected topics.

Upon successfully completing this course, students will be able to:
1. Critically review experimental designs, methods, data presented and conclusions drawn in selected published papers
2. Orally present clear, critical summaries of assigned papers
3. Know how to formulate and ask critical questions following oral presentations by others
4. Able to identify the current trends in toxicology and physiology studies
5. Demonstrate skills needed to write critical reviews on selected topics

Email: fsille1@jhu.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 5, Maximum 10, Waitlist Enabled: Yes
No undergraduates
Grading Options: Pass/Fail
Prerequisite: Background in environmental health

Epidemiology

340.606.01 METHODS FOR CONDUCTING SYSTEMATIC REVIEWS AND META-ANALYSES
4 credits - Course offered this year - East Baltimore
Li, Tianjing; Mayo-Wilson, Evan
Presents basic methods in the qualitative and quantitative meta-analysis, including formulating a hypothesis that can be addressed via meta-analysis, methods for searching the literature, abstracting information, and synthesizing the evidence. Quantitative methods include Bayesian and likelihood approaches to meta-analysis. Emphasizes essential steps of conducting systematic reviews through hands-on exercises. Focuses on analytical skills in performing meta-analyses and network meta-analyses.

Upon successfully completing this course, students will be able to:
1. Identify the role of systematic reviews and meta-analyses in public health and medicine
2. Explain the essential steps of conducting a systematic review
3. Formulate an answerable research question using the "PICO" framework
4. Design search strategies for PubMed and Embase
5. Collect data for a systematic review
6. Appraise the risk of bias of primary studies
7. Conduct, present, and interpret the results of meta-analyses and network meta-analyses
8. Critique the methodologic rigor (or quality) of systematic reviews

Email: ttl19@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Lab Section: 01 F 3:30 PM-4:50 PM
Enrollment: Minimum 20, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students;
Prerequisite: 2 terms of Epidemiology methods and 2 terms of Biostatistics [(340.601, 340.721 & 340.722 or 340.751 & 340.752) and (140.621 & 140.622 or 140.651 & 140.652)]
Jointly offered with CI
LAB is an essential part of the course and attendance is required.
Learning Materials:

• (Other) Stata
  ISBN: Stata Press; 15 edition ()
  Stata $225.00
  Comment: most recent versions will work: https://www.stata.com/order/download-details/

  $00.00

• (Computer File) Methodological standards for the conduct of new Cochrane Intervention Reviews
  Version 2.2, 17 December 2012
  Chandler, Higgins, and Tovey, editors
  Cochrane Reviews $00.00
  Comment: in the course online library

340.607.01 INTRODUCTION TO CARDIOVASCULAR DISEASE EPIDEMIOLOGY
4 credits - Course offered this year - East Baltimore
Coresh, Josef; Rebholz, Casey
Provides students with a summary of the present knowledge of distribution, natural history, and risk factors for major cardiovascular diseases. Covers methodologic issues in epidemiologic studies unique to cardiovascular diseases. The specific objectives of the course can be divided into cognitive, attitudinal, and developmental skills.

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

Email: coresh@jhu.edu
Lecture: M W F 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.751 or 340.601 or equivalent; 140.622 or equivalent; and knowledge of clinical and pathological aspects of diseases covered

340.609.01 CONCEPTS AND METHODS IN INFECTIOUS DISEASE EPIDEMIOLOGY
3 credits - Course offered this year - East Baltimore
Lessler, Justin; Grabowski, Mary Kate
Develops deeper understanding of the concepts and quantitative methods unique to infectious disease epidemiology, building upon the concepts and methods of general epidemiology and knowledge of specific infectious diseases. Topics include disease emergence, transmissibility and the basic reproductive number, transmission patterns and serial intervals, seasonality, virulence, the impact of heterogeneity host and pathogens on transmission, herd immunity, co-infections and phylodynamics.

Upon successfully completing this course, students will be able to:
1. Identify concepts and methods unique to the epidemiology of infectious diseases
2. Link appropriate methods with fundamental research questions in infectious disease epidemiology

Email: lessler@jhu.edu
Lecture: M W F 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.751 or 340.601 or equivalent; 140.622 or equivalent; and knowledge of clinical and pathological aspects of diseases covered
3 Interpret analyses of key concepts in infectious disease epidemiology, including spatiotemporal transmission patterns, seasonality and the impact of selective pressures on pathogen dynamics
4 Critically evaluate different approaches to the measurement of key variables in infectious disease epidemiology
5 Discuss methods and techniques to address challenges unique to infectious disease epidemiology, including network analysis, methods for determining contact rates and the heterogeneity of host responses to pathogen exposure

Email: justin@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 5, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.722 or 340.752; 140.622 or 140.652; and 340.627 Epi of Infectious Diseases

340.612.81 EPIDEMIOLOGIC BASIS FOR TUBERCULOSIS CONTROL
2 credits - Course offered this year - Internet
Golub, Jonathan; Chaisson, Richard
Considers subjects and epidemiologic principles relevant to control measures against tuberculosis. Topics include source and interpretation of tuberculin sensitivity; risk factors; prevention by case-finding and treatment, vaccination, and chemoprophylaxis; and elements of control programs in developed and undeveloped areas. Lectures, Group Projects and review of the tuberculosis literature are primary components.

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

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

340.620.20 PRINCIPLES OF CLINICAL EPIDEMIOLOGY
2 credits - Course offered this year - East Baltimore
Mueller, Noel; Matsushita, Kunihiro
Presents lectures and interactive sessions designed to expose students to basic principles of clinical epidemiology and introduce key methods utilized in clinical outcomes research. Focuses on principles and methods in clinical epidemiology which would be most utilized by clinicians/clinician researchers for screening and diagnosis of illness as well as for prognostication and decision-making. Introduces methods and issues in studying clinical epidemiology in health care settings (e.g. administrative data).

Upon successfully completing this course, students will be able to:
1 Describe how epidemiological methods are applied to medicine and how scientific evidence drive decision on clinical practice.
2 Draw a ROC curve to understand and estimate the effect and implications of different cutoff points in diagnostic test
3 Evaluate the performance of diagnostic tests taking into account characteristics of the test (sensitivity, specificity, etc.), potential outcomes and the features of the population (prevalence of disease and risk factors)
4 Describe key factors for deciding optimal outcome measures for a clinical study
5 Describe advantages and disadvantages of clinical trials and observational studies for evaluating treatment effects
6 Build a decision analysis tree based on probabilities and see how different outcomes influence the decision making in clinical settings

Email: noelmueller@jhu.edu
Days & Times with Start & End Dates: Feb 05, 2019 - Feb 06, 2019
Lecture: T W 8:30 AM - 4:50 PM
Enrollment: Minimum 10, Maximum 32, Waitlist Enabled: Yes
Enrollment restricted to students in the Tsinghua DrPH cohort

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 37 of 154
Grading Options: Letter Grade or Pass/Fail
Consent required for all students;
Prerequisite: 340.751 (Epidemiologic Methods 1)
This course will be offered over a 2-day period in Baltimore. Students are required to complete assignments prior to the first class session.

340.633.01 DATA MANAGEMENT IN CLINICAL TRIALS
3 credits - Course offered this year - East Baltimore
Shade, Dave
Acquaints students with important principles of the acquisition, management, and distribution of data in the clinical research environment. Topics focus on real-world needs of investigators and emphasizes those issues that researchers need to understand to work effectively with other members of study teams, including coordinators, data entry staff, programmers, and data managers. Does not focus on any particular type or size of study but covers topics that apply to many studies, and discusses approaches ranging from small single-investigator trials using only a spreadsheet through international networks using sophisticated web-based data management systems. Discussions often stress the benefits and costs of alternatives rather than recommending particular courses of actions. Does not focus on computer programming, although it combines practical and hands-on exercises with advanced treatment of important concepts.

Upon successfully completing this course, students will be able to:
1. Explain basic and advanced concepts of data management
2. Make reasonable decisions about how to collect and manage data for studies of various sizes and budgets
3. Evaluate alternative courses of action and policies regarding data collection and management issues in a trial
4. Integrate data management activities into the conduct of a research project
5. Communicate with or supervise other study staff involved with data management issues

Email: dshade@jhmi.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 5, Maximum 45, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.645 (Introduction to Clinical Trials) OR 140.642 (Design of Clinical Experiments) OR permission of the instructor
Replaces 340.856 (SS/R Data Mgmt in Clinical Trials).

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

Upon successfully completing this course, students will be able to:
1. Identify the interrelationships between modern concepts of public health and international human rights
2. Discuss the impact of health policies, programs, and practices on human rights
3. Discuss the health impacts resulting from violations of human rights
4. Apply key concepts in public health to practice in a variety of public health roles, including, policy, program design, program implementation, humanitarian response, assessment, and advocacy
5. Discuss the relationship between human rights and bioethics approaches to ethical problems faced by public health professionals
6. Evaluate responses in practice settings where human rights violations are severe and pervasive
7. Identify the roles health professionals can play in advancing human rights

Email: lrubenstein@jhu.edu
340.684.01 PHARMACOEPIEMIOLOGY: DRUG UTILIZATION

3 credits - Course not offered until 2019 - 2020 - East Baltimore

Alexander, G. Caleb

Provides an overview of drug classification systems as well as a review of data sources used for drug utilization research. Reviews methods of investigating drug utilization and evaluating interventions to modify utilization, such as time-series designs and segmented regression analyses. Discusses varied patient, provider, practice and system-level determinants of prescription drug utilization, including their impact on costs and quality of care. Emphasizes the impact of drug formularies, marketing and promotion of drugs, health insurance exchanges, and emerging evidence of benefits and harms.

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

1. Apply knowledge to a critical discourse demonstrating intermediate/advanced knowledge of the determinants of drug utilization, including the effect of marketing and promotion, pharmaceutical regulation, and payment policies.
2. Critically evaluate studies that examine drug utilization through a firm understanding of analytic approaches of such studies as well as the numerous determinants and predictors of utilization.

Email: galexan9@jhmi.edu

340.684.81 PHARMACOEPIEMIOLOGY: DRUG UTILIZATION

3 credits - Course not offered until 2019 - 2020 - Internet

Alexander, G. Caleb

Provides an overview of drug classification systems as well as a review of data sources used for drug utilization research. Reviews methods of investigating drug utilization and evaluating interventions to modify utilization, such as time-series designs and segmented regression analyses. Discusses varied patient, provider, practice and system-level determinants of prescription drug utilization, including their impact on costs and quality of care. Emphasizes the impact of drug formularies, marketing and promotion of drugs, health insurance exchanges, and emerging evidence of benefits and harms.

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

1. Apply knowledge to a critical discourse demonstrating intermediate/advanced knowledge of the determinants of drug utilization, including the effect of marketing and promotion, pharmaceutical regulation, and payment policies.
2. Critically evaluate studies that examine drug utilization through a firm understanding of analytic approaches of such studies as well as the numerous determinants and predictors of utilization.

Email: galexan9@jhmi.edu
Upon successfully completing this course, students will be able to:

1. Identify the factors which influence power and sample size, including the variability of the measurement and the desired precision of an effect estimate.
2. Calculate required sample sizes and minimal detectable difference for one- and two-sample hypotheses within common epidemiological designs (cross-sectional, longitudinal clinical trial or cohort study, case-control study).
3. Determine the power of statistical tests for a given sample size and minimal detectable difference in the context of epidemiological study designs.
4. Use modern computational and graphical tools in assessing power and sample size.

Email: xkong4@jhu.edu

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

Grading Options: Pass/Fail

Prerequisite: Either 340.601 or 340.751, and prior enrollment in 140.622, 550.695, or equivalent is required. Prior knowledge of some computing software (R, Stata, and/or SAS) is required for students taking the course for credit. For auditors, either knowledge of the above computing software or prior exposure to some sample size software (PS, PASS, nQuery Advisor or Epi Info) is required.

Students need to listen to lectures and complete 8 online quizzes until they successfully master the material.

340.699.01 EPIDEMIOLOGY OF SENSORY LOSS IN AGING

3 credits - Course offered this year - East Baltimore

Deal, Jennifer

Introduces biologic, epidemiologic and clinical aspects of aging-related declines in the auditory, visual, and vestibular systems. Demonstrates methods of assessment of sensory function for epidemiologic studies. Reviews current epidemiologic knowledge of sensory function and aging-related outcomes in older adults, including the epidemiology and consequences of dual sensory loss. Presents areas for future research and opportunities for intervention and prevention.

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

1. Evaluate potential explanations for epidemiologic associations between sensory impairments and gerontologic outcomes.
2. Describe key epidemiologic and public health questions pertaining to sensory impairments and gerontology that remain unanswered and unresolved.
3. Identify and compare commonly used measures of sensory function and the strengths and limitations of these measures in epidemiologic studies in older adults.

Email: jdeal1@jhu.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: 340.601 Principles of Epidemiology or 340.721 Epidemiologic Inference in Public Health 1 or 340.751 Epidemiologic Methods in Public Health I

340.705.01 ADVANCED SEMINAR IN SOCIAL EPIDEMIOLOGY

3 credits - Course not offered until 2019 - 2020 - East Baltimore

Departmental Faculty

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

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

1. Define and describe the origins, history, and major approaches to the study of social conditions as determinants of health at the population level.
2. Identify and describe seven distinct core areas of research within the field.
3. Distinguish between and apply leading theories that have guided the field of social epidemiology.
4. Apply concepts, theories and methods from the field of social epidemiology to a research problem of interest to the student.
5. Construct theoretical arguments and select appropriate methods for analyzing the influence of upstream social processes on population health.
6 Operate within a seminar course format

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

Enrollment: Minimum 5, Maximum 25, Waitlist Enabled: Yes

per instructor

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent of instructor is required for special students only.

Prerequisite: 2 graduate level courses in Epidemiology and in Biostatistics (prefer 140.622 and 340.752) and one graduate level course in social or behavioral sciences

140.658 Statistics for psychosocial research strongly recommended.

340.721.81 EPIDEMIOLOGIC INFERENCE IN PUBLIC HEALTH I

5 credits - Course offered this year - Internet

Lee, Li-Ching

Introduces principles and methods of epidemiologic investigation of disease and other health states. Presents different types of study designs, including randomized trials, cohort and case-control studies; measurement of exposures and outcomes; risk estimation; surveillance; program evaluation; and causal inference. Links epidemiologic inferences with the development of policy. Activities provide experience in applying epidemiologic methods, interpreting findings, and drawing inferences.

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

1 Define epidemiology, describe how it is used in public health, and recognize how exposure, disease and health states may vary based on person, place and time
2 Identify, calculate and interpret measures of disease frequency, validity and reliability, and associations (relative and absolute) as appropriate to the research question and study design
3 Describe and compare and contrast the strengths and weaknesses (biases) of epidemiologic study designs, including ecologic, cross-sectional, case-control, cohort, and clinical trials
4 Explain the role of epidemiologic methods in determining the etiology of disease and other health states (e.g., aging, injury, mental health) in preventing disease and improving health
5 Summarize how epidemiologic methods are used in public health practice, including in conducting outbreak investigation and surveillance, evaluating screening programs and health interventions, and in developing health and environmental policy

Email: llee38@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

Course replaces 550.694.81 and 550.695.81. Students who have completed 340.601 or 550.694 and 550.695 should not need to take this course.

Learning Materials:

- (Book) Epidemiology
  Gordis, Leon
  Amazon $46.00

340.727.81 INTRODUCTION TO HEALTH SURVEY RESEARCH METHODS

2 credits - Course offered this year - Internet

Wirtz, Andrea; Genberg, Becky

Exposes students to the practical aspects of health survey research by emphasizing the development of skills to design and administer a survey questionnaire. Introduces students to formative research, questionnaire development, interviewer training, and quality assurance/control.

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

1 Identify and discuss the theory, frameworks, and contexts of questionnaire development
2 Distinguish different types of formative research and how these approaches inform survey development
3 Design, revise and administer questionnaires
4 Monitor survey data collection and quality control
5 Review the data collection experience and present results from a survey
THIRD TERM COURSE SCHEDULE 2018-2019 -- January 22 - March 15, 2019

Email: awirtz1@jhu.edu
Enrollment: Minimum 10, Maximum 55, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
Course is an offspring of 340.717

Students are not encouraged to take both 340.717 and 340.727. Additionally, This course will incorporate group work with other online students. Students will be organized into groups according to a topic area and must work together remotely to produce a group presentation and design a survey tool.

340.730.01 ASSESSMENT OF CLINICAL CARDIOVASCULAR DISEASE
2 credits - Course not offered until 2019 - 2020 - East Baltimore
Michos, Erin Donnelly
Familiarizes students with techniques used to detect and quantify the presence of clinical cardiovascular disease. Tour the hospital, and the dialysis, angiography, echocardiography, and vascular laboratories. Observe radiographic (CT and MRI) imaging of atherosclerosis and review gross and histological specimens of atherosclerosis in the pathology laboratory. Directly observe various cardiac imaging techniques performed including 1) cardiac echocardiography, 2) coronary or peripheral angiography, 3) coronary calcium scores and coronary CT angiography using multi-detector CT, 4) carotid and peripheral vascular studies using ultrasound, 5) the clinical assessment of blood pressure, and 6) DXA and anthropometric measures of body composition.

Upon successfully completing this course, students will be able to:
1 Identify the techniques used to detect and quantify the presence of clinical and cardiovascular disease, including identification of atherosclerosis in vessels in cadavers and on pathology slides, and by radiographic techniques including carotid echocardiography, coronary calcium scores by cardiac CT
2 Differentiate modalities for renal replacement and vascular access options
3 Make clinical assessment of blood pressure and ankle/brachial index

Email: edonnell@jhmi.edu
Lecture: T 1:30 PM - 3:20 PM
Enrollment: Minimum 2, Maximum 15, Waitlist Enabled: Yes
only those students with NO clinical medicine background are permitted to take the course
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Screening and scheduling required prior to start. For consent contact Dr. Michos at edonnell@jhmi.edu or 410-502-6813.

Prerequisite: 340.601 or 340.751
Course will be held in the Whelton Conference Room 2-600, 2024 E Monument St. Includes tours of facilities that may be outside scheduled class time.

340.733.01 PRINCIPLES OF GENETIC EPIDEMIOLOGY 3
3 credits - Course offered this year - East Baltimore
Beaty, Terri; Chatterjee, Nilanjan
Brings together the principles of linkage, association and sequence analysis introduced in the first two terms and builds skills in applying and interpreting methods for such studies. Introduces advanced analytical methods in genetic epidemiology and illustrates their application using current software tools for both marker and sequence data.

Upon successfully completing this course, students will be able to:
1 Explain the models for linkage and association analysis to map genes influencing risk to complex diseases and their associated phenotypes in both family and population-based studies
2 Interpret combined and meta-analysis of genome-wide markers in large-scale consortium studies using summary statistics
3 Use currently available software to check for structural errors in family data, estimate allele frequencies, check for Mendelian inconsistencies and describe familial aggregation of both qualitative and quantitative phenotypes
4 Critically read and interpret published articles on genome-wide efforts to map genes controlling both qualitative and quantitative phenotypes using conventional epidemiologic study designs
5 Explain how variance components models can be used to identify quantitative trait loci (QTL) used to map genes for quantitative phenotypes
6 Describe various cutting-edge analysis of large-scale genome-wide association studies to inform biology, causality, and prediction

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 42 of 154
340.744.81 ADVANCED TOPICS ON CONTROL AND PREVENTION OF HIV/AIDS
4 credits - Course offered this year - Internet
Farzadegan, Homayoon
Focuses on directed readings and discussion on the science and pathogenesis of HIV/AIDS. Covers dynamics of the HIV epidemic in the populated world, difficulties and contrasts between clinical management of HIV/AIDS in developed and developing countries, prevention and control modalities against HIV/AIDS, and predicting patterns of future growth of the HIV/AIDS epidemic with special reference to global economic impact of HIV vaccine and eradication issues of HIV/AIDS.
Upon successfully completing this course, students will be able to:
1. Discuss the basic science of recent discoveries of HIV/AIDS pathogenesis
2. Describe the new targets for anti-HIV drugs and long-term side effects of current drugs
3. Discuss HIV treatment issues in developed and developing countries
4. Analyze the impact of co-infections with other microbial infections of HIV/AIDS epidemiology and pathogenesis
5. Identify preventive measures against HIV infection in the forms of microbicides and behavioral changes
6. Discuss the HIV pandemic in different countries, particularly with respect to the potential explosion of the HIV epidemic

340.753.01 EPIDEMIOLOGIC METHODS 3
5 credits - Course offered this year - East Baltimore
Althoff, Keri; Lesko, Catherine
Expands on the presentation of modern epidemiologic inference emphasizing the theory and practice of epidemiologic data analysis. Covers detection and analysis of confounding and effect modification using multivariable models in the context of the major epidemiological study designs. Develops an understanding of the underlying principles & assumptions, practical application, and correct interpretation of the epidemiologic results using appropriate multivariable models. Provides experience through laboratory exercises with applying epidemiologic analysis in both infectious and non-infectious disease settings.
Upon successfully completing this course, students will be able to:
1. Link appropriate analytic models with public health research questions and epidemiologic study designs
2. Describe appropriate analytic approaches for risk factor analysis, causal investigation, and prediction
3. Identify and critically evaluate different approaches to modeling complex exposures including dose-response relationships and time-varying exposures
4. Account for the presence of confounding using multivariable regression
5. Analyze data for the presence of effect modification
6. Appropriately incorporate time into regression-based epidemiologic analysis, including continuous time-to-event analysis, discrete time-to-event analysis, and incidence rate analysis
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 and 2 (340.751, 340.752), Statistical Methods in Public Health I and II (140.621, 140.622) or Methods in Biostatistics I and II (140.651, 140.652), and prior or concurrent enrollment in Statistical Methods in Public Health III (140.623) or Methods in Biostatistics III (140.653).
You must register for one lab 340.953 when you register for this course. Labs begin at 10:15 AM. Stata is used in the course. Students can use the program on the Computer Labs on campus.

340.769.01 PROFESSIONAL EPIDEMIOLOGY METHODS
4 credits - Course offered this year - East Baltimore
Castillo-Salgado, Carlos
Trains future leaders using advanced epidemiological methods applied in modern public health practice, and provides students with the key epidemiological competencies for mid-level and senior-level epidemiologists. Covers examples of health priority assessments, health needs assessments, epidemiological stratification of public health problems, measuring health inequalities and evaluation of effectiveness of public health programs using real public health scenarios and available health information datasets. Also covers selected methods for translating epidemiologic data for decision-making. Addresses the role of available epidemiological evidence and translational research for public health programs.
Upon successfully completing this course, students will be able to:
1. Recognize the framework of essential public health functions and services for developing prospective epidemiological scenarios
2. Describe and apply the main epidemiological risk measures (RR, PAR) in developing epidemiological profiles of critical populations and areas at local and national levels
3. Review and use decision analysis methods for informing evidence-based decision-making using epidemiological data
4. Identify and apply epidemiological metrics and tools for health priority selection, health needs assessments and measuring health inequalities
5. Identify and critically evaluate and use epidemiologic measures of effectiveness in public health program evaluation
6. Identify key methodological considerations when using epidemiological evidence and knowledge as translational research in public health programs
Email: ccastil3@jhu.edu
Lecture: M W 9:00 AM - 10:20 AM
Lab Section: 01 F 8:30 AM-10:20 AM
Enrollment: Minimum 10, Maximum 65, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.751 and 340.752 or 340.601 and 340.608, and 340.601 and 340.721 or 340.721 and 340.722 (2 graduate level courses in epidemiology)
This course replaces 340.763 and 340.764. Students who have previously taken these courses should not retake this course.

340.775.01 MEASUREMENT THEORY AND TECHNIQUES IN EPIDEMIOLOGY
4 credits - Course offered this year - East Baltimore
Gross, Alden
Reviews concepts, key assumptions, and published applications of measurement theory, including true scores and counterfactual outcomes, latent variables, and validity. Explores novel applications of item response theory to refinement of measures, assessment of differential item functioning, and calibration of metrics across diverse samples. Topics include analysis of novel types of data (biomarkers, high-dimensional data, administrative records, genetics), item response theory, latent growth curve models for longitudinal data and their extensions, and cross-study statistical harmonization and co-calibration. Draws examples from epidemiologic applications in the behavioral and social sciences. Offers students opportunities for applying lessons from didactic lectures in a laboratory setting using prepared examples.
Upon successfully completing this course, students will be able to:
1. Analyze categorical data using item response theory and interpret results
2. Analyze and interpret latent growth curve models and extensions
3. Analyze and interpret bivariate dual change score models
4. Conduct integrative data analysis of constructs across multiple studies and time points that feature differing measures
5. Identify and correct for differential item functioning
6. Describe the place of one's own research along the continuum from qualitative to quantitative analysis
7 Recognize measurement errors and nuances of measurement intrinsic to biomarker data, high-dimensional data (e.g., accelerometry and MRI data), genetic data, interviews and survey questionnaires, administrative data, and group-level aggregations of data.

8 Briefly describe aspects of specific types and sources of measurements common in epidemiology, including genetics, surveys, administrative records, high-dimensional data, biological markers, and census-level data.

Email: agross14@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 F 9:00 AM-10:50 AM
Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.728 (AMDACs) or 340.774 Adv. Theory & Methods in Epi, or 140.658 Statistics for Psychosocial Research: Structural Models

Learning Materials:
- (Book) The Mismeasure of Man
  Gould, Stephen J
  Amazon $10.00
  1996

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).

340.810.01 FIELD PLACEMENT EPIDEMIOLOGY
variable credits 1-16 - Course offered this year - East Baltimore
Provides a mechanism for recognizing student work off-site. Students may elect this option to reflect research experiences outside of the on-campus research and analysis positions open to students. International students completing Curricular Practical Training must register for a minimum of one credit while working.
Upon successfully completing this course, students will be able to:
1 Apply epidemiologic methodology and biostatistical theory in actual public health settings.
2 Perform epidemiologic analysis to existing datasets
3 Demonstrate professionalism in industry, education, or government agencies

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

340.853.01 FIRST YEAR EPIDEMIOLOGY DOCTORAL SEMINAR
1 credits - Course offered this year - East Baltimore
Visvanathan, Kala; Munoz, Alvaro
Introduces current discussion, controversies, and applications of epidemiology. Reviews landmark papers and current literature and provides guided discussions of the materials. Focuses on exploring key paradigms that have influenced the field of epidemiology. Includes discussion of current trends influencing epidemiologic research and training, mentorship, controversies in the assessment of populations and outcomes, individual-level vs. population-health, and the relationship of epidemiology to the health care system.

Upon successfully completing this course, students will be able to:
1. Identify and discuss current controversies in epidemiology
2. Articulate the importance and context for key papers in the field
3. Explain key paradigms that have influenced the field of epidemiology

Email: kvisvan1@jhu.edu
Lecture: W 4:00 PM - 5:00 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to first year PhD and ScD students in the Department of Epidemiology
Grading Options: Pass/Fail
Prerequisite: Concurrent enrollment in 340.753.

340.860.01 CURRENT TOPICS IN EPIDEMIOLOGIC RESEARCH
1 credits - Course offered this year - East Baltimore
Camarata, Laura
Provides presentations 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: lcamarat@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

340.861.81 CLINICAL TRIALS: PROCEDURES, DESIGN, AND INTERPRETATION OF RESULTS
3 credits - Course offered this year - Internet
Holbrook, Janet; Mayo-Wilson, Evan
Augments Introduction to Clinical Trials (340.645). Describes current standards for clinical trial protocols, consent procedures and describes regulatory requirements and expands upon design and analysis concepts presented in 340.645. Reviews key standards for clinical trial protocols, including the SPIRIT guidelines, recruitment and consent of participants, and principles for data acquisition and sharing. Covers regulatory requirements for drug development and adverse event monitoring as well as the statistical aspects of data monitoring for clinical trials. Provides more in-depth discussion of newer designs for clinical trials including non-inferiority design and adaptive designs. Investigates specific analysis issues for handling missing data, interim monitoring and cost-effectiveness. Addresses the synthesis of results from clinical trials in meta-analyses and the role of post-marketing surveillance in assessing drug safety.

Upon successfully completing this course, students will be able to:
1. Describe and create essential components of a protocol and consent statement
2. Explain US regulatory processes for development of new drugs including pertinent regulatory requirements for conduct of randomized clinical trials and consider whether a specific intervention will be subject to FDA regulations
3. Explain standards for data management and analysis and apply knowledge in constructing case report forms
4. Describe design, analysis and interpretation issues in non-inferiority and adaptive designs and choose an appropriate design to address a specific question
5. Summarize standards for conducting systematic reviews and discuss how they can be used to synthesize evidence from clinical trials
6. Describe the goal and methods for post-marketing surveillance of approved drugs.
7. Explain purpose of data monitoring and describe some of the statistical methods used for data monitoring

Email: jholbro1@jhu.edu
Enrollment: Minimum 3, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.645 Introduction to Clinical Trials
Do not take this course if you have taken or plan to take: 340.633 Data Management in Clinical Trials; 340.648 Clinical Trials Management; or 140.642 Design of Clinical Experiments.

340.863.01 DOCTORAL SEMINARS IN EPIDEMIOLOGY
3 credits - Course offered this year - East Baltimore
Platz, Elizabeth; Celentano, David
Provides a forum in which the doctoral students discuss challenges in epidemiology, the process for developing research questions and Specific Aims and an opportunity for feedback on early drafts of dissertation proposal components

Upon successfully completing this course, students will be able to:
1. Characterize contemporary directions and challenges in Epidemiology
2. Explain the process for conceptualizing and articulating research questions
3. Formulate, refine and critique a conceptual framework for doctoral thesis work

Email: eplatz1@jhu.edu
Lecture: T 3:30 PM - 5:20 PM
Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
post-comprehensive, second year doctoral students in Epidemiology
Grading Options: Pass/Fail
Consent required for some students; Enrollment restricted to 2nd year Epidemiology doctoral students
Prerequisite: 340.751-754 and the Epi department written comprehensive exam.

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: eselvin@jhu.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
MHS, ScM, PhD, and ScD students in Cardiovascular and Clinical Epidemiology only.
Grading Options: Pass/Fail
Consent required for some students; Course is restricted to MHS, ScM, DrPH, PhD, and ScD students in the Cardiovascular and Clinical Epidemiology Track in the Department of Epidemiology only.
Prerequisite:
Course is restricted to MHS, ScM, DrPH, PhD, and ScD students in the Cardiovascular and Clinical Epidemiology Track in the Department of Epidemiology only. Students are expected to read and post discussion points prior to the day of class.

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

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

550.001.01 ENGLISH FOR ACADEMIC PURPOSES I
0 credits - Course offered this year - East Baltimore
Hong Smith, Vicki
This course is mainly for students whose first language is not American English and/or whose higher education experience in U.S. institutions is limited. The course includes basic formats and expectations, cultural and linguistic sensitivity, correct source usage to avoid plagiarism, documentation styles and application, global and local writing issues, common grammar issues and other relevant issues in academic communication in English.

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 brain storming, 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 12:00 PM - 3:20 PM
THIRD TERM COURSE SCHEDULE 2018-2019 -- January 22 - March 15, 2019

550.001.01 ENGLISH FOR ACADEMIC PURPOSES I
This course is mainly for students whose first language is not American English and/or whose higher education experience in U.S. institutions is limited. The course includes basic formats and expectations, cultural and linguistic sensitivity, correct source usage to avoid plagiarism, documentation styles and application, global and local writing issues, common grammar issues and other relevant issues in academic communication in English.

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 brain storming, 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

550.605.81 HISTORY OF PUBLIC HEALTH (Cancelled - Department)
Examines the historical experience of health and illness from a population perspective. Seeks to reveal how the organization of societies facilitates or mitigates the production and transmission of disease: how do populations and groups of individuals go about securing their health? Concentrates primarily on the modern world (i.e., 1750 onwards) and omits detailed examination of public health in antiquity and the middle ages, although these time periods are alluded to frequently. Adopts a thematic rather than chronological structure so that comparisons can be made across the centuries and between different parts of the globe.

Upon successfully completing this course, students will be able to:
1. Examine public health through its historical context.
2. Evaluate current public health issues through historical context.
3. Evaluate a range of current public health issues through comparisons with historical examples
4. Judge public health interventions in the past in relation to their impact on inequality and prejudice
550.845.20 COMPREHENSIVE OR PRELIMINARY ORAL EXAM FOR PART TIME INTERNATIONAL DRPH STUDENTS
2 credits - Course offered this year - East Baltimore

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.

550.855.81 MA PUBLIC HEALTH BIOLOGY THESIS
variable credits 5-6 - Course offered this year - Internet

Zirkin, Barry

Provides an opportunity for students to, in consultation with a faculty mentor from the Dept of Biochem and Molecular Bio, Environmental Health or Molecular Microbiology and Immunology, prepare a critical, scholarly paper on an agreed upon subject area.

Upon successfully completing this course, students will be able to:
1. Compose, explain and defend a 20-30 page scholarly thesis that demonstrates a deep understanding of how biological principles and methods are used to understand, treat and/or prevent a particular condition of importance in the public health arena.
2. Critically evaluate data described in scientific papers and integrate data from multiple papers into coherent theories about the regulation of complex biological processes and diseases.
3. Synthesize public health principles learned during prior coursework through original writing project.

Email: brzirkin@jhu.edu

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

Only for students in the Master of Arts program in Public Health Biology.

Grading Options: Pass/Fail

Jointly offered with BIOCHEM,EHE,MMI

Students must take MA in Public Health Biology Thesis in addition to a minimum of 42-43 didactic course credits in order to complete the degree program. A primary and secondary reader will be assigned to evaluate each student's Thesis. At least one reader will be from one of the three departments offering the program; Biochemistry and Molecular Biology, Environmental Health and Engineering and Molecular Microbiology and Immunology.

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
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

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 50 of 154
All students must complete during their first term of matriculation; failure to do so will result in blockage of further course registration.

550.864.01 BALTIMORE COMMUNITY PRACTICUM
variable credits 1-4 per term - Course offered this year - East Baltimore
Levin, Mindi; Levin, Mindi
Students conduct a project involving a defined denominator population at a community-based organization or local health department. They also participate in seminar sessions which cover basic methods of outreach to community organizations, attitudes and values about the role of professionals in community-based work, the social contract required of service professionals, and the attitudes required for effective public health practice.

Upon successfully completing this course, students will be able to:
1. Describe in detail, as well as summarize, the development and operation of an on-going community-based public health project
2. Describe the organizational structure of one particular public health practice site and its relationship with its community
3. Demonstrate practical methods for promoting partnerships between communities, public health agencies, academic institutions, and community-based organizations
4. Explain the basic concepts of community-based participatory research, service-learning, and civic professionalism
5. Articulate their values and attitudes about community engagement and ways of developing partnerships
6. Demonstrate effective communication and presentation skills, as well as how to give and receive constructive feedback from peers, supervisors, and community members
7. List and briefly describe in their final presentation and paper, the ten most important items of content learned from their faculty and preceptors and documented in their journal

Email: mlevin@jhu.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Consent required for all students; All students must get consent of instructor
Prerequisite: None

550.870.01 SS/R: OCCUPATIONAL MEDICINE RESIDENCY-PRACTICUM YEAR
variable credits Depends on rotations, courses, and research workload. - Course offered this year - East Baltimore
Schwartz, Brian; Rivera, Aisha
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: bschwar1@jhu.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

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to MPH/GPMR during MPH year.
Grading Options: Pass/Fail

550.890.01 SS/R: GENERAL PREVENTIVE MEDICINE RESIDENCY-RESIDENCY YEAR
variable 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
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to GPMR during post MPH year.
Grading Options: Pass/Fail

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
2 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
Please consult MPH Program Office before registering for course, mphprog@jhsph.edu

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@jhu.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
410.610.01 HEALTH AND HOMELESSNESS
3 credits - Course offered this year - East Baltimore
Bone, Lee

Introduces the issues of homelessness and its relationship to health. Lectures, seminars, and community experience present factors leading to homelessness, myths about homelessness, barriers to accessing services, health problems that arise from homelessness, multidisciplinary approaches to health care from homeless persons, and advocacy strategies.

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

1. Describe homelessness as a public health problem that results from complex economic, social, health, and psychosocial factors
2. Articulate the causes and consequences of homelessness from multiple perspectives, including the perspective of homeless individuals
3. Distinguish how health, mental health, and substance abuse needs and service options differ among heterogeneous homeless populations
4. Analyze the impact of local, state, and federal policies on homeless populations and the contribution of advocacy for these populations
5. Propose solutions and prevention strategies to address the inadequacy of resources and service systems that target homeless and poor populations
6. Apply knowledge and skills by actively participating and learning in the work of a community-based health organization with the explicit purpose of serving the homeless
7. Assess homelessness in the context of Healthcare Reform and Congressional mandates

Email: lbone1@jhu.edu

Lecture: SA 9:00 AM - 12:50 PM
Lecture: SA 9:00 AM - 4:30 PM

Enrollment: Minimum 15, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

410.613.01 PSYCHOSOCIAL FACTORS IN HEALTH AND ILLNESS
3 credits - Course offered this year - East Baltimore
Latkin, Carl

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

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

1. Explain levels of analysis of psychosocial factors
2. Delineate prominent theories of behavior change
3. Compare measures of psychosocial factors
4. Describe and critique quantitative measures of social context
5. Analyze the relationship between behavioral factors and chronic and infectious diseases
6. Develop behavioral interventions for disease prevention and treatment
7. Develop conceptual models of behavior change

Email: carl.latkin@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

410.635.81 APPLICATIONS OF INNOVATIVE METHODS IN HEALTH EQUITY RESEARCH
2 credits - Course offered this year - Internet
Cooper, Lisa A.; Purnell, Tanjala
Introduces students to innovative methods, practical tools, and skills required to conduct rigorous health equity research and to translate evidence-based strategies into practice and policy. Covers topics ranging from stakeholder engagement and behavioral intervention development to research methods in healthcare services and social epidemiology. Includes lectures, interactive discussions, case-based examples, and opportunities to obtain feedback on research ideas from experienced investigators.
Upon successfully completing this course, students will be able to:
1. Understand how cultural and structural competence and relationship-centered communication enhance the quality and success of health equity research.
2. Apply innovative recruitment strategies for socially at-risk populations, including hiring and training staff for health equity research studies.
3. Engage community and organizational stakeholders in health equity research.
4. Describe methods used to develop appropriate assessment and intervention materials for underserved, low-literacy and non-native English speaking populations.
5. Identify methods and measures in social epidemiology and health services research and sources of data that can be utilized in health equity research.

Email: lisa.cooper@jhmi.edu
Enrollment: Minimum 7, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

410.638.01 SCIENTIFIC WRITING IN HEALTH SCIENCES: DEVELOPING A MANUSCRIPT FOR PUBLICATION I
3 credits - Course offered this year - East Baltimore
Neelon, Sara
This course introduces and guides students in the writing of scientific manuscripts for publication in an area related to public health, particularly social and behavioral sciences. The goal of the course is to facilitate more effective writing of research articles using practical examples and peer feedback. Topics include: principles of good writing; tips for writing more efficiently; journal selection; co-author selection, and the anatomy of a manuscript. Students begin the course with a research question (purpose of study) and a summary of quantitative or qualitative (or mixed methods) data they would like to present in a scientific manuscript. This typically takes the form of summary tables. All analyses must be completed prior to the start of the course. Students end the course with at least two sections (e.g., methods and results) of a completed manuscript.

Upon successfully completing this course, students will be able to:
1. Practice principles of good scientific writing
2. Evaluate and critique the scientific writing of peers
3. Identify relevant ethical issues in authorship and publishing
4. Identify the components of a scientific manuscript for publication
5. Write the methods and results sections of scientific manuscripts for publication

Email: sara.neelon@jhu.edu
Lecture: W 3:30 PM - 6:20 PM
Enrollment: Minimum 5, Maximum 12, Waitlist Enabled: Yes
No undergraduates
Grading Options: Pass/Fail
Consent required for some students; Master's-level students with permission of the instructor.
Prerequisite: None

410.645.01 APPLYING THE SOCIAL ECOLOGICAL MODEL IN TOBACCO CONTROL AND CLIMATE CHANGE
3 credits - Course offered this year - East Baltimore

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 54 of 154
Stillman, Frances A.; Kreslake, Jennifer

Compares the fields of tobacco control and climate change by describing the lessons learned from tobacco control—one of the most successful public health movements. Provides an overview of tobacco control research and advocacy approaches that form a comprehensive public health strategy and considers the use of the social ecological model to address the threats posed by climate change. Explores how both issues involve economic, social, environmental, and behavioral forces that require multi-level approaches from multiple sectors. Offers insight into industry and private sector interference that obfuscates scientific evidence, confuses the public, and stalls effective regulatory policy for both fields of study. Encourages critical comparative skills throughout to discuss how to improve public health approaches.

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

1. Explain the complexities of these two global health problems and the initiatives to control them
2. Identify interventions at every level of the social ecological model that are applicable to tobacco control and climate change
3. Compare and contrast how these strategies have been employed and implemented and discuss the comparative effectiveness by topic
4. Evaluate the role of powerful industries that distort and obscure the science and delay action
5. Discuss the role of the media and stakeholders in how the public understands these two issues
6. Identify and discuss future directions for these global health problems

Email: fstillm1@jhu.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

410.651.01 HEALTH LITERACY: CHALLENGES AND STRATEGIES FOR EFFECTIVE COMMUNICATION

3 credits - Course offered this year - East Baltimore

Roter, Debra

Introduces the broad areas of literacy and health literacy. Discusses approaches to the assessment of key health literacy skills linked to behavioral and health outcomes. Prepares students to create and evaluate print-based health education materials suitable for low literate audiences. Introduces frameworks suitable for literacy assessment of web-based health information and oral literacy demand of medical encounters.

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

1. Discuss the common definitions and measures of literacy, functional literacy and health literacy in the U.S. and worldwide, and the consequences of literacy deficits for patient empowerment, health-related behaviors and health outcomes.
2. Describe the nature of the literacy environment and key attributes of literate health care organizations
3. Develop skill in producing and evaluating health education materials suitable for users with restricted literacy skills
4. Develop skill in evaluating the suitability of websites for users with restricted literacy
5. Critically assess health information presented through advertising, news and entertainment and how it is perceived across the literacy continuum.

Email: droter1@jhu.edu

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

Enrollment: Minimum 25, Maximum 60, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

410.654.01 HEALTH COMMUNICATION PROGRAMS I: PLANNING AND STRATEGIC DESIGN

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 programs. Involves lectures, readings, computer exercises, and carrying out a health promotion program.
Upon successfully completing this course, students will be able to:

1. Discuss the steps involved in developing, implementing and evaluating a health communication project, intervention or campaign
2. Describe the types of research necessary to develop a health communication strategy and design a project
3. Develop a 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
Multi-term with 410.655
Grades submitted at end of 4th term. Students are required to meet with TA/Professor one hour a week outside of regular class time.

**410.672.81 INTRODUCTION TO CAMPAIGNING & ORGANIZING FOR PUBLIC HEALTH**
3 credits - Course offered this year - Internet
Hines, Ayelet
Introduces students to a key area of knowledge in public health practice: the principles and methods of community organizing and campaigning for policy and structural change. Focuses on how to mobilize the right people at the right time, with the right demands, to change public policies to promote health. Complements other courses in the school that look at advocating within policy processes or by using the mass media by placing these strategies in the context of the practical daily work and thinking of people who plan and carry out policy change campaigns at grassroots and grasstop levels.

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

1. Critically evaluate community organizing as a behavioral intervention to support public health policy change
2. Describe the purpose and methods of campaign planning and execution
3. Identify key lessons to be learned from campaigns in other arenas
4. Recognize that real improvements in people’s lives have been achieved by citizens like them running hard-hitting campaigns
5. Select the most appropriate campaign approaches for particular situations
6. Develop a basic campaign plan to address a real-world problem

Email: ahines15@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

**410.676.01 CLINICAL HEALTH BEHAVIOR CHANGE EXPERIENCE IN WEIGHT MANAGEMENT (Cancelled - Department)**
2 credits - Course offered this year - East Baltimore
Cheskin, Lawrence
Focuses on the practical application of principles from communication, behavioral, social science, and psychological theories in a clinical setting. Enables students to work directly with patients of the Johns Hopkins Weight Management Center (JHWMC) to promote behavior change in the areas of diet and fitness. Integrates theoretical concepts with practical clinical applications, and presents students the opportunity to work in a team setting with healthcare practitioners.

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

1. Describe the complex mechanisms underlying the obesity epidemic
2. Identify the interventions commonly employed to treat obesity in clinical settings
3. Assess standard (USDA) nutrition and physical activity recommendations for weight management
4. Identify psychosocial and psychological factors that impact behavior change
5. Describe cognitive-behavioral strategies to elicit change in patients
Apply principles from communication, behavioral, social science, and psychological theories to encourage health behavior change in others.

Apply motivational interviewing (MI) theory and techniques.

Evaluate the evidence regarding the efficacy of MI techniques for weight loss.

Perform clinical practice skills such as reflective listening, empathy, barriers assessment, eliciting change talk, and goal setting.

Email: cheskin@jhu.edu

Enrollment: Minimum 1, Maximum 10, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Times to be arranged with instructor. Also offered in 1st term.

**410.677.60 THEORY AND PRACTICE IN CAMPAIGNING AND ORGANIZING FOR PUBLIC HEALTH I**

4 credits - Course offered this year - East Baltimore

Hines, Ayelet

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: ahines15@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 410.678

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.

**410.683.60 GLOBAL PERSPECTIVES ON LGBT HEALTH**

3 credits - Course offered this year - East Baltimore

Kaufman, Michelle

Utilizes the socio-ecological framework to deconstruct social contexts and political power systems that contribute to LGBT health disparities across the globe. Assists in developing an appreciation for various forms of sexual and gender identities, including how cultural and religious traditions shape such identities in various regions and countries. Encourages students to recognize systemic factors that influence psychological and social development related to gender and sexuality. Introduces unique dynamics surrounding sexual orientation in family, immigration, and international human rights law.

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

1. Describe the role of culture in LGBT health intervention development and implementation
2. Analyze the roles of region, history, religion, power, privilege, and structural inequality in producing LGBT health disparities
Assess inter-relationships between minority stress, coping, and social support and their impact on health, health behavior, and illness among various LGBT populations globally

Apply global awareness and cultural sensitivity to the design of health behavior change programs focusing on diverse LGBT populations

Email: michellekaufman@jhu.edu
Lecture: F 10:00 AM - 11:50 AM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
This course 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.

410.712.01 THEORY AND PRACTICE IN QUALITATIVE DATA ANALYSIS AND INTERPRETATION FOR THE SOCIAL AN BEHAVIORAL SCIENCES
3 credits - Course offered this year - East Baltimore
Owczarzak, Jill
Prepares students to articulate and address core theoretical and methodological issues of qualitative inquiry. Develops students' capacity to engage in critical qualitative research, including understanding the role of power and social position (race, gender, health status) in data collection, analysis, and interpretation. Introduces narrative, content, discourse, and life history analysis, and institutional ethnography. Considers analysis of both textual (e.g., interview transcripts) and visual (e.g., observations, images) data. Prepares students to select an analytic approach that is appropriate for particular research questions. Explores multiple ways in which health-related phenomena can be analyzed and interpreted. Uses a publicly available data set on women and substance use to provide students with hands-on data analysis and interpretation experience. Introduces students to MAXQDA, a qualitative data management and analysis software.

Upon successfully completing this course, students will be able to:
1. Explain the relationship between qualitative research questions, data collection, analytic method, and interpretative approach
2. Distinguish different qualitative analytic traditions
3. Conceptualize the role of the researcher in data analysis and interpretation
4. Justify a decision regarding use (or not) of a qualitative analysis software package
5. Develop and apply a coding framework to qualitative data
6. Evaluate the quality and rigor of published qualitative research
7. Explain how data collection, transformation, and management processes affect data analysis and interpretation

Email: jillowczarzak@jhu.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 10, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Students who did not complete the prerequisite course but can demonstrate qualitative methods training may be permitted to take the course
Prerequisite: 410.710 Concepts in Qualitative Research for Social and Behavioral Sciences

Learning Materials:
- (Book) Addicted. Pregnant. Poor.
  Knight, Kelly R.
  Duke University Press $25.95
  2015

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: blozare1@jhu.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: emcdona1@jhu.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
Grading Options: Pass/Fail

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
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: danielle.german@jhu.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
Smith, Katherine Clegg
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: ksmith103@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

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 60 of 154
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.
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: ibone1@jhu.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
Tobin, Karin
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: ktobin2@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@jhu.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

410.867.01 MSPH FIELD PLACEMENT PREPARATION

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 61 of 154
1 credits - Course offered this year - East Baltimore

McDonald, Eileen

Prepares students to fully understand the MSPH field placement requirements, processes, and opportunities, so that they may make the most of this professional preparation opportunity.

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

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

Email: emcdona1@jhu.edu

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

Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes

Restricted to MSPH students in HBS

Grading Options: Pass/Fail

Prerequisite: 410.865 and 410.866

410.883.01 MHS IN SOCIAL FACTORS IN HEALTH SEMINAR III

1 credits - Course offered this year - East Baltimore

German, Danielle

Focuses on agencies and settings in which public health social science research is conducted.

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: danielle.german@jhu.edu

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

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

HBS MHS in Social Factors in Health students

Grading Options: Pass/Fail

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

415.613.92 INTRODUCTION TO MEDICAL GENETICS I

2 credits - Course offered this year - NIH - Bethesda, MD

Hart, Suzanne

Provides a foundation in medical genetics. Focuses on teaching genetic disorders using a systems approach. Presents an overview of the disease process and differential diagnosis of related genetic disorders. Includes the following topics: birth defects/embryology, prenatal diagnosis, pulmonary disorders, muscle diseases, hemoglobinopathies, ocular diseases, kidney disorders, craniosynostoses, skin disorders, deafness, 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 the role of alcohol in causing birth defects
2. Explain the types of prenatal screening and diagnosis
3. Explain genetics in limb anomalies and dysmorphic syndromes, pulmonary disorders, kidney disorders, skin disorders, eye disorders, and deafness
4. Compile differential diagnoses based upon major findings of a patient
5. Distinguish among genetic conditions specific to a body system
6. Differentiate the features of the more common genetic disorders
7. 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; Required for students other than ScM students
Prerequisite: 415.611 and 415.612
Jointly offered with NIH

415.630.92 THERAPEUTIC GENETIC COUNSELING I
2 credits - Course offered this year - NIH - Bethesda, MD
Biesecker, Barbara

Equip graduate students enrolled in the JHU/NHGRI Genetic Counseling Program with an applied psychological paradigm for genetic counseling. Defines and illustrates goals and the process of genetic counseling. Teaches students skills to assess clients' cognitive and affective responses to the genetic contribution to disease and risk. Defines components of a therapeutic relationship. Allows opportunities to practice establishing and acting on a therapeutic relationship.

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

1. Conduct a client psychological assessment
2. Relate the process of genetic counseling to counseling goals
3. Demonstrate skills in establishing a therapeutic relationship with a client

Email: barbarab@mail.nih.gov
Lecture: F 11:00 AM - 12:50 PM

Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No

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

415.640.92 HEALTH JUDGMENT AND DECISION MAKING
2 credits - Course offered this year - NIH - Bethesda, MD
Klein, William

Provides a foundation in cognitive, emotional, and motivational processes underlying judgment and decision making in a variety of health contexts. Focuses on antecedents and consequences of adaptive and maladaptive health judgments and decisions, with particular attention to risk perception and communication, application of decisional heuristics, and personal beliefs underlying health decisions. Considers how people make decisions, how they respond to health information, and how they mentally represent illness, as well as how health teams make decisions. Prepares students to apply basic research on health judgment and decision-making to effective genetic counseling and other applied settings.

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

1. Identify key assumptions of normative and descriptive decision-making
2. Explain how human emotions and motives influence health judgments and decisions
3. Develop risk communication modalities that build on extant research on risk perception and risk communication
4. Apply the principles taught in the course to a specific research or clinical domain

Email: kleinwm@mail.nih.gov
Lecture: F 9:00 AM - 10:50 AM

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 63 of 154
**415.820.92 THESIS RESEARCH: GENETIC COUNSELING**

variable credits - Course offered this year - NIH - Bethesda, MD

Information not required for this course type

**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

**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: lorierby@jhu.edu

**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 1:30 PM - 3:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
ScM in Genetic Counseling students
Grading Options: Pass/Fail
Consent required for some students; Consent required for non-ScM in Genetic Counseling students.
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH
ScM in Genetic Counseling students must register for all four terms. Non-ScM in Genetic Counseling students are only required to register for either the two fall or two spring terms.

415.866.92 CURRENT TOPICS IN MOLECULAR GENETICS I
1 credits - Course offered this year - NIH - Bethesda, MD
Hart, Suzanne
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, thrombophilies, hemochromatosis, fragile X syndrome, polyglutamine disorders, hereditary breast cancers, Charcot Marie Tooth and spinal muscular atrophy, Prader Willi 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 Describe the types of techniques used in molecular genetic diagnostic laboratories, including the limitations of each assay
2 Calculate residual risks after molecular testing
3 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 415.867
Grade submitted after completion of 415.867.
Final grade applies to all terms
Jointly offered with NIH
Students must register for both 3rd and 4th term.

415.870.01GENETIC COUNSELING CLINICAL SUPERVISION
1 credits - Course offered this year - East Baltimore
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
Must be enrolled in ScM in Genetic Counseling program
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
Must be enrolled in ScM in Genetic Counseling program
Grading Options: Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program; students must register for four terms.
Jointly offered with NIH

300.615.81 THE TOOLS OF PUBLIC HEALTH PRACTICE
1 credits - Course offered this year - Internet
Resnick, Beth A.; Mui, Paulani

Introduces the core functions of public health and the core competencies for public health professionals. Students assess their strengths, as well as academic and professional goals. Describes each of the core competency areas and encourages development through academic coursework, the public health practicum, and professional development.

Upon successfully completing this course, students will be able to:
1 Identify the importance of the core functions and public health workforce competencies to address real world public health problems
2 Conduct a self-assessment to determine personal strengths and weaknesses and goals for competency development
3 Gain a foundation to prepare for your practicum, as well as for your personal career advancement and development

Email: bresnick@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
undergraduate and interdivisional students are not permitted in this section
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online learning
Course is an offspring of 300.603

300.650.01 CRISIS AND RESPONSE IN PUBLIC HEALTH POLICY AND PRACTICE
3 credits - Course offered this year - East Baltimore
Sharfstein, Joshua
Studies the phenomenon of crises in public health. From a historical perspective, demonstrates how much of U.S. public health policy traces back to crises and responses that riveted public attention. Explains how substantial increases in FDA authority came about through serial crises in drug, device, food and tobacco markets. Shows that modern vaccine infrastructure emerged out of both disease and vaccine-related crises. From a management perspective, reviews how public health leaders at all levels respond to crises – the good, the bad and the ugly. From a strategic perspective, explores how health officials effectively manage crisis and response in order to win significant policy advances. Uses past and present examples to understand the role of crisis, how public health leaders respond during a crisis, and how a crisis can be an opportunity to bring about long-term change. While most examples are U.S.-based, there are opportunities to discuss these issues in an international context.

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

1. Describe the central role of crises in the development of food and medical product regulation in the United States
2. Explain how the progress of the vaccination effort has been linked to the perceptions of how well or how poorly crises have been handled
3. Analyze key elements of effective and ineffective day-to-day responses to crises at the local, state, national, and global levels
4. Articulate how public health leaders can manage existing crises effectively to win significant, long-term policy advances
5. Evaluate the pros and cons of public health leaders’ deliberate use of the language of crisis

Email: joshua.sharfstein@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:

300.713.01 RESEARCH AND EVALUATION METHODS FOR HEALTH POLICY

3 credits - Course offered this year - East Baltimore

Crifasi, Cassandra

Introduces basic principles and methods for undertaking scientifically rigorous research with a special emphasis on evaluations of interventions intended to improve health and safety. Focuses on evaluations of health policies, health care delivery systems, and public health programs. Topics include the relationship between health services research, health policy research, health policy analysis and health program management; common research designs and their strengths and weaknesses; and internal and external validity with the intent of making students better consumers of research conducted by others.

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

1. Critique published health services research and health policy/program evaluations
2. Describe the relationship between health services research and program evaluation
3. Identify differences between basic and policy-relevant health services research projects and program evaluation
4. Develop a conceptual framework for a study, showing the hypothesized causal variables and the expected outcomes
5. Identify different types of study design, including observational, pre-experimental and experimental designs, and their inherent threats to internal and external validity

Email: crifasi@jhu.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to graduate students only
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

students must register for both 300.713 and 300.715 in order to obtain grade which is awarded at end of 300.715

Final grade applies to all terms

300.714.01 POLICY ANALYSIS IN PRACTICE (Cancelled - Department)

3 credits - Course offered this year - East Baltimore

Garboden, Phil

Lectures, lab exercises, and case studies of policy issues develop expertise in analyzing and synthesizing policy issues and in preparing policy documents.

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

1. Identify the key elements of policy research
2 Articulate differences between policy research process and the policy research outcomes
3 Outline the characteristics of effective policy research
4 Describe the process of policy research
5 Apply strategies and techniques of the policy research process to various policy areas
6 Frame policy questions using evidence from the literature, data, and stakeholder input
7 Design policy recommendations using a systematic review of the evidence gathered
8 Reflect on the policy research process in order to gain further insight and lessons to be applied to future policy questions and improve as a policy researcher

Email: pgarbod1@jhu.edu
Lecture: W 9:00 AM - 11:50 AM
Enrollment: Minimum 10, Maximum 45, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Due to enrollment cap, all students must obtain permission prior to registering.
Prerequisite: 300.712

300.715.01 ADVANCED RESEARCH AND EVALUATION METHODS IN HEALTH POLICY
4 credits - Course offered this year - East Baltimore
Castillo, Renan
Introduces basic principles and methods for undertaking scientifically rigorous research with a special emphasis on evaluations of interventions intended to improve health and safety. Focuses on evaluation of health policies, health care delivery systems, and public health programs. Topics include the relationship between health services research, health policy research, health policy analysis and health program management; common research designs and their strengths and weaknesses; internal and external validity; survey research techniques; qualitative research methods; and basic cost-effectiveness analysis with the intent of making students better conductors of research.
Upon successfully completing this course, students will be able to:
1 Assess different types of study designs, including observational, pre-experimental and experimental designs, and their inherent threats to internal and external validity
2 Critique and create conceptual, logic, and hypothesis-testing models for research questions
3 Differentiate quantitative and qualitative techniques commonly used in health services research and health policy evaluation, and identify their strengths and weaknesses
4 Identify key features of systematic and meta-analyses
5 Describe core principles of research ethics
6 Discuss how survey research is used in health services research, including choice of sampling techniques, determination of sample size, and writing appropriate survey questions
7 Explain the basic concepts of cost-benefit and cost-effectiveness analysis

Email: rcastil1@jhu.edu
Lecture: T TH 8:30 AM - 10:20 AM
Enrollment: Minimum 6, No maximum enrollment required, Waitlist Enabled: No
HPM PhD students only
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Non-HPM PhD students must obtain consent of instructor to register
Prerequisite:
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

300.723.01 FOUNDATIONS IN HEALTH POLICY III
2 credits - Course offered this year - East Baltimore
Saloner, Brendan
Familiarizes students with some of the foundational readings in health policy and provides an understanding of the theories and conceptual frameworks used in the development, implementation and analysis of health policies. Explores how different disciplines (political science, ethics, law, economics, sociology, behavioral sciences and history) inform thinking about the development, implementation and analysis of health policies that make a difference in the public’s health. Emphasizes critical reading and thinking, informed debate with respect for a range of opinions, and communication skills.

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 68 of 154
Upon successfully completing this course, students will be able to:

1. Discuss and critique foundational readings from the disciplines that inform health policy.
2. Provide examples that demonstrate how different disciplines and theories are relevant to contemporary problems in health policy and conducting research to better understand these problems.
3. Describe how theories and disciplines are used to develop conceptual frameworks helpful for guiding scholarly inquiry.
4. Identify key sources of disagreements in a body of literature and discuss what kinds of evidence would be persuasive in supporting, refuting or refining a particular line of argument.
5. Demonstrate how research can test a theory and help to re-formulate the theory based on new knowledge.

Email: bsalone1@jhu.edu

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

Enrollment: Minimum 10, Maximum 15, Waitlist Enabled: Yes

1st year PhD students in HPM

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 300.721 and 300.722

Class is held in departmental space, in Room 461 Hampton House

300.750.01 TEACHING, LEARNING AND LEADING – IN THE CLASSROOM, IN THE WORKPLACE AND IN THE COMMUNITY (Discontinued)

3 credits - Course offered this year - East Baltimore

Resnick, Beth A.; Bosch, Gundula

Offers students opportunities for exploring how to design, develop, deliver, and evaluate educational approaches for a range of audiences and to attain professional aims. Considers a variety of approaches for integrating educational practices and strategies into professional practice. Engages students in developing educational philosophies and reflecting upon personal educational experiences and use of educational approaches for professional and leadership advancement. Presents strategies for designing an educational plan.

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

1. Identify and describe their own preferences to education and leadership
2. Choose and use various educational strategies
3. Recognize important contextual and motivational aspects of education
4. Design an educational deliverable tailored to their professional aims

Email: bresnick@jhu.edu

Enrollment: Minimum 15, Maximum 40, Waitlist Enabled: Yes

undergraduate and interdivisional students are not permitted in this section

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introduction to Online Learning

300.750.81 TEACHING, LEARNING AND LEADING – IN THE CLASSROOM, IN THE WORKPLACE AND IN THE COMMUNITY

3 credits - Course offered this year - Internet

Resnick, Beth A.; Bosch, Gundula

Offers students opportunities for exploring how to design, develop, deliver, and evaluate educational approaches for a range of audiences and to attain professional aims. Considers a variety of approaches for integrating educational practices and strategies into professional practice. Engages students in developing educational philosophies and reflecting upon personal educational experiences and use of educational approaches for professional and leadership advancement. Presents strategies for designing an educational plan.

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

1. Articulate an educational philosophy
2. Identify teaching and learning strategies that align with educational philosophies and professional and leadership goals
3. Recognize the importance of communication, emotional and social intelligence, collaboration, listening and self-reflection skills for effective teaching, learning and leading
4. Recognize motivational, social, and contextual aspects of teaching and learning as they apply to a range of audiences, educational settings and learning objectives
5. Design an educational plan that outlines learning objectives and outcomes
300.800.01 MPH CAPSTONE HEALTH POLICY AND MANAGEMENT
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).

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.

300.862.81 CURRENT ISSUES IN PUBLIC HEALTH (Cancelled - Department)
1 credits - Course offered this year - Internet
McGinty, Meghan D.
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: mmcginty@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite: Introduction to Online Learning

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

301.820.01 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: TH 12:00 PM - 1:20 PM
Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No
Restricted to Health & Public Policy concentration HPM PhD students.
Grading Options: Pass/Fail

302.610.01 STATE HEALTHCARE POLICY
3 credits - Course offered this year - East Baltimore
Helms, W. David
Acquaints participants with the critical role states play in developing and implementing policies that affect both health and health care. Reviews how the role of states has evolved within the US federal system of government where states and the national government both have significant responsibilities. Focuses on how states are approaching the implementation of both Medicaid expansion and health insurance exchanges or marketplaces. Drawing upon specific state experiences with implementing the ACA, participants have the opportunity to assess how state demographic, economic, and political differences influenced the diverse approaches these states have taken.
Upon successfully completing this course, students will be able to:

1. Assess the evolving roles of both the national and state governments in health and health care and how changing interpretations of federalism have influenced the allocation of responsibilities between these levels of governments.

2. Explore how state differences and capabilities as well as the policy preferences of state officials and citizens have affected progress in implementing the ACA.

3. Develop experience in preparing a policy paper by analyzing how two states addressed the same health issue and in working in a small group to explore how one state is addressing a current health issue.

4. Assess how research and analysis contributes to policy making at the state level.

Email: whelms3@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; Undergrad seniors can enroll with consent of professor.

Prerequisite:
Interested undergraduate seniors should have taken Fundamentals of Health Policy and Management course and should contact Dr. Helms for copy of syllabus which reviews requirements for class participation, the individual policy paper and the group exercise.

Learning Materials:

- (Book) Health Politics and Policy
  Morome, James A
  Amazon: $161.63

- (Book) American Federalism in Practice
  Doonan, Michael
  Brookings Institute: $24.95

305.613.01 EVALUATION-INFORMED PROGRAM DEVELOPMENT AND IMPLEMENTATION (Discontinued)
4 credits - Course offered this year - East Baltimore
Fowler, Carolyn

Since effective evidence-based interventions cannot be developed, implemented, sustained, or transferred into new settings without recognition of context, students focus on integrating program evaluation methods throughout interventions: from early assessments, through program planning or adaptation, testing, delivery and measurement of outcomes. Introduces practical program planning, implementation and evaluation skills applicable in many different areas of public health. Topics include problem definition and analysis; assessing social and environmental factors that may impact the development, adoption, implementation, and outcomes of interventions; identifying intervention points; selecting among educational, regulatory, and technological interventions to achieve maximum likelihood of success; writing measurable program goals and objectives; designing implementation plans; developing an evidence-informed logic model; and program evaluability assessment.

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

1. Describe, and illustrate with sample worksheets, the process required to develop or adapt, and implement an evidence-based program.

2. Demonstrate their ability to use selected conceptual frameworks as part of this process.

3. Demonstrate their ability to prioritize interventions using objective criteria.

4. Explain selected program evaluation methodologies (evaluability assessment, formative, process, outcome).

5. Describe potential “unintended consequences” of interventions.

6. Prepare a persuasive executive summary.

7. Complete a SWOT analysis of a program proposal.

8. Use evaluative thinking to inform decision making in program development and implementation.

9. Demonstrate ability to develop a logic model.

10. Demonstrate ability to write SMART objectives and corresponding evaluation indicators.

11. Identify any advanced training needs; i.e., “Know what you don’t yet know”.

Email: cfowler1@jhu.edu
Lecture: M W 1:30 PM - 3:20 PM
305.684.01 HEALTH IMPACT ASSESSMENT
3 credits - Course offered this year - East Baltimore
Pollack, Keshia
Introduces students to health impact assessments (HIA), a systematic approach that informs decision-makers about the potential health impacts of proposed projects, programs, and policies that do not traditionally focus on health outcomes (e.g. education or housing), but are likely to affect the public’s health, is rapidly growing in the U.S. as one way to assess potential health impacts and promote health equity. Focuses on the application of HIA for policymaking. Students study the rationale for conducting HIAs, how HIAs fit within the broader concept of Health in All Policies, review a range of analytic methods used to conduct HIAs, analyze cases from international and domestic settings, and walk through the steps of how to conduct a HIA.

Upon successfully completing this course, students will be able to:
1. Understand how HIA fits within a Health in All Policies approach.
2. Appreciate the development of HIA as an approach separate from Environmental Impact Assessments.
3. Compare the use of HIA internationally and domestically.
4. Discuss the core steps needed to conduct HIA.
5. Recognize the range of methodological approaches used to conduct HIA.
6. Explore the effectiveness and impacts of HIA for decision-making.
7. Examine the application of HIA to the policymaking process.

Email: kpollac1@jhu.edu
Lecture: TH 3:30 PM - 6:20 PM

305.861.01 GRADUATE SEMINAR IN INJURY RESEARCH AND POLICY
1 credits - Course offered this year - East Baltimore
Ehsani, Johnathon P.
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: Johnathon.ehsani@jhu.edu
Lecture: M 12:00 PM - 1:20 PM
Consent required for some students; Undergrads can register but must obtain instructor permission.

306.650.01 PUBLIC HEALTH AND THE LAW
3 credits - Course offered this year - East Baltimore
Vernick, Jon; Rutkow, Helaine
Introduces non-lawyers to the important role played by the law in determining the public's health. Students analyze judicial opinions, statutes, and regulations in classroom discussions. Covers substantive legal topics including the balance between individual rights and public health initiatives, privacy, medical malpractice, and informed consent.

Upon successfully completing this course, students will be able to:
1. Describe the process of legal reasoning
2. Assess substantive law in several areas relevant to public health
3. Describe the process of legal research
4. Define some legal terminology
5. Analyze how the law deals with biomedical and health information
6. Identify legal issues
7. Determine when to consult legal counsel

Email: jvernic1@jhu.edu
Lecture: T 3:30 PM - 6:20 PM
Enrollment: Minimum 10, Maximum 115, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required of undergraduates
Prerequisite:

306.665.01 RESEARCH ETHICS AND INTEGRITY: U.S. AND INTERNATIONAL ISSUES
3 credits - Course offered this year - East Baltimore
Singleton, Megan
Acquaints students with an introduction to ethical theory and principles, including ethics requirements when conducting research with human subjects in the U.S. and/or developing countries. Through lectures and small group case discussion, covers the following topics: ethical theory and principles; informed consent in research; Institutional Review Boards; the just selection of research participants; cultural relativism; genetic research; ethical issues in vaccine research; ethics and human rights; appropriate use of placebos; what is owed to research participants, communities, and countries after research is completed; the use of animals in research; and scientific and academic integrity. Students in this course gain familiarity with research ethics in both the U.S. and global contexts.

Upon successfully completing this course, students will be able to:
1. Discuss ethical theory and the principles of bioethics
2. Recognize the moral considerations inherent to public health research
3. Understand ethics requirements when conducting research with human subjects and with animals in the U.S. and/or developing countries

Email: msingl16@jhmi.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 must obtain instructor consent prior to registering for this course
Prerequisite:
Jointly offered with IH
Satisfies school & NIH requirement re: responsible conduct of research

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: h.taylor@jhu.edu

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

Consent required for some students; Students who are NOT doctoral students in the bioethics track require permission of the instructor.

**306.864.01 FOGARTY BIOETHICS FELLOWS SEMINAR**

1 credits - Course offered this year - East Baltimore

Kass, Nancy; Hyder, Adnan; Ali, Joseph

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

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

**306.865.01 CLINIC FOR PUBLIC HEALTH LAW AND POLICY (Cancelled - Department)**

4 credits - Course offered this year - East Baltimore

Rosen, Joanne; Teret, Stephen

Uses current and compelling public health problems to engage students in an interactive learning experience. Offers an opportunity for developing practical skills necessary to solve critical public health problems and interact with policymakers, legislators, regulators and/or litigators to propose and implement feasible legal and policy solutions. Engages clinic students in collaborative work with faculty and in leadership roles, setting the agenda for each class, researching the science and law, and formulating the proposed law and policy recommendations.

Upon successfully completing this course, students will be able to:
1. Identify the available legal, policy and/or regulatory strategies that can be utilized to address a current public health problem
2. Evaluate the potential effectiveness and feasibility of different legal, policy and/or regulatory strategies
3. Identify and evaluate the “best practices” that have been adopted in other jurisdictions to address a current public health problem
4. Work collaboratively with other students
5. Interact with public health experts in the relevant fields, including science, epidemiology, law and policy

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 75 of 154
6 Describe the roles of public health professionals, policy makers, and advocates in promoting and protecting the public’s health
7 Prepare a written brief or other document that can be used by public health decision-makers to address a current public health problem

Email: jrosen55@jhu.edu
Lecture: M W 3:30 PM - 5:20 PM
Enrollment: Minimum 5, Maximum 12, Waitlist Enabled: Yes
undergraduates are not permitted in this course
Grading Options: Pass/Fail
Students do not need to have any legal experience to enroll. In each term, students will engage with lawyers, policymakers, and influential stakeholders. Due to the strong community involvement component, the Clinic has been approved as fulfilling the MPH practicum hours in full.

307.865.01 MENTAL HEALTH SERVICES AND SYSTEMS PRACTICUM II
1 credits - Course offered this year - East Baltimore
Barry, Colleen; Stuart, Elizabeth; McGinty, Beth
Part II of a year-long practicum that complements traditional coursework by providing exposure to the real-world settings and organizations that compose the mental health care infrastructure. Through this course, students will develop an understanding of the operational, organization, and financial aspects of service delivery, barriers to implementation of evidence-based services, and the interaction of other service settings (e.g., social services, criminal justice) with the mental health care system.
Upon successfully completing this course, students will be able to:
1 Diagram the organizational structures of state and local public mental health services.
2 Deconstruct the mechanisms by which mental health services are financed and the underlying incentives embedded in financing structures
3 Evaluate approaches to addressing the whole health of persons with mental illness through the organization of care delivery
4 Assess barriers to implementing evidence-based mental health services
5 Describe how other services settings interact with the mental health care delivery sector including social services and supports, the criminal justice setting and the educational setting
Email: cbarry@jhu.edu
Enrollment: Minimum 4, Maximum 10, Waitlist Enabled: Yes
PhD students only
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; PhD students and post-doctoral trainees who are not NIMH MHSS T32 trainees may enroll with instructor approval
Prerequisite: 307.864 Mental Health Services and Systems Practicum I
Jointly offered with MH
Course runs through 4th term, final grade given at the conclusion of 4th term. Course will involve student field trips to offsite organizations. Course will require students to register as Student Observers of Clinical Care with the Johns Hopkins Health System.

308.650.81 PUBLIC HEALTH PERSPECTIVES ON U.S. DRUG POLICY
3 credits - Course offered this year - Internet
Kennedy-Hendricks, Alene; Mojtabai, Ramin
Presents a critical examination of U.S. drug policy through a public health lens. Course topics include: policy mechanisms for reducing drug-related harm; implications of various drug control policies on population health and wellbeing; drug control enforcement and the role of the criminal justice system; stigma and the politics of drug policy; the organization and financing of services for people who use substances, including treatment of substance use disorders; and policies and services targeting special populations.
Upon successfully completing this course, students will be able to:
1 Identify the main policy mechanisms for reducing drug-related harm
2 Evaluate the impacts of different U.S. drug policies on public health
3 Situate U.S. drug policy in an international context
4 Diagnose gaps in and failures of U.S. drug policy in maximizing health
5 Propose solutions to addressing U.S. drug policy gaps, failures, and inequalities
6 Discriminate the differential effects of U.S. drug policy on vulnerable populations in the U.S.

Email: akenne27@jhu.edu

Enrollment: Minimum 4, Maximum 50, Waitlist Enabled: Yes
Undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning
Jointly offered with MH

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 only
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.; Mui, Paulani
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.
Prerequisite: Application and placement process.

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: TH 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

309.605.81 HEALTH ISSUES FOR AGING POPULATIONS (Cancelled - Department)
3 credits - Course offered this year - Internet
Wolff, Jennifer
Survey course introduces students to topics that pertain to aging societies. Organized around three modules that explore (1) broad social and policy implications of an aging society (demography, socially defined roles and expectations, disability dynamics and trends, housing and the built environment), (2) clinical issues in aging (aging and geriatric medicine, chronic care, long term care delivery, ethical issues in the health care of older adults, and death and dying), and (3) financial consequences for individuals and society (financing of health and long-term care, retirement and economic security, sustainability of entitlement programs).

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

1. Identify determinants of population aging and consequences for individuals and society
2. Analyze conceptual frameworks and measures in gerontology
3. Critique seminal and current readings in gerontology
4. Explain policy programs, financing considerations, and workforce issues that pertain to meeting economic, health, and social needs of aging societies
5. Apply concepts covered in this course to a contemporary aging-related issue
6. Translate frameworks and methods from gerontology to one or more contemporary policy topic

Email: jwolff2@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

309.616.81 INTRODUCTION TO METHODS FOR HEALTH SERVICES RESEARCH AND EVALUATION I
2 credits - Course offered this year - Internet
Zhu, Junya
Introduces basic methods for undertaking research and program evaluation within health services organizations and systems. In addition to basic methods, also provides "the state of the art" in research and evaluation through the review of major completed studies. Recommended for students who will be carrying out policy research, social science research, or program impact evaluation within health delivery systems. Also relevant to those who will apply the results of Health Services Research (HSR) done by others.

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

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 78 of 154
11 Demonstrate and discuss the basic concepts of cost benefit and cost-effectiveness analysis

12 Utilize secondary data and existing information sources in research projects

13 Discuss ethical concerns in protection of human subjects in health services research

Email: junzhu@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
do not register for 300.713 and this course.

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Undergrads can register but must obtain instructor permission.

Prerequisite: Introduction to Online Learning.

Multi-term with 309.617

Final grade applies to all terms

309.620.01 MANAGED CARE AND HEALTH INSURANCE

3 credits - Course offered this year - East Baltimore

Weiner, Jonathan

Presents an overview of major issues related to the design, function, management, regulation, and evaluation of health insurance and managed care plans. Provides a firm foundation in basic concepts pertaining to private and public sector health insurance/benefit plans, both as provided by employers and government agencies such as Medicaid and Medicare. Explores population care management techniques, provider payment, organizational integration, quality and accountability, cost-containment, and public policy.

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

1 Identify issues related to the design, function, management, regulation and evaluation of health insurance programs and managed care organizations, including HMOs

2 Distinguish between both private and public sector programs available within the U.S. and other countries with organized health care programs

3 Function as managers, policy analysts or evaluators of health insurance/managed care programs

Email: jweiner1@jhu.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: This course is intended for students with some basic knowledge of the US health care system. 300.651 or a similar courses or consent of instructor.

Learning Materials:

• (Book) Essentials of Managed Care
  Kongstvedt, Peter R
  Amazon $100.03

309.620.20 MANAGED CARE AND HEALTH INSURANCE

3 credits - Course offered this year - East Baltimore

Weiner, Jonathan

Presents an overview of major issues related to the design, function, management, regulation, and evaluation of health insurance and managed care plans. Provides a firm foundation in basic concepts pertaining to private and public sector health insurance/benefit plans, both as provided by employers and government agencies such as Medicaid and Medicare. Explores population care management techniques, provider payment, organizational integration, quality and accountability, cost-containment, and public policy.

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

1 Identify issues related to the design, function, management, regulation and evaluation of health insurance programs and managed care organizations, including HMOs

2 Distinguish between both private and public sector programs available within the U.S. and other countries with organized health care programs

3 Function as managers, policy analysts or evaluators of health insurance/managed care programs

Email: jweiner1@jhu.edu

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 79 of 154
Days & Times with Start & End Dates: Feb 05, 2019 - Feb 12, 2019
Lecture: T F 8:30 AM - 5:00 PM
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 only
This course will be offered over a 3-day period in Baltimore. Students are required to complete assignments prior to the start of class. The final assignments will be due April 5, 2019.

309.730.20 PATIENT SAFETY AND MEDICAL ERRORS
3 credits - Course offered this year - East Baltimore
Wu, Albert
Provides an introduction to the science of safety, and how it relates to problems with patient safety in health care. Explains the role of both individuals and systems in improving patient safety. Reviews institutional responses to adverse events, including the topics of risk management and medical malpractice. Emphasizes the importance of communication and teamwork.

Upon successfully completing this course, students will be able to:
1. Recognize the extent of problems in patient safety in medical care
2. Describe the role of various systems and factors in creating safety and in causing errors and adverse events
3. Discuss problems and issues in measuring and reporting safety
4. Conduct a basic incident investigation and disclosure of an adverse event
5. Propose solutions to improve patient safety

Email: awu@jhu.edu

Days & Times with Start & End Dates: Feb 10, 2019 - Feb 12, 2019
Lecture: M T 8:30 AM - 4:50 PM
Enrollment: Minimum 10, Maximum 32, Waitlist Enabled: Yes
Enrollment restricted to students in the Tsinghua DrPH cohort
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required for all students
This course will be offered for 3 days in Baltimore. Students are required to complete an assignment prior to the start of the course.

309.730.81 PATIENT SAFETY AND MEDICAL ERRORS
3 credits - Course offered this year - Internet
Wu, Albert; Morlock, Laura; Pronovost, Peter
Provides an introduction to the science of safety, and how it relates to problems with patient safety in health care. Explains the role of both individuals and systems in improving patient safety. Reviews institutional responses to adverse events, including the topics of risk management and medical malpractice. Emphasizes the importance of communication and teamwork.

Upon successfully completing this course, students will be able to:
1. Recognize the extent of problems in patient safety in medical care
2. Describe the role of various systems and factors in creating safety and in causing errors and adverse events
3. Discuss problems and issues in measuring and reporting safety
4. Conduct a basic incident investigation and disclosure of an adverse event
5. Propose solutions to improve patient safety

Email: awu@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
Learning Materials:
  - (Book) Understanding Patient Safety
    Wachter, Robert
    Amazon $37.41

309.861.01 GRADUATE SEMINAR IN HEALTH SERVICES RESEARCH AND POLICY
1 credits - Course offered this year - East Baltimore
Dy, Sydney M.
Provides opportunity to learn about the PhD process, 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.
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: dy1@jhu.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
Prerequisite:

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@jhsph.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.

311.615.20 QUALITY OF MEDICAL CARE
3 credits - Course offered this year - East Baltimore
Dy, Sydney M.
Introduces quality issues, including quality assessment and assurance performed by researchers, health systems, professional societies, and government and other third party organizations who pay for care. Provides a basis to evaluate the effectiveness of quality assessment and assurance activities. Describes different approaches to quality improvement and evaluation.
Upon successfully completing this course, students will be able to:
  1. Describe a framework for analyzing and improving the quality of medical care
  2. Explain how to assess quality of care for a medical condition, including: relative advantages/disadvantages of measuring structure, process, outcome; different assessment methods and need for risk adjustment; advantages and methods for assessing patient satisfaction
  3. Describe the fundamental elements of quality assurance in the United States

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 81 of 154
4. Discuss how to develop a workable quality improvement and evaluation plan, including: theoretical framework, quality assessment, evaluating assessment results and developing goals for improvement, changing individual health professionals’ behavior.

Email: dy1@jhu.edu

Days & Times with Start & End Dates: Feb 07, 2019 - Feb 09, 2019

Lecture: TH F SA 8:30 AM - 4:50 PM

Enrollment: Minimum 10, Maximum 32, Waitlist Enabled: Yes

Enrollment restricted to students in the Tsinghua DrPH cohort

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; Consent required for all students

This course will be offered over a 3-day period in Baltimore. Students are required to complete assignment prior to the first class session.

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

Morlock, Laura; Engineer, Lilly

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

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

1. Apply concepts and skills in organizational performance improvement
2. Develop and monitor organizational performance indicators on a variety of dimensions (clinical, services, financial)
3. Demonstrate change management, communication and leadership skills

Email: lmorloc1@jhu.edu

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

Grading Options: Pass/Fail

311.865.20 TSINGHUA DRPH SEMINAR

1 credits - Course offered this year - East Baltimore

Shi, Leiyu

Provides opportunity to learn about faculty research, discuss issues and concepts relevant to the field of health management and leadership, and learn skills important for academic and professional success in the field. Intended for DrPH students from the Tsinghua cohort.

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

1. Articulate how their own research interests align with the field of health care management and leadership
2. Discuss the key substantive areas that comprise health care management and leadership

Email: lshi2@jhu.edu

Days & Times with Start & End Dates: Feb 05, 2019 - Feb 05, 2019

Lecture: T 8:30 AM - 4:00 PM

Enrollment: Minimum 10, Maximum 32, Waitlist Enabled: Yes
Enrollment restricted to students in the Tsinghua DrPH cohort
Grading Options: Pass/Fail
Consent required for all students; Restricted to students enrolled in the Tsinghua DrPH cohort
Course offered for 1-day in Baltimore. Students required to complete assignment prior to the class session.

312.600.81 MANAGING HEALTH SERVICES ORGANIZATIONS
4 credits - Course offered this year - Internet
Marsteller, Jill
Examines the health care environment and its organizational implications. Presents a framework for understanding and managing health services and health sector organizations. Explores the application of managerial leadership skills to influence people and institutions. Discusses how to manage resources within a framework of principles, people, processes and organizational design. Addresses strategic and organizational management, management and performance improvement tools, and management roles and functions.
Upon successfully completing this course, students will be able to:
1 Identify the complexities and challenges of managing health services organizations
2 Analyze health service organizations and their functions in order to facilitate change and performance improvement
3 Describe the fundamental elements and benefits of service lines in health care as a means to efficiently organize and effectively deliver health care services.
4 Evaluate the impact of organizational structures and managerial roles and expectations of managers on performance in health care organizations.
5 Evaluate the managerial and technical challenges of managing health care organizations under accountable care or population health management settings. Explain the essentials of public health practice to identifying determinants of population health that impact health outcomes in a community and design low cost interventions.
6 Apply management tools and processes to performance improvement opportunities
7 Apply management theories and tools to the analysis of a current health care organizational issues
8 Work collaboratively on a team assignment

Email: jmarste2@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.
Jointly offered with HPM,IH

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: wwardjr1@jhu.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 IH

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 83 of 154
312.604.01 QUANTITATIVE TOOLS FOR MANAGERS
3 credits - Course offered this year - East Baltimore
Lee, K.H. Ken
Examines how information processing power can be applied to increase quality and decrease cost in healthcare. Emphasizes the importance of understanding analytics as a healthcare manager. Focuses on five themes related to managing a healthcare organization: finance, quality, market, operations, and utilization. Reviews theories such as data formats, database structures, and analysis methods. Explains how data is collected, prepared, and applied to make a positive impact. Real world examples provided during each session so that students can use the lecture materials to solve problems. Develops future healthcare leaders who can understand the details as well as think critically beyond the data.

Upon successfully completing this course, students will be able to:
1. Utilize financial, market, quality, operational, and utilization data to apply in decision making
2. Define the various data needs within healthcare and how data impacts decision making and accountability
3. Identify the appropriate analytical tools for financial, market, quality, operational, and utilization analysis, and evaluate the analytic methods used by other students and provide feedback for improvement
4. Explain how the application of quantitative tools and methods influences the quality and efficiency of decision making
5. Combine various datasets in an integrated approach to demonstrate the impact on the overall organization
6. Develop and present recommendations based on findings from hospital-based case study

Email: klee@jhsph.edu
Lecture: M 3:30 PM - 6:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
undergraduate students are not permitted in this class
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students must receive consent to register.
Prerequisite: Intermediate level of Excel competence
For MAC users, a parallel software that can run Windows-based programs is required

312.610.01 FOUNDATIONS OF ORGANIZATIONAL LEADERSHIP
3 credits - Course offered this year - East Baltimore
Gundlach, Ann-Michele
Enables students to develop an understanding of the role of the organizational leader, and the essential knowledge and skills that role requires. Provides a framework for understanding the process of working effectively with and leading others. Drawing from a variety of disciplines, emphasizes development of a personal leadership model and philosophy.

Upon successfully completing this course, students will be able to:
1. Explain the role and expectations for effective organizational leadership
2. Recognize the difference between effective and ineffective leadership behaviors
3. Demonstrate an understanding of ethical leadership and its influence on organizational behavior
4. Explain the importance of emotional intelligence and social competencies to effective leadership
5. Identify the requirements of leading a health organization through innovative change
6. Demonstrate knowledge of team leadership and effectiveness through participation in team-based assignments
7. Explain the relationship between leadership behavior and organizational culture
8. Develop a personal leadership philosophy and practice model

Email: agundla1@jhu.edu
Lecture: T 3:30 PM - 6:20 PM
Enrollment: Minimum 5, Maximum 35, 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.
Prerequisite:
Administrative Course Fee: 25.0000
fee will cover the cost of course materials
3 credits - Course offered this year - East Baltimore

Gundlach, Ann-Michele

Enables students to develop an understanding of the role of the organizational leader, and the essential knowledge and skills that role requires. Provides a framework for understanding the process of working effectively with and leading others. Drawing from a variety of disciplines, emphasizes development of a personal leadership model and philosophy.

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

1. Explain the role and expectations for effective organizational leadership
2. Recognize the difference between effective and ineffective leadership behaviors
3. Demonstrate an understanding of ethical leadership and its influence on organizational behavior
4. Explain the importance of emotional intelligence and social competencies to effective leadership
5. Identify the requirements of leading a health organization through innovative change
6. Demonstrate knowledge of team leadership and effectiveness through participation in team-based assignments
7. Explain the relationship between leadership behavior and organizational culture
8. Develop a personal leadership philosophy and practice model

Email: agundla1@jhu.edu

Days & Times with Start & End Dates: Feb 06, 2019 - Feb 11, 2019
Lecture: M W TH 8:30 AM - 5:00 PM
Enrollment: Minimum 5, Maximum 35, Waitlist Enabled: Yes
Enrollment restricted to DrPH/pt students in the Tsinghua cohort
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students must receive consent to register.
Prerequisite:
This course will be offered over a 3 day period in Baltimore. Students are required to complete two written assignments prior to the start of class. The final paper will be due on March 5, 2019.

312.621.01 STRATEGIC PLANNING

3 credits - Course offered this year - East Baltimore

Olig, Amber

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: AOLIG@gbmc.org
Lecture: W 3:30 PM - 6:20 PM
Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
undergraduates not permitted
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 312.600 or 312.603

Learning Materials:

- (Book) The Halo Effect ... and the Eight Other Business Delusions That Deceive Managers
  Rosenzweig, Phil
  Amazon $13.24
312.623.01 FINANCIAL MANAGEMENT IN HEALTH CARE I

3 credits - Course offered this year - East Baltimore

Ellis, John

Provides opportunities for students to apply knowledge of accounting, budgeting and financial management in a real world setting, emphasizing analysis and decision-making; applies in a broad range of healthcare settings, including the pharmaceutical, insurance, consulting and for-profit industries. Presents a “big picture” approach rather than micromanagement.

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. Demonstrate teamwork skills within a work team resulting in a completed case study

Email: jellis1@jhu.edu
Lecture: T 3:30 PM - 5:50 PM
Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
undergraduate students 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.
Prerequisite: 312.617, 312.603

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
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. Define health analytics and the foundation technologies used to perform analytics tasks. Summarize registries, cohorts, and how they are used to support population health and other ways to improve the quality of care and reduce the cost of care.
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.

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 86 of 154
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 technologies used to support medical education.

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

Email: mminear2@jhu.edu

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
undergraduates are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Due to enrollment cap, everyone needs permission to register.
Prerequisite: Introduction to Online Learning.

312.660.01 MARKETING IN HEALTH CARE ORGANIZATIONS
3 credits - Course offered this year - East Baltimore
Conderacci, Greg
Introduces students to marketing concepts in health care through readings, guest speakers, small group exercises and individual study. Prepares students 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 and create an effective sales presentation
10 Demonstrate basic sales techniques like questioning, listening, needs assessment, objection resolution, and positioning

Email: gconder1@jhu.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
Prerequisite:
Students may not add course after 1st class session.

Learning Materials:
- (Book) Strategic Marketing for Health Care Organizations
  Kotler, Philip
  Amazon $82.68

312.675.60 MEDICAL PRACTICE MANAGEMENT
3 credits - Course offered this year - East Baltimore
Bittle, Mark
Explores contemporary issues related to the structure and operations of hospitals, health systems, and the expanding role of physician networks and models in the development of integrated delivery systems. Examines regulatory and other critical factors influencing these models. Prepares students to assess how delivery systems changes will impact quality and costs, increase reliance on physician networks in the coordination of care, and acquaint students with the operational and strategic challenges and best practices associated with managing and integrating physician practices as an integral aspect of delivery system reform. Emphasizes future stages of healthcare delivery system reform in value/risk-based environments.

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

1. Identify and explain the operational challenges associated with the expansion of care delivery systems
2. Apply methods to assess health system organizational effectiveness, physician practice efficiency and financial stability, provider alignment and engagement, and clinical integration within the care continuum
3. Evaluate best practices and models for physician-hospital alignment to enhance quality, reduce costs, and provide enhanced clinical integration
4. Choose essential health system competencies and care delivery models of the future including meaningful measures of success that encourage, align, and engage all members of the delivery system

Email: mbittle1@jhu.edu

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

Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
Undergraduates are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Due to enrollment maximum, all students must obtain consent in order to register
Prerequisite: 312.600 or 312.601

This course 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 1 hour a week on class work in addition to regular homework.

312.678.01 INTRODUCTION TO HEALTHCARE QUALITY AND PATIENT SAFETY: A MANAGEMENT PERSPECTIVE

2 credits - Course offered this year - East Baltimore

Berenholtz, Sean; Goeschel, Chris

Introduces students to the latest thinking on healthcare quality and patient safety improvement through didactic sessions, interactive exercises and case studies that have direct relevance for the public health practitioner, healthcare administrator or clinician. Focuses on the specific domains of healthcare quality and patient safety based on the strategies recommended by the Institute of Medicine report "To Err is Human." Examines healthcare quality and patient safety from a strategic viewpoint with the goal of making healthcare administrators into effective decision makers.

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

1. Explain the national policy, regulatory, and advocacy pressures to improve patient safety and quality of care
2. Identify organizational structures and processes designed to improve quality and patient safety
3. Describe the role of accountability and how it is used to guide costs, quality and outcomes
4. Explain strategies designed to increase the use of evidence-based patient safety interventions
5. Analyze the relationship between patient safety organizational culture and communication that influences patient outcomes
6. Explain strategies for building a business case for improving safety

Email: sberenho@jhmi.edu

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

Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
not open to undergraduates
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; due to enrollment limits, all students need to obtain permission to register
Prerequisite:
Course is an offspring of 309.730
Students who take this course should not take 309.730 or 311.615 in the same year.

312.693.01 INTRODUCTION TO COMPARATIVE EFFECTIVENESS AND OUTCOMES RESEARCH

3 credits - Course offered this year - East Baltimore

Segal, Jodi
Reviews the problems faced by decision makers across the US health care system, and reviews priority topics for investigation. Explains the role of stakeholders, including payors, manufacturers, health care organizations, professional groups, providers and patients. Explains study designs and methods used in effectiveness research, focusing in particular on observational studies, but also on newer trial designs. Addresses the policy implications of this research.

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

1. Describe the role of comparative effectiveness research and outcomes research in improving health, which includes the place of comparative effectiveness research in the U.S. research portfolio, the identity and agendas of stakeholders, and the policy implications.
2. Illustrate the difference between efficacy and effectiveness research.
3. Develop study designs and methodologies unique to effectiveness research.
4. Choose appropriate outcomes and match outcomes to design options to address priority topics.

Email: jsegal@jhsph.edu

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

Enrollment: Minimum 14, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

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

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: Teresa.Schwartz@jhu.edu

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

Grading Options: Pass/Fail

312.866.01 MHS SEMINAR IN HEALTH FINANCE AND MANAGEMENT (Cancelled - Department)

1 credits - Course offered this year - East Baltimore

Bittle, Mark; Schwartz, Teresa

Introduces students to current health care finance and management issues through a series of discussion sessions and field trips with program directors. Students will work with their advisor to identify appropriate learning opportunities and contacts that will allow students to develop a scholarly research paper on a topic related to health finance and/or management.

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

1. Identify, evaluate, and prioritize market opportunities and alternatives.
2. Apply management knowledge and skills effectively in guiding individual and group behavior and influencing organizational culture and performance.
3. Develop a proposal for the MHS capstone.

Email: mbittle1@jhu.edu

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
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: Teresa.Schwartz@jhu.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 will cover the cost of course materials

313.603.01 ECONOMIC EVALUATION III

3 credits - Course offered this year - East Baltimore

Ballreich, Jeromie

Builds upon the theoretical concepts taught in Economic Evaluation I-II by providing advanced content in the areas of decision analysis, cost-effectiveness, and alternative approaches of modeling research questions for these fields. Include approaches for calculation of costs and effectiveness measures using standard modeling methods. Compares outputs as a result of decision tree and Markov modeling and introduces sensitivity analysis. Includes group projects to produce a well-thought model on a topic of their own choosing in decision analysis or cost-effectiveness.

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

1. Differentiate between decision analysis and cost-effectiveness analysis modeling methods
2. Determine the costs, effectiveness measures, and health outcomes associated with economic evaluation of public health topics
3. Construct decision trees and Markov models
4. Produce valid comparative results of economic evaluation(s)
5. Analyze uncertainty through the use of Bayesian multivariate probabilistic sensitivity analysis

Email: jballre2@jhu.edu
Lecture: W 3:30 PM - 6:20 PM

Enrollment: Minimum 10, Maximum 60, Waitlist Enabled: Yes

Undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Required if Economic Evaluation II was not completed in term 2 of 2018-2019.
Prerequisite: Economic Evaluation I (313.601.01) and II (313.602.01)

Jointly offered with IH

Since participation is a critical component of this course, the instructor suggests that students should register for a letter grade. In addition, this course is intense in programming with Microsoft Excel and Visual Basic Code; students should be comfortable performing these computing methods to satisfactorily complete the course.
INTRODUCTION TO HEALTH ECONOMICS
3 credits - Course offered this year - East Baltimore
Hough, Douglas
Introduces students to the application of economic tools to the interaction among the many stakeholders in the health care system and the public health system. Intended for those students who want an overview of health economics, but who do not expect to pursue additional courses in the field. Uses a standard health economics text as the main reading; also draws on articles from the popular press and professional journals that illustrate the tools of economics or their application to health care and public health issues.

Upon successfully completing this course, students will be able to:
1. Compare and contrast the demand for health and health care
2. Motivate the demand for health insurance
3. Describe the economics of production of health services
4. Discuss the production and supply of health professionals
5. Discuss the supply of technologies (including medical devices and pharmaceutical products)
6. Discuss the economics of public health externalities, and the role of government in remedying market failures in the health care sector

Email: Douglas.Hough@jhu.edu
Days & Times with Start & End Dates: Feb 06, 2019 - Feb 11, 2019
Lecture: M W F 8:30 AM - 5:00 PM
Enrollment: Minimum 12, Maximum 35, 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 only.
This course will be offered over a 3-day period in Baltimore. Students are required to complete assignments prior to the start of class.

INTRODUCTION TO HEALTH ECONOMICS
3 credits - Course offered this year - Internet
Hough, Douglas
Introduces students to the application of economic tools to the interaction among the many stakeholders in the health care system and the public health system. Intended for those students who want an overview of health economics, but who do not expect to pursue additional courses in the field. Uses a standard health economics text as the main reading; also draws on articles from the popular press and professional journals that illustrate the tools of economics or their application to health care and public health issues.

Upon successfully completing this course, students will be able to:
1. Compare and contrast the demand for health and health care
2. Motivate the demand for health insurance
3. Describe the economics of production of health services
4. Discuss the production and supply of health professionals
5. Discuss the supply of technologies (including medical devices and pharmaceutical products)
6. Discuss the economics of public health externalities, and the role of government in remedying market failures in the health care sector

Email: Douglas.Hough@jhu.edu
Enrollment: Minimum 12, No maximum enrollment required, Waitlist Enabled: No
Undergraduates are NOT permitted in this course
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning
This course is targeted towards students who are interested in an introductory survey course and have no background in microeconomics. Students with a background in microeconomics and an interest in taking a rigorous course sequence should consider the three-course sequence Health Economics I-III (313.643, 313.644, 313.645).

INTERMEDIATE HEALTH ECONOMICS
3 credits - Course offered this year - East Baltimore
Eisenberg, Matt

Building on the basic concepts and applications presented in Health Economics I, by applying the analytical tools of economics to issues in health and healthcare, with a specific focus on the supply side of the market. Examines asymmetric information and the role of agency; the market for health insurance; market structure in health care; the market for labor in health care; the market for pharmaceuticals; and government regulation of health care. Emphasizes mainstream neoclassical microeconomic theory as the basis for analysis, but will explore the implications when the assumptions of this model are violated.

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

1. Apply economic tools appropriately to analyze issues in health care and public health
2. Develop a critically constructive style of analysis of issues in health care organization, delivery, and financing, as well as health policy.
3. Integrate current literature on economic concepts, methods, and applications to issues in health care and public health.
4. Apply lessons from class to real-life situations, in health care and public health.

Email: eisenberg@jhu.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: 313.643 Health Economics I

Jointly offered with IH

**Learning Materials:**

- (Book) The Economics of Health and Health Care
  Folland, Sherman
  Amazon $170.84

**313.655.01 ADVANCED HEALTH ECONOMICS III**

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

Herring, Bradley; Gaskin, Darrell J.

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 employed in the literature
2. Apply comparative statics to health economic problems
3. Create their own models of health economic phenomenon
4. Produce advanced articles in health economics literature

Email: herring@jhu.edu

Lecture: F 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; all students required to obtain consent prior to registration

Prerequisite: 313.653 and 313.654

Multi-term with 313.653

final grade awarded at the end of 4th term

**313.655.01 ADVANCED HEALTH ECONOMICS III**

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

Herring, Bradley; Gaskin, Darrell J.
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 employed in the literature
2. Apply comparative statics to health economic problems
3. Create their own models of health economic phenomenon
4. Produce advanced articles in health economics literature

Email: herring@jhu.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 and 313.654
Multi-term with 313.654
final grade awarded at the end of 4th term

313.655.01 ADVANCED HEALTH ECONOMICS III
2 credits - Course offered this year - East Baltimore
Herring, Bradley; Gaskin, Darrell J.
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 employed in the literature
2. Apply comparative statics to health economic problems
3. Create their own models of health economic phenomenon
4. Produce advanced articles in health economics literature

Email: herring@jhu.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 and 313.654
Multi-term with 313.656
final grade awarded at the end of 4th term

313.861.01 PUBLIC HEALTH ECONOMICS SEMINAR
1 credits - Course offered this year - East Baltimore
Ballreich, Jeromie
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

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 93 of 154
6 Facilitate the translation of economics research into policy and practice

Email: jballre2@jhu.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

313.865.01 MHS CAPSTONE IN HEALTH ECONOMICS *(Discontinued)*
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**
Ballreich, Jeromie
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: jballre2@jhu.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

315.862.01 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; Weiner, Jonathan; Kharrazi, Hadi
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
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.

317.600.81 INTRODUCTION TO THE RISK SCIENCES AND PUBLIC POLICY
4 credits - Course offered this year - **Internet**
Truant Anderson, Patti
Provides an introduction to the basic paradigm for quantitative risk assessment and illustrates its application in the public policy process using case studies. Examines risk assessment in a broad societal context, considering social, economic, and political factors that affect risk decision-making; evolution of risk assessment; and the use of risk assessment in regulatory processes. Students complete a risk assessment exercise.

*3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at [http://www.jhsph.edu/courses](http://www.jhsph.edu/courses) - Page 94 of 154*
Upon successfully completing this course, students will be able to:

1. Achieve a general understanding of the concept of quantitative risk assessment and its application to public health problems.
2. Identify the elements of a quantitative risk assessment, utilizing the general framework developed by the National Research Council.
3. Evaluate a report of a quantitative risk assessment and interpret the policy relevance of the findings.
4. Describe current uses of quantitative risk assessment in policy-making.

Email: ptruant1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Undergrads can register but must obtain instructor permission.
Prerequisite: Introduction to Online Learning
Jointly offered with EPI

**317.605.01 METHODS IN QUANTITATIVE RISK ASSESSMENT**

4 credits - Course offered this year - East Baltimore
Fox, Mary

Introduces students to a variety of quantitative and qualitative methods used in hazard identification/characterization, exposure and dose-response assessment for chemical and microbial risk assessments. Students gain experience with selected methods through the assignments including probabilistic exposure assessment modeling, qualitative weight-of-evidence evaluation, and guided review and critique of existing risk analyses. Students learn to identify and evaluate assumptions used to bridge data gaps and to conceptualize and communicate variability and uncertainty. Guest speakers discuss current and emerging issues in chemical and microbial risk assessment and management.

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

1. Create, document, and describe a probabilistic exposure assessment model.
2. Recognize and evaluate information gaps in risk models and the assumptions used to fill them.
3. Describe the influence of variability and uncertainty on risk estimates.
4. Critique risk analyses.

Email: mfox9@jhu.edu
Lecture: M W 5:00 PM - 6:50 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 317.600
Jointly offered with EPI

**318.607.01 THE TOOLS OF GOVERNMENT (Discontinued)**

3 credits - Course offered this year - East Baltimore
Salamon, Lester

Discusses the instruments available to government to achieve its policy and program objectives. Examples of these instruments include grants, contracts, regulation, vouchers, loans, and loan guarantees. Compares the varying outcomes resulting from the choice of instrument. Focuses on the challenges of managing the complex public-private collaborations from either direction.

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

1. Differentiate the major tools of public action.
2. Determine the appropriate design for public program, including appropriate choice of tool and tool design features.
3. Identify the causes of public program implementation problems.
4. Manage public programs embodying a wide array of tools of public action.
5. Operate complex public-private collaborations.
6. Communicate complex analyses of program design issues both orally and in writing.

Email: lsalamon@jhsph.edu
Lecture: M 3:30 PM - 6:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

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*3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 95 of 154*
undergraduates not permitted
Grading Options: Letter Grade or Pass/Fail
Students must register for both 318.607 and 318.608 in order to receive a grade.
Final grade applies to all terms

**318.612.01 STATISTICAL ANALYSIS FOR POLICY MAKING III** *(Cancelled - Department)*
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
5. Report statistical analysis results in oral, written and mathematical formats
Email: mgiandr1@jhu.edu
Lecture: W 5:30 PM - 8:30 PM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
undergraduates are not permitted in this course;
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; students enrolled in programs other then the MPP must obtain permission of department prior to registering for this course.
Prerequisite: 318.610 and 318.611
Multi-term with 318.613
Students must register for 318.612 and 318.613 in order to receive a grade.
Final grade applies to all terms

**318.620.01 INTRODUCTION TO SOCIAL POLICY** *(Discontinued)*
3 credits - Course offered this year - East Baltimore
Altschuler, David
Introduces major US social policy topics including poverty and income inequality; improving outcomes for workers and employment; retirement, pensions and social security; family and children; hunger, nutrition and agriculture; and racial disparities. Discusses the broad approaches taken to address these issues and the role of government, the private sector, and nongovernmental nonprofit organizations. Examines how current social programs are structured, administered, and implemented and how this has changed over time. Offers contrasting approaches and priorities through consideration of different countries and regions of the world.
Upon successfully completing this course, students will be able to:
1. Describe the broad goals and functions of social policy
2. Discuss the range of topics, issues and programs that social policy addresses
3. Evaluate the assumptions and value underlying divergent views
4. Identify the array of interests and stakeholders relevant to the social programs
5. Describe the intended and unintended impacts of adopted policies
6. Examine changes in programs from a historical perspective
7. Compare the approaches and programs from an international perspective.
Email: dma@jhu.edu
Lecture: F 8:30 AM - 11:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

**318.621.01 DATA ANALYSIS WORKSHOP IN PUBLIC POLICY I** *(Cancelled - Department)*
3 credits - Course offered this year - East Baltimore
Borkoski, Carey
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

Email: cborkoski@jhu.edu
Lecture: TH 3:30 PM - 6:30 PM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
undergraduates are not permitted in this course;
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; students enrolled in programs other than the MPP must obtain permission of department prior to registering for this course.
Prerequisite: 318.610 and 318.611 and concurrent registration in 318.612 and 318.613
Multi-term with 318.622
Students must register for 318.621 and 318.622 in order to receive a grade.
Final grade applies to all terms

318.810.01 FIELD PLACEMENT - MPP
3 credits - Course offered only this year - East Baltimore
Resnick, Beth A.
All students must complete an internship to qualify for the MPP degree. Students are required to work at their internship placements for a minimum of 300 hours. Students are required to submit a policy portfolio to the MPP Office at the end of their internship: (1) A memo or paper that reflects on lessons learned during the placement and on the applicability of key concepts and skills learned during the first year of the masters program. (2) A sample of a written work product that was produced on the job. Typically, this would be a background paper or memorandum.

Upon successfully completing this course, students will be able to:
1. Apply the knowledge and skills obtained in the first year core courses to real-world public policy issues and problems

Email: bresnick@jhu.edu
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
continuing MPP students only
Grading Options: Pass/Fail
Prerequisite: completion of 1st year MPP required courses

318.864.01 CURRENT ISSUES IN POLICY ANALYSIS
2 credits - Course offered this year - East Baltimore
Resnick, Beth A.
Provides a greater understanding of policy issues. Explores 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 policy briefings 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
6 Analyze opportunities for action and potential objections to change

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

318.867.01 MPP GRADUATE POLICY SEMINAR (Discontinued)
2 credits - Course offered this year - East Baltimore
Resnick, Beth A.
Introduces work undertaken in public policy settings and prepares MPP students in Health Policy and Management for the internship requirement in the second year of the program and life after graduation.
Upon successfully completing this course, students will be able to:
1 Define public policy
2 Identify major arenas of public policy work
3 Discuss the scope of public policy work: what do policy analysts do?
4 Develop a professional resume targeted toward future employers
5 Begin the process of career networking: start a jobs database, investigate interest areas
6 Discuss the power of personal contacts

International Health
220.600.81 INTERNATIONAL TRAVEL PREPARATION, SAFETY, & WELLNESS
1 credits - Course offered this year - Internet
Kalbarczyk, Anna
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

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

221.604.01 CASE STUDIES IN MANAGEMENT DECISION-MAKING
3 credits - Course offered this year - East Baltimore

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

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

1. Apply principles of leadership, governance and management in effectively leading a health organization; including creating a shared vision, mission awareness, motivation and decision-making
2. Apply basic principles and tools of budget and resource management to improve organizational effectiveness
3. Apply effective negotiation, human relationships and communications skills in resolving conflict and achieving organizational objectives
4. Identify transitions in a non-profit organization and how different approaches to board engagement can be used to effectively manage organizational change
5. Outline a plan for succession in an organization from the perspective of a consultant and write a usable contract for health and social services
6. Identify the limitations of contracting for health and social services, and how to deal with them
7. Apply ethical approaches to practical health care program decisions and practice good participation in a conflict-ridden meeting of a health organization
8. Develop strategies to deal with complex human resource issues in health care using imperfect data and with pressures to save money
9. Identify how confusion of mission and conflict of interest operate at board and management levels in a health care organization

Email: gpariyo1@jhu.edu

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

Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Undergraduate students must get consent from the instructor

Prerequisite:
Jointly offered with HPM,IH
Undergraduate students must get consent from the instructor

221.605.01 HISTORY OF INTERNATIONAL HEALTH AND DEVELOPMENT

2 credits - Course offered this year - East Baltimore

Packard, Randall

Examines the history of western efforts to promote health and nutrition in the "developing world" from the beginnings of tropical medicine to recent efforts of disease eradication. Explores the various economic and political interests, as well as cultural assumptions, that have shaped the development of ideas and practices associated with international health in "developing" countries. Topics include history of international health organizations, strategies, and policies.

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

1. Describe the origins of different approaches to global health problems
2. Discuss the history of major international health programs and campaigns
3. Assess the broader political and economic forces which have shaped the history of global health strategies
4. Discuss the history of international health and development organizations and their changing roles in the development of global health strategies
5. Describe the history of tensions between competing visions of international health: horizontal versus vertical programs; selective interventions versus comprehensive primary health care; technical interventions versus improvements in overall social and economic well-being
6. List the institutional, cultural, and political contexts within which international health planning and implementation occur

Email: rpackar2@mail.jhmi.edu

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

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

Jointly offered with ME
221.608.01 MANAGING NON-GOVERNMENTAL ORGANIZATIONS IN THE HEALTH SECTOR

3 credits - Course offered this year - East Baltimore

Roberton, Timothy

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: timroberton@jhu.edu
Lecture: T TH 5:30 PM - 6:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
No restrictions
Grading Options: Letter Grade or Pass/Fail
Prerequisite: None
Jointly offered with HPM, IH

221.610.01 PHARMACEUTICALS MANAGEMENT FOR UNDER-SERVED POPULATIONS

3 credits - Course offered this year - East Baltimore

Eng, Maria

Analyzes problems and develops strategies based on real world pharmaceutical systems management issues, including the manufacture, procurement, distribution, safety, policy and regulation, and financing of pharmaceuticals, based upon both high income, and low and middle-income country examples. Demonstrates the complexity of ensuring and expanding access to medicines. Identifies stakeholders within the regional and national health systems. Defines strategies for improved pharmaceutical policy and service delivery between existing government ministries and donors, non-governmental and community-based organization. Uses various pharmaceutical systems frameworks to learn how to strategically prepare and plan for the sustainability of such services and staff. Takes a multidisciplinary approach to provide students with an operational understanding of factors influencing access, availability, affordability, and utilization of pharmaceuticals.

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

1. Explain the key factors in the Drug Management Cycle, including selection, procurement, distribution, policy and regulation, and rational use of pharmaceuticals
2. Define key terms and concepts that impact pharmaceuticals and their management in developing countries and within underserved populations
3. Identify and explain the relative strengths and weaknesses of alternative ways to raise revenues and finance pharmaceuticals and their related services
4. Apply the Problem Solving framework and related assessment tools to evaluate a timely pharmaceutical systems challenge, both through individual and group work
5. Create a strategic plan to address a focused pharmaceutical challenge that offers feasible options to strengthen local capacity to achieve desired health outcomes
6. Collaborate effectively in teams to identify potential pharmaceuticals systems obstacles and present solutions to funders and/or a country's Health Minister

Email: meng@jhu.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 10, Maximum 36, Waitlist Enabled: Yes
Undergraduate students must request consent prior to enrolling
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students. Students should send a brief email to Course Director with background and rationale for taking this Course.
For consent, contact: meng@jhu.edu

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 101 of 154
Prerequisite: This course recommends evaluative health services experience. Either Introduction to International Health (220.601); Problem Solving in Public Health (550.608); Applications in Managing Health Organizations in LMICs (221.602); Health Systems in LMICs (221.646); or equivalent course of work experience qualifies.

Jointly offered with HPM,IH

**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: atrujil1@jhu.edu

Lecture: F 10:00 AM - 11:50 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

**221.630.81 TACKLING THE INTERSECTORAL CHALLENGE OF ANTIMICROBIAL RESISTANCE: PROBLEM SOLVING SEMINAR**

3 credits - Course offered this year - **Internet**

So, Anthony

Examines antimicrobial resistance, a global health challenge that crosses borders, affects our healthcare delivery and our food systems, and threatens the gains made by modern day medicine. Explores the relationship between increased antibiotic use and mounting drug resistance. Considers how traditional business models for incentivizing innovation through greater product sales is at odds with efforts to ensure access and avoid excess in the use of antimicrobials. Addresses the role of increased meat consumption and reliance on intensive farm production in the rise of antibiotic use. Presents key policy tools such as stakeholder, value chain and market analyses as well as systems thinking, and invites students to rethink how we might respond to these challenges.

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

1. Examine how global policymaking influences and guides the workings of intergovernmental agencies, national governments and local healthcare delivery and food production
2. Analyze the ethical tensions in ensuring access, but not excess of antibiotic use in both healthcare delivery and the food production system
3. Discuss approaches that use monitoring and transparency to ensure accountability for public health goals that could also be applied to AMR
4. Examine the economics, equity and trade-offs of differing models of pharmaceutical innovation and access
5. Identify how conflict of interest potentially influences the policy process and how to safeguard this against such special interests
6. Explain how a One Health and interprofessional team approach to tackling antimicrobial resistance reveals both tensions and opportunities for intersectoral collaboration
7. Assess how economic incentives and financial approaches can exacerbate or mitigate the challenge of antimicrobial resistance
8. Recognize the disparate impact of policy interventions across countries, sectors and settings of differing resource levels.

Email: aso5@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

*3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 102 of 154*
Consent required for some students; Consent required for students not in the PT DrPH program. Students must send brief email to the instructor with background and rationale for taking the course. Decisions will be made by Jan.5th.

Prerequisite:

**221.631.81 EVALUATION METHODS FOR INJURY INTERVENTIONS**

3 credits - Course offered this year - Internet

Li, Qingfeng

Prepares students to participate in designing, conducting, and translating evaluations of LMIC safety programs for policy and advocacy. Content lectures discuss specific methods for data collection and analysis. Discusses and critiques case studies and how these designs have been used in LMIC settings. Introduces data collection using previously validated tools from organizations such as the WHO, methods for analysis using widely available software such as Microsoft Excel, and basic concepts of translating evaluation information into safety policy and advocacy.

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

1. Describe and critique evaluations of injury prevention programs conducted in LMICs, including the study design, sampling methodology, quantitative and qualitative data collection techniques, and basic descriptive analysis
2. Participate in the design and conduct of safety program evaluations using standardized tools and techniques developed specifically for evaluations in LMICs
3. Access and compile publically available aggregate data from various sources into a data set and perform basic mathematical calculations to understand the burden of injuries in a given area and to assess changes in the burden within the context of an intervention program
4. Participate in the translation of findings from safety-related aggregate data and evaluations of safety programs to advocate for change to policy makers in an LMIC

Email: qli28@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Confronting the Burden of Injuries (221.612.81)

Students who have not taken "Confronting the Burden of Injuries" course previously are required to review the optional lectures "Optional Review Lecture" and "Introduction to Injury Prevention"

**221.634.01 STRESS MANAGEMENT FOR RELIEF WORKERS**

2 credits - Course offered this year - East Baltimore

Everly, George

Provides an introduction to the need for, strategic principles of, and tactics for the provision of stress management and crisis intervention to relief workers. Emphases will be placed upon providing assistance to others as well as self-care. Provides awareness of emotional stress faced by health workers providing humanitarian assistance in emergency situations. Topics include signs and symptoms of stress disorders (critical-incident stress), components of critical-incidence management programs, and provision of services to prevent long-term mental health consequences.

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

1. Separate normal responses to a disaster from events related to incident stress
2. Identify the psychological "first aid" which is needed for persons demonstrating the signs and symptoms of stress in emergency situations
3. Organize an effective response using appropriate resources to mitigate the effects of stress on relief workers

Email: geverly1@jhmi.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

**221.635.01 ADVANCES IN COMMUNITY-ORIENTED PRIMARY HEALTH CARE**

4 credits - Course offered this year - East Baltimore

Perry, Henry

Introduces students to the origins and recent advances in community-oriented primary health care through case studies from both developing and developed countries. Like clinical bedside teaching, the course uses real cases to help students develop problem-solving skills in practical situations. Program examples include all use community-based approaches to address priority health problems. Focuses strongly on equity and empowerment in all cases discussed.
Upon successfully completing this course, students will be able to:

1. Describe the key concepts of approaches to Community-Oriented Primary Health Care and illustrate their practical use in program implementation.

2. Demonstrate practical methods of promoting participatory activities in communities and action groups.

3. Comprehend the methods for examining the conditions and practical techniques for developing partnerships to improve bottom-up participation of communities, top-down support by officials and outside-in stimulation by experts.

4. Explore in depth and be able to describe concepts of equity, sustainability, scaling up, community empowerment, and challenges in promoting changes in behaviors and social norms.

5. Describe strategies of multisectoral collaboration and integration within health services and demonstrate the methods for analysis of these strategies.

6. Identify successes and failures or weaknesses of each case study and describe the lessons learned from them.

7. Help students clarify their own values and attitudes in developing partnership relationships with communities and colleagues.

8. Discuss participatory methods in building community capacity to solve priority problems in varied health care settings.

9. Develop skills in learning how to use case studies in their own work and teaching.

10. Facilitate students' ability to scale up community-based successes from a local situation to general extension.

Email: hperry2@jhu.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: 220.601

We routinely waive the requirement for 220.601- Introduction to International Health. However, students are expected to understand and apply the basic concepts of public health, conduct a literature search on PubMed, and read public health journals.

221.635.81 ADVANCES IN COMMUNITY-ORIENTED PRIMARY HEALTH CARE

4 credits - Course offered this year - Internet

Perry, Henry

Introduces students to the origins and recent advances in community-oriented primary health care through case studies from both developing and developed countries. Like clinical bedside teaching, the course uses real cases to help students develop problem-solving skills in practical situations. Program examples include all use community-based approaches to address priority health problems. Focuses strongly on equity and empowerment in all cases discussed.

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

1. Describe the key concepts of approaches to Community-Oriented Primary Health Care and illustrate their practical use in program implementation.

2. Demonstrate practical methods of promoting participatory activities in communities and action groups.

3. Comprehend the methods for examining the conditions and practical techniques for developing partnerships to improve bottom-up participation of communities, top-down support by officials and outside-in stimulation by experts.
4. Explore in depth and be able to describe concepts of equity, sustainability, scaling up, community empowerment, and challenges in promoting changes in behaviors and social norms.

5. Describe strategies of multisectoral collaboration and integration within health services and demonstrate the methods for analysis of these strategies.

6. Identify successes and failures or weaknesses of each case study and describe the lessons learned from them.

7. Help students clarify their own values and attitudes in developing partnership relationships with communities and colleagues.

8. Discuss participatory methods in building community capacity to solve priority problems in varied health care settings.

9. Develop skills in learning how to use case studies in their own work and teaching.

10. Facilitate students’ ability to scale up community-based successes from a local situation to general extension.

Email: hperry2@jhu.edu

Enrollment: Minimum 15, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Undergraduate students should take the in-person course

221.638.01 HEALTH SYSTEMS RESEARCH AND EVALUATION IN DEVELOPING COUNTRIES
4 credits - Course offered this year - East Baltimore

Gupta, Shivam

Builds an understanding of the purpose and nature of health systems research (HSR) as a multi-disciplinary endeavor with diverse research goals. Participants review the range of research questions, methodological approaches and study designs that health systems research encompasses, as well as cross-cutting issues pertinent to health systems research such as gender and human rights, research rigor, ethical issues and policy uptake. Fosters the ability to develop different research strategies depending on the research question at hand and to read health systems research critically.

Upon successfully completing this course, students will be able to:
1. Articulate uses of HSR, and delineate between various kinds of health systems research
2. Develop health system research questions answered by different study designs depending on the type of investigation required
3. Describe the types of evidence derived from diverse methodological approaches to health systems research, and the types
4. Describe a range of applications used for health systems research, and how to ensure rigor in the various applications (quasi-experimental methods, use of administrative data, facility surveys, implementation research, case studies, participatory/action research, ethnography, mixed methods)
5. Articulate how cross-cutting issues such as gender and human rights, and ethical issues are applied to health systems research
6. Develop elements of research design and a policy influence and research uptake strategy

Email: sgupta23@jhu.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
Prerequisite: 220.601.01 Introduction to International Health
221.646.01 Health Systems in Low and Middle Income Countries

221.643.01 ARMED CONFLICT AND HEALTH
2 credits - Course offered this year - East Baltimore

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

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

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

Email: gburnha1@jhu.edu
Lecture: F 8:30 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 221.614 (recommended) or previous coursework in political science

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: atrujil1@jhu.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: 140.621-624 or 140.651-54, and 309.716
Personal laptops preloaded with Stata are required for use during class.

221.649.81 INTRODUCTION TO DIGITAL HEALTH IN LOW- AND MIDDLE-INCOME COUNTRIES

4 credits - Course offered this year - Internet

Bunker, Edward; Weiss, Bill

Introduces core principles and methods for implementing Digital Health interventions in Low and Middle-Income Countries (LMIC). Through case studies and interactions with practitioners, students articulate basic requirements for Digital Health applications and systems; consider approaches to assess applications of information and communication technologies; and identify and discuss challenges for deploying Digital Health systems in LMIC. Lecture topics include: orientation to mHealth, eHealth, and health informatics; frameworks for evaluating Digital Health systems; systems development methods; use case narratives; data and workflow diagramming; and electronic health record systems (EHRs). Different applications are used for instructional purposes in the course, including VoiceThread and MagPi. Students work in groups for selected assignments. Students complete several quizzes and individual assignments, including a final presentation in VoiceThread.

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

1. Articulate basic definitions and terms relevant to Digital Health, mHealth, eHealth, and Informatics
2. Apply frameworks and other tools in the assessment and evaluation of Digital Health projects
3. Assist public health agencies and donors to develop or select information and communication technology to better solve problems and achieve objectives in LMIC

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 106 of 154
Critically participate in discussions about basic system requirements for proposed systems

Write a “Use Case Narrative,” apply requirements documentation tools, prepare a data flow diagram

Email: Edward.Bunker@jhpiego.org

Enrollment: Minimum 5, Maximum 50, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

221.650.01 HEALTH POLICY ANALYSIS IN LOW AND MIDDLE INCOME COUNTRIES

3 credits - Course offered this year - East Baltimore

Bennett, Sara; Rodríguez, Daniela

Provides an overview of key political frameworks and theories related to policy development and offers practical perspectives on their application to health policy in low and middle income countries (LMICs). Analyzes the political economy of health policy, that is how the political environment, country institutions, and economic and planning systems come together to influence the process of health policy development. Introduces the main actors, processes and contextual features that are typical of policy development and implementation in low and middle income countries, and actors and processes at the global level that influence LMIC policy. Topics covered encompass national policy and planning frameworks; relationships with aid donors and issues of aid harmonization and alignment; the role of policy networks and in particular civil society actors; policy implementers and their role in shaping policy development; and mechanisms for global health governance.

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

1. Apply the key features of various frameworks and models for understanding the political economy of health policy
2. Identify, describe and analyze common processes and actors involved in health policy development with a particular focus on low and middle income countries
3. Appreciate the need for national policy leadership in the health sector, and when working in low and middle income countries, act in ways that respect national processes
4. Help develop and implement strategies to promote successful policy development and implementation for a range of different policy issues
5. Write a policy communication such as a policy brief

Email: sbennett@jhu.edu

Lecture: M W 9:00 AM - 10:20 AM

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

no undergraduates

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 220.601 Intro to International Health

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: atrujil1@jhu.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: 140.622 or 140.652

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.

221.652.01 FINANCING HEALTH SYSTEMS FOR UNIVERSAL HEALTH COVERAGE
3 credits - Course offered this year - East Baltimore
Rao, Krishna

Introduces students to concepts and methods in health financing with a focus on universal health coverage in low and middle income countries. Examines four themes of financing health systems: financing, pooling, purchasing and provision of healthcare. Studies health insurance systems, provider payment mechanisms, and surveys health financing practices across countries with different political and economic contexts. Enables students to use household survey data to estimate essential health financing metrics such as out-of-pocket payments, headcount ratio, poverty gap, and catastrophic health expenditures. Prepares students with health financing toolsets for a career in international health.

Upon successfully completing this course, students will be able to:
1. Explain basic health financing concepts and how it relates to financing universal health coverage
2. Assess the strengths and weaknesses of different healthcare financing functions: financing, pooling, purchasing and provision mechanisms
3. Analyze household survey data to measure out-of-pocket payments, headcount ratio, poverty gap, and catastrophic health expenditures
4. Describe and evaluate the health financing systems of select low or middle income countries

Email: kdrao@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Biostatistics 140.621/622 or 140.651/652 or experience using Stata. 313.639, Microeconomics, or 313.641, Health Economics I are recommended but not required to take the course.

221.654.81 SYSTEMS THINKING IN PUBLIC HEALTH: APPLICATIONS OF KEY METHODS AND APPROACHES
3 credits - Course offered this year - Internet
Paina, Ligia

Provides students with an understanding of how to apply ST in public health. Trains students on the fundamentals of ST theory and offers an opportunity to apply key methods and approaches to health policy and health questions. Prepares students to ask relevant research questions and apply a ST lens to describe, understand, and anticipate complex behavior. Examines how systems models can be critically appraised and communicated with others so public health policy makers can exercise a greater degree of wisdom and insight.

Upon successfully completing this course, students will be able to:
1. Identify characteristics of a system
2. Identify unintended consequences of public health system changes
3. Critically appraise systems models
4. Assess strengths and weaknesses of applying the systems approach to public health problems
5. Use participatory modelling approaches to understand how to engage with diverse stakeholders, how unanticipated consequences emerge, and what to do about them
6. Use systems diagrams and figures to show how feedback loops might lead to unanticipated consequences.

Email: lpaina@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: None

221.662.01 GLOBALIZATION AND HEALTH: ECONOMIC DEVELOPMENT
3 credits - Course offered this year - East Baltimore
Rao, Krishna
Explores the role of health in economic development, focusing on three themes - the relationship between health and economic growth, socioeconomic inequalities in health, and how globalization affects health and health services. Through these themes it introduces students to commonly used analytical tools in health economics. The first theme examines the effect of wealth on health, as well as, how better health influences human capital and income. The second theme, examines socioeconomic inequalities in health, primarily focusing on theories of how socioeconomic inequalities affect health, and the measurement of health inequalities. The third theme looks at global movements – such as resource flows in pharmaceuticals and vaccines, human resources – and their affect on health and health services.

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

1. Assess how economic development, inequality, and globalization are interrelated and affects health
2. Examine theoretical underpinnings of globalization and socioeconomic inequalities affecting the burden of disease
3. Apply analytical tools related to decomposition of health effects, measurement of living standards, measurement of health inequalities, and use of household surveys

Email: kdrao@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: Must know STATA

221.688.81 SOCIAL AND BEHAVIORAL FOUNDATIONS OF PRIMARY HEALTH CARE
4 credits - Course offered this year - Internet
Brieger, William
Provides students with the knowledge and skills needed to understand individual, community, and organizational behaviors and change processes in cross-cultural and developing countries settings as a foundation for planning appropriate Primary Health Care (PHC) programs. Students learn to outline the contributions of social and behavioral science theory in the planning and implementation of culturally relevant PHC programs; will utilize social and behavioral theories to understand individual, social network, organizational, community, and policy maker health related behaviors; and identify the factors that promote and inhibit community involvement in PHC program development and implementation.

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

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

Email: wbrieger1@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.

221.695.01 SEMINAR IN HUMANITARIAN HEALTH
1 credits - Course offered this year - East Baltimore
Spiegel, Paul; Robinson, Courtland
Introduces important and evolving issues in global humanitarian health from various perspectives including experts, practitioner, policymakers and academics. Examines trending issues such as new emergencies, politics, human rights, humanitarian architecture, leadership, cash transfers, innovative financing among others. Prepares students to explore practicums, internships, develop capstone projects, and apply to careers in the humanitarian health field.

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

1. Explain new and evolving concepts, policies, and interventions in humanitarian emergencies and disasters
2. Apply concepts, policies and interventions to different contexts and scenarios using current emergencies
3. Analyze key issues in humanitarian health including (but not limited to) models in program financing, sector-specific interventions, and solutions for refugees, displaced populations and others affected by crisis.
4. Identify key elements of the humanitarian health architecture and important organizations involved in program interventions, policy, and research.
5. Critique existing humanitarian interventions and responses at global, regional and national levels.

Email: pbspiegel@jhu.edu
221.801.01 HEALTH SYSTEMS PROGRAM SEMINAR I
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:
1. Identify Health Systems Program faculty and staff who can be mentors and informal advisors during students' course of study
2. Define educational and long-term goals for a career in International Health Systems
3. Identify research and practice opportunities in the Health Systems program
4. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings

Email: dconste1@jhu.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Enrollment is restricted to MSPH students and doctoral students in the Health Systems Program and DrPH students in the Department of International Health
Grading Options: Pass/Fail

221.810.01 HEALTH SYSTEMS PRACTICUM
variable credits field placement - Course offered this year - East Baltimore
Alonge, Olakunle; Creanga, Andreea
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: oalonge1@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

221.820.01 THESIS RESEARCH HEALTH SYSTEMS

Email: dconste1@jhu.edu
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.

**221.861.01 DOCTORAL SEMINAR IN HEALTH SYSTEMS**

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

Bachani, Abdulgafoor

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: abachani@jhu.edu

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

222.647.01 NUTRITION EPIDEMIOLOGY
3 credits - Course offered this year - East Baltimore
Caulfield, Laura
Reviews methodological issues related to nutritional assessment in the context of clinical, epidemiological, and programmatic research design. Discusses nutrition surveillance, cohort studies, field intervention trials, assessment techniques, and research design, including data collection, analysis, and interpretation.

Upon successfully completing this course, students will be able to:
1 Apply a conceptual framework for choosing appropriate indicators of nutritional status for different research and programmatic applications
2 Identify key methodological issues when assessing dietary intake, biochemical and anthropometric indicators, and the implications of those issues for assessing nutrition disease relationships
3 Apply statistical methods for evaluating indicators of nutritional status, for choosing among candidate indicators and for assessing biases in nutrition-disease relationships

Email: lcaulfi1@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
No undergraduates
Grading Options: Letter Grade or Pass/Fail

222.651.01 NUTRIENTS IN BIOLOGICAL SYSTEMS
2 credits - Course offered this year - East Baltimore
De Luca, Luigi; Lee, Sun Eun
Provides in-depth review of the metabolism of major macro- or micronutrients and their functional roles in a variety of biological systems. Focuses on biochemical or molecular mechanisms of how nutrients influence health and disease at the cell, tissue, organ, and regulatory network levels. Discusses emerging nutritional -omics studies and biomarkers to provide a global view of complex interactions between nutrients and genes, proteins, metabolites, and gut microbiota.

Upon successfully completing this course, students will be able to:
1 Apply basic concepts of nutrient homeostasis to nutrient control at the cellular level
2 Interpret and critically evaluate scientific literature on mechanisms of nutrients in biological functions
3 Gain a greater understanding of nutrient metabolism in a systems level

Email: ldeluca1@jhu.edu
Lecture: M W 3:30 PM - 4:20 PM
Enrollment: Minimum 7, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Previous course work in biochemistry and/or the course on Nutritional Biochemistry

222.655.01 NUTRITION AND LIFE STAGES
3 credits - Course offered this year - East Baltimore
Palmer, Amanda
Reviews stages of human development as a prism for understanding human nutrition. Discussions focus on various life stages, highlighting the biological, social and behavioral changes that influence the transitions in nutrition between life stages. Identifies key nutritional considerations for optimal human growth and development. Discusses early nutritional influences on health and well-being later in life.

Upon successfully completing this course, students will be able to:
1 Apply principles of nutrition in the context of human growth and development
2 Integrate human physiology and development, psychosocial factors, and nutrition through in-depth study of a nutrition/life stage issue
3 Interpret and critique scientific literature

Email: apalme17@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to graduate students
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent to ensure that students have a nutrition background and to determine their interest.

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: khurley2@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

222.815.01 HUMAN NUTRITION - REGISTERED DIETITIAN (RD) PROGRAM PRACTICUM
variable credits 1-16 credits - Course offered this year - East Baltimore
Caulfield, Laura
Engages the student, the placement agency, and the faculty in shared responsibility for the provision and acquisition of practical experience in a nutrition-related public health area. Led by the Johns Hopkins Bayview Clinical Nutrition Department, the practicum extends from June (following the year of coursework) to February of the next calendar year (3rd quarter of the subsequent academic year). Consists of a series of specific rotations in clinical, food service and community nutrition, and culminates in a 10-week public health placement.
Upon successfully completing this course, students will be able to:

Email: lcaulfi1@jhu.edu
Enrollment: Minimum 4, Maximum 8, Waitlist Enabled: Yes
Only students previously accepted to the MSPH/Registered Dietitian program and on their 2nd year.
Grading Options: Pass/Fail
Community involvement: Rotations at PACE, Moveable Feast, WIC, & Baltimore City School System

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.
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 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.

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses
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
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: lcaulfi1@jhu.edu
Lecture: TBA
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
doctoral students only
Grading Options: Pass/Fail

223.600.01 APPLICATION OF SPATIAL ANALYSIS TOOLS TO INFORM DECISION-MAKING IN LMICS
4 credits - Course offered this year - East Baltimore
Ali, Mohammad
Applies spatial analysis tools relevant for policy decision-making in resource-poor settings. Analyzes the concepts and techniques of Geographic Information Systems (GIS) and Exploratory Spatial Data Analysis (ESDA) with a global health focus. Introduces both descriptive and analytical functions of GIS along with additional spatial and geographic concepts including: cartographic communication, automated mapping characteristics, map projections, geocoding, coordinate systems, the nature of spatial public health data, and spatial statistical methods. Provides students with an opportunity to gain hands-on experience in the use of ArcGIS, QGIS, Geoda, SatScan, and Geographically Weighted Regression for spatial data analysis and mapping.

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

1 Create, edit, and manage spatial databases
2 Mapping GIS data using ArcGIS, QGIS, and R
3 Appraise and evaluate concepts, technical issues, and applications appropriate for GIS technology, including linking spatial data, conducting spatial queries, and analyzing feature relationships with regard to the strengths and weaknesses of data from low- and middle-income countries
4 Map disease and mortality rates using crude and Empirical Bayes Smoothed rates
5 Access, download, and process environmental, demographic, and census data from global websites for linking to maps
6 Interpret basic spatial data analysis methods including cluster detection and small area estimation, and confounding by spatial neighborhood
7 Apply GIS tools to specify and characterize populations and communities for global health intervention and research
8 Apply and interpret the concept of spatial autocorrelation (SA) and be able to assess SA in data with special focus to inform resource-poor setting decision-makers
9 Use of spatial lag regression and geographically weighted regression for problem solving

Email: mali25@jhu.edu
223.663.01 INFECTIOUS DISEASES AND CHILD SURVIVAL
3 credits - Course offered this year - East Baltimore
Ruff, Andy; Talaat, Kawsar
Reviews the major causes of childhood morbidity and mortality in the developed and developing world, and introduces intervention strategies. Reviews infectious disease problems contributing to childhood morbidity and mortality worldwide, including (but not limited to) HIV, TB, hepatitis, diarrheal disease, ARI, helminth infections, and measles. Emphasizes epidemiology, strategies for prevention and control, and differences between developed and developing countries.

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

Email: aruff1@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Restricted to graduate students
Grading Options: Letter Grade or Pass/Fail
Background in international health or maternal and child health recommended but not required.

223.664.01 DESIGN AND CONDUCT OF COMMUNITY TRIALS
4 credits - Course offered this year - East Baltimore
Katz, Joanne
Helps students (1) critically review the community trials literature, and (2) develop, identify and justify a randomized community trial design appropriate to answer a set of specific research aims. Discusses different types of randomized study designs appropriate for community (as opposed to clinical) trials. Topics include critical review of the community trials literature, formulation of specific aims, selection of study designs and appropriate study populations, estimation of sample size, methods for allocation of interventions or treatments, grantsmanship and budgeting, community participation, consent procedures, ethical and cultural considerations, specification of key outcomes, Safety and Monitoring Boards, data management, analyses and publication of results. These methods apply in many settings, but emphasizes issues that are unique to developing country and resource constrained environments.

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

Email: jkatz1@jhu.edu

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 116 of 154
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
Prerequisite: Biostatistics 620 series or higher, and Epidemiology Methods or Professional Epidemiology courses recommended but not required

Learning Materials:
- (Book) Field Trials of Health Interventions in Developing Countries: A Toolbox
  Smith, Peter G
  Brenda Casey W5009 $24.00
  Comment: I have been able to secure copies directly from Peter Smith in London. These will be on sale in W5009 at the purchase cost and shipping from the UK totalling $24 (see my assistant Brenda Casey, bcasey@jhsph.edu to purchase)

223.667.81 CHRONIC DISEASES IN LOW AND MIDDLE INCOME COUNTRIES: PREVALENCE AND EPIDEMIOLOGY
4 credits - Course offered this year - Internet
Checkley, William
Introduces students to the major transitional diseases in low and middle income countries. Lectures detail specific chronic diseases, stressing such areas as significance, prevention, diagnosis and management. Sessions include both traditional lectures as well as case studies. Students gain basic foundation of the epidemiology and challenges in the management of chronic diseases in low and middle income countries, which prepares them to work with research programs and international organizations.

Upon successfully completing this course, students will be able to:
1. Describe the epidemiology, pathogenesis and diagnosis of major chronic diseases in low and middle-income countries.
2. Provide examples of specific diseases which have transitioned from being classified as infectious diseases to being classified as chronic diseases
3. Apply concepts learned to prevent, diagnose and manage chronic diseases discussed in the course

Email: wcheckle@jhsph.edu

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Course will be offered in 3rd term instead of 2nd.

223.687.01 VACCINE POLICY ISSUES
3 credits - Course offered this year - East Baltimore
Salmon, Daniel
Examines current domestic and international policy issues in vaccine research, development, manufacturing, supply, licensure, delivery and utilization. Topics include: priorities for funding vaccine research and development, ensuring an adequate supply of safe and effective vaccines, vaccine financing and new vaccine introduction decision-making, ethics, and compulsory vaccination. Emphasizes the identification of important vaccine policy issues and the formulation and evaluation of policies to address these issues. Presents the roles, responsibilities, and policy positions of key immunization stakeholders via guest lectures by a wide array of experts who have worked for/with important vaccine stakeholders (e.g., UNICEF, The Bill and Melinda Gates Foundation, US Government, and GAVI Alliance). Students learn skills including developing a Policy Paper. Readings include relevant scientific papers and publications of U.S. and international agencies.

Upon successfully completing this course, students will be able to:
1. Assess a vaccine policy issue including determination of its health impacts
2. Describe vaccine policy stakeholders, evaluate their positions on a variety of vaccine policy issues, and assess the ability of these stakeholders to influence vaccine policy (e.g., their political capital).
3. Formulate vaccine policy alternatives and apply a framework to evaluate the feasibility and potential impact of these policy alternatives
4. Construct tools to assess and/or promote vaccine policy including a policy analysis and briefing memo

Email: dsalmon1@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
223.803.01 GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM SEMINAR 3
1 credits - Course offered this year - East Baltimore
Charron, Karen; Tam, Yvonne
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 visualization strategies, and data management considerations.
Upon successfully completing this course, students will be able to:
1. Identify and access key sources of publicly available data relevant to specific health issues
2. Request and download a DHS dataset and tabulate survey variables in Stata or R
3. Create tables using the principles of data visualization to choose appropriate tools and methods for sharing data with various audiences
4. Critique and revise data collection tools for management of field trial data
Email: kcharron@jhu.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Limited to GDEC MSPH students
Grading Options: Pass/Fail
Consent required for all students;
Prerequisite: 223.802 GDEC Seminar 2

223.810.01 GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PRACTICUM
variable credits field placement - Course offered this year - East Baltimore
Tam, Yvonne; Chou, Victoria
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: yvonneyotam@jhu.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

Information not required for this course type

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

223.840.01 SPECIAL STUDIES AND RESEARCH DISEASE CONTROL
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

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 2 (Discontinued)
1 credits - Course offered this year - East Baltimore

Yori, Pablo; Charron, Karen

Introduces students to skills and resources for career development within the field of international health. Provides an opportunity for students to focus in on these skills such as giving presentations, tailoring their resume to a public health audience and developing their publication profile. Prepares students for the practicum application process.

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. Reflect and interpret the history of global public health, its philosophy and values, through publications related to disease control programs and research
3. Apply new knowledge and problem-solving skills to address public health issues

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 119 of 154
4 Identify opportunities and challenges in conducting research and practice activities in low resource settings

Email: pyori@jhu.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
Prerequisite:

223.861.01 GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM DOCTORAL SEMINAR
1 credits - Course offered this year - East Baltimore
Mullany, Luke
Creates 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@jhu.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

223.866.01 SPECIAL TOPICS IN PROGRAM EVALUATION IN INTERNATIONAL HEALTH
1 credits - Course offered this year - East Baltimore
Walker, Neff; Tam, Yvonne
Acquaints students with current or on-going examples of large scale evaluations, and the practitioners or organizations that are the key players in implementation and evaluations of maternal and child health programs in low and middle income countries. Provides students with the skills to articulate current methodological issues around program planning, implementation and evaluation. Discusses key publications related to program implementation and evaluation. Introduces student to the various roles and responsibilities of a public health expert in the field of program evaluation.
Upon successfully completing this course, students will be able to:
1. Cite examples of current or on-going large scale evaluation projects.
2. Discuss issues and challenges surrounding current or on-going large scale evaluation projects
3. Explain the importance of evaluating the effectiveness of a large scale health program

Email: pwalke20@jhu.edu
Lecture: W 3:30 PM - 4:50 PM
Enrollment: Minimum 5, Maximum 25, Waitlist Enabled: Yes
Graduate students in the certificate of Evaluation of International Programs
Grading Options: Pass/Fail
Consent required for some students; Consent required for any student who has not taken the prerequisite course.
Prerequisite: Students must have taken 221.645

223.867.01 SPECIAL TOPICS IN VACCINE SCIENCE
1 credits - Course offered this year - East Baltimore
Shet, Anita; Durbin, Anna
Series of seminars (4 per term) on vaccine research against infectious diseases of global importance including AIDS, tuberculosis, malaria, childhood illnesses, and many others. Economic, political, and ethical dimensions of vaccine R&D are also covered. Seminars are presented by leading vaccine experts at JHU, from industry and other institutions. Series provides the student with an understanding of the pathways leading to development and utilization of vaccines with public health impact.

Upon successfully completing this course, students will be able to:
1. Describe the key barriers along the process of research, development, testing, evaluation, acquisition, and distribution of vaccines
2. Cite specific examples of how financial and political factors interact with scientific issues to affect governmental and industry prioritization about vaccine development
3. Describe how stakeholder motives (investor, corporate, public health agency, individual) can influence the fate of a vaccine R&D project

Email: ashet1@jhu.edu
Lecture: TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite:

224.690.01 QUALITATIVE RESEARCH THEORY AND METHODS
3 credits - Course offered this year - East Baltimore
Kennedy, Caitlin
Introduces practical skills for conducting qualitative research in domestic and international settings. Provides an overview of theoretical foundations of qualitative research and different methodologies for qualitative inquiry, including programmatic qualitative research, grounded theory, ethnography, phenomenology, narrative analysis, and case studies. Enables students to develop, interpret, and evaluate three common qualitative data collection methods: in-depth interviews, focus groups, and observation. Emphasizes understanding the basic principles and techniques critical for conduct, including question formation, tool design, sampling, data generation, ethics, and quality. Critically assesses the use of qualitative methods in the published health literature.

Upon successfully completing this course, students will be able to:
1. Identify epistemological differences between qualitative and quantitative research paradigms
2. Differentiate between various methodologies for qualitative inquiry, including ethnography, phenomenology, grounded theory, narrative analysis, and case studies
3. Formulate appropriate qualitative research questions and study designs
4. Describe and use multiple methods for the collection of qualitative data, including interviews, focus groups, and observation
5. Articulate the relative appropriateness of different types of data collection for a particular study
6. Discuss issues related to data quality and strategies for improving data quality
7. Describe ethical adaptations necessary when conducting research in other cultural and linguistic settings

Email: caitlinkennedy@jhu.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 18, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Terms graded individually
This course does not offer a fieldwork component. Students interested in managing and analyzing qualitative data are encouraged to take the sequel course: 224.691.01 Qualitative Data Analysis

224.694.01 MENTAL HEALTH INTERVENTION PROGRAMMING IN LOW AND MIDDLE-INCOME COUNTRIES
3 credits - Course offered this year - East Baltimore
Cwik, Mary
Introduces students to mental illness symptoms and syndromes found across contexts and the variety of strategies used to treat such symptoms. Discusses mental health services as an integral part of global health program development. Addresses methods of adapting and developing interventions in low-resource countries and humanitarian contexts, as well as research designs used to evaluate these interventions. Challenges students to use critical and creative thinking skills throughout to discuss the issues involved in this relatively new field. Focuses on cross-cultural challenges in conducting mental health research in these settings. Topics covered include an overview of mental health issues in low-resource countries and humanitarian contexts; cross-cultural challenges; developing, modifying and disseminating prevention and intervention strategies; and the interplay between mental health and related topics such as nutrition, fitness and diabetes; HIV; substance abuse; and violence.

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

1. Discuss issues critical to understanding mental health in low-resource contexts
2. Recognize the major mental illness symptoms that are found cross-culturally in adults and children
3. Illustrate ways in which culture can affect mental health services
4. Recognize the issues and challenges inherent in strategies for prevention, intervention development and dissemination in low-resource countries
5. Describe the process of identification, adaptation and evaluation of mental health interventions in low-resource countries
6. Critique past and current strategies for identifying, assessing, measuring and intervening on international mental health issues

Email: mcwik1@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM

Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
No undergraduates unless prior instructor approval
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required to determine appropriate qualifications
Prerequisite: 330.620 Issues in Global Mental Health Research (highly recommended)
Knowledge of mental health epidemiology is recommended. Students are exposed to examples and case studies from real-time mental health projects in the field.

224.698.01 QUALITATIVE RESEARCH PRACTICUM II: COLLECTING QUALITATIVE DATA
2 credits - Course offered this year - East Baltimore
Surkan, Pamela; Saleem, Haneefa

Enables students to begin data collection and analysis for a qualitative research project in collaboration with a local community-based organization or JHU faculty. Discusses the informed consent process, common problems in qualitative data collection (interviews, focus groups, observation) and strategies for addressing them, how to make iterative changes to data collection methods, and different approaches to transcription and translation. Includes a debriefing with qualitative data collectors.

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

1. Conduct appropriate informed consent for qualitative studies
2. Conduct qualitative interviews, focus groups, and observations
3. Describe common problems in collecting qualitative data and identify strategies for addressing them
4. Compare different approaches to qualitative data transcription and management
5. Work collaboratively with interprofessional teams to establish community rapport for qualitative data collection

Email: psurkan@jhu.edu
Lecture: M 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.
Course is an offspring of 224.690

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@jhu.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.

224.862.01 SOCIAL AND BEHAVIORAL INTERVENTIONS PROGRAM SEMINAR III: INTERVENTION CASE STUDIES
1 credits - Course offered this year - East Baltimore
Leontsini, Elli
Discusses intervention case studies examining formative research, implementation process, or monitoring and evaluation aspects. Relevant readings illustrating one or more of these aspects are provided by the SBI faculty, advanced students or other guests who will be leading each of the sessions.

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

1. Gain an overview of current themes and approaches in social and behavioral interventions in global health
2. Follow up, on professional development leads

Email: eleontsi@jhu.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
SBI MSPH and SBI PhD Students
Grading Options: Pass/Fail

224.866.01 SOCIAL AND BEHAVIORAL INTERVENTIONS DOCTORAL PROPOSAL DEVELOPMENT SEMINAR
2 credits - Course offered this year - East Baltimore
Surkan, Pamela
Guides students through the process of developing a dissertation proposal for the doctoral degree in SBI. Introduces the proposal requirements and provides information about the oral defense, including forming committees. Sessions include discussions of students' projects to help define the scope of a dissertation, understand how to use conceptual frameworks, approach the literature review, research methods, and analytic plan. Also discusses research ethics. Students work with the faculty instructor and in pairs and/or small groups to critique each others' proposals during the process of developing their own proposals.

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

1. Develop research aims, hypotheses and a identify/develop an appropriate conceptual model
2. Review and consolidate the literature related to their dissertation topic
3. Evaluate the strengths and limitations of their methodology and study design
4. Develop a feasible study timeline
5. Discuss and constructively critique their proposal and the proposals of other doctoral students in the seminar

Email: psurkan@jhu.edu
Lecture: F 1:30 PM - 3:20 PM
Enrollment: Minimum 3, Maximum 10, Waitlist Enabled: Yes
SBI doctoral students
Grading Options: Pass/Fail
Consent required for some students; Non-SBI students may enroll only with consent of instructor.
224.867.01 DOCTORAL SEMINAR IN ECONOMIC-STRENGTHENING INTERVENTIONS FOR SEXUAL AND REPRODUCTIVE HEALTH (Discontinued)

2 credits - Course offered this year - East Baltimore

Jennings, Larissa

Introduces doctoral students to recent advances in research on economic-strengthening interventions to address poverty-related factors in sexual and reproductive health with a primary focus on HIV and AIDS. Topics include behavioral economics, microfinance, cash transfers, financial incentives, and entrepreneurial-based health interventions that have been evaluated quantitatively and qualitatively. Fosters critical thinking on theoretical and methodological basis for economic-strengthening public health interventions in low-income countries and in the U.S.

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

1. Identify theoretical underpinnings of economic determinants of disparities in sexual and reproductive health (SRH)/HIV.
2. Discuss range of SRH/HIV economic-strengthening interventions evaluated in the current literature.
3. Critique research methods used by quantitative and qualitative public health scientists to address economic determinants of SRH/HIV.
4. Consider research questions that may be used for dissertation research.

Email: ljennin6@jhu.edu
Lecture: TH 3:30 PM - 5:20 PM
Enrollment: Minimum 3, Maximum 12, Waitlist Enabled: Yes
Doctoral students only
Grading Options: Pass/Fail

330.603.81 PSYCHIATRIC EPIDEMIOLOGY (Cancelled - Department)

3 credits - Course offered this year - Internet

Eaton, William

Reviews descriptive and analytic epidemiology for major mental disorders. Examines issues of classification and nosology of psychiatric disorders, operational case definitions and measurement techniques, prevalence and incidence rates, natural history, risk factor research and plausible explanations for credible risk factors. Considers aspects of psychiatric epidemiology that illustrate important problems and concepts in epidemiology generally.

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

1. Demonstrate knowledge of the descriptive epidemiology of the major mental disorders—prevalence, incidence, and natural history
2. Discuss the most important risk factors for the major mental disorders
3. Discuss gaps in knowledge, and future needs and trends in the field of psychiatric epidemiology
4. Discuss in detail the most recent scientific knowledge about one or more risk factors for psychiatric disorders
5. Discuss in detail the most recent scientific knowledge about two distinct psychiatric disorders
6. Define methodological and conceptual issues for the general field of epidemiology that are especially well-illustrated by the content of psychiatric epidemiology

Email: weaton1@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
No undergrads permitted
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 1. Introduction to Online Learning; 330.617.01—The Public Health Approach to Psychopathology; or 330.601.81—The Perspectives of Psychiatry—the Public Health Framework. Those with a clinical background in psychiatry, psychology, or social work are exempted from this requirement. And
2. 340.601.01 Principles of Epidemiology; or 340.751.01 Epidemiologic Methods; or another prior or concurrent course in epidemiology, approved by the instructor.
Jointly offered with EPI
MH doctoral students must register for 1 unit 330.840 Dr. Eaton
330.604.01 SEMINARS IN RESEARCH IN PUBLIC MENTAL HEALTH
1 credits - Course offered this year - East Baltimore
Bass, Judy
Integrates academic training with current research in public mental health, including etiological, epidemiologic and intervention research for mental and behavioral disorders across the lifespan. Features presentations by researchers from JHU and other research and practice institutions on the results of state of the art investigations of mental and behavioral health 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 public mental health
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: jbass1@jhu.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only open to DMH Postdocs, PhD and MHS students.
Grading Options: Pass/Fail

330.605.01 DOCTORAL SEMINAR IN PUBLIC MENTAL HEALTH
1 credits - Course offered this year - East Baltimore
Bass, Judy
Explores and critiques public mental health research and practice, emphasizing key constructs and methods with department faculty through presentations, readings, and group discussions. Develops professional development skills for careers in public mental health.
Upon successfully completing this course, students will be able to:
1. Explore in depth key public mental health historical and cutting edge research
2. Gain skills in key professional development domains related to careers in public mental health
Email: jbass1@jhu.edu
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

330.607.01 PREVENTION OF MENTAL DISORDERS: PUBLIC HEALTH INTERVENTIONS
(Cancelled - Committee Decision)
3 credits - Course offered this year - East Baltimore
Mendelson, Tamar
Introduces the basic principles and methods that guide research on the prevention of and early intervention with mental disorders. 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: tmendel1@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduates.
**Prerequisite:** No prerequisites. However, knowledge of basic epidemiologic and developmental principles will be helpful in interpreting the research presented.

**330.607.81 PREVENTION OF MENTAL DISORDERS: PUBLIC HEALTH INTERVENTIONS**

3 credits - Course offered this year - Internet

Mendelson, Tamar

Introduces the basic principles and methods that guide research on the prevention of and early intervention with mental disorders. 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.

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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: tmendel1@jhu.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:

**330.650.81 METHODS IN IMPLEMENTATION SCIENCE**

3 credits - Course offered this year - Internet

Haroz, Emily

Introduces methods, research designs and evaluation approaches that can be used to study implementation science questions. Includes an introduction of methods such as mixed-methods, measurement validity and reliability, randomized and non-randomized designs, and simulation studies using examples from mental and behavioral health settings.

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

1. Identify a range of methods, study designs and evaluation approaches that can be used to answer implementation science questions
2. Evaluate the relevance of study designs used for efficacy, effectiveness, and implementation research
3. Summarize the uses and standards of key implementation science methods, study designs and evaluation approaches
4. Apply implementation science study designs and evaluation methods to key implementation science questions
5. Assess the quality of implementation methods, designs and evaluations in research designed and conducted by others in mental and behavioral health settings
6. Design an evaluation of an implementation strategy by applying concepts, theories, and methods

Email: eharoz1@jhu.edu

Enrollment: Minimum 10, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Implementation Research and Practice 550.601

**330.661.01 SOCIAL, PSYCHOLOGICAL, AND DEVELOPMENTAL PROCESSES IN THE ETIOLOGY OF MENTAL DISORDERS**

3 credits - Course offered this year - East Baltimore

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

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

1. Describe the leading social, psychological, and developmental theories that serve as the foundation for public mental health research
2. Develop skills that will help them critically evaluate mental health research from multiple theoretical perspectives
3. Draw upon these theories to support their own mental health or services research (e.g., dissertations, grant applications)

Email: grebok1@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; Consent required of undergraduates.
Prerequisite: Consent required for undergraduate students only.

Learning Materials:
- (Book) Development of Psychopathology: A Vulnerability-Stress Perspective
  Hankin, Benjamin L
  Amazon.com $83.12

330.667.01 MENTAL HEALTH AND THE LAW

3 credits - Course offered this year - East Baltimore

Agus, Deborah

Covers a myriad of topics that are of concern to policy makers in the field of mental health. Topics include a review of relevant legislation and regulations in the areas of patient rights, consent and guardianship, financing, governance and forensics. Topics are specifically related to issues facing the public mental health system, including the forensic issues for adults and juveniles and financing laws relating to the funding of the mental health systems. Case studies of the impact of law on mental health might include the impact of Medicaid reimbursement regulations on poverty and depression for single adult males and the impact of registration laws and treating juveniles as adults on the treatment of juvenile sex offenders. Examines how the law has shaped and continues to shape the delivery of behavioral health services to children and adults with mental illness and the impact of these laws on treatment, financing and governance of the public mental health systems.

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

1. Define the structure of the legal system including the various pathways to making law
2. Discuss the relevance to the public health system and the relationship between law and policy
3. Analyze case law, particularly those cases related to public mental health issues, and apply these cases to actual current problems and issues
4. Define current federal law with respect to each of the issues that are important in public mental health treatment and service delivery
5. Discuss how these legal issues are developing in international legal systems and other countries
6. Discuss advocacy and the legislative process

Email: dagus2@jhu.edu

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

Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

330.674.01 SUICIDE AS A PUBLIC HEALTH PROBLEM

3 credits - Course offered this year - East Baltimore

Wilcox, Holly; Clarke, Diana

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 128 of 154
Introduces students to the following content areas with regard to suicide: history and theories; epidemiology; etiological factors and mechanisms; clinical phenomenology and comorbid disorders; assessment of suicidal behaviors; special populations; preventive and treatment interventions.

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, and interventions for attempted and completed suicide
3. Identify the essential clinical, social and ethical issues in the conduct of suicide research

Email: hwilcox1@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

Recommended reports to read:

  A prioritized research agenda for suicide prevention: An action plan to save lives.

**330.675.81 SUICIDE PREVENTION: PROBLEM SOLVING SEMINAR**

3 credits - Course offered this year - Internet
Wilcox, Holly

Explores the history, frameworks, and theories; epidemiology, etiological factors, and mechanisms of suicide as well as national and local suicide data sources; policy and preventive interventions; high-risk populations; common barriers and challenges to implementing and sustaining suicide prevention. Examines systems-level methods for preventing suicide. Considers interprofessional team approaches for developing strategic plans for suicide prevention.

Upon successfully completing this course, students will be able to:
1. Describe patterns, trends, and contributors to suicide within the U.S. and globally
2. Critically assess available programs and policies for addressing suicide in the U.S.
3. Explain the limitations of surveillance data and national surveys in assessing, monitoring and evaluating policies and programs to prevent suicide
4. Develop a strategic plan for suicide prevention
5. Propose an interprofessional approach for addressing the substantial barriers to suicide prevention due to infrastructure, resources, politics, stigma and access to services
6. Design a systems-level intervention to prevent suicide

Email: hwilcox1@jhmi.edu
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
DrPH students and Bloomberg fellows in the violence focus area in the MPH program
Grading Options: Letter Grade or Pass/Fail

**330.700.01 PUBLIC HEALTH APPROACHES IN AUTISM AND DEVELOPMENTAL DISABILITIES**

3 credits - Course offered this year - East Baltimore
Fallin, Dani Margaret; Lee, Li-Ching

Examines public health approaches to the assessment, etiology, services, and policy issues related to autism and developmental disabilities. Introduces the state of the science of autism and developmental disabilities epidemiology, and emerging questions for Public Health. Includes presentations and discussions of current information on descriptive epidemiology, genetics, environmental risk factors, and prognosis of ASD. Presents research on long-term outcomes in individuals with ASD. Provides an overview of research progress to date and points to challenges as we work to learn more about this enigmatic neurodevelopmental disability.

Upon successfully completing this course, students will be able to:
1. Describe the history and diagnostic criteria for autism and developmental disabilities
2 Discuss measurements and assessments of ASD, and evidence supporting competing theories about rising prevalence
3 Assess existing evidence for demographic and environmental risk factors for autism and developmental disabilities
4 Recognize promising avenues for genetic research while being mindful of remaining challenges
5 Summarize status and challenges of global public health efforts for autism and developmental disabilities
6 Identify areas of public health research and practice that can inform ASD prevention, identification, treatment, and services

Email: dfallin@jhu.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:

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

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).

330.802.01 SEMINAR ON AGING, COGNITION AND NEURODEGENERATIVE DISORDERS
2 credits - Course not offered until 2019 - 2020 - 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 neuropathological changes associated with aging and with disease.
Upon successfully completing this course, students will be able to:
1 Classify the major neurodegenerative disorders related to age and describe their clinical presentation
2 Discuss the neuropathological findings associated with major neurodegenerative disorders
3 Review challenges associated with clinical trials in neurodegenerative disease

Email: grebok1@jhu.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; All students must receive consent.
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
Musci, Rashelle

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 50, 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.

330.812.01 MHS THESIS IN MENTAL HEALTH: FROM PROPOSAL TO PUBLICATION II
1 credits - Course offered this year - East Baltimore
Parisi, Jeanine M.; Parisi, Jeanine M.

Students are required to conduct a systematic review of the literature or data-driven paper in partial fulfillment of the Master of Health Science (MHS) degree in the Department of Mental Health. Emphasis is placed on revision and dissemination of the final project. Topics include: Selecting an outlet for dissemination (e.g., journal submission, conference presentation) and writing assignments (e.g., cover letter, abstract for conference).
Information not required for this course type
Email: jparisi1@jhu.edu
Lecture: F 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
MHS students in Mental Health; no undergraduates
Grading Options: Pass/Fail
Course builds on 330.811 MHS Thesis in Mental Health: From Proposal to Publication I.

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**

**260.607.01 CORE DISCUSSION OF SCIENTIFIC LITERATURE: MMI**
variable credits 1-2 credits each term, depending on School of Medicine required course that the student is taking concurrently. - Course offered this year - **East Baltimore**

Hardwick, J.-Marie

Students read assigned papers from the current scientific literature and participate in in-depth discussions focusing on scientific methods and understanding the technologies available in departmental core facilities. Assigned papers cover a broad range of topics that are related to but not directly covered in coursework. Student discussion leaders present background information, guide the discussion and prepare written discussion questions.

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

1. Learn to critically evaluate current scientific literature.

Email: hardwick@jhu.edu

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

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Pass/Fail

**260.613.01 TECHNIQUES IN MOLECULAR BIOLOGY**

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

Markham, Richard

Supplements the scientific classroom experience of students in biological science graduate programs by providing hands-on experience with essential core molecular biology techniques. Involves five days of intensive hands-on laboratory instruction along with the science behind the applications. The methodologies focused on are the following: polymerase chain reaction (PCR) DNA amplification, quantitative PCR, DNA and protein gel chromatography, Western blotting, transformation of bacteria, and expression of heterologous proteins by bacteria.

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

1. Explain how these methodologies work scientifically and in what context they should be employed to answer scientific questions.
2. Employ laboratory laboratory techniques that are widely used in the areas of immunology and infectious disease research.
3. Compare and contrast different methodologies in order to solve biological problems.

Email: rmarkha1@jhu.edu

Days & Times with Start & End Dates: Jan 07, 2019 - Jan 11, 2019

Lecture: M T W TH F 9:00 AM - 5:00 PM

Lab Section: 01 M T W TH F 9:00 AM-5:00 PM

Enrollment: Minimum 7, Maximum 20, Waitlist Enabled: Yes

Masters students interested in learning lab techniques

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for undergraduate students.

Prerequisite: None
The laboratory portion is offered on a schedule of 6-8 hours/day during the first week of the Winter intersession.

**260.627.01 PATHOGENESIS OF BACTERIAL INFECTIONS**

4 credits - Course offered this year - East Baltimore

Presents the mechanism employed by bacteria to establish and maintain infection in the human host and evolution of host resistance mechanisms. Covers host-pathogen relationship, bacterial structure and metabolism, pathogenic mechanisms of bacteria, systemic and mucosal immunity, major Gram-negative and Gram-positive bacterial pathogens, antibiotic resistance, bacterial vaccines, and role of microbiome in health and disease. Discussions generally cover Gram-negative and Gram-positive bacteria with specific lectures on pathogens of particular interest, such as mycobacteria, H. pylori, Borrelia, rickettsia, and bacteria associated with sexually transmitted diseases. Complemented by two clinical plate rounds and a clinical lab tour that aims to give a flavor of clinical relevance of the covered topics.

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

1. Analyze unique features of bacterial cells compared with eukaryotic cells, and the structure/function and metabolism of the bacterial cell needed for understanding the molecular basis of bacterial pathogenesis
2. Assess how bacteria mediate genetic exchanges and the genetic strategies used to dissect bacterial virulence factors, and molecular Koch postulates for verifying the role of a given gene in bacterial pathogenesis
3. Define the pathogenic mechanisms bacteria use to cause disease
4. Define how antibiotics work and how bacteria develop two types of resistances to antibiotics and the role of persisters in relapse of persistent bacterial infections
5. Define the importance of microbiome in human health and diseases
6. Define host immune mechanisms in controlling bacterial infections and how vaccine works
7. Assess methods of diagnosis and treatment of major select bacterial pathogens

Email: yzhang5@jhu.edu

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

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

Grading Options: Letter Grade or Pass/Fail

Required for MMI students.

**260.633.01 AUTOIMMUNE DISEASES OF THE ENDOCRINE GLANDS**

4 credits - Course offered this year - East Baltimore

Caturegli, Patrizio

Reviews current understanding of autoimmunity, the immunological mechanisms and the animal models. Presents the clinical manifestations and the pathogenesis of all autoimmune diseases affecting the endocrine glands, such as Graves' disease, type 1 diabetes and Hashimoto's thyroiditis. Current articles from the literature address important topics in autoimmunity.

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

1. Explain the basic physiology of the classic endocrine glands (pituitary, thyroid, parathyroid, adrenal, pancreatic islets, ovaries, and testes) and the basic principles of autoimmunity
2. Describe the endocrine diseases that have autoimmune pathogenesis, using studies from both humans and mice

Email: pcatureg@jhsph.edu

Lecture: M W 3:30 PM - 5:20 PM

Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Principles of Immunology or equivalent.

**260.650.01 VECTOR BIOLOGY AND VECTOR-BORNE DISEASES**

3 credits - Course offered this year - East Baltimore

Norris, Douglas; McMeniman, Conor

Presents the principles of transmission of human and animal pathogens by insects, mites and ticks. Covers basic arthropod biology with special attention to biological properties of vectors and their interactions with pathogens, basic components of arthropod pathogen disease cycles and principles of pathogen transmission dynamics. Special topics include emerging pathogens, vector genetics, traditional and next generation control strategies and venomous arthropods.

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

1. Describe individual components of vector-borne disease transmission using specific examples
THIRD TERM COURSE SCHEDULE 2018-2019 -- January 22 - March 15, 2019

2 Describe current emergent arthropod-borne infectious diseases
3 Describe and evaluate vector-borne pathogen control measures
4 Describe conditions leading to evolution of resistance in arthropods and the pathogens they vector, and methods to manage the development of resistance
5 Understand the ecological components of arthropod-borne disease transmission
6 Understand how all twelve required learning objectives for the BSPH MPH program are integrated into vector biology
7 Understand how vector biology is integral to our public health history, philosophy and values and will identify how the 10 Essential Services apply to vector-borne disease
8 Describe methods for quantitative and qualitative assessment of population health, and primary, secondary and tertiary prevention
9 Discuss causes of morbidity and mortality, when and where these diseases occur and what populations are affected, environmental, biological and genetic drivers of transmission, and how these are impacted by the social, political and economic climate
10 Explain how globalization and human behavior are key drivers for many of these emerging pathogens where a One Health approach is necessary, especially in the context of disease transmission systems bridging or jumping from animal to human due to fractures in ecosystem health

Email: douglas.norris@jhu.edu
Lecture: T TH 8:30 AM - 9:50 AM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

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: dsulliv7@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, undergraduate students - no consent required. Full-time MPH and other full-time students - consent required.
Please email instructor for permission.
Prerequisite: Introduction to Online Learning

260.665.01 BIOLOGICAL BASIS OF AGING
3 credits - Course offered this year - East Baltimore
Margolick, Joseph
Emphasizes the fundamental nature of the aging process, at the molecular, cellular, and organismal level and examines the principles of aging in other animal species which may apply to man. Presents the physiological aspects of the different organs/systems affected by the disease processes (e.g., cardiovascular, metabolic, immunological etc.) Discusses the theoretical models of aging.
Upon successfully completing this course, students will be able to:

1. Discuss biological basis of aging at the molecular, cellular and organismal levels
2. Discuss biological aspects of aging to both health and disease-related public health issues

Email: jmargol1@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
Consent required for all students; Please email instructor for consent.

260.700.60 HOW DO WE KNOW? - THEORY AND PRACTICE OF SCIENCE
3 credits - Course offered this year - East Baltimore
Bosch, Gundula; Casadevall, Arturo
Examines the nature and philosophical foundations of science using an interdisciplinary approach that emphasizes critical thinking and storytelling; discusses the principles of good scientific practice – rigor, reproducibility and responsibility (the 3R's) - by exploring revolutionary discoveries in the life, public health and natural sciences; elaborates the relationship between theory, practice and serendipity in scientific discovery, and concludes with a discussion of the role of scientists in society.

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

1. Analyze the notions of "science", "knowledge", "paradigm" and "truth"
2. Appraise the impact of revolutionary discoveries on the evolution of scientific knowledge and beliefs
3. Employ the norms of science – rigor, responsibility and reproducibility (the 3 "R’s") - in scientific practice
4. Demonstrate understanding of scientific core concepts and methods through effective communication with peer and lay audiences
5. Evaluate the role of scientists in society

Email: gbosch2@jhu.edu
Lecture: M 3:00 PM - 5:00 PM

Enrollment: Minimum 3, Maximum 15, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

This course 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 1 hour a week on class work in addition to regular homework.

Held in departmental space.

260.704.60 CRITICAL DISSECTION OF THE SCIENTIFIC LITERATURE: TAKING THE SCALPEL TO JOURNAL ARTICLES
3 credits - Course offered this year - East Baltimore
Bosch, Gundula
Challenges the classical format of a journal club by preparing students to critically evaluate literature across the science disciplines. Acquaints students with concrete applications of the 3 R’s of good scientific practice: rigor, responsibility, and reproducibility. Discusses techniques for effective research literature analysis and evaluation. Emphasizes in-depth understanding of journal article preparation, data evaluation, and the context of conclusions and discussion points within a given research field.

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

1. Describe the elements of a well-constructed journal article publication
2. Analyze the experimental strategies and techniques, as well as the corresponding data presented in scientific publications in the light of the norms of good scientific practice
3. Evaluate the claims made and conclusions drawn in journal articles from epistemological and logical perspectives
4. Formulate constructive critique of the research presented in the interdisciplinary primary literature
5. Propose recommendations for improvement of the critique points found
6. Recognize the broader significance of the work presented in the scientific context of the field.

Email: gbosch2@jhu.edu
Lecture: TH 3:30 PM - 5:20 PM
Enrollment: Minimum 3, Maximum 24, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: none
This course is part of the R3 Science Education Initiative series (http://tiny.cc/JHSPH-MMI-R3). May be taken as a companion to PH.260.700: How do we know what is true: Theory and Practice of Science, or on its own. PH.260.700 is not a prerequisite.

260.800.01 MPH CAPSTONE MOLECULAR MICROBIOLOGY AND IMMUNOLOGY
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).

260.810.01 FIELD PLACEMENT 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

260.820.01 THESIS 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

260.821.01 RESEARCH FORUM IN MOLECULAR MICROBIOLOGY AND IMMUNOLOGY
1 credits - Course offered this year - East Baltimore
Brady, Anne
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: abrady9@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 credits - Course offered this year - East Baltimore
Stins, Monique
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: mstins@jhmi.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
variable credits 4-8 - Course offered this year - East Baltimore
Departmental Faculty
All departmental Sc.M. and doctoral students spend one 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.
Upon successfully completing this course, students will be able to:
  1 To broaden a student's knowledge of laboratory techniques and skills
  2 To provide exposure to a variety of research areas
  3 To provide the opportunity for interaction with several faculty members, so that a thesis laboratory may be identified
  4 To develop the ability to carry out a research project
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Consent of rotation supervisor required.

260.855.01 PANDEMICS OF THE 20TH CENTURY
1 credits - Course offered this year - East Baltimore
Pekosz, Andrew; Klein, Sabra

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 137 of 154
Focuses on major pandemics in the human population that have occurred in the 20th century and in particular, the 1918 influenza pandemic, the severe acute respiratory distress syndrome (SARS) outbreak of 2002-03 and the emergence of HIV. A discussion of ongoing concerns regarding research into viruses with pandemic potential (Gain of Function experiments) also forms part of the content. For each pandemic, discussion groups cover readings centered around a clinical- or public health-topic and a pathogen-oriented topic in order to give students a broad understanding of the pandemic, as well as to compare and contrast the key aspects of each disease. Compares and contrasts pandemics resulting from acute and chronic diseases, as well as diseases with different routes of transmission and incubation times. Provides a comprehensive overview of how each pandemic emerged, what key factors dictated spread in the population, and how each pathogen induced disease.

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

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

Email: apekosz1@jhu.edu

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

Enrollment: Minimum 7, Maximum 16, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

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

600.612.86 PROFESSIONAL DEVELOPMENT: WRITING FOR RESULTS

2 credits - Course offered this year - Internet

Simpson, Brian

Introduces a systematic approach to writing— from planning and organization to revision and completion; emphasizes the importance of defining the message, the audience and purpose; examines the basic elements of good writing; focuses on clarity, concision and style; explores the use of storytelling to maximize impact; and emphasizes best practices in various forms of writing, including emails, memos, reports, proposals and op-eds.

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

1. Write confidently and effectively in a variety of professional forms
2. Prepare for and organize any writing task
3. Employ storytelling to strengthen writing
4. Integrate strategic revision into the writing process
5. Eliminate wordiness in writing
6. Apply standard grammar and style conventions while writing
7. Evaluate the effectiveness of others’ writing

Email: bsimpso1@jhu.edu

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

Restricted to OPAL students

Grading Options: Letter Grade or Pass/Fail
Learning Materials:

- (Book) Better Business Writing
  Garner, Bryan A
  Amazon or other $19.95
  2012

600.701.86 INTRODUCTION TO EPIDEMIOLOGY
4 credits - Course offered this year - Internet
Ng, Derek
Introduces principles and methods of epidemiologic investigation of diseases. Illustrates methods by which studies of the distribution and transmission of diseases in populations (including disease outbreaks and epidemics) can contribute to an understanding of etiologic factors and modes of transmission. Covers various study designs, including randomized trials, case-control and cohort studies, as well as risk estimation and causal inference. Discusses applications of epidemiology to solving public health problems, such as identifying sources and strategies for control of disease outbreaks, applying research findings to policy and practice, and program evaluation. Explores quantitative and analytic methods including life tables, disease surveillance, measures of morbidity and mortality, and measures of diagnostic test accuracy.

Upon successfully completing this course, students will be able to:
1. Describe and differentiate between various epidemiologic study designs
2. Calculate and interpret various measures of morbidity and mortality
3. Articulate the importance of epidemiology in outbreak investigation and disease surveillance
4. Critically review and assess the validity of epidemiologic studies
5. Explain the role of epidemiologic methods in investigating risk factors of diseases and other health states

Email: dng@jhu.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
Prerequisite: Introduction to Online Learning: https://courseplus.jhu.edu/core/index.cfm/go/course.home/cid/90/

601.733.86 APPLIED SPATIAL STATISTICS
4 credits - Course offered this year - Internet
Curriero, Frank; Shields, Timothy
Introduces statistical techniques used to model, analyze, and interpret public health related spatial data. Casts analysis of spatially dependent data into a general framework based on regression methodology. Covers the geostatistical techniques of kriging and variogram analysis, point process methods for spatial event and case control data, and area-level analysis. Focuses on statistical modeling and topics relating to clustering and cluster detection of health related events. Provides an introduction to the public domain statistical software R, to be used for analysis. Reinforces skills and concepts related to the spatial science paradigm: Spatial Data, GIS, and Spatial Statistics.

Upon successfully completing this course, students will be able to:
1. Define and describe the concepts of spatial dependence with a public health context
2. Apply techniques to quantify spatial dependence with different types of spatial data
3. Conduct spatial statistical analysis using regression techniques extended to address properties of spatial data
4. Identify the potential consequences of overlooking spatial information when conducting public health research

Email: fcurriero@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students enrolled in the Spatial Analysis for Public Health program
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Public Health Statistics II (600.712.86), or equivalent; Spatial Analysis for Public Health (601.731.86)

601.805.86 SPATIAL ANALYSIS JOURNAL CLUB
2 credits - Course offered this year - Internet
Curriero, Frank
This course will involve reading and critically evaluating the application and interpretation of spatial statistical methodology in published public health literature. Focus will be on understanding how the epidemiological/public health objectives translate into spatial statistical analyses. Literature reviews will also include outlines detailing spatial statistical methods and analyses that can be applied as an extended and/or alternative analysis.

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

1. Critically evaluate the application and interpretation of spatial statistical methodology in the public health literature
2. Summarize how spatial statistical methods concurrently learned can be applied in the reviewed public health literature
3. Design an outline detailing spatial statistical methods and analyses to be applied to the reviewed literature as an extended and/or alternative analysis

Email: fcurriero@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to OPAL MAS in Spatial Analysis students and Certificate in Spatial Analysis students
Grading Options: Pass/Fail
Prerequisite: 601.731.86 Spatial Analysis for Public Health, 601.732.86 Spatial Data Technologies for Mapping, 601.712.86 Public Health Statistics 2, 601.702.86 Intermediate Epidemiology

602.731.86 POPULATION AND CONSUMER HEALTH INFORMATICS

3 credits - Course offered this year - Internet
Kharrazi, Hadi

- Introduces students to concepts, methods, and issues related to the application of health information technology (HIT) to population health
- Emphasizes the population health potential of comprehensive electronic health records (EHRs), personal health records (PHRs), mobile health and telemedicine devices; and, consumer focused internet-based tools
- Covers the uses of HIT to define and identify populations and sub-populations of interest, and describe the health status and needs of populations
- Emphasizes the use of HIT within both local, regional and federal public health agencies and population-based private health care organizations such as integrated delivery systems and health insurance plans
- Lessons are mainly U.S. oriented but are also applicable to other high and middle income countries

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

1. Summarize population health informatics/HIT concepts, tools, methods and trends from the view of various stakeholders
2. Describe HIT tools and methods that can be applied to characterize health status at the population level and to primary and secondary prevention
3. Identify HIT tools and methods for evaluating the quality and effectiveness of health services
4. Identify the benefits and challenges of “secondary use” of electronic medical records and other HIT modules for population health applications
5. Describe the special issues and challenges associated with population health informatics within public health agencies, and private integrated delivery systems and health insurance plans
6. Describe pertinent government policies that relate to the use of health informatics to improve population health including recent federal reform legislation and confidentiality regulations

Email: kharrazi@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to OPAL MAS in Population Health Management students and Certificate in Population Health Management students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 602.761.86 VALUE-BASED CONCEPTS OF SOCIALLY-RESPONSIBLE LEADERSHIP

602.761.86 VALUE-BASED CONCEPTS OF SOCIALLY-RESPONSIBLE LEADERSHIP

3 credits - Course offered this year - Internet
Bittle, Mark

Focuses on the essential principles of personal and interpersonal leadership that can be used in and across organizational settings to enhance performance, align and empower relevant stakeholders, and assure multisector organizational engagement. Provides students with opportunities to learn and apply leadership skills in a manner that encourages them to challenge their own beliefs and assumptions about what constitutes leadership. Offers a comprehensive review of contemporary issues and perspectives on leadership including multidisciplinary and systems-oriented approaches as well as classic leadership theory and evolving contemporary beliefs.
Upon successfully completing this course, students will be able to:

1. Explain the shortcomings of traditional leadership and management models in the era of value-based, community-oriented health care.
2. Evaluate the requisite leadership competencies for a community-organized and focused care delivery “system.”
3. Formulate socially-responsible leadership strategies based on relevant leadership concepts such as Meta-Leadership, Network Leadership, and the Collective Impact Framework.
4. Analyze contemporary and evolving organizational strategies and propose effective approaches to initiating, achieving, and sustaining transformation in a population health management strategy.

Email: mbittle1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in the MAS in Population Health Management
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Must have completed all 1st year courses to enroll in this course.

603.731.86 MEASUREMENT AND EVALUATION IN QUALITY AND SAFETY
4 credits - Course offered this year - Internet
Marsteller, Jill
Provides an overview of principles of good measurement and introduces applied evaluation methods for real world patient safety and quality improvement efforts that seek to implement evidence-based healthcare. Familiarizes students with important factors that influence success or failure in improvement efforts. Discusses implementation concepts and social and cultural phenomena and how to measure them. Prepares students to conduct initial data gathering, analysis and reporting in the Measurement Lab course.

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

1. Evaluate studies or study plans for different kinds of reliability and validity.
2. Enumerate and detail common measures of context, implementation and outcomes in QI.
3. Communicate the importance of environmental, organizational, group, provider, task, work system, implementation and patient influences on outcomes.
4. Assess strengths and weaknesses of designs for testing success of QI/PS interventions.
5. Describe operational steps to conduct robust data collection and analysis (quantitative and qualitative).
6. Define and describe remedies for common problems in QI/PS studies.

Email: jmarste2@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in MAS in Patient Safety and Healthcare Quality
Grading Options: Letter Grade or Pass/Fail

603.751.86 INFECTION PREVENTION IN HEALTHCARE SETTINGS
2 credits - Course offered this year - Internet
Curless, Melanie; Lisa, Maragakis
Introduces hospital epidemiology, infection prevention and antimicrobial stewardship as core components of quality care, including standards and indicators, appropriate strategies and indicators to measure hospital-acquired infection in the U.S. and internationally, key methods for preventing the transmission of infection in healthcare facilities and components and benefits of antimicrobial stewardship programs. Provides a basis to plan effective hospital epidemiology, infection prevention and antimicrobial stewardship activities.

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

1. Explain hospital epidemiology and infection control programs, standards and indicators in the U.S. and internationally.
2. Critique designs and methods of national surveillance programs and systems for public reporting.
3. Link high-risk areas and high-risk procedures in healthcare settings with specific healthcare-associated infections (HAI) and appropriately prioritize surveillance for HAI at the facility level.
4. Explain key methods for preventing the transmission of infection in healthcare settings and the use of healthcare-associated infection prevention bundles to improve patient quality and safety.
5. Identify methods of using infection prevention data to influence hospital leadership and healthcare workers to adopt infection prevention and control as a priority.
6. Evaluate and apply healthcare-associated infection surveillance data to prioritize choice of appropriate evidence-based quality improvement activities.
7 Identify the components and benefits of Antimicrobial Stewardship Programs

Email: Mcurles1@jhmi.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in MAS in Patient Safety and Healthcare Quality
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 603.701 Quality of Care, 603.711 Science of Patient Safety

604.604.86 GLOBAL EPIDEMIOLOGY POLICIES AND PROGRAMS
3 credits - Course offered this year - Internet
Labrique, Alain; Rosenstock, Summer

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, safe motherhood and reproductive health, malaria, Neglected Tropical Diseases, HIV, emerging infectious diseases, 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: alabriq1@jhu.edu

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

604.651.86 INTRODUCTION OF WATER, SANITATION AND HYGIENE IN EMERGENCIES
2 credits - Course offered this year - Internet
Spiegel, Paul

Introduces water, sanitation and hygiene (WASH) concepts, technical knowledge and practice in emergencies, including natural disasters and humanitarian emergencies. Addresses the importance of intersectoral collaboration among all sectors with an emphasis on WASH, health and nutrition. Focuses on community and behavioral aspects using examples from recent disasters. Describes the roles and coordination frameworks of all actors including Government, United Nations, international and national non-governmental organizations, and donors. Illustrates monitoring and evaluation various WASH methodologies and practices.

Upon successfully completing this course, students will be able to:
1. Define key WASH terminology and WASH coordination including intersectoral coordination
2. Describe appropriate types of water supplies and treatment as well as appropriate types of sanitation according to different emergency contexts
3. Explain key features of WASH responses to water-borne disease outbreaks such as cholera
4. Examine the role of water quality testing and monitoring in emergencies and demonstration of testing methods
5. Analyze different hygiene promotion and social mobilization practices according to different contexts
6. Evaluate key WASH indicators and discuss appropriate WASH monitoring and evaluation methods according to different contexts

Email: pbspiegel@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only students in MAS in Humanitarian Health
Grading Options: Letter Grade or Pass/Fail
Only students in MAS in Humanitarian Health

605.735.86 QUANTITATIVE METHODS FOR TOBACCO CONTROL
4 credits - Course offered this year - Internet
Welding, Kevin

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Quantitative Methods for Tobacco Control teaches students about the quantitative methods that are most often used in tobacco control and tobacco-related research. Topics to be covered will include study designs and methods commonly used in tobacco control research, including methods to assess the burden of tobacco-related disease and evaluate prevention and cessation interventions. Students have the opportunity to apply these new skills in interpreting and presenting quantitative data.

Upon successfully completing this course, students will be able to:
1. Identify key indicators for surveillance of tobacco use behaviors and tobacco control interventions
2. Describe quantitative approaches for studying the determinants of tobacco use behaviors and the impact of tobacco control interventions
3. Interpret surveillance indicators and measures of association
4. Conduct a literature review
5. Design a quantitative research study proposal on a relevant tobacco control topic

Email: kwelding@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in Certificate in Global Tobacco Control
Grading Options: Letter Grade or Pass/Fail

380.603.81 DEMOGRAPHIC METHODS FOR PUBLIC HEALTH

4 credits - Course offered this year - Internet
Hughes, M. E.
Teaches students the basic methods demographers use to describe populations and analyze population change. Introduces the concept of a population, describes the demographic approach to populations, and identifies sources of population data. Covers four sets of methods with broad applicability in public health: 1) techniques for describing population composition, distribution, and growth; 2) methods to compare populations (age-period-cohort approaches and standardization and decomposition of rates); 3) single-decrement life tables; and 4) the cohort-component method for population projection. Also covers the basic tools used to study the fundamental population processes of fertility, mortality, and migration.

Upon successfully completing this course, students will be able to:
1. Analyze population growth, components of growth, composition, and distribution.
2. Differentiate and apply age, period, and cohort approaches to population data.
3. Utilize standardization to compare populations across time and space.
5. Project a population's size and age-sex composition using the cohort-component method.
6. Calculate and interpret measures of mortality, fertility, and migration.
7. Locate appropriate sources of demographic data and describe their limitations.

Email: mehughes@jhu.edu

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

380.605.01 TAPPING INTO “THE WIRE” (Discontinued)

3 credits - Course offered this year - East Baltimore
Beilenson, Peter
Addresses a variety of urban issues (housing, education, crime, drugs, health care and politics). Introduces concerns using scenes from the acclaimed HBO series “The Wire”. Drawing on real-life experiences in Baltimore during the time that “The Wire” was filmed here, lectures examine the roots of these problems, and encourage students to propose solutions. Exposes students to real-life institutions important to Baltimoreans.

Upon successfully completing this course, students will be able to:
1. Locate the roots of major urban social/health issues
2. Examine the impact of social determinants of health on a community’s ability to function
3. Apply creative solutions to major urban social/health issues
4 Write concise and accessible briefing memos
5 Present testimony designed to influence legislators

Email: pbeilen1@jhu.edu
Lecture: F 8:00 AM - 10:50 AM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

380.611.01 FUNDAMENTALS OF PROGRAM EVALUATION
4 credits - Course offered this year - East Baltimore
Mmari, Kristin
Familiarizes students in different types of program evaluation, including formative research, process evaluation, impact assessment, cost analysis, and theory-based evaluations. Students gain practical experience through a series of exercises involving the design of a logic model, selection of indicators and data sources, and the design of an evaluation plan to measure both a process and impact evaluation. Covers experimental, quasi-experimental, and non-experimental study designs, including the strengths and limitations of each.
Upon successfully completing this course, students will be able to:
1 Describe a program from the lens of an evaluator
2 Develop a logic model and explain the theory of change within the model
3 Select indicators based on the logic model
4 Identify sources of data at the program and population level corresponding to different types of evaluation
5 Describe the purpose of formative research and identify the most common methods
6 Explain the elements of experimental and quasi-experimental designs, and explain how they address the threats to validity
7 Design a process and impact evaluation and select appropriate qualitative and quantitative methods for each type of evaluation

Email: kmmari1@jhu.edu
Lecture: W F 1:30 PM - 3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
Course is prerequisite for 380.612 and 380.613.

380.623.81 ADOLESCENT HEALTH AND DEVELOPMENT
3 credits - Course offered this year - Internet
Blum, Robert
Lectures on research findings and issues present biological, psychological, and social aspects of normal adolescent growth and development as a framework for viewing a variety of adolescent health problems and their social and biological effects. Also considers programmatic needs of the adolescent.
Upon successfully completing this course, students will be able to:
1 Discuss the biological and psychological developmental processes that occur during adolescence and puberty
2 Identify major health concerns affecting adolescents in both the domestic and international domains
3 Frame major health concerns affecting adolescents within a conceptual framework to discuss their key determinates that include risk and protective factors within the biological, social, cultural, behavioral, political and environmental domains
4 Analyze major health concerns affecting adolescents and evidence based interventions in an effort to recommend effective strategies to improve the health of adolescents
5 Explore four topical areas (reproductive health, adolescents with disabilities, substance use and juvenile justice) in depth to discuss the interplay of key determinates in different settings through guest speakers and case studies
6 Demonstrate critical and analytical thinking by preparing a written report on a major health concern affecting adolescents that includes a description of the magnitude of the concern, a conceptual framework and a recommended intervention

Email: rblum@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 144 of 154
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

380.625.01 ATTITUDES, PROGRAMS, AND POLICIES FOR CHILDREN WITH SPECIAL HEALTH CARE NEEDS
3 credits - Course offered this year - East Baltimore
Minkovitz, Cynthia
Examines conceptual and epidemiological issues related to chronic illnesses and disabling conditions of childhood, including social and personal attitudes; epidemiology of serious health conditions; chronic illness or disability in the context of child and family development; implementing and evaluating community based programs; and the structure, function, administration, and management of major US governmental programs that serve children with disabilities and chronic illnesses.
Upon successfully completing this course, students will be able to:
1. Discuss conceptual and epidemiological issues related to chronic illnesses and disabling conditions of childhood, including social and personal attitudes
2. Consider chronic illness in the context of child and family development
3. Describe the major U.S. governmental programs which serve children with disabilities and chronic illnesses
4. Construct press releases to convey information regarding children with special health care needs

Email: cmink@jhu.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
Prerequisite:

380.640.01 CHILDREN IN CRISIS: AN ASSET-BASED APPROACH TO WORKING WITH VULNERABLE YOUTH
3 credits - Course offered this year - East Baltimore
Powell, Terri; Marshall, Beth
Uses experienced practitioners, community leaders, and community members to expose students to a wide range of domestic youth welfare issues and interventions through an asset lens. Using an asset-based approach, the class highlights domestic youth challenges (e.g., disconnection, homelessness, LGBTQ status and justice involvement) and aims to expose students to thoughts, voices, and perspectives from a variety of different backgrounds. Class sessions feature ample discussion, expert lecturers, youth voices, and an examination of existing programs in and out of Baltimore City.
Upon successfully completing this course, students will be able to:
1. Describe the social, political, and economic conditions that perpetuate young people’s at-risk status as well as their needs, assets and capacities that impact their health
2. Design a population-based intervention applying an asset-based approach to working with youth in different contexts
3. Apply best practices in youth interventions from across contexts including awareness of cultural values and practices

Email: terri.powell@jhu.edu
Lecture: M 5:30 PM - 7:30 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduates. Undergrad consent will not be granted until the first day of class. Interested undergraduate students are encouraged to attend the first day.
Prerequisite:
Students have the option to participate in a 128-hour Practicum component associated with this course. Students will be required to apply in advance with Tyler Derreth (rderre1@jhu.edu) at SOURCE by November 1st. For the practicum, students will be connected with a pre-selected Baltimore-based youth organization. They will work with the community contact person to engage in a service-learning project.
Students participating in the practicum must register for both the main course (380.640 - 3rd term only) and Practicum component (SOURCE Special Studies code for 2 credits, 380.840 - 3rd and 4th term).

380.650.01 DEMOGRAPHIC METHODS FOR MEASURING HEALTH AND LONGEVITY
4 credits - Course offered this year - East Baltimore
Helleringer, Stephane
Covers demographic methods commonly used to understand how long people live and how this varies over time, across space, and between population groups. Explores the construction of life tables to calculate life expectancy, and understand its determinants. Introduces multi-state methods to calculate what proportion of their life individuals spend in good health, or affected by various illnesses and limitations. Emphasizes the practical application of these methods to the analysis of several large demographic datasets.

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

1. Calculate and interpret life expectancy and other demographic measures
2. Construct and interpret single and multiple decrement life tables, as well as multi-state life tables, for describing demographic and health processes
3. Implement these demographic methods across large data sets in commonly used statistical software packages (Stata, R)

Email: sheller7@jhu.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment: Minimum 1, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

380.661.01 CLINICAL ASPECTS OF MATERNAL AND NEWBORN HEALTH
3 credits - Course offered this year - East Baltimore
Donohue, Pamela
Presents morbidity and mortality in the mother, fetus, and newborn and the health care practices utilized to prevent, diagnose, and treat this morbidity. Guest speakers in clinical care present lectures from the clinical perspective; course instructors present the public health perspective.

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

1. Identify the commonly used as well as state of the art health care interventions to prevent, diagnose and treat morbidity in the mother, fetus and newborn.
2. Use a public health perspective to identify evidence-based health care interventions to prevent, diagnose and treat morbidity in the mother, fetus and newborn.
3. Critically evaluate the evidence about the effectiveness of a selected intervention to prevent, diagnose or treat morbidity in the mother, fetus or newborn.

Email: pdonohu2@jhmi.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 5, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Permission required for registration after the 1st week of add/drop.
Prerequisite:
Required for students in perinatal health. Permission required for registration after the 1st week of add/drop.

380.663.01 GENDER-BASED VIOLENCE RESEARCH, PRACTICE AND POLICY: ISSUES AND CURRENT CONTROVERSIES
3 credits - Course offered this year - East Baltimore
Decker, Michele
Explores gender-based violence (GBV), including intimate partner violence, sexual violence, and sex trafficking. Topics include the following as they relate to GBV: epidemiology, theoretical frameworks, structural risks and gender equity, policy, prevention and intervention, perpetrators, populations with unique needs, and health consequences spanning sexual and reproductive health, STI, and HIV. Prepares students to undertake meaningful scholarly, community-based, programmatic or policy work in the field. Emphasizes active learning and facilitates application of knowledge and skills gained to real world issues.

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

1. Describe the epidemiology and health impact of GBV
2. Apply public health methods, strategies and frameworks to GBV-related research, policy and practice
3. Develop and critique GBV research and prevention/intervention programs and policies
4. Articulate current controversies and challenges in GBV-related research, policy and practice
5. Explain ethical and methodological issues unique to GBV research
6. Describe the history of the field, including major research and policy advances
### 380.665.01 FAMILY PLANNING POLICIES AND PROGRAMS

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

**Radloff, Scott**

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

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

1. Appreciate the different rationales used to promote and sponsor nationally organized family planning programs
2. Discuss the role of evidence, ethics, and stakeholder priorities in the formulation of FP and abortion policies
3. Design family planning program strategies that encompass policy, supply, and demand interventions
4. Propose policy partnerships at global, national, and sub-national levels for influencing family planning program effectiveness and impact
5. Characterize different contraceptive technologies in terms of their service delivery requirements and their appropriateness for different stages in the reproductive cycle
6. Compute basic fertility and family planning measures and understand the role of distal and proximate determinants of fertility
7. Understand the acceptability of various contraceptive technologies and service delivery approaches from a user perspective
8. Specify key elements that characterize a high quality service delivery program, including meeting the needs of special populations, including postpartum and post-abortion women, adolescents, and men
9. Assess the roles of the private sector and social marketing in a family planning program strategy

### 380.666.01 WOMEN'S HEALTH

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

**Decker, Michele**

Presents an overview of the health status of women, and preventive strategies to improve their health, primarily in developed countries. Topics include physical and mental health problems, health behavior, and where appropriate, gender differences in health problems and health behavior. Discusses risk factors for each, as well as effective preventive interventions for women. Views health issues from biological, social, and life course perspectives.

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

1. Describe the health status of women in the United States and other developed countries, including the epidemiology and risk factors for selected health problems
2. Discuss women's health and health concerns within the context of a life course framework which addresses the social, cultural and economic contexts in which women live
3. Evaluate and synthesize the literature related to one of two controversial topics in women's health and present a debate about the topic

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

380.670.01 RELIGION, SPIRITUALITY AND PUBLIC HEALTH (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Nelson, Timothy
Presents a broad overview of the ways in which religion and spirituality affect health, both generally and with a particular focus on fertility, family planning and adolescent health. Investigates the outreach of religious organizations tackling public health issues in domestic urban settings and internationally. Examines prescriptions for how faith-based organizations can be more integrated into governmental and NGO public health campaigns.

Upon successfully completing this course, students will be able to:
1. Define what is meant by the concepts “religious” and “spiritual” as they relate to public health.
2. Describe the historical connections between religious institutions and public health initiatives.
3. Explain the multiple ways which religion and spirituality affect health and well-being.
4. Explain how religion and spirituality affect fertility and family planning practices as well as issues of adolescent health and development.
5. Investigate and analyze one faith-based organization and its efforts to impact the health of a population.

Email: tim_nelson@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM

Enrollment: Minimum 7, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: None.

Learning Materials:
• (Book) Religion as a Social Determinant of Public Health
  Idler, Ellen K
  Amazon $30.75
  2014
• (Book) Religion, Families and Health: Population-Based Research in the United States
  Ellison, Christopher L
  Amazon $30.46
  Comment: Robert A Hummer second author
  2010

380.696.01 HEALTH AND WELLBEING OF THE URBAN POOR: PARENTS, FAMILIES, AND THE URBAN CONTEXT (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Edin, Kathy
Examines the causes and consequences to health and wellbeing of U.S. urban poverty, with a particular emphasis on the context of private family and neighborhood life. Investigates the implications for the health and well-being of the urban poor and explores strategies for addressing the family and neighborhood contexts of poverty. Outlines variations and changes in family structure among the urban poor, disparities in parenting opportunities and strategies, and the importance of neighborhoods in the health and wellbeing of the urban poor. Evaluates and problematizes past social interventions and their relationship to health outcomes, and introduces a range of possibilities for future action.

Upon successfully completing this course, students will be able to:
1. Identify and explain the implications to public health inequalities of differences in parenting cultures and family structures between classes
2. Describe and utilize theories of neighborhood effects to assess the context of urban poverty, and its implications on the health and well-being outcomes of the urban poor
3. Evaluate the efficacy of different types of qualitative and quantitative research methods in answering questions about how family and neighborhood affect the health and well-being of the urban poor

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4 Engage in high-level discourse about issues of family and neighborhoods in urban poverty, with a specific emphasis on health and wellbeing
5 Produce a written policy analysis, including background research on health implications of poverty and a proposal for intervention
6 Deliver a professional-level expert briefing on an issue of urban poverty and health disparities

Email: kedin1@jhu.edu

Lecture: M 9:00 AM - 12:00 PM
Enrollment: Minimum 10, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Advanced undergrads may enroll with permission of instructor.
Prerequisite: None
This course is paired with 380.696, Health and Wellbeing of the Urban Poor: Labor Markets, Safety Nets, and the Criminal Justice System. Students may take either course or both.

380.711.01 ISSUES IN SURVEY RESEARCH DESIGN (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Mosher, William
Introduces survey research for health researchers who need to evaluate and use survey research. Explores alternative approaches to sample design, respondent recruitment, data collection methods (interviews in-person or by telephone, computer assisted interviews, or mail surveys) instrument design, and survey management. Emphasizes the cost and error trade-offs with each design, and how they affect the results.
Upon successfully completing this course, students will be able to:
1 Identify primary sources of error in surveys, and discuss the consequences of each type of error for survey findings
2 Evaluate the trade-offs—in errors, costs, response rates, and time—inherent in the major modes of survey data collection: mail, web, telephone, and in-person
3 Evaluate the various approaches to obtaining samples for surveys in terms of field costs, sampling errors, and other factors
4 Describe how survey methodology is presented in the research literature, and evaluate the implications of that methodology for analysis and interpretation of the results

Email: wmosher1@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Students who have not had a course in statistics
Prerequisite:

380.750.01 MIGRATION AND HEALTH: CONCEPTS, RATES, AND RELATIONSHIPS
3 credits - Course offered this year - East Baltimore
Robinson, Courtland
Students review migration and health research to be able to identify key concepts, categories and trends in migration; to describe basic methods (and limitations) in measuring migration, and to analyze the relationships between migration and health, including patterns and rates of demographic change; gender and reproductive health; vulnerable populations (including victims of trafficking); migration policy and human rights.
Upon successfully completing this course, students will be able to:
1 Describe key historical trends in human mobility
2 Examine at least three key migration concepts and theories
3 Differentiate key typologies and categories of migration
4 Define and discuss the application of basic rates for measuring migration and describe at least three methods used in measuring migration
Analyze key relationships between migration and health in regard to fertility, mortality, morbidity, gender and reproductive health, vulnerable populations—including refugees, internally displaced persons (IDPs), undocumented/irregular migrants, and trafficked persons—and migration policy and human rights.

Email: court.robinson@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Undergraduates must receive permission of instructor
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduates only.
Prerequisite:
Jointly offered with IH

380.760.01 CLINICAL ASPECTS OF REPRODUCTIVE HEALTH
3 credits - Course offered this year - East Baltimore
Burke, Anne
Provides a comprehensive presentation of several clinical disease processes affecting women’s reproductive health. Topics include contraception, cervical cancer screening, STI, menopause and incontinence. Uses traditional lecture materials, selected readings, and in-class discussion. Focuses not only on the clinical aspect of the disease, but the health policy implications on women’s health.

Upon successfully completing this course, students will be able to:
1 Explain clinical conditions affecting women's reproductive health, including but not limited to breast disease, contraception, and cervical dysplasia
2 Evaluate the effect of race, socio-economic, and health system structure on outcomes for these conditions
3 Apply epidemiological and statistical knowledge to critically review published research on a relevant clinical condition
4 Apply principles of women's health policy to major conditions affecting women's reproductive health

Email: aburke@jhmi.edu
Lecture: W F 10:30 AM - 11:50 AM
Enrollment: Minimum 8, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Students are expected to attend all lectures and participate in class discussions of the readings.

380.761.01 SEXUALLY TRANSMITTED INFECTIONS IN PUBLIC HEALTH PRACTICE (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Jennings, Jacky
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: jjennin1@jhmi.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; Undergraduates require instructor consent and also advisor consent.  
Prerequisite: Working knowledge of Epidemiology; Public Health Biology 550.630 or equivalent which may include professional experience.  
Jointly offered with EPI  

**380.800.01 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.  
Focuses on development of dissertation project, writing dissertation proposal, and preparation for Department and Schoolwide Preliminary Exams. Explains dissertation expectations and requirements. Reviews dissertation proposal structure and components. Discusses evaluation of existing research, identification of gaps and topics, and design of research projects. Emphasizes clear communication of ideas. Provides opportunity to present work-in-progress and receive peer feedback. Introduces proposal assessment through review of peers’ work. Provides forum to practice Preliminary Exam presentation including answering questions.  
Upon successfully completing this course, students will be able to:  
1 Demonstrate progress towards completion of a dissertation proposal and successfully completing the School-Wide Preliminary Examination.  
2 Recognize and critically evaluate the elements of a research proposal.  
3 Provide constructive feedback on research proposals.  

Email: mehughes@jhu.edu

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380.822.01 PFRH FIRST YEAR DOCTORAL SEMINAR PART 2
1 credits - Course offered this year - East Baltimore
Wang, Xiaobin
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: xwang82@jhu.edu

380.830.01 POSTDOCTORAL RESEARCH IN POPULATION, FAMILY AND REPRODUCTIVE HEALTH
variable credits - Course offered this year - East Baltimore
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prepares students to identify and research the central issues in Population, Family and Reproductive Health.
Upon successfully completing this course, students will be able to:
1 Identify areas of interest for current and future research

380.840.01 SPECIAL STUDIES AND RESEARCH POPULATION, FAMILY AND REPRODUCTIVE HEALTH
variable credits 1-22 - Course offered this year - East Baltimore
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
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.
Upon successfully completing this course, students will be able to:
1 Information not required for this course type
380.882.01 LESSONS IN LEADERSHIP: APPLICATIONS FOR POPULATION, FAMILY AND REPRODUCTIVE HEALTH III
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 Explain team dynamics and effectively use small work groups
4 Manage conflict and give effective feedback
5 Practice communication skills associated with leadership

Email: rblum@jhu.edu
Lecture: M 4:30 PM - 7:00 PM

Enrollment: Minimum 15, Maximum 50, 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 380.880
Final grade applies to all terms
Credit is only earned by completing 380.880 through 380.883; Grades are issued after completion of the series. Students must enroll consecutively. Failure to enroll consecutively, will result in a grade of W.

3rd term information is correct as of January 15, 2019. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 153 of 154
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. Explain team dynamics and effectively use small work groups
4. Manage conflict and give effective feedback
5. Practice communication skills associated with leadership

Email: rblum@jhu.edu
Lecture: M 4:30 PM - 7:00 PM
Enrollment: Minimum 15, Maximum 50, 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 380.883
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.

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