SCHEDULE INFORMATION
This schedule includes all courses expected to be offered by the Johns Hopkins Bloomberg School of Public Health during
the 2nd 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 September 25, 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.jhsph.edu/courses/

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

REGISTRATION INFORMATION
Continuing students may register for 2nd Term through October 19, 2018 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. 2nd Term tuition payments are due via the web (https://sis.jhu.edu/sswf) by Saturday, November 17,
2018. Changes to 2nd Term registrations for full-term courses may be processed via Self-Service during the published
Add/Drop period for 2nd Term: Monday, October 29 – Sunday, November 11, 2018.

School of Medicine Post Doctoral Fellows cannot register via Self-Service; they must register in person prior to the
October 19 deadline. SOM Post Docs must complete the paper registration form in E1002. SOM Post Docs must adhere to
all course restrictions and required permissions and are responsible for any course materials/ lab fees in addition to any late
registration and late change fees. Registration information is available at https://sites.google.com/site/jhpda2/home/links/sph.

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

Tuition is assessed at a rate of $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 October 19 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 October 31, 2018
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**

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<th>Code</th>
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<tr>
<td>700</td>
<td>Bioethics (Berman Institute)</td>
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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)
Berman Institute (Bioethics)

700.602.01 HOT TOPICS IN BIOETHICS
3 credits - Course offered this year - East Baltimore
Departmental Faculty
Offers a continuation of the exploration of ethical theory and its use in bioethics begun in "Introduction to Ethical Theory". Utilizes the conceptual and methodological tools from "Ethical Theory" in analyzing topics and cases currently being discussed in bioethics. Although topics change from year to year, common themes include: discussion of legal changes concerning end of life; the ethics of new reproductive technologies; ethical challenges concerning genome-editing technologies; and global ethical challenges such as climate change and resource allocation.

Upon successfully completing this course, students will be able to:
1. Articulate various positions on bioethical issues
2. Identify moral concepts in important bioethics cases
3. Analyze bioethics arguments for validity and soundness
4. Apply ethical theories, principles, and concepts to bioethical problems

Lecture: T 3:30 PM - 6:20 PM
Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes
Enrollment priority given to MBE students
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students
Prerequisite: 700.603 Introduction to Ethical Theory
Course meets in Deering Hall; LLC Room

700.621.81 ETHICS IN CLINICAL PRACTICE: FUNDAMENTALS, PROBLEMS AND APPROACHES
3 credits - Course offered this year - Internet
DeCamp, Matthew
Offers students a) a theoretical and practical foundation for identifying and analyzing ethical issues arising in clinical medicine and b) a survey of important current issues and problems in clinical ethics with c) a focus on case analysis and application of principles to problems. Includes interactive content and case-based materials.

Upon successfully completing this course, students will be able to:
1. Identify ethical issues in clinical practice
2. Evaluate the relevance of different approaches to ethics to specific issues in clinical medicine
3. Analyze ethical issues in clinical care and communicate effectively about the analyses
4. Apply analytic framework(s) to resolve competing moral obligations in clinical care
5. Consider ethical problems in the larger historical and social context of clinical care

Email: mdecamp1@jhmi.edu
Enrollment: Minimum 6, Maximum 25, 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: Introduction to Online Learning.

700.623.01 ETHICS AND DECISION-MAKING IN CLINICAL PRACTICE
3 credits - Course offered this year - East Baltimore
Berger, Zackary
Acquaints students with the ethical dimensions of healthcare decision-making by individuals, including shared decision-making in patient-provider encounters; decision-making in the context of incomplete information, patient disadvantage, distress or conflict; the understanding and approach of providers and systems to the ethical dimensions of decision-making; and relevant social and economic constraints on such decision-making. Explores topics in multiple settings, populations and health conditions, with the goal of making learners aware of the ethical implications of healthcare decisions, both in everyday practice and from a policy perspective.

Upon successfully completing this course, students will be able to:
1. Identify ways in which various ethical frameworks apply to instances of individual health care decision-making
2 Explain selected social, cultural, and economic constraints on individual healthcare decision-making
3 Analyze examples of common healthcare decision-making from an ethical perspective
4 Critique the approaches taken by providers and institutions to ethical problems relevant to healthcare decision-making
5 Propose ways in which the context, options, or setting of healthcare decision-making can be aligned with various ethical frameworks
6 Select and begin to consider a real-world intervention to pursue in the final project and, if possible, in their future careers

Email: zberger1@jhmi.edu
Lecture: TH 3:30 PM - 6:20 PM
Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes
Enrollment priority given to MBE students
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students
Prerequisite: None
Course meets in Deering Hall; LLC Room

700.820.01 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

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
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

120.601.01 BIOCHEMISTRY II
5 credits - Course offered this year - East Baltimore
Bryant, Randy
Examines the major metabolic pathways that are central to eukaryotic cell growth and maintenance.
Upon successfully completing this course, students will be able to:
1. Describe the biochemical reactions and pathways that lead to the generation of metabolic energy in mammalian cells
2. Describe how biomedical signals between cells and tissues are converted into targeted metabolic changes. More broadly, this course will provide the students with a biochemical perspective that they can apply to their own specific areas of public health research

Email: fbryant1@jhu.edu
Lecture: M W F 10:30 AM - 11:50 AM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Public Health students will be given first priority for registration.
Prerequisite: 120.600

120.601.02 BIOCHEMISTRY II
5 credits - Course offered this year - East Baltimore
Bryant, Randy
Examines the major metabolic pathways that are central to eukaryotic cell growth and maintenance.
Upon successfully completing this course, students will be able to:
1. Describe the biochemical reactions and pathways that lead to the generation of metabolic energy in mammalian cells
2. Describe how biomedical signals between cells and tissues are converted into targeted metabolic changes. More broadly, this course will provide the students with a biochemical perspective that they can apply to their own specific areas of public health research

Email: fbryant1@jhu.edu
Lecture: M W F 1:30 PM - 2:50 PM
Enrollment: Minimum 10, Maximum 32, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Public Health students will be given first priority for registration.
Prerequisite: 120.600

120.603.01 MOLECULAR BIOLOGY OF PANDEMIC INFLUENZA
3 credits - Course offered this year - East Baltimore
Wright, William
Explores how molecular biology has been used to define the biological basis of a public health catastrophe, the 1918 Spanish Influenza Pandemic. Students examine the biological basis of the virulence of more recent influenza viruses. Topics include: use of molecular techniques to resurrect the extinct 1918 pandemic virus, the use of molecular techniques to identify why specific mutations in the genome made the 1918 virus so virulent, the use of sequence analysis to identify the origin of new strains of influenza virus, and the analysis of the immune response of an infected host to the 1918 virus. Students also examine the molecular biology of the more recent H1N1 pandemic and the H5N1 bird flu viruses. Students discuss ethical and policy issues that must be considered in managing the response to a pandemic.
Upon successfully completing this course, students will be able to:
1. Describe modern molecular biology techniques
2. Explain how these techniques can be applied to a major public health problem
3 Interpret data generated by these techniques
4 Describe the molecular basis for the pathogenesis of specific strains of influenza
5 Read and present original papers in this area

Email: wwright1@jhu.edu
Lecture: T TH 2:00 PM - 2:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
This course is open to graduate students only.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for any student who is not enrolled as an MHS, MPH, ScM or PhD student in the Bloomberg School of Public Health.

120.620.81 FUNDAMENTALS OF REPRODUCTIVE BIOLOGY
3 credits - Course offered this year - Internet

Jordan, Phil; Jordan, Phil
Addresses the basic biological mechanisms that underlie male and female reproduction and that pertain to reproductive health issues, such as contraception, infertility, sexually transmitted diseases, and reproductive aging.

Upon successfully completing this course, students will be able to:
1. Explain the difference between peptide and steroid hormones and understand the mechanisms by which these hormones regulate reproductive function in their target tissues
2. Explain how the integrated function of the hypothalamus, pituitary gland and gonads (testis/ovary) are critical for normal male and female reproduction
3. Explain how spermatogenesis in the testis and oogenesis in the ovary are regulated during normal fertility as well as understand the various causes of infertility
4. Understand how sperm fertilize the egg, how the zygote implants in the uterus and how early embryo development progresses
5. Understand which factors determine the sex and phenotypic differentiation of the fetus
6. Apply your understanding of reproductive function and hormonal regulation to the various methods for male and female contraception
7. Apply your understanding of reproductive function and fertilization to methods for assisted reproductive technologies to circumvent infertility

Email: pjordan8@jhu.edu

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

120.626.01 PRINCIPLES OF CELL BIOLOGY
3 credits - Course offered this year - East Baltimore

Wan, Fengyi
Provides students with a basic understanding of the architecture and function of eukaryotic cells. In addition to introducing students to new facts and vocabulary pertinent to cell biology, also introduces students to experimental methods used by scientists to define and understand cell structure and function. Relationships between defects in basic cell function and human diseases are also highlighted. Classroom time is divided into formal lecture time as well as less formal discussion/problem solving sessions organized around "landmark" papers in cell biology and designed to review scientific methods, central concepts in cell biology and develop critical thinking.

Upon successfully completing this course, students will be able to:
1. Identify the intracellular organelles of eukaryotic cells and describe their functions
2. Design experiments to study individual proteins by light or electron microscopy
3. Design experiments to fractionate and characterize different membrane-bound organelles
4. Describe the proteins and mechanisms regulating ion and small molecule transport across membranes
5. Define the functions of the ER and the mechanisms regulating ER translocation and protein modification within the ER
6. Design and interpret experiments aimed at studying protein sorting and translocation into sub-cellular organelles
7. Describe the molecules and mechanisms regulating vesicular transport and protein secretion
8. Design experiments to study protein transport and targeting in the endocytic pathway
9. Describe the molecules and pathways involved in relaying signals from the cell surface to the nucleus

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 4 of 150
10. Describe the structures and properties of the major proteins that make up the cytoskeleton and their individual functions.

11. Describe the dynamics of actin assembly and the mechanisms of actin-myosin based movement.

12. Describe the dynamics of microtubule assembly and the mechanisms of actin-myosin based movement.

13. Define the structure and function of intermediate filaments.

14. Describe the structures and functions of the major molecules mediating cell-cell interactions and tissue formation.

Email: fwan1@jhu.edu

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

Enrollment: Minimum 10, Maximum 65, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introductory courses in Genetics and/or Molecular and Cell Biology (such as 120.602). Students should also have a basic understanding of molecular genetics (i.e. the roles of DNA and RNA in protein synthesis) and a basic understanding of protein structure and function.

120.720.01 APPLYING REPRODUCTIVE BIOLOGY LITERACY THROUGH SERVICE-LEARNING (Cancelled - Minimum Not Met)

3 credits - Course offered this year - East Baltimore

Evans, Janice

 Builds from "Fundamentals of Reproductive Biology" in 1st term (120.620.01). In this service-learning course, students have the opportunity to extend beyond hypothetical applications of what they have learned, and apply their "reproductive biology literacy" to help in a professional, real-world setting. The service component of this course is for students to produce deliverable(s) of use/value for a community-based organization (CBO), to be complemented by in-class activities to absorb and learn from these experiences in working with the CBO.

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

1. Work collaboratively on project for community-based organization
2. Reflect on their application of basic reproductive biology concepts
3. Communicate basic reproductive biology concepts and how this biology fits into a practical context relevant to the CBO's project
4. Explain biological concepts to professionals and lay people

Email: jevans6@jhu.edu

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

Enrollment: Minimum 6, Maximum 20, Waitlist Enabled: Yes

Graduate students only

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; Prospective students should contact instructor by Week 4 of the preceding term. Gaining permission to enroll involves students being matched with specific projects with community-based organizations in advance of 2nd term.

Prerequisite: Fundamentals of Reproductive Biology, 120.620.01

This course combines 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 ~6 hours a week on service-learning (work at a community-based organization) in addition to regular homework.

120.800.01 MPH CAPSTONE: BIOCHEMISTRY AND MOLECULAR BIOLOGY

2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore

Departmental Faculty

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

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

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

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

Grading Options: Pass/Fail

Consent required for all students; Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the Capstone project. Registration for this 2-credit course is required during the term that an MPH student completes the capstone project (e.g., 4th term for a full-time MPH student).

120.820.01 THESIS RESEARCH BIOCHEMISTRY
variable credits - Course offered this year - East Baltimore

Information not required for this course type

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

120.821.01 MHS STUDENT RESEARCH
3 credits - Course offered this year - East Baltimore

Departmental Faculty

Acquaints MHS students with basic research in the biomedical sciences through work under the guidance of a faculty member in the Department of Biochemistry and Molecular Biology, and provides an introduction to hands-on experience in laboratory research.

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

1. Identify a research question of significance in biomedical science
2. Design hypothesis-driven or discovery-driven experimental studies to address the question
3. Maintain research notes, including summaries of results and data interpretation

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Prospective students must make arrangements with a faculty member for this research experience.

120.822.01 SEMINARS IN RESEARCH IN BIOCHEMISTRY AND MOLECULAR BIOLOGY
1 credits - Course offered this year - East Baltimore

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

Email: mmatuni1@jhu.edu
Lecture: M 12:00 PM - 12:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only open to BMB Postdocs, PhD and ScM students.
Grading Options: Pass/Fail

120.830.01 POSTDOCTORAL RESEARCH BIOCHEMISTRY
variable credits - Course offered this year - East Baltimore

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.

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
Bosch, Juergen; 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: jbosch2@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 all students; Consent required by any non-BMB or MMI students.
Requirement for students in the Departments of Biochemistry & Molecular Biology, and Molecular Microbiology & Immunology enrolled in core curriculum

120.895.01 MPH PRACTICUM: BIOCHEMISTRY AND MOLECULAR BIOLOGY
variable 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
140.608.98 ANALYSIS OF LONGITUDINAL DATA
2 credits - Course offered only this year - Barcelona, Spain
Colantuoni, Elizabeth
Covers 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.

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. Use 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. Use 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. Use SAS or STATA to conduct the appropriate longitudinal data analyses

Email: ejohnso2@jhmi.edu

Lecture: M T 8:30 AM - 6:00 PM
Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
undergraduate and interdivisional students are not permitted in this section
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Full-time degree-seeking students must obtain permission from Judy Holzer prior to registering for this section
Prerequisite: Intermediate level biostatistics and epidemiology
Course is an offspring of 140.655
This course will be offered for 2 days in Barcelona. Students must physically be in Barcelona to participate. Students will be required to complete homework assignment between first and second day. Final paper will be due by Dec 21, 2018. Strongly recommended that students bring a laptop to class, but a computer lab will be available.

140.611.94 STATISTICAL REASONING IN PUBLIC HEALTH I
3 credits - Course offered this year - India
Departmental Faculty
Provides students with a broad overview of biostatistical methods and concepts used in the public health sciences. Emphasizes the interpretation and conceptual foundations of statistical estimation and inference.

Upon successfully completing this course, students will be able to:
1. Provide examples of different types of data arising in public health studies
2. Interpret differences in data distributions via visual displays
3. Calculate and interpret confidence intervals for population means and proportions and incident rates using data from single samples
4. Compute the mean difference and explain why a mean difference can be used to quantify differences in a continuous measure between two samples (and ultimately two populations)
5. Compute risk differences, relative risks and odds ratio
6. Compare, contrast, and interpret relative risks and odds ratios when comparing binary outcomes between two populations
7. Compute incidence rates and incidence rate ratios
8. Construct, and interpret, Kaplan-Meier estimates of the survival function that describes the "survival experience" of a cohort of subjects
9. Explain and unify the concept of a confidence interval whether it be for a single population quantity, or a comparison of populations
10. Perform hypothesis tests for populations comparisons and interpret the resulting p-values

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
This section is offered in Jaipur, India

140.612.01 STATISTICAL REASONING IN PUBLIC HEALTH II
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

Email: jmcgrea1@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
Consent required for some students; Consent required for non-PH students.
Prerequisite: 140.611
Administrative Course Fee: 30.0000
Course materials fee is $30.00

3 credits - Course offered this year - East Baltimore

McGready, John

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

Email: jmcgre1@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; non-degree seeking students

Prerequisite: Introduction to Online Learning.

140.622.01 STATISTICAL METHODS IN PUBLIC HEALTH II

4 credits - Course offered this year - East Baltimore

Diener-West, Marie

Presents use of likelihood functions, confidence intervals, and hypothesis tests to draw scientific inferences from public health data. Discusses null and alternative hypotheses, Type I and II errors, and power. Develops parametric and non-parametric statistical methods for comparing multiple groups (ANOVA). Also introduces measures of association and simple linear regression. Addresses methods for planning a study, including stratification, balance, sampling strategies, and sample size.

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

1. Distinguish the summary measures of association applicable to retrospective and prospective study designs.

2. Distinguish between the appropriate regression models for handling different types of public health outcomes.

3. Recognize the assumptions required in using regression models and performing statistical tests to assess relationships between an outcome and a risk factor.

4. Perform and interpret a one-way analysis of variance to test for differences in means among three or more populations.

5. Contrast mean outcomes among pairwise groups using multiple comparisons procedures.

6. Interpret the correlation coefficient as a measure of the strength of a linear association between a continuous response variable and a continuous predictor variable.

7. Interpret the coefficients, including interaction coefficients, obtained from either a multiple linear regression or multiple logistic regression analysis.

8. Calculate the sample size necessary for estimating either a continuous or binary outcome in a single group or difference between two groups.
Calculate the sample size necessary for determining a statistically significant difference in either a continuous or binary outcome for either one group or between two groups.

Use the Stata statistical analysis package to perform regression analyses and sample size estimation.

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
Special Lab Number: 140.922
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 non-PH students
Prerequisite: 140.621
Administrative Course Fee: 40.0000
One 90-minute lab per week, lab is 140.922. As soon as you register for the course, please also register for one section of 140.922. Course Materials Fee is $40.00.

140.622.02 STATISTICAL METHODS IN PUBLIC HEALTH II
4 credits - Course offered this year - East Baltimore
Bandeen-Roche, Karen
Presents use of likelihood functions, confidence intervals, and hypothesis tests to draw scientific inferences from public health data. Discusses null and alternative hypotheses, Type I and II errors, and power. Develops parametric and non-parametric statistical methods for comparing multiple groups (ANOVA). Also introduces measures of association and simple linear regression. Addresses methods for planning a study, including stratification, balance, sampling strategies, and sample size.

Upon successfully completing this course, students will be able to:
1. Distinguish the summary measures of association applicable to retrospective and prospective study designs
2. Distinguish between the appropriate regression models for handling different types of public health outcomes
3. Recognize the assumptions required in using regression models and performing statistical tests to assess relationships between an outcome and a risk factor
4. Perform and interpret a one-way analysis of variance to test for differences in means among three or more populations
5. Contrast mean outcomes among pairwise groups using multiple comparisons procedures
6. Interpret the correlation coefficient as a measure of the strength of a linear association between a continuous response variable and a continuous predictor variable
7. Interpret the coefficients, including interaction coefficients, obtained from either a multiple linear regression or multiple logistic regression analysis
8. Calculate the sample size necessary for estimating either a continuous or binary outcome in a single group or difference between two groups
9. Calculate the sample size necessary for determining a statistically significant difference in either a continuous or binary outcome for either one group or between two groups
10. Use the Stata statistical analysis package to perform regression analyses and sample size estimation

Email: kbandee1@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 3:00 PM-5:00 PM
Lab Section: 07 T 3:00 PM-5:00 PM
Lab Section: 08 W 3:00 PM-5:00 PM
Lab Section: 09 TH 3:00 PM-5:00 PM
Special Lab Number: 140.922
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 non-PH students
Prerequisite: 140.621
Administrative Course Fee: 40.0000
One 90-minute lab per week, lab is 140.922. As soon as you register for the course, please also register for one section of 140.922. Course Materials Fee is $40.00.

140.630.01 INTRODUCTION TO DATA MANAGEMENT
3 credits - Course offered this year - East Baltimore
Hackman, Andre
Introduces students to the principles and skills required to collect and manage research data in a public health setting. Topics focus on tools for collecting data that range from spreadsheets to web-based systems, database fundamentals, data collection form design, data entry screen design, proper coding of data, strategies for quality control and data cleaning, protection and sharing of data, and integrating data from external sources. Includes practical and hands-on exercises that require some entry-level computer programming.
Upon successfully completing this course, students will be able to:
1. Evaluate and select the appropriate tools for collection and management of study data.
2. Describe data design issues involved in collecting research data
3. Develop strategies for maintaining data quality, protecting and sharing data
4. Manage and manipulate research study data.

Email: ahackman@jhu.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 5, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for non-Biostatistics students
Prerequisite:

140.638.01 ANALYSIS OF BIOLOGICAL SEQUENCES
3 credits - Course offered this year - East Baltimore
Wheelan, Sarah
Presents a variety of methods for assigning function to biological sequences, emphasizing biologically informed algorithm design. Covers a variety of topics, including low- and high-throughput sequencing history and methods; multiple classes of sequence alignment problems (one-to-one, multiple alignment, alignment of a few sequences to a database, and alignment to a reference genome); interpreting sequence alignments; discovery of patterns in sequences; and visualizing data.
Upon successfully completing this course, students will be able to:
1. Describe the algorithms used in assigning function to biological sequences;
2. Determine which methods are appropriate for analyzing sequences derived from different experiments;
3. Design analysis pipelines that are biologically meaningful and mathematically rigorous.

Email: swheelan@jhmi.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

140.643.01 PRACTICE OF STATISTICAL CONSULTING
3 credits - Course offered this year - East Baltimore
Emphasizes the understanding of, and practical experience in, the spectrum of non-technical aspects of statistical consulting, the art and science of applying statistics to real-world problems. Discusses the elements of a consultation, from defining the research problem to providing final products to the client, interpersonal communication, reproducible work, ethics and consulting in different environments. Develops students’ consulting skills via lectures, role-play opportunities, consulting sessions, and actual research projects. Acquaints students with practical consulting experience through shadowing and leading the Biostatistics Center’s clinics on Friday mornings. Provides opportunities to work directly with Johns Hopkins researchers to elicit information about the research question, and to provide a presentation and final report to researchers.

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

1. Understand the spectrum of non-technical aspects of statistical consulting
2. Utilize different styles of consulting
3. Perform short statistical consulting sessions
4. Carry out consultation projects from initial meeting to reporting results with researchers

Email: jwang135@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 2, Maximum 15, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for anyone who is not a Biostatistics ScM, PhD, or MHS student
Prerequisite: Required 1st-year Biostatistics Master’s courses

140.647.01 ESSENTIALS OF PROBABILITY AND STATISTICAL INFERENCE II: STATISTICAL INFERENCE
4 credits - Course offered this year - East Baltimore
Rohde, Charles
Introduces students to the theory of statistical inference. Topics include the frequentist, Bayesian and likelihood approaches to statistical inference including estimation, testing hypotheses and interval estimation. Emphasizes rigorous analysis (including proofs), as well as interpretation of results and simulation for illustration.

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

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

Email: crohde1@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Course intended for Biostatistics ScM and MHS candidates only; consent needed for anyone who is not a Biostatistics PhD, ScM, or MHS student.
Prerequisite: Working knowledge of linear algebra, including the ability to invert a matrix; full year college level calculus, plus current working knowledge of it, meaning you can quickly do integration and differentiation of standard functions, which are needed for homework and exam questions.

140.652.01 METHODS IN BIOSTATISTICS II
4 credits - Course offered this year - East Baltimore
Crainiceanu, Ciprian
Presents fundamental concepts in applied probability, exploratory data analysis, and statistical inference, focusing on probability and analysis of one and two samples. Topics include discrete and continuous probability models; expectation and variance; central limit theorem; inference, including hypothesis testing and confidence for means, proportions, and counts; maximum likelihood estimation; sample size determinations; elementary non-parametric methods; graphical displays; and data transformations.

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

1. Discuss core applied statistical concepts and methods
2. Discuss the display and communication of statistical data
3. Describe the distinctions between the fundamental paradigms underlying statistical methodology
4. List the basics of maximum likelihood
5. List the basics of frequentist methods: hypothesis testing, confidence intervals
6. Identify basic Bayesian techniques, interpretation and prior specification
7 Discuss the creation and interpretation of P values
8 Describe estimation, testing and interpretation for single group summaries such as means, medians, variances, correlations and rates
9 Describe estimation, testing and interpretation for two group comparisons such as odds ratios, relative risks and risk differences
10 Describe the basic concepts of ANOVA

Email: ccraini1@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 T 1:30 PM-2:20 PM
Lab Section: 02 W 2:30 PM-3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.651
Students will choose only one of the two lab times.

140.658.01 STATISTICS FOR PSYCHOSOCIAL RESEARCH: STRUCTURAL MODELS
4 credits - Course offered this year - East Baltimore
Xue, Qian-Li; Leoutsakos, Jeannie-Marie
Presents quantitative approaches to theory construction in the context of multiple response variables, with models for both continuous and categorical data. Topics include the statistical basis for causal inference; principles of path analysis; linear structural equation analysis incorporating measurement models; latent class regression; and analysis of panel data with observed and latent variable models. Draws examples from the social sciences, including the status attainment approach to intergenerational mobility, behavior genetics models of disease and environment, consumer satisfaction, functional impairment and disability, and quality of life.
Upon successfully completing this course, students will be able to:
1 Design path analysis models
2 Analyze latent variable panel data with linear structural equation models
3 Design latent class analysis models in the situation of categorical data
4 Describe causal inference techniques

Email: qxue@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM
Lab Section: 01 F 10:00 AM-10:50 AM
Lab Section: 02 F 11:00 AM-11:50 AM
Special Lab Number: 140.958
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; 330.657 or consent of instructor
Prerequisite: 330.657 or consent of instructor
Jointly offered with MH
Students must register for one of the computer labs, either 140.958.01 or 140.958.02.

140.712.01 ADVANCED DATA SCIENCE II
3 credits - Course offered this year - East Baltimore
Hicks, Stephanie; Peng, Roger
Builds on Advanced Data Science I by introducing the idea of data products and encouraging students to build products based on their data analyses.
Upon successfully completing this course, students will be able to:
1 Obtain, clean, transform, and process raw data into usable formats
2 Formulate quantitative models to address scientific questions
3 Organize and perform a complete data analysis, from exploration, to analysis, to synthesis, to communication

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4. Apply a range of statistical methods for inference and prediction

Email: shicks19@jhu.edu
Lecture: M W 1:30 PM - 2:20 PM
Enrollment: Minimum 4, Maximum 27, Waitlist Enabled: Yes
Biostatistics 2nd-year PhD and 2nd-year master's students only
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for anyone who is not a Biostatistics 2nd-year PhD or 2nd-year master's student
Prerequisite: R programming experience; 140.711
Final grade applies to all terms
One 1-hour lab per week (time TBA)

140.722.01 PROBABILITY THEORY II
3 credits - Course offered this year - East Baltimore
Tomasetti, Cristian
Presents the first part of the classical results of probability theory: independence, types of convergence, laws of large numbers, Borel-Cantelli lemmas, Kolmogorov's zero-one law, random series and rates of convergence. Also discusses characteristic functions and weak convergence.
Upon successfully completing this course, students will be able to:
1. Assess whether two random variables are independent or not
2. Define and relate the various types of convergence
3. Derive the value to which a random sequence or series converges
4. Calculate the Fourier transform of some random variables

Email: ctomase2@jhmi.edu
Lecture: T TH 3:30 PM - 4:20 PM
Lab Section: 01 W 11:00 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 and real analysis; 140.721

140.732.01 STATISTICAL THEORY II
4 credits - Course offered this year - East Baltimore
Frangakis, Constantine
Introduces modern statistical theory; sets principles of inference based on decision theory and likelihood (evidence) theory; derives the likelihood function based on design and model assumptions; derives the complete class theorem between Bayes and admissible estimators; derives minimal sufficient statistics as a necessary and sufficient reduction of data for accurate inference in parametric models; derives the minimal sufficient statistics in exponential families; introduces maximum likelihood and unbiased estimators; defines information and derives the Cramer-Rao variance bounds in parametric models; introduces empirical Bayes (shrinkage) estimators and compares to maximum likelihood in small-sample problems.
Upon successfully completing this course, students will be able to:
1. Translate the design and estimation goal of a scientific study into a theoretically appropriate statistical framework
2. Identify appropriate parametric models for the population under study
3. Calculate the likelihood of the study's data based on the design and model assumptions
4. Find the minimal sufficient statistics and the maximum likelihood estimator for the quantity of interest
5. Find Bayes/empirical Bayes estimators for a loss function and compare small-sample properties to those of the maximum likelihood estimator

Email: cfranga1@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for any students who are not in the Biostatistics PhD program
Prerequisite: Linear algebra; matrix algebra; real analysis; calculus; 140.731
Final grade applies to all terms
One 1-hour lab per week (time TBA)

140.741.01 ADVANCED SURVIVAL ANALYSIS
3 credits - Course offered this year - East Baltimore
Wang, Mei-Cheng
Introduces statistical models and methods useful for analyzing univariate and multivariate failure time data. Extends Survival Analysis I to topics on length-bias and prevalent samplings, martingale theory, multivariate survival data, time-dependent ROC analysis, and recurrent event processes. Emphasizes nonparametric and semiparametric approaches for modeling, estimation and inferential results. Clinical and epidemiological examples included in class presentation illustrate statistical procedures.

Upon successfully completing this course, students will be able to:
1. Conduct statistical analysis for numerous types of sophisticated survival data
2. Discuss papers published in statistical journals
3. Provide examples of prevalent and multivariate survival data arising in public health studies
4. Discuss dissertation topics in advanced survival analysis

Email: mcwang@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 for non-Biostatistics students
Prerequisite: Biostatistics 140.651 or equivalent, and 140.641 (Survival Analysis I ). Knowledge of probability and statistical theory is required. Non-biostatistics students need permission from instructor.

140.742.01 RISK PREDICTION AND PRECISION MEDICINE
3 credits - Course offered this year - East Baltimore
Wang, Mei-Cheng
Covers various topics for evaluating the performance of biomarkers to predict risk of clinical or disease outcome, specifically including: a. relative, absolute and competing risks for binary and time-to-disease outcomes; b. ROC/AUC biomarker inference with binary outcome; c. ROC/AUC biomarker inference with time-to-event outcome, with censoring and truncation; d. statistical methods and inference for case-control study designs; e. a few topics on precision medicine.

Upon successfully completing this course, students will be able to:
1. Conduct statistical analysis for evaluating prediction performance of biomarkers and diagnostic tests
2. Have a better ability to read and understand papers published in statistical and medical journals on related topics
3. Have better preparation to work on dissertation topics or advanced biostatistics

Email: mcwang@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Non-Biostatistics students need permission from instructor.
Prerequisite: Biostatistics 140.651 or equivalent, and 140.641 (Survival Analysis I ). Knowledge of probability and statistical theory is required. Non-Biostatistics students need permission from instructor.

140.752.01 ADVANCED METHODS IN BIOSTATISTICS II
4 credits - Course offered this year - East Baltimore
Caffo, Brian
Surveys basic statistical inference, estimates, tests and confidence intervals, and exploratory data analysis. Reviews probability distributions and likelihoods, independence and exchangeability, and modes of inference and inferential goals including minimizing MSE. Reviews linear algebra, develops the least squares approach to linear models through projections, and discusses connections with maximum likelihood. Covers linear, least squares regression, transforms, diagnostics, residual analysis, leverage and influence, model selection for estimation and predictive goals, departures from assumptions, efficiency and robustness, large sample theory, linear estimability, the Gauss Markov theorem, distribution theory under normality assumptions, and testing a linear hypothesis.

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

1. Apply the theories to standard experimental designs
2. Discuss and estimate variance components
3. Discuss theory and application of linear mixed models
4. Discuss the concept of best linear unbiased estimation and prediction
5. Develop the theory of restricted maximum likelihood
6. Discuss shrinkage estimation

Email: bcaffoweb@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 T 9:00 AM-10:20 AM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students other than Biostatistics 1st-year PhD students.
Prerequisite: 140.751

140.756.01 ADVANCED METHODS IN BIOSTATISTICS VI (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Zipunnikov, Vadim
Reviews key topics in modern applied statistics. Extends the topics of 140.755 to encompass generalized linear mixed effects models (GLMMs) and Double Hierarchical Generalized Linear Models (DHGLM) and introduces semiparametric regression via Generalized Additive Models (GAMs) and GAMs for Location, Scale and Shape (GAMLSS), as well as nonparametric smoothing and functional data analysis. Includes extensions of linear mixed effects to discrete outcomes and semi-parametric models for clustered data. Emphasizes both rigorous methodological development and practical data analytic strategies. Presents computational methods designed for semi-parametric inference and discusses relevant packages in R.
Upon successfully completing this course, students will be able to:

1. Use and extend a comprehensive list of models such as Generalized Linear Mixed Models (GLMMs), Double Hierarchical Generalized Linear Models (DHGLMs), Generalized Additive Models for Location, Scale and Shape (GAMLSS) to account for various forms of clustering and correlation often arising in public health studies
2. Use modern statistical approaches for flexible modelling heterogeneity and making inference
3. Introduce nonparametric smoothing models
4. Describe modern statistical methods for complex datasets including functional data analysis
5. Apply theoretical concepts to scientific data using R software for modeling clustered and functional data
6. Improve computational and analytic skills through analysis of simulated data sets

Email: vzipunn1@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: 140.751-5

140.772.01 ADVANCED STATISTICAL THEORY (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Scharfstein, Daniel
Focuses on drawing large sample inferences about "parameters" in statistical models. Discusses formal techniques for constructing estimators in semi-parametric models. Guest lecturers present special topics. Involves rigorous mathematical arguments so that familiarity with concepts in advanced calculus, real analysis, and measure theory are required.
Upon successfully completing this course, students will be able to:

1. Understand the foundations of semiparametric inference.

Email: dscharf@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
140.778.01 ADVANCED STATISTICAL COMPUTING
3 credits - Course offered this year - **East Baltimore**
Hansen, Kasper
Covers the theory and application of common algorithms used in statistical computing. Topics include root finding, optimization, numerical integration, Monte Carlo, Markov chain Monte Carlo, stochastic optimization and bootstrapping. Some specific algorithms discussed include: Newton-Raphson, EM, Metropolis-Hastings algorithm, Gibbs sampling, simulated annealing, Gaussian quadrature, Romberg integration, etc. Also discusses applications of these algorithms to real research problems.
Upon successfully completing this course, students will be able to:
1. Describe common deterministic statistical algorithms, such as root finding, numerical integration methods, Newton-Raphson, quasi-Newton methods, EM
2. Describe common stochastic algorithms used in statistics, such as Monte Carlo methods, Markov Chain Monte Carlo, stochastic optimization, Gibbs sampling, Metropolis-Hastings method
3. Understand mathematical properties of common statistical algorithms
4. Implement statistical algorithms using a high-level statistical programming language

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Prior programming experience; at least one year of doctoral-level statistics/biostatistics theory and methods courses; 140.776

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
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

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

390.673.81 ETHICAL AND REGULATORY ISSUES IN CLINICAL RESEARCH
3 credits - Course offered this year - Internet
Adkinson, Franklin; Fost, Norman
Explores and examines the ethical issues central to clinical research, reviews current regulations for clinical investigation, promotes understanding of the function and procedures of Institutional Review Boards, and better appreciation of the role of good clinical practices for clinical trials.
Upon successfully completing this course, students will be able to:
1 Observe the ethical underpinnings of human subjects research
2 Identify good clinical practices for clinical trials, including the use of standard operating procedures
3 Identify the requirements and procedures for IRB approval of human subject research, including recent HIPAA regulations
4 Integrate modern ethical standards and regulatory requirements into design of a clinical investigation

Email: fadkinso@jhsph.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; This course is geared toward GTPCI and SOCI students, however it is open to other scientists or clinicians.
Prerequisite:

390.710.01 BIOMEDICAL WRITING I
2 credits - Course offered this year - East Baltimore
Poynton, Sarah
Guides students towards writing a high quality biomedical research paper. Considers each main section of the paper in detail, emphasizing writing from the reader's perspective, and practicing all elements of effective academic writing. During the multi-term course, each student writes a biomedical research paper, section by section, receives constructive critique from their peers, and a line by line edit from the instructor. Format includes: didactic elements, small group work, and class critique of texts written by students, and of selected texts from published papers. Also considers other types of academic writing, such as review articles and letters of recommendation; these elements do not form part of the homework assignments or assessments.
Upon successfully completing this course, students will be able to:
1 Write a high quality biomedical research paper for submission to a peer-reviewed journal
2 Demonstrate logical organization, clear and effective writing, and an understanding of readers' and reviewers' expectations
3 Describe the content that reviewers expect to see in each of the main sections of a peer-reviewed biomedical research paper
4 Demonstrate the ability to edit texts, figures and tables for content, form and style
5 Critically analyze, and recommend revisions to, a draft of a biomedical research paper written by a peer, to improve its organization and style

Email: spoynton@jhmi.edu
Lecture: TH 8:30 AM - 10:20 AM

Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No
Course is primarily for GTPCI students; a max of 2 non-GTPCI students may be admitted with prior approval of the instructor
Grading Options: Pass/Fail
Consent required for some students; Permission is required of all non-GTPCI students
Multi-term with 390.711
Final grade applies to all terms
Grade issued at the end of 4th term after completion of 390.711

390.710.02 BIOMEDICAL WRITING I
2 credits - Course offered this year - East Baltimore
Poynton, Sarah
Guides students towards writing a high quality biomedical research paper. Considers each main section of the paper in detail, emphasizing writing from the reader's perspective, and practicing all elements of effective academic writing. During the multi-term course, each student writes a biomedical research paper, section by section, receives constructive critique from their peers, and a line by line edit from the instructor. Format includes: didactic elements, small group work, and class critique of texts written by students, and of selected texts from published papers. Also considers other types of academic writing, such as review articles and letters of recommendation; these elements do not form part of the homework assignments or assessments.
Upon successfully completing this course, students will be able to:
1 Write a high quality biomedical research paper for submission to a peer-reviewed journal
2 Demonstrate logical organization, clear and effective writing, and an understanding of readers' and reviewers' expectations
3 Describe the content that reviewers expect to see in each of the main sections of a peer-reviewed biomedical research paper
4 Demonstrate the ability to edit texts, figures and tables for content, form and style
5 Critically analyze, and recommend revisions to, a draft of a biomedical research paper written by a peer, to improve its organization and style

Email: spoynton@jhmi.edu
390.751.01 SEMINARS IN CLINICAL INVESTIGATION
2 credits - Course offered this year - East Baltimore
Flexner, Charles
Presents issues in clinical research, exemplified by readings from classical papers and contemporary literature.
Upon successfully completing this course, students will be able to:
1. Evaluate clinical studies conducted by other investigators
2. Apply different approaches used to answer the same clinical research questions, and the implications for study design, conduct, and outcome
3. Demonstrate the principles discussed in their own approach to clinical research

Email: flex@jhmi.edu

390.801.01 PROFESSIONAL GOALS AND OBJECTIVES
1 credits - Course offered this year - East Baltimore
Flexner, Charles; Punjabi, Naresh
Consists of didactic sessions focused on preparation for the Grant Writing course, careers and mentoring, and meetings between students and their academic advisors and/or potential research mentors to identify a single area of research focus and discuss short- and long-term career goals.
Upon successfully completing this course, students will be able to:
1. Define the structure of the GTPCI and various requirements of the MHS, ScM, and PhD degrees
2. Distinguish between their Academic Advisor and Research Mentor, and the roles of mentors and mentoring
3. Determine research and career objectives by meeting with their Academic Advisor
4. Approach potential research mentors
5. Locate potential clinical research projects, of relevance to their career
6. Assess the benchmarks of a successful academic career

Email: flex@jhmi.edu

390.820.01 THESIS RESEARCH IN CLINICAL INVESTIGATION
variable credits - Course offered this year - East Baltimore
Information not required for this course type

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

180.610.01 PRINCIPLES OF ENVIRONMENTAL HEALTH II
4 credits - Course offered this year - East Baltimore

Latshaw, Megan

Applies concepts and principles of environmental health to a real-world problem impacting a community in our own backyard. Groups investigate the driving forces that underlie complex environmental health issues and explore strategies for assessment and intervention. Integrates the practical experiences of community members and students wherever possible.

Upon successfully completing this course, students will be able to:
1. Describe the history of Hopkins in East Baltimore
2. Explain the goal of critical service-learning
3. Identify multi-disciplinary approaches to solving environmental health problems
4. Develop ways to translate research into practice
5. Create strategies to address the multiplicity of factors that often drive seemingly simple environmental health issues
6. Explain their attitudes about working with community members
7. Develop awareness of one's own role in various group situations
8. Describe the historical context of the issue identified by the community group
9. Demonstrate soft skills required to work in team settings, such as communication, diplomacy, accepting constructive criticism, active listening, professionalism
10. List top five pieces of knowledge gained from this class

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

Enrollment: Minimum 15, Maximum 36, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent is required for non-EHE degree candidates.
Prerequisite: 180.609.01 Principles of Environmental Health I

180.620.81 FOOD SYSTEMS AND PUBLIC HEALTH
4 credits - Course offered this year - Internet

Nachman, Keeve; Lawrence, Robert; Walker, Polly

Introduces the complex and challenging public health issue of food security (sufficient, safe and nutritious food for all) in a world where approximately 850 million people are under-nourished while over 2 billion are overweight or obese. Explores the connections among diet, our food system, the environment and public health, considering factors such as equity, population pressure and the historical, economic and political forces that have helped shape food systems. Considers approaches to achieving both local and global food security. Explores the important role public health professionals can play. Guest lecturers include experts from a variety of disciplines and experiences.

Upon successfully completing this course, students will be able to:
1. Define the concepts of food systems and food security and describe how each relates to public health
2. Describe how diet, food production, the environment, equity, population and resources inter-relate to impact each other and ultimately human health
3. Describe five historical, economic, or political factors that have helped shape the current food system
4. Identify three to five opportunities and challenges to encourage dietary behavior change, support sustainable agriculture, improve food security and lessen the environmental and public health impact of food production and consumption

Email: knachman@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 those not matriculated into a JHSPH graduate program.
Prerequisite: Introduction to Online Learning

180.621.81 PROTECTING THE ENVIRONMENT AND SAFEGUARDING WORKER HEALTH: A PROBLEM-BASED APPROACH
3 credits - Course offered this year - Internet
Locke, Paul
Examines environmental and worker health by introducing and analyzing four real world problems; Explores how evidence-based interventions are designed and implemented; Emphasizes the role that social justice and environmental equity play in establishing effective public health interventions; Reviews how science, communication, and policy interweave in environmental and occupational health decision-making; Shows how environmental and occupational health leaders act to address and solve problems and prepares students to tackle and design solutions for contemporary problems in environmental and occupational health.

Upon successfully completing this course, students will be able to:
1 Propose effective, evidence-based environmental and occupational health interventions
2 Evaluate how environmental and worker health problems arise in practice by investigating four real world situations
3 Critique the social justice and environmental equity problems that confront public health practitioners and leaders seeking to solve environmental and occupational health problems
4 Analyze and assess alternative intervention strategies and policies in environmental and occupational health
5 Identify the interaction between science, communication, and policy in environmental and worker health problems, and develop strategies to confront them

Email: plocke@jhu.edu
Enrollment: Minimum 10, Maximum 53, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Instructor consent is required for (1) students not in the DrPH program; and (2) students who have not completed one of the prerequisite courses.
Prerequisite: Students enrolling in this course must have completed at least one of the following: (1) 180.601 Environmental Health; (2) 180.609.01 Principles of Environmental Health I; or (3) 180.660.01 Introductory Principles of Environmental Health. This prerequisite can be waived by the course instructor if the student demonstrates sufficient experience and expertise in environmental health sciences.

180.636.01 HUMAN RIGHTS AND HEALTH SEMINAR
3 credits - Course offered this year - East Baltimore
Stein, David
Introduces students to human rights in general, health as a human right, impact of health policies, programs and practices on human rights, and collective impacts of human rights violations, whether gross violations in human conflict or insidious violations associated with mistreatment of individuals and marginalized groups.

Upon successfully completing this course, students will be able to:
1 Discuss and begin to understand the realization of the right to health and its consequences for health practice, based on building a "culture of human rights" through law, ethics, policy, economics and 'social norms'
2 Understand some governmental obligations for health under international human rights law and practice or "custom"
3 Describe some commonalities between public health and human rights, including human rights law
4 Discuss application of the human rights framework to the design, implementation, and evaluation of public health policies and interventions
5 Understand some health impacts of human rights violations
6 Discuss dilemmas in the application of human rights principles to health research and practice
7 Discuss some of the numerous roles for health professionals in documenting and ameliorating human rights violations

Email: ds5@jhmi.edu
Lecture: W 3:30 PM - 6:20 PM
Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
Undergraduates are restricted from taking this course
Grading Options: Letter Grade or Pass/Fail
Held in departmental space

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180.650.01 FUNDAMENTALS OF CLINICAL ONCOLOGY FOR PUBLIC HEALTH PRACTITIONERS
3 credits - Course offered this year - East Baltimore
Trock, Bruce
Lectures by current practitioners of cancer prevention control in clinical oncology cover the diagnosis, treatment, and prevention/screening measures used for cancers such as lung, breast, prostate, colon/rectal, etc.
Upon successfully completing this course, students will be able to:
1. Describe the manner of disease presentation, and treatment approaches for major cancers
2. Explain the major differences in prevention studies as compared to treatment studies
3. Define controversies in treatment, screening, and risk assessment
4. Assess whether science is making progress against cancer
Email: btrock@jhmi.edu
Lecture: TH 5:30 PM - 8:00 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students;
Prerequisite: Basic epidemiology and toxicology useful, but not required

180.662.01 WRITING SCIENTIFIC PAPERS II
1 credits - Course offered this year - East Baltimore
Silbergeld, Ellen
Enables doctoral students to attain skills in writing successful scientific papers, including dissertations, grant, and papers that are accepted by peer-reviewed journals. Confers and utilizes skills acquired in part I of this course to access and select relevant scientific literature from online information sources for writing. Informs participants on different publication options, including open source journals. Explains NIH requirements for notification and access to data. Through problem based learning and review of successful scientific papers, conveys the elements of successful scientific writing, including grammar, sentence structure, formats, data presentation, citations and acknowledgements. Demonstrates successful response to reviewer comments.
Upon successfully completing this course, students will be able to:
1. Use computer-based systems to build an archive of information and references
2. Recognize the elements of scientific writing, including structure and language, data presentation, and citation management
3. Critically review literature and identify what makes an effective publication
4. Read and respond to literature reviews
5. Explain open source publishing and NIH requirements for access
Email: esilber2@jhu.edu
Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
Restricted to PhD students in EHE
Grading Options: Pass/Fail
Prerequisite: 180.661 Writing Scientific Papers I
Final grade applies to all terms
Will be held in departmental space - W7023

180.663.01 GRANT WRITING I
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. Ascertain scoring systems and review processes for a variety of proposals

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5 Construct an F31 Proposal in the requested format

Email: mwkarp@jhu.edu

Lecture: M 9:00 AM - 9:50 AM

Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
EHE PhD students only
Grading Options: Pass/Fail
Consent required for some students; Consent is required for students not in EHE
Prerequisite: 180.661.01 WRITING SCIENTIFIC PAPERS I
180.662.01 WRITING SCIENTIFIC PAPERS II
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 10, 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 10, 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

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

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Only PhD students in EHE may enroll
Grading Options: Pass/Fail

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.

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 10, No maximum enrollment required, Waitlist Enabled: No
MHS students in EHE only
Grading Options: Pass/Fail
Register with adviser.

182.614.01 INDUSTRIAL HYGIENE LABORATORY
5 credits - Course offered this year - East Baltimore
Rule, Ana Maria; Lees, Peter
Uses laboratory and field methods and equipment to appraise occupational and environmental atmospheric conditions. Topics include grab and dynamic sampling; measurement of respirable and non-respirable particulates; particulates size analysis; fiber sampling and analysis; gas and vapor sampling and analysis by wet chemical and instrumental methods; and calibration of direct reading field survey instruments.
Upon successfully completing this course, students will be able to:

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

Email: arule1@jhu.edu
Lecture: T TH 1:30 PM - 4:50 PM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: College chemistry and physics

182.621.01 INTRODUCTION TO ERGONOMICS
4 credits - Course offered this year - East Baltimore
Pentikis, John
Introduces the fundamental principles of ergonomics, including terminology, concepts, and applications of physiology, anthropometry, biomechanics, psychology, and engineering to work place and work methods design. Emphasizes the complex relationships among workers, job demands, work place designs, and work methods. Prepares students for advanced study in safety science, industrial hygiene, injury prevention, industrial engineering, and safety and health management.

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

1. Identify ergonomic risk factors, select the appropriate assessment tool, and conduct a detailed ergonomic risk assessment
2. Identify and analyze the biomechanical aspects of a manual material handling task and develop design recommendations to reduce the risk of injury
3. Evaluate an office work area for ergonomic concerns and provide design recommendations to improve performance and reduce injury risk
4. Assess a work-rest schedule and develop recommendations based on the physical demands of the task, worker characteristics and environmental conditions
5. Discuss the applicability of various standardized ergonomic assessment tools, including OWAS, RULA, REBA, and the Strain Index
6. Discuss various program management issues and the value-added of an integrated ergonomics program

Email: jpentik1@jhu.edu
Lecture: F 8:30 AM - 11:50 AM
Enrollment: Minimum 4, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: No prerequisites are required.

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

182.625.01 PRINCIPLES OF OCCUPATIONAL AND ENVIRONMENTAL HYGIENE
4 credits - Course offered this year - East Baltimore
Zerbe, Diane
Introduces concepts, terminology, and methodology in the practice of industrial hygiene, and identifies resource materials. Includes lectures, typical problems, demonstrations, and a walk-through survey.

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

1. Describe the legal, professional, and ethical framework for the practice of industrial hygiene
2. Define basic terms and technical concepts integral to the practice of industrial hygiene
3. Explain the differences between chemical (gases/vapors, dusts/mists/fumes), physical, and biological agents in the workplace
4. Calculate time-weighted averages

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Convert between various units of exposure (for example, mg/m³ to ppm)
Calculate and interpret noise exposures and doses
Identify the basic concepts of workplace exposure assessment
Describe the hierarchy of controls and how it applies to hazard control
Integrate various concepts into a broader occupational/environmental health practice

Email: Dzerbe1@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
Not designed to prepare you for the Certified Industrial Hygienist qualifying exam.

182.637.01 NOISE AND OTHER PHYSICAL AGENTS IN THE ENVIRONMENT
4 credits - Course offered this year - East Baltimore
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
Lecture: W F 1:30 PM - 3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Prerequisite: College chemistry and physics, or consent of instructor.

182.637.98 NOISE AND OTHER PHYSICAL AGENTS IN THE ENVIRONMENT
4 credits - Course offered only this year - Barcelona, Spain
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
Lecture: M T W TH 8:30 AM - 6:00 PM
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
Consent required for some students; Full-time JHU degree-seeking students must obtain the consent of Judy Holzer in HPM to register for this section only.

Prerequisite: College chemistry and physics

This course will be offered over 4 days in Spain. Students must physically be in Barcelona to participate. Students will complete readings prior to class session.

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 10, 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 2, 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, Maximum 25, Waitlist Enabled: Yes
Grading Options: Pass/Fail
The student’s adviser serves as course instructor. Successful completion of the MSPH essay is required for graduation from the program.

183.631.01 FUNDAMENTALS OF HUMAN PHYSIOLOGY
4 credits - Course offered this year - East Baltimore
Mitzner, Wayne
Encompasses the integration of a variety of organ systems. Invites leading scientists from different fields of physiology to offer exceptional and up-to-date lectures that quickly move through the basic mechanistic principles. Applies basic mechanistic principles of each organ system to current public health issues and environmentally relevant topics.
Upon successfully completing this course, students will be able to:

1. Use their discussion of functional principles at the genetic, cellular and organ levels to describe the concepts of integrated systems physiology in humans
2. Apply these basic physiological principles to strategies for the solution of current and emerging relevant environmental health issues
3. Explain and discuss the significance of these principles in interaction with a broad spectrum of public health professionals

Email: wmitzner@jhu.edu
Lecture: M W 1:30 PM - 3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

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

Email: genee.smith@jhu.edu

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for some students; Consent is required for students not in EHS
To be held in departmental space. Method of Assessment varies by term. Student assessment is a Self-Assessment unless the student is required to present that term.

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

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

**Grading Options:** Pass/Fail

**187.610.81 PUBLIC HEALTH TOXICOLOGY**

4 credits - Course offered this year - Internet

Yager, James; Bressler, Joseph

Examines basic concepts of toxicology as they apply to the effects of environmental agents present in air, water and food (e.g. chemicals, metals) on public health. Discusses the distribution, cellular uptake, metabolism, and elimination of toxic agents, as well as the fundamental principles governing the interaction of foreign chemicals with biological systems. Considers how population data on disease incidence (various cancers, lung, kidney, heart, etc.) can suggest possible etiologies and how genetic and epigenetic factors can influence risk for adverse health effects. Focuses on the application of how these concepts provide evidence relevant to the understanding and prevention of morbidity and mortality resulting from environmental exposures to toxic substances through presentation of case studies.

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

1. Describe the basic toxicokinetic principles that determine how various classes of environmentally important chemicals interact with molecules in cells, tissues and organs to cause adverse effects
2. Describe the basic toxicodynamic processes that can alter normal cell, tissue and organ functions resulting in adverse effects
3. Explain the importance of dose-response in determining the adverse effects of chemicals and the different dose response models for non-carcinogens and carcinogens
4. Provide examples of underlying genetic and social susceptibility factors that contribute to the ability of chemicals to elicit effects that contribute to human disease
5. Explain how evidence based on quantitative assessment of local, national and global cancer incidence data contributes to identification of susceptible populations, points to possible causative factors and suggests approaches to preventive interventions
6. Illustrate how the use of biomarkers and primary, secondary and tertiary prevention and can come together to facilitate prevention of human disease
7. Explain the science underlying toxicity testing for the ability of chemicals to elicit adverse human health effects
8. Explain the risk assessment process and the role of toxicity testing and human epidemiology in it
9. Apply evidence from toxicity testing and human epidemiology studies to calculate an acceptable daily exposure (RfD)
10. Apply the toxicological concepts to specific chemicals to which people are exposed

**Email:** jyager1@jhu.edu

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

**Grading Options:** Letter Grade or Pass/Fail

**Prerequisite:** Introduction to Online Learning; a background in organic chemistry and/or biochemistry and cell biology useful.

**187.632.01 MOLECULAR TOXICOLOGY**

4 credits - Course offered this year - East Baltimore

Biswal, Shyam S.; Tang, Winnie Wan-ye

Reviews the mechanisms by which environmental toxicants cause chronic diseases such as cancer, COPD, asthma and heart diseases that impact public health. Topics include cell signaling pathways involved in oxidative and nitrosative stress, cell growth, cell death, DNA repair, inflammation and carcinogenesis in response to exposure to air pollutants, metals and other environmental toxicants. Presents most recent technological advances in the molecular and genetic tools available to study how environmental toxicants cause diseases, which includes omics technologies (genomics, proteomics and metabolomics), next-generation sequencing for gene expression and genetic variations, transgenic animals and emerging alternative animal models.

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

1. Analyze and discuss the literature regarding a wide array of topics relevant to molecular toxicology, including the molecular response to environmental stress and pathways of carcinogenesis and DNA repair
2. Describe various gene-environment interactions that lead to either cell adaptation, cell death or disease in response to toxins in the environment

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*2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses*
3 Discuss the application of various state-of-the-art techniques for molecular analyses, including genomics, proteomics and metabolomics, next-gen sequencing, transgenic animal model and alternative animal models for research

Email: sbiswal@jhu.edu

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

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite: A basic course in molecular biology or consent of instructor

MSPH Track in Toxicity Testing and Human Health Risk Assessment & MHS in Environmental Health, HTP track Students must take 187.640 Toxicology 21: Scientific Foundations concurrently. Students in other programs are encouraged to do the same.

187.640.01 TOXICOLOGY 21: SCIENTIFIC FOUNDATIONS
1 credits - Course offered this year - East Baltimore

Bressler, Joseph; Yager, James

Provides students with fundamental knowledge of the emerging science driving new strategies for human risk assessment. Topics include toxicokinetics, xenobiotic activation and inactivation, systems biology, and databases for toxicity testing. Presents case studies that have used different databases for toxicity testing. Students have hands-on experiences using the databases and other Web-based applications.

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

1 Discuss the metabolism of xenobiotics
2 Apply the principles of xenobiotic metabolism and drug-drug interaction to pharmacokinetics and toxicokinetics
3 Explain the basis of differences in xenobiotic metabolism in different populations
4 Analyze the scientific evidence for the development of new toxicity testing strategies

Email: jbressl1@jhu.edu

Lecture: W 3:30 PM - 4:20 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 students not in the MSPH Track in Toxicity Testing and Human Health Risk Assessment or MHS in Environmental Health, HTP focus area.

Prerequisite: 187.610 Public Health Toxicology

MSPH Track in Toxicity Testing and Human Health Risk Assessment & MHS in Environmental Health, HTP track Students must take 187.632 Molecular Toxicology concurrently.

Course will be held in departmental space.

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

Parker, Cindy

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

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

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

Email: cindyparker@jhu.edu

Lecture: TH 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite: Global Environment and Public Health, 180.611.01

**188.840.01 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**
Buckley, Jessie; 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 brief summaries on selected topics

Email: Jbuck19@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**
**340.601.94 PRINCIPLES OF EPIDEMIOLOGY**
5 credits - Course offered this year - **India**
Gupta, Shivam
Introduces principles and methods of epidemiologic investigation of infectious and noninfectious diseases. Illustrates methods by which studies of the distribution and dynamic behavior of disease in a population can contribute to an understanding of etiologic factors, modes of transmission, and pathogenesis. Presents different types of study design, including randomized trials, case-control and cohort studies, risk estimation and causal inferences. Demonstrates the relationship between epidemiology and the development of policy. Laboratory problems provide experience in epidemiologic methods and inferences, illustrating a common-vehicle epidemic; the spread of infectious disease in school, home, and community; epidemiological aspects of a noninfectious disease; vaccination; the epidemiological approach to health services evaluation; rates of morbidity and mortality; sensitivity and specificity; and life table methods. No auditors permitted.
Upon successfully completing this course, students will be able to:
1. Describe basic epidemiologic methods and study design
2. Critically review published epidemiologic papers and assess the validity of their design and their inferences
3. Explain the role of epidemiologic methods in uncovering the etiology of disease and other health states in order to prevent disease and improve health
4. Identify the place of epidemiology in outbreak investigation and surveillance
5. Explain how epidemiologic methods are used in evaluating screening programs and health interventions, and in the development of health policy
340.611.01 METHODOLOGIC ISSUES IN CANCER EPIDEMIOLOGY (Cancelled - Department)

Visvanathan, Kala

Email: kvisvan1@jhu.edu

Covers methodologic issues in the conduct of research in cancer etiology, prevention and control. Topics include use of pooling and meta-analysis, interactions, measurement error, biomarkers and risk prediction models.

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

1. Assess the readiness of biomarkers for studies of cancer epidemiology
2. Identify issues related to measurement error and validation
3. Test for and interpret interactions
4. Analyze the risks and benefits of cancer prevention measures
5. Design a meta-analysis or pooled analysis
6. Evaluate intermediate end-points
7. Interpret evidence from screening studies

Email: kvisvan1@jhu.edu

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

Enrollment: Minimum 3, Maximum 8, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Prerequisite: 340.753 and 340.624

340.620.01 PRINCIPLES OF CLINICAL EPIDEMIOLOGY

Matsushita, Kunihiro; Mueller, Noel

Email: kmatsus5@jhmi.edu

Lecture: T 8:00 AM - 10:20 AM

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

Prerequisite: 340.751 (Epidemiologic Methods 1)
4 credits - Course offered this year - **East Baltimore**
Connor, Avonne

Emphasizes the role of epidemiology in cancer prevention and control. Compares and contrasts the descriptive epidemiology, natural history, and pathologic and biologic characteristics of selected common cancers, as well as factors related to their etiology. Describes specific resources available for cancer studies. Discusses the influence of environmental and genetic factors and their interplay on the development of cancer together with the epidemiologic issues involved in their investigation. Provides overview of problems involved in cancer prevention and screening.

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

1. Describe the epidemiology of common cancers in the United States
2. Discuss the major risk factors for common cancers
3. Identify effective strategies for cancer prevention and control at the population level

Email: aconnor8@jhu.edu
Lecture: M W F 1:30 PM - 2:50 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.751-752 or 340.721-722 concurrently or previously, 340.601

340.627.01 EPIDEMIOLOGY OF INFECTIOUS DISEASES

4 credits - Course offered this year - **East Baltimore**
Gurley, Emily; Moss, William

Introduces the basic methods for infectious disease epidemiology and case studies of important disease syndromes and entities. Methods include definitions and nomenclature, outbreak investigations, disease surveillance, case-control studies, cohort studies, laboratory diagnosis, molecular epidemiology, dynamics of transmission, and assessment of vaccine field effectiveness. Case-studies focus on acute respiratory infections, diarrheal diseases, hepatitis, HIV, tuberculosis, sexually transmitted diseases, malaria, and other vector-borne diseases.

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

1. Describe and discuss the main epidemiological characteristics of the major infectious diseases of humans
2. Describe how these epidemiological characteristics can be utilized to develop and evaluate strategies to prevent epidemics or endemic transmission of the major infections of humans
3. Identify and examine epidemiological characteristics such as incubation period, infectious period, means of transmission and reservoir of these infectious diseases

Email: egurley1@jhu.edu
Lecture: M W F 3:30 PM - 5:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

Prerequisite:

340.627.81 EPIDEMIOLOGY OF INFECTIOUS DISEASES (Cancelled - Department)

4 credits - Course offered this year - **Internet**
Nelson, Kenrad; Gurley, Emily

Introduces the basic methods for infectious disease epidemiology and case studies of important disease syndromes and entities. Methods include definitions and nomenclature, outbreak investigations, disease surveillance, case-control studies, cohort studies, laboratory diagnosis, molecular epidemiology, dynamics of transmission, and assessment of vaccine field effectiveness. Case-studies focus on acute respiratory infections, diarrheal diseases, hepatitis, HIV, tuberculosis, sexually transmitted diseases, malaria, and other vector-borne diseases.

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

1. Describe and discuss the main epidemiological characteristics of the major infectious diseases of humans
2. Describe how these epidemiological characteristics can be utilized to develop and evaluate strategies to prevent epidemics or endemic transmission of the major infections of humans
3. Identify and examine epidemiological characteristics such as incubation period, infectious period, means of transmission and reservoir of these infectious diseases

Email: knelson3@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.751 or 340.601; 140.621; AND Introduction to Online Learning
Must complete Internet skills course no later than October prior to enrollment.

340.640.01 EYE DISEASE: EPIDEMIOLOGY AND CONTROL
1 credits - Course offered this year - East Baltimore
Swenor, Bonnielin Sceurman
Lectures and group discussions present the pathology, clinical manifestations, epidemiology, treatment, and control of the major blinding diseases, including diabetic retinopathy, cataract, glaucoma, trachoma, and age-related macular degeneration, as well as refractive error and ocular complications of Ebola and Zika.
Upon successfully completing this course, students will be able to:
1. Understand fundamental pathology and clinical manifestations of major blinding eye diseases
2. Describe features of the epidemiology, treatment, and control of the major blinding diseases
3. Write a short paper describing a new research project addressing risk factors for a major blinding eye disease

Email: bswenor@jhmi.edu
Lecture: TH 1:30 PM - 2:20 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.601, and 140.621 or former 140.601

340.645.01 INTRODUCTION TO CLINICAL TRIALS (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Holbrook, Janet; Mayo-Wilson, Evan
Introduces clinical trial design in the context of epidemiological concepts, covers various topics in the design and conduct of clinical trials, and profiles clinical trials that illustrate these issues. Topics include the definition and history of clinical trials; trial designs, including phase I-IV, cross-over, factorial, and large, simple designs; internal and external validity; controls, randomization, and masking; ethical issues; data analysis principles; monitoring of accumulating safety and efficacy data; and use of data from randomized trials.
Upon successfully completing this course, students will be able to:
1. Present the scientific rationale for conducting clinical trials
2. Assess various clinical trial designs
3. Discuss randomization and the principle of analysis by assigned treatment
4. Discuss ethical issues in clinical trials and with related U.S. regulations and guidelines for the conduct of trials
5. Illustrate topics with examples of clinical trials

Email: jholbro1@jhu.edu
Lecture: M W F 1:30 PM - 2:20 PM
Enrollment: Minimum 15, Maximum 75, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Please contact instructor only if auditing, or if prerequisite not met
Prerequisite: 340.601, 340.721 or 340.751

340.645.81 INTRODUCTION TO CLINICAL TRIALS
3 credits - Course offered this year - Internet
Holbrook, Janet; Mayo-Wilson, Evan
Introduces clinical trial design in the context of epidemiological concepts, covers various topics in the design and conduct of clinical trials, and profiles clinical trials that illustrate these issues. Topics include the definition and history of clinical trials; trial designs, including phase I-IV, cross-over, factorial, and large, simple designs; internal and external validity; controls, randomization, and masking; ethical issues; data analysis principles; monitoring of accumulating safety and efficacy data; and use of data from randomized trials.
Upon successfully completing this course, students will be able to:
1. Present the scientific rationale for conducting clinical trials
2. Assess various clinical trial designs
3 Discuss randomization and the principle of analysis by assigned treatment
4 Discuss ethical issues in clinical trials and with related U.S. regulations and guidelines for the conduct of trials
5 Illustrate topics with examples of clinical trials

Email: jholbro1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning and one of the following: 340.601, 340.721 or 340.751.
The course 340.613.11 is a subset of this course and may present duplicate information.

340.646.81 EPIDEMIOLOGY AND PUBLIC HEALTH IMPACT OF HIV AND AIDS

4 credits - Course offered this year - Internet
Farzadegan, Homayoon
Provides an overview of the historical and public health aspects of the AIDS epidemic with review and analysis of virology, immunology, clinical and laboratory manifestations, legal issues, clinical management, coinfection, economic impact, and needs for future research and intervention for global control of the HIV epidemic.

Upon successfully completing this course, students will be able to:
1 Establish a knowledge base on the basic science of HIV infection and host response
2 Recognize and compare HIV/AIDS epidemics at the global level
3 Explain the basis of clinical management of HIV infection at individual and population levels
4 Describe the science and epidemiology of HIV drug resistance
5 Compare risk factors for HIV infection and the behavioral interventions for prevention of HIV infection
6 Describe the science and epidemiology of dual infections of HIV and viral hepatitis, HPV, tuberculosis, and malaria
7 Analyze intervention modalities used to interrupt vertical transmission of HIV
8 Discuss several aspects of legal issues in the HIV/AIDS field
9 Predict future issues and trends of HIV/AIDS by discussing the concept of HIV candidate vaccines, the economic burden of HIV/AIDS in the world, and the future projections of HIV/AIDS cases during the upcoming decade

Email: hfarzad1@jhu.edu

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

340.666.60 FOUNDATIONS OF SOCIAL EPIDEMIOLOGY

3 credits - Course not offered until 2019 - 2020 - East Baltimore
Dean, Lorraine; Latimore, Amanda
Students learn to apply social epidemiologic concepts, introduced through weekly online lectures and readings, and the use of discussions and case studies. Prepares students to understand and appreciate the contribution of social factors to disease etiology, course and the distribution of states of health in populations. After reviewing the conceptual and theoretical underpinnings of social epidemiology from an historical perspective, we focus on the scientific findings in the field from the 1970's until today. The influence of social context on behavior is well known, and forms the backbone for most health promotion interventions; we focus initially on how the social environment influences behavior, by shaping norms, reinforcing social control, providing environmental opportunity, and coping strategies.

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

Email: ldean9@jhu.edu
Lecture: T 10:30 AM - 11:50 AM
Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.751 or 340.601 or equivalent. Students must complete Introduction to Online Learning prior to enrolling in this course.
Course is a modified blended course. Students are expected to prepare, listen and read materials PRIOR to the class meetings. It is critical that students participate in the online lectures and readings in order to be prepared for the class meetings.

340.682.01 PHARMACOEPIDEMIOLOGY METHODS (Discontinued)
3 credits - Course offered this year - East Baltimore
Segal, Jodi
Introduces the key elements of pharmacoepidemiology. Explores the utilization and effects of drugs in large numbers of people. Discusses the application of epidemiological methods to pharmacological issues. Focuses heavily on questions of drug safety and effectiveness, concentrating on clinical patient outcomes and on evaluating the use of therapies. Applies the research methods of clinical epidemiology (e.g., randomized trials, cohort studies, case-control studies, use of secondary data, attention to biases and confounding) to the content area of pharmacology (e.g., determinants of beneficial and adverse drug effects, effects of patient heterogeneity on drug effect, effects of non-adherence, active and passive surveillance for adverse events).
Upon successfully completing this course, students will be able to:
1. Describe the development of the drug regulation processes in the United States
2. Recognize the role of industry in drug development
3. Appraise pharmacovigilance systems
4. Access different data sources for pharmacoepidemiology studies and their strengths and limitations
5. Apply epidemiological techniques to questions about drug effectiveness or drug safety
6. Recognize the role of industry in drug development
7. Explain the drug approval process in the US

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

Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
graduate students only
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.601 or 340.751 or 550.695

340.682.81 PHARMACOEPIDEMIOLOGY METHODS
3 credits - Course offered this year - Internet
Segal, Jodi;Shermock, Kenneth
Introduces the key elements of pharmacoepidemiology. Explores the utilization and effects of drugs in large numbers of people. Discusses the application of epidemiological methods to pharmacological issues. Focuses heavily on questions of drug safety and effectiveness, concentrating on clinical patient outcomes and on evaluating the use of therapies. Applies the research methods of clinical epidemiology (e.g., randomized trials, cohort studies, case-control studies, use of secondary data, attention to biases and confounding) to the content area of pharmacology (e.g., determinants of beneficial and adverse drug effects, effects of patient heterogeneity on drug effect, effects of non-adherence, active and passive surveillance for adverse events).
Upon successfully completing this course, students will be able to:
1. Describe the development of the drug regulation processes in the United States
2. Recognize the role of industry in drug development
3. Appraise pharmacovigilance systems
4. Access different data sources for pharmacoepidemiology studies and their strengths and limitations
5. Apply epidemiological techniques to questions about drug effectiveness or drug safety
6. Recognize the role of industry in drug development
7. Explain the drug approval process in the US
340.696.98 SPATIAL ANALYSIS I: ARCGIS
3 credits - Course offered only this year - Barcelona, Spain
Shields, Timothy
Examines the use of ArcGIS Geographic Information System (GIS) software as a tool for integrating, manipulating, and displaying public health-related spatial data. Covers mapping, geocoding, and manipulations related to data structures and topology. Introduces the spatial science paradigm: Spatial Data, GIS, and Spatial Statistics. Uses selected case studies to demonstrate concepts along this paradigm. Focuses on using GIS to generate and refine hypotheses about public health-related spatial data in preparation for a formal statistical analysis. Although not a required part of the curriculum, discusses topics related to spatial statistical modeling throughout. Includes both lecture and lab formats with GIS concepts and software specific details demonstrated during the lab portions.
Upon successfully completing this course, students will be able to:
1. Conduct GIS spatial analysis by inputting, manipulating, querying, and displaying spatial data with use of the ArcGIS software
2. Perform Geocoding and create appropriate maps for the different kinds of spatial data
3. Identify the key differences between a GIS spatial analysis and a spatial statistical analysis

Email: tshields@jhu.edu
Lecture: W TH F 8:30 AM - 6:00 PM
Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
undergraduate and interdivisional students are not permitted in this section
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Full-time JHU students must obtain permission to register from Judy Holzer in HPM. Jointly offered with BIOSTAT
The use of personal laptops to follow along is strongly encouraged. A time restricted free version of the software is available. Replaces course Spatial Analysis and GIS 1, 140.662. Do not take the course if you have completed 140.662. This course will be offered for 3 days in Barcelona. Students must physically be in Barcelona to participate.

340.697.01 SPATIAL ANALYSIS II: SPATIAL DATA TECHNOLOGIES
2 credits - Course offered this year - East Baltimore
Shields, Timothy
Examines technologies for collecting, obtaining and creating spatial data. Technologies considered include, but are not limited to GPS, tablets, tracking devices, cell phones, mHealth, Google Earth, remote sensing applications, and the Internet. Introduces software applications such as ArcGIS, QGIS, ERDAS, and R for integrating spatial data from the aforementioned technologies into useable forms for spatial analysis. Also covers metadata, data accuracy, and confidentiality/disclosure issues.
Upon successfully completing this course, students will be able to:
1. Incorporate appropriate spatial data technologies for public health research and practice applications
2. Design a protocol for collecting, obtaining and/or creating spatial data for a public health research or practice application
3. Assess the accuracy of spatial data and develop proper metadata files

Email: tshields@jhu.edu
Lecture: W 3:30 PM - 5:20 PM
Enrollment: Minimum 10, Maximum 80, Waitlist Enabled: Yes
none
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; For Auditors and for those who have not yet completed 340.696 (Spatial Analysis 1)
Prerequisite: 340.696 Spatial Analysis 1 or consent of instructor
Jointly offered with BIOSTAT

340.717.01 HEALTH SURVEY RESEARCH METHODS

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 40 of 150
4 credits - Course offered this year - East Baltimore  
Wirtz, Andrea; Genberg, Becky  
Exposes students to the practical aspects of health survey research methods. Emphasizes the development of skills to design and administer a survey. Introduces formative research, sampling methods, questionnaire development, recruitment techniques, interviewer training, and quality assurance/quality control.

Upon successfully completing this course, students will be able to:
1. Develop, test, revise and administer a questionnaire
2. Identify and discuss sources of information bias in survey research
3. Define different types of formative research and discuss how these inform survey development
4. Discuss theory, frameworks, and contexts of questionnaire development
5. Gain experience in designing, revising and administering questionnaires
6. Compare and contrast sampling and recruitment methods appropriate for survey research
7. Describe and apply the process of data collection and quality control
8. Successfully prepare a research report and present results from a survey

Email: awirtz1@jhu.edu  
Lecture: T TH 1:30 PM - 3:20 PM  
Enrollment: Minimum 10, Maximum 55, Waitlist Enabled: Yes  
Grading Options: Letter Grade or Pass/Fail  
Consent required for some students; limit of three auditors  
Prerequisite: 340.601 or 340.721 or 340.751 (one course in epidemiologic methods) and 140.621 or 140.651.

340.722.60 EPIDEMIOLOGIC INFERENCE IN PUBLIC HEALTH II  
4 credits - Course offered this year - East Baltimore  
Golub, Elizabeth T.; Gange, Stephen  
Expands knowledge beyond introductory level epidemiologic concepts and methods material, using examples from the published literature. Emphasizes interpretation and the ability to critically evaluate issues related to populations/study design, measurement, population comparisons and inference, including: modern cohort study designs; advanced nested designs; novel techniques for exposure assessment; interpretation and utility of measures of impact; sources of bias and methods for their prevention; descriptive and analytical goals for observational study inference; the counterfactual model for defining exchangeability, cause, and confounding; and synthesis of inferences from observational studies.

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

Email: egolub@jhu.edu  
Lecture: M F 9:00 AM - 10:20 AM  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
Grading Options: Letter Grade or Pass/Fail  
Prerequisite: 340.601 or 340.721 or 340.751; 140.621 or equivalent.
Course replaces 340.608 Observational Epidemiology. Students who have successfully completed 340.608 should not take this course. This is the second course in the Professional Epidemiology methods sequence.

340.732.01 PRINCIPLES OF GENETIC EPIDEMIOLOGY 2
Ladd-Acosta, Christine; Klein, Alison

Second offering in a three-part series of graduate courses in Genetic Epidemiology. Details the concepts of linkage disequilibrium and population genetics, including methods for admixture analysis useful for adjusting for individual variation in genetic ancestry/background. Presents the principles of genetic association analyses for quantitative and qualitative phenotypes for population-based studies. Details the concepts and tools related to confounding due to population stratification, and approaches for genome-wide association studies. Introduces methods for linkage analysis in families and use of high-throughput sequence data (whole exome and whole genome). Selected class sessions are dedicated to computer labs to illustrate the methods covered.

Upon successfully completing this course, students will be able to:
1. Demonstrate the concepts of linkage disequilibrium and explain haplotype analysis
2. Discuss the concept of genetic admixture and confounding by ancestry in the context of epidemiology studies
3. Describe the various design strategies for genetic studies and discuss the advantages and disadvantages of each
4. Perform genetic association tests in population-based samples, in either prospective or retrospective designs
5. Apply tools to adjust for confounding by ancestry
6. Apply the above concepts in the context of genome-wide association studies
7. Perform and interpret linkage analyses on family data
8. Explain the difference between genetic association and genetic linkage studies
9. Explain the advantages and disadvantages of sequencing (whole exome/whole genome) studies compared to candidate gene or genome-wide marker based studies
10. Describe and evaluate methods for quality control of data from genome-wide marker studies

Email: claddac1@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
Consent required for some students; Consent required for those without 340.731.
Prerequisite: Principles of genetic epidemiology 1(340.731.01) and/or permission of instructor.

340.732.81 PRINCIPLES OF GENETIC EPIDEMIOLOGY 2 (Discontinued)

Beaty, Terri

Second offering in a three-part series of graduate courses in Genetic Epidemiology. Details the concepts of linkage disequilibrium and population genetics, including methods for admixture analysis useful for adjusting for individual variation in genetic ancestry/background. Presents the principles of genetic association analyses for quantitative and qualitative phenotypes for population-based studies. Details the concepts and tools related to confounding due to population stratification, and approaches for genome-wide association studies. Introduces methods for linkage analysis in families and use of high-throughput sequence data (whole exome and whole genome). Selected class sessions are dedicated to computer labs to illustrate the methods covered.

Upon successfully completing this course, students will be able to:
1. Demonstrate the concepts of linkage disequilibrium and explain haplotype analysis
2. Discuss the concept of genetic admixture and confounding by ancestry in the context of epidemiology studies
3. Describe the various design strategies for genetic studies and discuss the advantages and disadvantages of each
4. Perform genetic association tests in population-based samples, in either prospective or retrospective designs
5. Apply tools to adjust for confounding by ancestry
6. Apply the above concepts in the context of genome-wide association studies
7. Perform and interpret linkage analyses on family data
8. Explain the difference between genetic association and genetic linkage studies
9. Explain the advantages and disadvantages of sequencing (whole exome/whole genome) studies compared to candidate gene or genome-wide marker based studies
10. Describe and evaluate methods for quality control of data from genome-wide marker studies

Email: tbeaty1@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required for those without 340.731 and all students planning to take the course online instead of in-class.
Prerequisite: Principles of genetic epidemiology 1(340.731.01) and/or permission of instructor.
Designed for online students only.

340.744.01 ADVANCED TOPICS ON CONTROL AND PREVENTION OF HIV/AIDS
4 credits - Course offered this year - East Baltimore
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

Email: hfarzad1@jhu.edu
Lecture: M W 1:30 PM - 3:20 PM
Enrollment: Minimum 7, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Basic HIV knowledge or experience is adequate for enrollment in the course. Prior enrollment in 340.464 is not required.

340.752.01 EPIDEMIOLOGIC METHODS 2
5 credits - Course offered this year - East Baltimore
Ehrhardt, Stephan;Joshu, Corinne
Second offering in the Epidemiologic Methods sequence. Builds on the concepts of epidemiologic reasoning, population health measures, validity, and study design taught in Epidemiologic Methods 1. Provides a detailed presentation of causal inference, study design and threats to validity (confounding, information bias and selection bias). Discusses a wide range of epidemiologic designs in detail, together with their advantages and limitations. Laboratory exercises, assignments, and the MiniProject provide experience with applying concepts and calculations to problems drawn from real epidemiological data and published literature.
Upon successfully completing this course, students will be able to:
1. Understand how epidemiologists evaluate whether an observed association likely reflects a causal relationship
2. Compare and contrast epidemiologic study designs and identify questions that can be appropriately answered with these different designs
3. Recognize and analyze the most important threats to validity: confounding, information bias, and selection bias
4. Analyze and interpret effect modification
5. Design and critically assess epidemiologic studies

Email: sehrhar6@jhu.edu
Lecture: M W F 8:30 AM - 9:50 AM
Lab Section: 01 M W 10:00 AM-11:50 AM
Lab Section: 02 M W 10:00 AM-11:50 AM
Lab Section: 03 M F 10:00 AM-11:50 AM
Lab Section: 04 M F 10:00 AM-11:50 AM
Special Lab Number: 340.952
Enrollment: Minimum 30, No maximum enrollment required, Waitlist Enabled: No
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 (340.751) (or an A in 340.601), Statistical Methods in Public Health I (140.621) or Methods in Biostatistics I (140.651), and prior or concurrent enrollment in Statistical Methods in Public Health II (140.622) or Methods in Biostatistics II (140.652).

You must register for one lab 340.952 when you register for this course. Labs begin at 10:15 AM.

340.770.01 PUBLIC HEALTH SURVEILLANCE
3 credits - Course offered this year - East Baltimore
Castillo-Salgado, Carlos
Acquaints students with Public Health Surveillance, which is a core public health function essential for understanding and monitoring population health. Covers the theory, data collection methods, data analysis techniques, and presentation strategies of the systematic, continuous, analysis and interpretation of population health data to inform planning, implementation, and evaluation of public health practice. Students identify the different types of surveillance, and how each is applied in varied settings. Practical experiences/labs involve creating data collection tools, and reviewing how they can be applied in practice. Real-world surveillance data is used to illustrate methods for analysis, and how surveillance data should be presented to different audiences. Guests who are coordinating and conducting surveillance in different community settings lead interactive discussion sessions.

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

Email: ccastil3@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, Maximum 55, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.601 or 340.721

340.774.01 ADVANCED THEORY AND METHODS IN EPIDEMIOLOGY
4 credits - Course offered this year - East Baltimore
Abraham, Ali; Lau, Bryan
Integrates and extends material learned in the first year Epidemiologic Methods sequence. Material focuses on the conceptual underpinnings and application of strategies for addressing key methodologic challenges that arise when carrying out epidemiologic research. Incorporates experiential learning components, including a term long self-directed group research project, and provides resources for students to acquire a working knowledge of how to apply presented methodological tools.

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

1. Identify complex methodologic problems in epidemiologic research, such as:
   a) Missing data,
   b) Information bias,
   c) Confounding bias,
   d) Time-varying Confounding bias
   e) Selection bias,
   f) Generalizability
   and state implications for etiologic inference
2. Apply appropriate analytic tool(s) to diagnose and account for complex methodologic problems, such as those listed above
3. Evaluate the sensitivity of an etiologic inference to possible bias due to complex methodologic problems, such as those listed above

Email: alison.abraham@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Lab Section: 01 T TH 1:30 PM-2:50 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Restricted to graduate students pursuing degrees at JHSPH.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students outside of the Epidemiology department
Prerequisite: 340.751-753 and either 140.621-624 or 140.651-654
Course follows similar content to 340.754. Practicum session, not lab, meets in the afternoons following a break for lunch.

340.800.01 MPH CAPSTONE EPIDEMIOLOGY
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore

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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).

340.802.81 EXPERT SEARCHING FOR HIGH QUALITY EVIDENCE IN THE ONLINE ENVIRONMENT
2 credits - Course offered only this year - Internet
Ehrhardt, Stephan; Twose, Claire; Rosman, Lori

Introduces students to effective and efficient searching of the medical literature, in particular the skills and knowledge needed to produce an effective search in support of a systematic review of the medical literature. Discusses existing standards and evidence for these standards. Familiarizes students with software that helps with managing the results of literature searches. Addresses the competencies needed to complete comprehensive, systematic, transparent searches of the literature.

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

1. Describe the iterative steps involved in conducting an expert search for a literature review
2. Identify databases, online tools, and help guides that are available to use when conducting an expert search for a literature review
3. Develop an effective search strategy to locate relevant literature in at least two core databases of medical information
4. Document searches conducted for a literature review in a way that is transparent and reproducible
5. Create a bibliography using a citation management tool such as RefWorks or Mendeley

Email: sehrhar6@jhu.edu

Enrollment: Minimum 10, Maximum 50, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Consent required for some students; Students looking to audit must submit a copy of approval of the audit request to the academic coordinator's office prior to registering. jhsph.epiasc@jhu.edu
Prerequisite:
The class moves extremely fast. It is not recommended to join the course after the first session.

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

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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
Szklo, Moyses; Sharrett, A Richey

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: mszklo1@jhu.edu
Lecture: T 4:00 PM - 5:00 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to first year PhD / ScD students in the Department of Epidemiology
Grading Options: Pass/Fail
Prerequisite: Concurrent registration in 340.752.

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

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

**340.863.01 DOCTORAL SEMINARS IN EPIDEMIOLOGY**
3 credits - Course offered this year - East Baltimore
Duggal, Priya; Mehta, Shruti
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: pduggal@jhu.edu
Lecture: T 3:30 PM - 5:20 PM

Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
Restricted to post-comprehensive exam second year doctoral students in Epidemiology
Grading Options: Pass/Fail
Consent required for some students; Consent required for students who have not passed the comprehensive exam.
Prerequisite: Successful completion of 340.753 and pass of the departmental written comprehensive exam at the doctoral level

**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

Extracurricular

550.002.01 ENGLISH FOR ACADEMIC PURPOSES II
0 credits - Course offered this year - East Baltimore
Hong Smith, Vicki
Focuses on academic writing skills including documentation styles, and combines Saturday class meetings with online assignments and one individual conference.
Upon successfully completing this course, students will be able to:

1. Apply strategies used in the three main stages of the writing process; spiral strategies include brainstorming, outlining, drafting, proofreading, rewriting and editing
2. Formulate an effective thesis statement
3. Support thesis with concrete supporting details
4. Avoid global errors such as fragments, run-on/splice sentences, dangling modifiers
5. Avoid errors in tenses and agreements
6. Correctly incorporate quotation, summary, and paraphrase when citing outside sources
7. Correctly apply required parenthetical documentation and bibliographical documentation format

Email: vhongs@jhsph.edu
Lecture: F 3:00 PM - 6:00 PM
Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students;
Multi-term with 550.001
Final grade applies to all terms

550.002.01 ENGLISH FOR ACADEMIC PURPOSES II
0 credits - Course offered this year - East Baltimore
Hong Smith, Vicki
Focuses on academic writing skills including documentation styles, and combines Saturday class meetings with online assignments and one individual conference.
Upon successfully completing this course, students will be able to:

1. Apply strategies used in the three main stages of the writing process; spiral strategies include brainstorming, outlining, drafting, proofreading, rewriting and editing
2. Formulate an effective thesis statement
3. Support thesis with concrete supporting details
4. Avoid global errors such as fragments, run-on/splice sentences, dangling modifiers
5. Avoid errors in tenses and agreements
6. Correctly incorporate quotation, summary, and paraphrase when citing outside sources
7. Correctly apply required parenthetical documentation and bibliographical documentation format

Email: vhongs@jhsph.edu
Lecture: F 3:00 PM - 6:00 PM
Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students;
Multi-term with 550.001
Final grade applies to all terms

550.601.01 IMPLEMENTATION RESEARCH AND PRACTICE
2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 48 of 150
3 credits - Course offered this year - East Baltimore
Davey-Rothwell, Melissa; Frattaroli, Shannon; Alonge, Olakunle
Combines didactic methods and group activities to explore the rapidly evolving topic of implementation as it pertains to public health research and practice. Provides an overview of the concepts, the theories, tools, and methods used to advance implementation research and practice. Presents key principles of implementation science from a multidisciplinary perspective and provides practical applications of those principles in both practice and research-based settings.

Upon successfully completing this course, students will be able to:
1. Identify the relevant nomenclature and disciplines that contribute to implementation research and practice in order to develop future implementation projects.
2. Apply key implementation science constructs and theories to public health problems.
3. Distinguish implementation outcomes from efficacy, service, and client outcomes.
4. Apply strategies for improving the adoption of evidence-based interventions in a variety of setting.
5. Characterize different types of evidence in public health interventions and frameworks for evaluating evidence.
6. Recognize and critically evaluate common study designs and methods for addressing implementation research aims.
7. Develop an implementation research and practice grant proposal by applying concepts, theories, and methods in implementation science to public health problems.

Email: mdavey1@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Graduate students and postdoctoral fellows
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Jointly offered with EPI, HBS, HPM, IH

550.601.81 IMPLEMENTATION RESEARCH AND PRACTICE

Email: mdavey1@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Graduate students and postdoctoral fellows
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Jointly offered with EPI, HBS, HPM, IH

550.608.98 PROBLEM SOLVING IN PUBLIC HEALTH

Email: mdavey1@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Graduate students and postdoctoral fellows
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Jointly offered with EPI, HBS, HPM, IH
Uses divergent public health issues to illustrate a systematic problem solving process for use in addressing public health problems. The problem solving process includes defining the problem, measuring its magnitude, understanding the key determinants, developing a conceptual framework of the relationships between the key determinants, identifying and developing intervention and prevention strategies (either interventions or policies), setting priorities among intervention options, understanding barriers to implementation and evaluation, and developing an effective communication strategy. Consists of lectures, discussions, small-group exercises, a group project, and individual assignments.

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

1. Analyze a public health problem and evaluate intervention/policy alternatives using the problem solving methodology
2. Compare and contrast the utility of the methodology to solve public health problems that emerge at different periods in the life cycle and in different cultures, including: HIV/AIDS, childhood immunization, radioactive iodine exposure and thyroid cancer, unintended injuries and their prevention, obesity prevention, tobacco abuse, screening mammography and breast cancer
3. Carry out a group project under the guidance of a Teaching Assistant (TA), in which student groups will research a specific public health problem, prepare a written report and present their recommendations to the class following the problem-solving methodology
4. Recognize the complexity of policy development, including a discussion of the politics of public health issues, the roles of interest groups and stakeholders, and the laws and social values that must be woven into successful policies
5. Integrate human rights and ethical principles into the analysis of public health problems and recommended strategies
6. Recognize the critical role of communication in public health practice
7. Work together in multi-disciplinary groups that model the way public health agencies conduct problem-solving activities
8. Demonstrate critical and analytical thinking by preparing three individual products (a self-assessment of the process, an individual critique of a paper submitted by another group, and a health and human rights assessment)

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

1. Assess what is known and unknown in LGBT health research
2. Discuss social, historical, and contextual factors that have shaped LGBT health
3. Critically read public health literature related to LGBT health
4. Apply an ecological perspective to LGBT health, identifying individual, social, community, and societal influences on the health and health behaviors of LGBT individuals
5. Identify and compare examples of effective public health interventions for LGBT populations

550.629.01 THE EPIDEMIOLOGY OF LGBT HEALTH

Poteat, Tonia

Introduces constructs of sexual orientation and gender identity in the context of public health. Explores historical, epidemiological, and social perspectives related to the physical and mental health of lesbian, gay, bisexual and transgender (LGBT) individuals and communities. Orient students to current and historic epidemiological and contextual issues that shape what is known about LGBT health, presents an overview of LGBT health disparities and interventions, and develops a foundation for critical thinking about LGBT health research and intervention potential.

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

1. Assess what is known and unknown in LGBT health research
2. Discuss social, historical, and contextual factors that have shaped LGBT health
3. Critically read public health literature related to LGBT health
4. Apply an ecological perspective to LGBT health, identifying individual, social, community, and societal influences on the health and health behaviors of LGBT individuals
5. Identify and compare examples of effective public health interventions for LGBT populations

550.714.81 SECONDARY USES OF ELECTRONIC HEALTH RECORD DATA

Lau, Brandyn

Introduction to secondary uses of EHR data, including secondary use of EHR data for public health crime prevention, health services research, and clinical research. Review of data use and data use access planning in practice, and the foundations of the legal and ethical frameworks that govern data use and data use access. Consideration of the importance of robust data use governance in safeguarding the interests of patient privacy and public health. Study of major initiatives that have affected the use of EHR data, with a focus on EHR data for public health surveillance. Introduction to methods for identifying patients who have been exposed to infectious agents and to factors that increase or reduce the risk of infectious disease transmission to others. Consideration of the role of data use in facilitating the detection of outbreaks and the investigation of clusters of disease.
Introduces students to concepts, methods, and issues related to the application of analytics to Electronic Health Record (EHR) data. Covers the use of EHR data to define and identify populations and sub-populations of patients, evaluate common metrics in health care, and improve patient safety and care quality. Emphasizes the use of EHR data in hospital settings.

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

1. Translate a high-level data request into a well-specified request that a programmer could implement
2. Identify privacy risks in a data request
3. Identify information systems and data sources required to fulfill a data request
4. Identify the IDs that need to be reconciled in order to fulfill a request
5. Identify semantic threats from the component data systems
6. Describe the architecture of an EHR-based query-fulfilment environment

Email: blau2@jhmi.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required for all students
Jointly offered with ME

Learning Materials:

- (Book) Biomedical Informatics Computer Applications in Health Care and Biomedicine
  Shortliffe, Edward H.
  Springer $0.00

- (Book) The Information System Consultant's Handbook Systems Analysis and Design
  Davis, William S.
  CRC Press $0.00

550.845.20 COMPREHENSIVE OR PRELIMINARY ORAL EXAM FOR PART TIME INTERNATIONAL DRPH STUDENTS
2 credits - Course offered this year - East Baltimore
Departmental Faculty
Since US Immigration laws require that all International students must be enrolled full time when on campus, students must complete their departmental/program comprehensive examination or their School preliminary oral examination enrolled as a full-time student during the time period of the exam.
Information not required for this course type

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

550.854.01 SEMINAR FOR MPH CONCENTRATION IN SOCIAL AND BEHAVIORAL SCIENCES II
1 credits - Course offered this year - East Baltimore
Bowie, Janice;Denison, Julie
Provides additional skills necessary to successfully complete a Capstone Project related to social and behavioral sciences. Identifies career paths that MPH graduates interested in social and behavioral aspects of public health can follow.
Upon successfully completing this course, students will be able to:

1. List the steps in protocol or grant development, conducting a comprehensive literature review and other types of Capstone Projects
2. Identify career paths that MPH graduates interested in social and behavioral aspects of public health can follow

Email: jbowie2@jhu.edu

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 51 of 150
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

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

Email: jvernic1@jhu.edu

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 3:30 PM - 4:20 PM

Enrollment: Minimum 10, Maximum 20, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Consent required for all students;
Prerequisite: None

550.865.81 PUBLIC HEALTH PERSPECTIVES ON RESEARCH

2 credits - Course offered this year - Internet
Ketner, Gary; Agre, Peter

Introduces the substantive and methodologic bases for public health research, emphasizing the critical roles of the quantitative, qualitative, biologic, social, and behavioral sciences in improvement of public health. Highlights principles of high-quality research, including the value of a population perspective, interdisciplinary cooperation, the importance of new measurement techniques, and the interface between theory and practice. Gives students information about the interactions between the public and the researcher.

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

1. Identify scientific methods used in public health practice and research
2. Formulate effective strategies for promoting health and preventing disease and disability in a population over the lifespan
3. Describe the interface between science and policy
4. Define the breadth of public health research and practice
5. Assess how discipline-based specialization contributes to achieving the goals of public health
6. Create an interdisciplinary cohort of graduate students who are mutually supportive of each other’s educational programs
7. Explain the following about public health research: that a population perspective on health is fundamental
8. Describe how the interface between scientific theory and application is fertile ground for public health research
9. Discuss how the quality of research depends critically upon one’s ability to measure or observe accurately, and breakthroughs often result from new methods of measurement
10. Explain how productive public health research most often is interdisciplinary and takes advantage of cross-fertilization of ideas
11. Discuss that scientists must be aware of the ethical implications of their research, committed to the conduct of ethical research, and contribute to the formulation of ethical standards
12. Describe how public health practitioners and scientists must be cognizant of the social context of their work

Email: gketner1@jhu.edu

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

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 53 of 150
Prerequisite: Introduction to Online Learning

Required of all PhD/ScD students, ScM students, and MHS students enrolled in academic/advanced study programs. Students may obtain waivers if they have 1. completed an MPH, professional MHS, or MSPH degree at a domestic institution within the last ten years, 2. enrolled in an MSPH program or in the DrPH program, or 3. taken and passed with a B or better graduate-level courses in the five CEPH core areas that are biostatistics, epidemiology, social and behavioral sciences, environmental health sciences, and health systems administration. Requests for waivers should be addressed to Maryann Smith (mksmith@jhsph.edu)

Lecture times: Not applicable (online); LiveTalk sessions: Wednesdays at 12:00 noon or 5:30 PM online

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
Consent required for all students; Must have approval of program director

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

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 54 of 150
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
410.604.81 HARM REDUCTION: A FRAMEWORK FOR EVIDENCE-BASED POLICY AND PRACTICE
3 credits - Course offered this year - Internet
Sherman, Susan; Tobin, Karin

Discusses a variety of harm reduction strategies as they pertain to substance use issues. Introduces various programs that address substance use problems from a harm reduction perspective. Describes the evidence base supporting harm reduction programs. Explores the complicated legal and contextual issues associated with implementation of harm reduction programs.

Upon successfully completing this course, students will be able to:
1. Summarize the principles of harm reduction as a part of a comprehensive public health approach to drug use and abuse
2. Describe the current context of harm reduction and challenges for the implementation of such programs
3. Critique various conceptualizations of drug use and abuse (e.g., brain vs. social disease vs. moral failing)
4. Examine how drug regulation and criminalization (crack vs. cocaine; opioid vs. heroin) contribute to health disparities and how harm reduction approaches can reduce these disparities
5. Explore the evidence (e.g., efficacy, cost effectiveness) of various harm reduction strategies (e.g., syringe exchange programs, naloxone, safe consumption spaces, medication assisted treatment, fentanyl testing)

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 55 of 150
6 Develop and present a range of evidence-based arguments to gain broad support of implementing harm reduction programs

Email: ssherman@jhu.edu

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

410.605.81 FUNDAMENTAL TOOLS FOR PROMOTING HEALTH EQUITY
3 credits - Course offered this year - Internet
Thorpe, Roland; Gaskin, Darrell J.

Prepare DrPh students to apply health equity frameworks and measurement tools in their everyday functions: includes four components: definitions and historical perspectives of health equity, health disparity, and social justice; common theoretical frameworks and their applications to different aspects of health equity, health disparities, and social justice; measurement tools used for health equity and health disparities in context; strategies and policies to reduce health disparities and promote health equity; Students complete a final project in which they must propose a program based in theory and proven need within their professional capacity.

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

1. Define the concepts of health disparity, health equity, and social justice
2. Identify theoretical frameworks for health disparity and equity issues and use them appropriately
3. Identify measurement tools for health disparities and health equity
4. Identify strategies and policies to reduce health disparities and promote health equity

Email: rthorpe@jhu.edu

Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Limited to DrPH students
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students outside of the Health Equity and Social Justice Track
Prerequisite: None.

This course is being created in response to a request to Dr. Thorpe and Dr. Gaskin from the DrPH program in order to fill an observed gap for the Health Equity and Social Justice Concentration. It will be important for them to learn relevant frameworks to use in order to conceptualize specific health disparities and health equity issues, decide how to measure their progress, and create real change. As students compile a toolbox of useful techniques, they will move into third term to take Dr. Cooper’s course, “Applications of Innovative Methods in Health Equity Research”, which largely addresses communication with stakeholders and health equity interventions.

410.615.01 RESEARCH DESIGN IN THE SOCIAL AND BEHAVIORAL SCIENCES
3 credits - Course offered this year - East Baltimore
Thorpe, Roland

Provides an overview of the design and conduct of research in the social and behavioral sciences as applied to public health. Drawing primarily from the research perspectives and methodologies of sociology, anthropology, and health promotion, students will examine: formulation of a research question, selection of a research design, selection of a study site and population, issues and methods of data collection, and measurement validity and reliability. Evaluates the strengths and weaknesses of the major types of research design used in the social sciences.

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

1. Identify the role and importance of the scientific method
2. Identify relevant ethical issues surrounding social science research
3. Evaluate and critique existing social science research
4. Evaluate qualitative and quantitative research designs
5. Develop research aims intended to answer social science questions relevant to public health

Email: rthorpe@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
Prerequisite: One term biostatistics or consent of instructor. Social or behavioral sciences recommended.

410.631.01 INTRODUCTION TO COMMUNITY-BASED PARTICIPATORY RESEARCH: PRINCIPLES AND METHODS
3 credits - Course offered this year - East Baltimore
Bowie, Janice; Bone, Lee
Introduces students to the fundamental principles of, rationale for, and key considerations in conducting community-based participatory research (CBPR). Offers knowledge of and skills in CBPR that emphasize the importance of community inclusion and partnership as a viable approach to constructing and increasing the acceptance of interventions and improving the health and well-being of populations. Also uses case-based learning as an approach for real world application of CBPR concepts.
Upon successfully completing this course, students will be able to:

1. Describe the principles of CBPR
2. Determine the rationale and appropriateness for conducting CBPR
3. Assess the strengths and limitations of using CBPR approaches
4. Distinguish how CBPR differs from community-based research and basic research
5. Critique the application of CBPR in planning, implementation, dissemination, and translation via review of CBPR case studies
6. Increase understanding of and practice application of methods and strategies of case based learning

Email: jbowie2@jhu.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 15, Maximum 40, Waitlist Enabled: Yes
Not open to students who completed 410.841.11.
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

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

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

Email: fstillm1@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

410.650.01 INTRODUCTION TO PERSUASIVE COMMUNICATIONS: THEORIES AND PRACTICE
4 credits - Course offered this year - East Baltimore
Moran, Meghan
Examines and interrogates theories of persuasion using lectures, discussions, readings, and assignments so that these theories can be applied to health behavior change interventions. Presents psychological, social, and environmental theories of persuasion as they relate to health behavior. Examines the theoretical underpinnings of persuasive health behavior change interventions. Addresses the strengths and challenges of applying persuasive communication theory to complex health issues. Emphasizes the role of theory in the design, implementation and evaluation of health behavior change interventions.

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

1. Explain the features, constructs, and core assumptions of each of the theories covered in the course
2. Use the theories covered in the course for the design, implementation, and evaluation of health behavior change interventions
3. Compare and contrast the utility of different theories of persuasion for use in different types of behavior change interventions
4. Identify which theories of persuasion are being used when given examples of persuasive health behavior change interventions

Email: mmoran@jhu.edu
Lecture: M W 1:30 PM - 3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Previous course in psychology, preferably social psychology, required of undergraduates

410.654.98 HEALTH COMMUNICATION PROGRAMS I: PLANNING AND STRATEGIC DESIGN
4 credits - Course offered only this year - Barcelona, Spain
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: M T W TH 1:30 PM - 5:20 PM
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
Consent required for some students; Full-time JHU students must obtain permission to register from Judy Holzer in HPM. Multi-term with 410.655
This course will be offered for 4 days in Barcelona. Students must physically be in Barcelona to participate. Students are required to complete readings prior to the start of the course. The final paper will be due on Dec 21, 2018. This course section is not a multi-term offering.

410.668.01 POLICY INTERVENTIONS FOR HEALTH BEHAVIOR CHANGE
3 credits - Course offered this year - East Baltimore
Cohen, Joanna
Examines the major theoretical frameworks (e.g., policy streams, advocacy coalition framework, punctuated equilibrium theory, ambiguity-conflict model) relevant to the development, enactment, implementation and evaluation of policy interventions that support health behavior change. Explores the roles of ideas, interests, institutions and key actors in the policy process. Discusses how the environment can be influenced to improve the chances of implementing effective interventions to improve the public’s health. Includes case studies from the areas of tobacco control, alcohol, HIV/AIDS, obesity/physical activity, and other health topics to critically explore the strengths and limitations of policy change theories as they relate to current hot topics in the area of health, behavior and society.  

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

1. Explain and critically evaluate the major theoretical frameworks used to analyze policy change
2. Discuss the major influences that determine which interventions are chosen and implemented
3. Describe the major policy tools and players involved in developing and implementing policy interventions to support health behavior change and improve health
4. Identify the key factors that affect the successful implementation of policy interventions
5. Describe primary approaches used to evaluate policy interventions

Email: jcohen@jhu.edu
Lecture: F 9:00 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Graduate students
Grading Options: Letter Grade or Pass/Fail

410.679.60 GLOBAL COMMUNICATION AND SOCIAL CHANGE

3 credits - Course offered this year - East Baltimore

Underwood, Carol

Critically examines the intersection of theories of economic development, social change, and communication as applied to public health. Introduces the complex and dynamic role of global communication in the social determinants of health. Interrogates “development” discourses as applied to health communication in middle- and low-resource areas countries. Presents evaluations of communication interventions in low- and middle-resource nation-states. Investigates health communication endeavors abroad as well as in low-resource settings in the U.S.

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

1. Compare and contrast competing theories of social and economic development (or social change)
2. Describe communication and/or sociological theories relevant to social change at various levels of the social ecological model
3. Distinguish between social normative change and social change; articulate when they overlap
4. Consider the diversity of peoples and cultures, the significance and impact of communication across social ecological levels in a global society, and how they affect health policies and health outcomes
5. Describe the role of global communication in health interventions across social ecological levels
6. Identify interventions at various levels of the social ecological model that are applicable to global communication and social change
7. Identify and discuss future directions for global health communication

Email: carol.underwood@jhu.edu
Lecture: W 1:30 PM - 3:20 PM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 410.612.01 Sociological Perspectives

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 for two hours. Students are expected to spend one hour a week on class work in addition to regular homework.

Outside-of-class activities will include required attendance at four JHSPH events (seminars, discussion series, symposiums) over the course of the term. Instructor approval prior to attendance at selected events and a one-page summary of each event will be required.
Learning Materials:
• (Book) Saving the world: A brief history of communication for development and social change
  McAnany, Emile G.
  University of Illinois Press $27.00
  2012

410.710.01 CONCEPTS IN QUALITATIVE RESEARCH FOR SOCIAL AND BEHAVIORAL SCIENCES
3 credits - Course offered this year - East Baltimore
Hannum, Susan
Provides an overview of the development of a qualitative approach within public health research and practice, focusing on the philosophical underpinnings to qualitative research and the application of such methods to key contemporary public health questions. Considers questions such as, “What counts as knowledge?”, “What are appropriate and useful public health data?”, and “How do we learn about new issues?” Focuses on concepts, particularly highlighting the nature of qualitative questions and data. Not intended to provide training in conducting independent qualitative research.
Upon successfully completing this course, students will be able to:
1 Summarize the epistemological and ontological bases for qualitative research
2 Apply the main qualitative approaches to a pertinent public health research question
3 Discuss a wide range of health-focused qualitative studies
4 Identify many of the main journals in which qualitative public health research is published
5 Analyze the strengths and weaknesses of adopting a qualitative approach to addressing a particular research question
Email: shannum1@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No undergraduates not permitted
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 410.615

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: ksmit103@jhu.edu
Lecture: TH 1:30 PM - 3:20 PM

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

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

Bone, Lee; Bowie, Janice
Explores faculty-community partnership in community-based research (CBPR), education, and practice. Seminar topics may include CBPR principles and ethics, coalition and partnership building, implementation, dissemination, translation and sustainability, media and marketing, advocacy, policy, cultural diversity, collaborative grant writing, and publishing. Speakers include faculty and also community patrons.

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: lbone1@jhu.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

**410.863.01 DOCTORAL SEMINAR IN SOCIAL AND BEHAVIORAL RESEARCH AND PRACTICE**
1 credits - Course offered this year - East Baltimore
Smith, Katherine Clegg

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: ksmith03@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

**410.866.01 CAREERS IN HEALTH EDUCATION AND HEALTH PROMOTION**
1 credits - Course offered this year - East Baltimore
McDonald, Eileen

Introduces a variety of settings in which health education, promotion, and communication work takes place, including but not limited to local, state, and federal government agencies, voluntary health agencies, educational institutions, and consulting firms. Describes health education, promotion, and communication projects, programs, and campaigns covering a wide array of health topics.
Upon successfully completing this course, students will be able to:

1. Provide examples of different types of work settings where health educators are employed
2. Identify the breadth and depth of job skills needed by health educators in the current marketplace

Email: emcdona1@jhu.edu

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

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

Restricted to MSPH students in HBS

Grading Options: Pass/Fail

**410.871.01 HBS RESEARCH AND PROPOSAL WRITING PROCESS FOR DOCTORAL STUDENTS II**

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

Davey-Rothwell, Melissa; Tobin, Karin

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

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

1. Make progress on their dissertation proposals and discuss the dissertation proposal writing process
2. Build competencies for peer review and manuscript development that will enhance their proposal development skills
3. Demonstrate skills for oral presentation and defense of their research in both academic and professional settings

Email: mdavey1@jhu.edu

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

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

HBS doctoral students

Grading Options: Pass/Fail

Consent required for all students; Required for HBS doctoral students in their 2nd year

Multi-term with 410.870

Final grade applies to all terms

Grade is given for both 410.870 and 410.871 upon completion of 410.871.

**410.882.01 MHS SEMINAR IN SOCIAL FACTORS IN HEALTH II**

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

German, Danielle

Provides additional skills in social science concepts for public health research. Introduces research methods for social factors research. Identifies current social factors research of interest to students.

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

1. Describe methods for social factors research in public health
2. Identify current social factors research projects

Email: danielle.german@jhu.edu

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

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

Restricted to 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

415.612.92 INTRODUCTION TO HUMAN GENETICS II
2 credits - Course offered this year - NIH - Bethesda, MD

Biesecker, Leslie

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

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

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

Email: leslieb@helix.nih.gov

Lecture: TH 4:30 PM - 6:30 PM

Enrollment: Minimum 4, Maximum 8, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for students not in the ScM in Genetic Counseling program.

Prerequisite: 415.611

Jointly offered with NIH

415.621.92 INTRODUCTION TO GENETIC COUNSELING II
2 credits - Course offered this year - NIH - Bethesda, MD

Erby, Lori

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

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

1. Describe the history and goals of genetic counseling
2. Discuss the genetic counseling process and the roles that the counselor and client play in the counseling interaction
3. Evaluate the role of genetic risk information in disease discussing and decision making
4. Discuss the professional, legal, cultural, and ethical implications of how genetic counseling is practiced, today and in the future

Email: loriery@jhu.edu

Lecture: F 11:00 AM - 12:50 PM

Enrollment: Minimum 4, Maximum 10, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 415.620; Must be enrolled in ScM in Genetic Counseling Program

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 64 of 150
**415.651.92 FACILITATING FAMILY ADAPTATION TO LOSS AND DISABILITY II**

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

Similuk, Morgan

Provides an overview of disability awareness and the inter- and intrapersonal experience of disability, as well as a family-system theoretical approach to adaptation to disability. Reviews specific examples of adaptation include family adaptation, adaptation in children, adolescents and adults with disabilities, and sibling adaptation. Covers topics including adaptation throughout the lifespan, acute vs. episodic vs. chronic illness, visible vs. invisible disabilities, cancer, terminal illness, and counseling techniques that would facilitate adjustment for these situations.

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

1. Describe the adaptation process and main issues for: children, adolescents and adults with disabilities, parents who have a child with a illness/disability, siblings of persons with illness/disabilities, those with physical disabilities, invisible illness/disability, cancer diagnoses and terminal illness.
2. Analyze cases in terms of adaptation theories discussed in class.
3. Develop counseling interventions for couples, children and families who are affected with disabilities, chronic illness, cancer or terminal illness.
4. Describe the grief associated with adaptation to terminal illness for children and adults.
5. Recognize their own history with illness/disability, including attitudes, beliefs, behaviors and counter-transference issues that affect their development as a genetic counselor.

Email: morgan.similuk@nih.gov

Lecture: F 9:00 AM - 10:50 AM

Enrollment: Minimum 10, Maximum 12, Waitlist Enabled: Yes

ScM in Genetic Counseling students

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 415.650

Jointly offered with NIH

Grades submitted at the end of the term.

**415.671.92 DEVELOPMENTAL BIOLOGY AND HUMAN MALFORMATIONS II**

1 credits - Course not offered until 2019 - 2020 - NIH - Bethesda, MD

Biesecker, Leslie

Familiarizes students with modern developmental biology and the use of this knowledge to understand common human malformations. Includes lectures on the methodology and model systems of developmental biology; a review of preimplantation development and gastrulation, and embryogenesis/organogenesis. Subsequent lectures focus on the development of organ systems.

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

1. Explain the different ways to analyze birth defects: analytically, embryologically, and by developmental biological analysis.
2. Describe the basic stages of development: preimplantation, gastrulation, organogenesis, and fetal growth.
3. Describe the basic genetic molecular control mechanisms of development.
4. Describe the basic concept of evolutionary conservation of ontogeny.
5. Define the concepts of homologous genes and structures.
6. Describe the mechanism of laterality determination in vertebrates.
7. Analyze a congenital anomaly including the embryology and developmental biology of the genesis of the abnormality using sources including appropriate textbooks, journal articles and online resources.

Email: leslieb@helix.nih.gov

Lecture: W 5:30 PM - 6:30 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 non-ScM students.

Multi-term with 415.670
Jointly offered with NIH

415.702.92 ADVANCED GENETIC COUNSELING II
2 credits - Course offered this year - NIH - Bethesda, MD
Biesecker, Barbara
This literature-driven course applies interactive genetic counseling techniques to specific settings and client needs. Faculty and students present key issues in client education for various medical specialties, and identify research needs related to genetic counseling. Explores counseling issues through role-play.
Upon successfully completing this course, students will be able to:
1. Practice genetic counseling in a specific setting using a challenging case example
2. Utilize role play to integrate peer feedback and critique
3. Outline educational objectives and create innovative application of tools found in the literature
4. Compare potential teaching methods
5. Explore psychological theory as applied to the case/setting
6. Evaluate relevant research and develop research questions
Email: barbarab@mail.nih.gov
Lecture: F 11:00 AM - 12:50 PM
Enrollment: Minimum 4, Maximum 12, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Must be enrolled in ScM in Genetic Counseling Program
Prerequisite: 415.701; Must be enrolled in ScM in Genetic Counseling Program
Multi-term with 315.701
Jointly offered with NIH

415.711.92 MEDICAL GENETICS AND GENOMIC MEDICINE: FROM DIAGNOSIS TO TREATMENT II
2 credits - Course offered this year - NIH - Bethesda, MD
Muenke, Maximilian
Examines advances in the diagnosis of genetic disorders and treatments that result with a focus on neurocutaneous syndromes, muscular dystrophies, connective tissue disorders and ciliopathies. Both terms aim to prepare 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. Contrast features among groups of disorders that lead to diagnosis
2. Identify a variety of successful treatments using chemical genomics
3. Assess the potential role of genomic sequencing in improvements in both diagnosis and treatment
4. Utilize medical history-taking skills toward diagnosis of genetic conditions
Email: mamuenke@mail.nih.gov
Lecture: W 5:30 PM - 7:30 PM
Enrollment: Minimum 5, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students other than ScM in Genetic Counseling students.
Prerequisite: 415.613
Multi-term with 415.712
Final grade applies to all terms
Jointly offered with NIH
Course is multi-term with 415.710, *not* 415.712. This number (415.710) did not appear in the drop-down box as an option. Students must take 415.710 before 415.711.

415.820.92 THESIS RESEARCH: GENETIC COUNSELING
variable credits - Course offered this year - NIH - Bethesda, MD
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Jointly offered with NIH

415.840.92 SS/R: GENETIC COUNSELING
variable credits - Course offered this year - NIH - Bethesda, MD
Departmental Faculty
Information not required for this course type
Lecture: TBA
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

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

415.861.92 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.

415.870.01 GENETIC 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
Grading Options: Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program; students must register for four terms.
Jointly offered with NIH

415.870.92 GENETIC COUNSELING CLINICAL SUPERVISION
1 credits - Course offered this year - NIH - Bethesda, MD
Biesecker, Barbara
Assists the student in recognizing the impact of personal styles and biases on the counseling process through individual supervision sessions. Uses audiotapes and/or videotapes of student counseling sessions to review, analyze, and process student-client interactions throughout the student's clinical rotations, and develop strategies for addressing barriers in the counseling process.

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

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

415.882.01 GENETIC COUNSELING PROGRAM THESIS PROPOSAL DEVELOPMENT III
2 credits - Course offered this year - East Baltimore
Roter, Debra; Erby, Lori
Critically examines the elements of the research proposal, through critiques of students' own work. Each student begins with a draft proposal developed in prior terms. Through a combination of class critiques and individual meetings with the instructor, prepares students to submit a final proposal and to take oral examinations at the end of the term.
Upon successfully completing this course, students will be able to:

1. Demonstrate skills necessary to: a) succinctly summarize and orally present literature to support an original genetic-counseling related research question, b) justify a conceptual formulation of research questions or hypotheses and a study design to answer the study questions, c) critically assess the methods proposed, d) consider and address protection of human subjects issues associated with the research.

2. Finalize and orally defend a formal proposal for independent thesis research

Email: droter1@jhu.edu
Lecture: T 8:30 AM - 10:20 AM
Enrollment: Minimum 4, Maximum 8, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Prerequisite: 415.880 and 415.881

300.600.93 INTRODUCTION TO HEALTH POLICY
4 credits - Course offered this year - Beijing, China
Departmental Faculty
Introduces students to the concepts and tools of health policy. Provides the opportunity to hear healthcare and health policy concerns from others and a chance to apply tools for policy analysis. Introduces skills necessary to be an effective policy analyst/policy advocate. Lecturers illustrate policy issues with examples from many fields of health services ranging from medical care, to current public health issues including the Affordable Care Act and population health, as well as health service delivery improvement efforts.

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

1. Identify the main health policy issues facing public health leaders
2. Use a model of rational decision making to approach to health policy making
3. Write a literature synthesis
4. Identify policy options and evaluate policy alternatives
5. Write effective policy documents
6. Differentiate options for communicating policy recommendations

Lecture: TH F SA 8:30 AM - 4:50 PM
Enrollment: Minimum 10, Maximum 32, 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 4-day period in Beijing China. Students are required to complete assignments prior to the start of class

300.603.98 THE TOOLS OF PUBLIC HEALTH PRACTICE AND DECISION MAKING
3 credits - Course offered only this year - Barcelona, Spain
Resnick, Beth A.
Introduces the core functions of public health and the core competencies for public health professionals. Students assess their strengths and academic goals while building their toolbox of public health competencies. Uses case studies to examine the application of the competencies in public health practices. Provides an opportunity to apply knowledge by working in teams to assess a public health problem and propose potential solutions.

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

1. Identify the core functions of public health and their application in public health practice
2. Identify the steps in the public health problem solving approach
3. Apply the core competencies for public health professions as developed by the ASPH and Council on Linkages between Academia and Public Health Practice
4. Conduct a self assessment to determine personal strengths and weaknesses, and goals for competency development
5. Identify the qualities (positive and negative) of leaders within the public health practice setting
6. Apply the problem solving approach and core competencies to reach decisions to address real world public health problems
7. Identify the challenges of communication in public health practice and develop strategies for addressing multiple audiences

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 69 of 150
8 Identify the role of the media in public health communication and be equipped to craft a message for the media
9 Review the importance of surveillance and public health indicators in the practice setting
10 Identify the importance of social, economic, and political drivers in the development of public health strategies
11 Develop a plan for building a toolbox of competencies

Email: bresnick@jhu.edu

Lecture: W TH F 8:30 AM - 6:00 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No undergraduate students are not permitted in this section
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Full-time BSPH students must obtain permission from Judy Holzer or Pam Davis in HPM before registering for this course.

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

Upon successfully completing this course, students will be able to:
1 Apply basic economic concepts related to health insurance coverage
2 Explain how both private health insurance and public health insurance are financed
3 Evaluate the ways in which private and public health insurers reimburse medical providers
4 Assess private and public models of financing and delivery of healthcare services
5 Analyze various aspects of the hospital, physician, and pharmaceutical drug sectors
6 Explain how nonprofit status, competition, quality, and safety affect medical providers
7 Identify the various determinants of access to care for low-income and vulnerable populations
8 Evaluate how specific policy proposals will likely affect access to care and healthcare spending
9 Critique how the political process affects how healthcare reform is undertaken in the U.S.

Email: lshi2@jhu.edu

Lecture: M T SA 8:30 AM - 5:00 PM
Enrollment: Minimum 10, 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
Prerequisite:
This course will be offered over a 4-day period in Beijing China. Students are required to complete assignments prior to the start of class.

300.712.01 FORMULATING POLICY: STRATEGIES AND SYSTEMS OF POLICYMAKING IN THE 21ST CENTURY
3 credits - Course offered this year - East Baltimore
Frattaroli, Shannon
Explores the considerations, activities and participants involved in the formulation of public health policy. Examines the process of selecting and assessing policy options, and discusses the role that various players have in the making of health policy. Through the analyses of case studies, students learn how policy-makers interact, and how outside influences such as the media and advocates help shape policy. Presents basic legal principles that govern health policy, and discusses the roles of economics and ethics in policy formulation.

Upon successfully completing this course, students will be able to:
1 Define health and social policy problems
2 Articulate policy solutions to health and social problems
3 Assess policy options to address a defined problem
Identify the role of government in policy formulation
5 Assess the feasibility of translating a good policy idea into a viable policy option
6 Explain how policy makers and other stakeholders interact in the context of formulating policy
7 Describe the legal principles that underlie health policy formulation
8 Define the role of academic researchers in policy making
9 Provide examples of how policy has addressed health and social problems
10 Write more effectively for a policy audience
11 Apply skills and knowledge about policy formulation to advance health and social policy initiatives

Email: sfratta1@jhu.edu
Lecture: M W 9:00 AM - 10:20 AM
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
Consent required for some students; audit students must obtain permission from instructor to register
Prerequisite:

300.712.02 FORMULATING POLICY: STRATEGIES AND SYSTEMS OF POLICYMAKING IN THE 21ST CENTURY
(Discontinued)
3 credits - Course offered this year - East Baltimore
Frattaroli, Shannon
Explores the considerations, activities and participants involved in the formulation of public health policy. Examines the
process of selecting and assessing policy options, and discusses the role that various players have in the making of health
policy. Through the analyses of case studies, students learn how policy-makers interact, and how outside influences such as
the media and advocates help shape policy. Presents basic legal principles that govern health policy, and discusses the roles
of economics and ethics in policy formulation.

Upon successfully completing this course, students will be able to:
1 Define health and social policy problems
2 Articulate policy solutions to health and social problems
3 Assess policy options to address a defined problem
4 Identify the role of government in policy formulation
5 Assess the feasibility of translating a good policy idea into a viable policy option
6 Explain how policy makers and other stakeholders interact in the context of formulating policy
7 Describe the legal principles that underlie health policy formulation
8 Define the role of academic researchers in policy making
9 Provide examples of how policy has addressed health and social problems
10 Write more effectively for a policy audience
11 Apply skills and knowledge about policy formulation to advance health and social policy initiatives

Email: sfratta1@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 all students; This section is restricted to HPM PhD students in HPP, and MPH students in the health
systems and policy concentration

300.722.01 FOUNDATIONS IN HEALTH POLICY II
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.
Upon successfully completing this course, students will be able to:

1. Discuss and critique foundational readings from the disciplines that inform health policy.
2. 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, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 300.721

Students must register for both 300.721 and 300.722 in order to receive grade at conclusion of 300.722.

Final grade applies to all terms.

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 - Course offered this year - East Baltimore

Departmental Faculty

Information not required for this course type
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 - 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
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

300.870.01 THE RESEARCH AND PROPOSAL WRITING PROCESS I
2 credits - Course offered this year - East Baltimore
Shi, Leiyu
Assists doctoral students in preparing their dissertation proposal through presentations on their progress and faculty lectures on relevant topics, such as identifying research questions and writing hypotheses; reviewing the literature; sources of funding; protocol construction; and the Committee on Human Research.
Upon successfully completing this course, students will be able to:
1. Describe the essential elements of dissertation proposal development and the preliminary oral exam process
2. Constructively critique a dissertation proposal
3. Make progress on writing their dissertation proposals
4. Involve one’s faculty advisor to assist in achieving the objectives above

Email: lshi2@jhu.edu
Lecture: TH 3:30 PM - 5:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to 2nd year HPM doctoral students, or consent of department.
Grading Options: Letter Grade or Pass/Fail
Prerequisite: successful completion of 1st year PhD qualifying exam

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

301.615.01 SEMINAR IN HEALTH DISPARITIES
3 credits - Course offered this year - East Baltimore
Gaskin, Darrell J.
Students learn the nature of racial and ethnic disparities in health status, and become familiar with the research literature on race disparities. Students responsible to do all readings, contribute an annotated bibliography of research on a minority health topic selected by the students (with consent of the instructor) and produce a literature review on that topic.
Upon successfully completing this course, students will be able to:
1. Identify demographic and epidemiological patterns in health status by race, ethnicity, gender, and socioeconomic status
2. Identify racial/ethnic disparities in access and quality of health care

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 73 of 150
3 Identify theories explaining racial/ethnic disparities in health status and healthcare access and quality
4 Identify conceptual models and frameworks for reducing and/or eliminating health status and healthcare disparities

Email: dgaskin1@jhu.edu
Lecture: M 3:30 PM - 5:50 PM
Enrollment: Minimum 10, Maximum 60, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

301.627.01 UNDERSTANDING AND PREVENTING VIOLENCE
3 credits - Course offered this year - East Baltimore
Webster, Daniel
Explores the role of public health in reducing violence and associated injuries. Focuses on factors that contribute to interpersonal violence, policy issues relevant to violence and violence prevention, and approaches to violence prevention and their effectiveness. Topics include the epidemiology of violence; biological, psychological, social, and environmental factors related to violence; intimate partner violence; the role of alcohol and other drugs; firearms policy; behavioral approaches to violence prevention; and community efforts to prevent violence.
Upon successfully completing this course, students will be able to:
1 Identify societal, neighborhood, family, situational, and individual (biological and psychological) factors influence the likelihood and severity of violence
2 Explain how and why these factors influence the likelihood or severity of violence, drawing upon existing theories
3 Appropriately apply public health methods, strategies, and paradigms to the problem of violence and its prevention
4 Identify strengths and weaknesses of policies and programs intended to reduce violence

Email: dwebster@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; undergraduate students must obtain permission from instructor
Prerequisite:

301.820.01 THESIS RESEARCH IN HEALTH POLICY AND MANAGEMENT
variable credits students and faculty determine appropriate number of credits of registration for each term - Course offered this year - East Baltimore
PhD students register after successful passing of the school-wide preliminary oral exam to conduct their dissertation work.
Upon successfully completing this course, students will be able to:
1 Information not required for this course type

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

301.861.01 GRADUATE SEMINAR IN HEALTH AND PUBLIC POLICY
1 credits - Course offered this year - East Baltimore
Rutkow, Helaine
Reviews and critiques current literature in health and public policy and evaluates studies from a methodological and conceptual basis.
Upon successfully completing this course, students will be able to:
1 Knowledgeable of the faculty of Health and Public Policy and their research and practice interests
2 Familiar with the literature that pertains to HPP subject areas
3 Provided with a forum for discussing that literature and for understanding relationships between health policy and other areas within public health
4 Exposed to an environment that welcomes and promotes a strong, engaged cohort of doctoral students within the HPP faculty
5 Identify and develop skills that facilitate the translation of public health research into policy and practice

Email: lrutkow@jhu.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to Health & Public Policy concentration HPM PhD students.
Grading Options: Pass/Fail

302.675.98 CRISIS RESPONSE IN PUBLIC HEALTH PRACTICE: INTERNATIONAL PERSPECTIVES
2 credits - Course offered only this year - Barcelona, Spain
Sharfstein, Joshua
Examines crises from the point of view of an agency leader responsible for designing and implementing an effective response while maintaining credibility and securing long-term policy change. Discusses recent crises including: global response to Ebola and Zika, responses to regulatory failures, foodborne outbreaks, and vaccine controversies. Offers students an opportunity to apply their knowledge by proposing a crisis response plan for a public health agency
Upon successfully completing this course, students will be able to:
1. Describe the central role of crises in the work of public health agencies
2. Assess the credibility of a public health agency's work during a crisis
3. Analyze key elements of effective and ineffective day-to-day responses to crises at the local, state, national, and global levels – including public communication and language, management, planning, and politics
4. Articulate how public health leaders can manage existing crises effectively to win significant, long-term policy advances
Email: joshua.sharfstein@jhu.edu

Lecture: M T 8:30 AM - 6:00 PM
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
Consent required for some students; Full-time JHU students must obtain permission to register from Judy Holzer in HPM.
Course is an offspring of 300.650
This course will be offered for 2 days in Barcelona. Students must physically be in Barcelona to participate. Students are required to complete readings prior to the start of the course. The final paper (crisis response plan) will be due on Dec 21, 2018.

305.607.01 PUBLIC HEALTH PRACTICE
4 credits - Course offered this year - East Baltimore
Resnick, Beth A.
Builds on the course prerequisite and satisfies the MPH practicum requirement through hands-on application of knowledge and skills to real-world practice concerns and settings in collaboration with a public health practice organization. Students engage in a significant experience through addressing public health priority areas pre-identified by the collaborating organization. All practicum work is shared with the collaborating organization for use at their discretion. Students complete the public health practicum under the direction and supervision of the course faculty. Practicum work is designed with a pre-identified collaborating organization around pre-identified priority areas and projects; students are not able to select topics/projects outside of the pre-identified options. This course does not offer the option for students to identify their own collaborating organizations or develop their own projects.
Upon successfully completing this course, students will be able to:
1. Assess population health of a specific jurisdiction
2. Develop strategies and approaches to address public health priorities
3. Apply public health and social determinants of health knowledge and theory to address specific public health challenges
4. Assess and develop public health communications to targeted audiences
5. Advance personal career growth and development, using the core competencies for public health professionals as a framework
Email: bresnick@jhu.edu
Lecture: M W 1:30 PM - 3:20 PM
Enrollment: Minimum 20, No maximum enrollment required, Waitlist Enabled: No
Undergraduates are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
305.612.01 EPIDEMIOLOGIC METHODS IN INJURY AND VIOLENCE CONTROL (Cancelled - Department)

3 credits - Course offered this year - East Baltimore

Departmental Faculty

Prepares students to conduct research regarding the distribution, determinants, and outcomes of unintentional and intentional injuries, and also to evaluate injury research studies.

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

1. describe various sources of data for injury research
2. identify the appropriate methodological approach for studying injuries
3. understand some of the methodological challenges in studying an acute outcome such as injury;
4. appreciate how epidemiologic data can be used to inform injury prevention policy and critically evaluate published injury studies

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

Prerequisite: 340.601 & 305.610 or consent of instructor

Jointly offered with EPI

305.861.01 GRADUATE SEMINAR IN INJURY RESEARCH AND POLICY

1 credits - Course offered this year - East Baltimore

Crifasi, Cassandra

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: crifasi@jhu.edu

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

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

Grading Options: Pass/Fail

306.625.01 ETHICAL ISSUES IN HEALTH POLICY: PUBLIC HEALTH AND HEALTH CARE

3 credits - Course offered this year - East Baltimore

Taylor, Holly

Explores ethics, the moral relevance of health and the use of ethics in the assessment of health policy. Acquaints students with a number of theories of social justice. Also explores contemporary public health and health care policy issues (e.g. environmental toxin, pay for performance), using the lens of ethical analysis to supplement other approaches to policy analysis. Students develop their skills in ethical analysis and reasoning in order to critique and compare alternative strategies for to address public health and health care policy issues.

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

1. Identify and consider ethical issues relevant to health policy, including analysis of issues in public health and health care (medical care and health services)
2. Analyze the role of ethics in the assessment of policy options
3. Analyze policy options with new-found ethical skills and begin to reason through appropriate courses of action

Email: htbody@jhu.edu
Undergraduates must obtain instructor consent to register.

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Undergraduates must have completed coursework in health policy and philosophy or bioethics.

Prerequisite: Undergraduates must have completed coursework in health policy and philosophy or bioethics.

**306.861.01 GRADUATE DOCTORAL SEMINAR IN BIOETHICS**

1 credits - Course offered this year - East Baltimore

Taylor, Holly

Familiarizes students with contemporary and classic literature in bioethics and demonstrates how to rigorously critique empirical and normative writings in the field of bioethics. Readings for the seminar include recent publications in bioethics and some classic pieces in the field. Students are primarily responsible for selection of articles and for presentation of articles for discussion.

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

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

Email: htaylor@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

**308.602.01 ROLE OF GOVERNMENT IN HEALTH POLICY (Discontinued)**

3 credits - Course offered this year - East Baltimore

Barry, Colleen

Students explore the key political dimensions of the health policymaking process in the United States. Examines the roles of government institutions and political actors both inside and outside government in developing and implementing health policy. Uses past and present health care debates to illustrate concepts, theories and frameworks discussed in class. Students acquire an understanding of the political processes in which health policies are considered, and gain practical experience executing political strategies in the context of health policy campaigns. An optional doctoral level health politics “journal club” lab is available to students.

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

1. Identify the key political dimensions of the health policymaking process in the U.S.
2. Discuss the role of politics in health policy formulation, implementation and analysis
3. Demonstrate practical experience with issue advocacy, policy framing and political strategy in an applied context

Email: cbarry@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

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

3 credits - Course offered this year - Barcelona, Spain

Navarro, Vicente

Focuses on the economic, financial, political, and social causes for the growth of social inequalities, in both developed and underdeveloped countries, and its consequences for health and quality of life. Emphasizes the analysis of public policies that have been developed by national and international agencies and how they have impacted the growth of those inequalities. Analyzes social class, race, and gender inequalities and their reproduction through national and international policies. Also emphasizes the increasing concentration of power and the way it appears in health and vital statistics. Requires active participation of the students in the discussion of the issues involved.
Upon successfully completing this course, students will be able to:

1. Understand how globalization impacts the economy
2. Distinguish the difference between the globalization and regionalization of economies
3. Identify what changes are occurring in public health and social policies that are attributable to the process of globalization
4. Identify the causes of the recent growth in social inequalities
5. Distinguish what are the health and social consequences of greater inequality

Email: vnavarr2@jhu.edu

Lecture: M T W 8:30 AM - 6:00 PM

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

Consent required for some students; Full-time JHU students must obtain permission to register from Judy Holzer in HPM. This course will be offered for 3 days in Barcelona. Students must physically be in Barcelona to participate. Students are required to complete readings prior to the start of the course in order to participate in classroom debates. The final paper will be due on Dec 21, 2018.

**308.700.81 U.S. RESEARCH ON HEALTH SYSTEM PERFORMANCE AND HEALTH REFORM (Discontinued)**

3 credits - Course offered this year - Internet

Davis, Karen

Explores the research that formed the basis of the Affordable Care Act, its major provisions, early evidence on its impact and trends in U.S. health system performance, and future research analyses that will inform its evaluation and evolution of the U.S. health system.

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

1. Explain the goals, rationale, and major provisions of the Affordable Care Act (ACA) including deficiencies in U.S. health system performance it was designed to address
2. Describe the predicted impact of the ACA on coverage and access to care; quality, patient outcomes and care experiences; and projected cost/savings by major source of financing
3. Analyze early evidence on U.S. health system performance and contrast predicted ACA impact with early trends in U.S. health system performance on insurance coverage, access to care, quality, and cost
4. Indicate the types of research that will help inform future health reform policy

Email: karen.davis@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning; 300.651 or prior course work on the U.S. Health System

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**308.702.01 DATA AND METHODS FOR STUDYING U.S. HEALTH POLITICS (Discontinued)**

1 credits - Course offered this year - East Baltimore

Barry, Colleen

Examines the topics discussed in the Role of Government in Health Policy course, focusing on the methods used to conduct research on health politics topics. Discusses: (1) developing research questions and testable hypotheses, (2) identifying data sources, and (3) choosing appropriate methods for analyzing data using examples from a range of current health politics topics. Topics are based on student interests and vary each year. Students gain experience writing a brief research proposal based on a research question of their choice, presenting the proposal in front of the class and leading an in-class discussion on the research topic.

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

1. Explain methodological approaches to conducting research on health politics topics
2. Critically evaluate research methods proposed for studying contemporary issues in health politics

Email: cbarry@jhu.edu

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

308.810.01 FIELD PLACEMENT HEALTH POLICY-MSPH
variable credits most students will register for 16 credits but on occasion, with program permission, fewer credits may be
registered for - Course offered this year - East Baltimore
Resnick, Beth A.
Provides students with an intensive “hands on” extension of their academic training under the guidance of one or two senior
level health policy professionals and program faculty. Students gain a deeper understanding of how health policies affect
the public’s health and further develop their professional health policy skills.
Upon successfully completing this course, students will be able to:
1 Contribute to the organization by participating in and completing all assigned work.
2 Discern their own role in the organization and explain how their work contributes to the mission of the organization
3 Recognize the role of the host organization within the health policy arena and how the organization fits into the “big
picture” of health policy
Email: bresnick@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
matriculated msph/hp students 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
Prerequisite: successful completion of 1st year required coursework.

308.851.01 PHASE INTERNSHIP
variable credits credits are negotiated individually with each student depending on the internship placement and time
commitment - Course offered this year - East Baltimore
Resnick, Beth A.
Public Health Applications for Student Experience (PHASE), offers students the opportunity to gain real world public health
practice experience. PHASE internships require students to synthesize, integrate and apply academic theory in public health
practice settings. By working on-site, students see first-hand how public health agencies function and engage in public health
decision-making on a daily basis.
Upon successfully completing this course, students will be able to:
1 Apply academic knowledge and theory in a real world public health practice setting
2 Write a concept paper outlining the project aims, objectives, timeline, and specific deliverables
3 Perform background research and data analysis as necessary
4 Synthesize the PHASE experience and project findings in a final paper
5 Present the project at the PHASE symposium
Email: bresnick@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
undergraduate students not permitted
Grading Options: Pass/Fail
Consent required for all students; all students must obtain consent.
PHASE is a non-paid, for-credit two or three term internship program sponsored by the JHSPH, the Maryland Department of
Health & Mental Hygiene (DHMH), and the Mid-Atlantic Public Health Training Center (MAPHTC). Students must apply and
be accepted for a PHASE internship.

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

SECOND TERM COURSE SCHEDULE 2018-2019 -- October 29 - December 21

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 79 of 150
3 Develop a Career Development Action Plan

Email: bresnick@jhu.edu
Lecture: W 3:30 PM - 4:50 PM

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

309.605.01 HEALTH ISSUES FOR AGING POPULATIONS
3 credits - Course offered this year - East Baltimore
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
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
Prerequisite:

309.607.81 INNOVATIONS IN HEALTH CARE FOR AGING POPULATIONS (Cancelled - Department)
3 credits - Course offered this year - Internet
Willink, Amber
Acquaints students with the nature of the health care received by older Americans at home and in hospitals, nursing homes, emergency departments, rehabilitation facilities, and outpatient offices. Presents successful and promising innovations in the health care of older people. Provides students with available evidence about the costs and effectiveness of these innovations.

Upon successfully completing this course, students will be able to:
1 Describe the nature of health care received by older Americans in hospitals, nursing homes, emergency departments, rehabilitation facilities, outpatient offices and at home
2 Discuss the nature of successful and promising innovations in the health care of older people
3 Appraise the available evidence on the costs and the effectiveness of these innovations
4 Identify how innovations are affected by public policies, organizational characteristics, provider incentives and interests, and patient behaviors and expectations

Email: awillin2@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; undergraduates and those taking the class for audit must obtain consent from the instructor
Prerequisite: Introduction to On-line Learning

309.631.81 POPULATION 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, describe the health status and needs of populations, improve the health of populations, and evaluate services provided to 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 US 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 the potential scope and role of internet based consumer health application and telemedicine for measuring, monitoring and improving the health of populations
7. 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
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to On-line learning

309.670.01 COMPARATIVE HEALTH INSURANCE
3 credits - Course offered this year - East Baltimore
Anderson, Gerard

Reviews the organization and financing of health systems in middle and high-income countries – focusing on population coverage, in terms of both how different groups are covered and the benefits package provided. Begins with a conceptual framework of financing flows in the health sector, and proceeds to identify a series of topics and case studies as the subject of specific lectures. Explores in depth the principal models for population coverage – including national health insurance, national health service, social insurance, private insurance, and mixed hybrid models. Provides case studies of health insurance coverage in specific countries, including the United Kingdom, France, Germany, Japan, Taiwan, Chile – with lessons drawn for transitional countries interested in expanding health insurance coverage.

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

1. Describe the financing flows underpinning the delivery of health care services across various countries
2. Describe the differences in financing and organizing health care services among countries at different levels of income and development
3. Describe various pooling arrangements and the rationale for each
4. Describe alternative roles for government in the health sector
5. Describe the options for coordinating financing and service provision between the public and private sectors
6. Make informed recommendations for how countries could reform their health sectors
7. Conduct an analysis of a particular issue in comparative health insurance

Email: ganderson@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail

309.712.81 ASSESSING HEALTH STATUS AND PATIENT OUTCOMES
3 credits - Course offered this year - Internet
Wu, Albert

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 81 of 150
Provides an understanding of the conceptual basis for measures of health; some of the common measures, their properties, and strengths and weaknesses; and a framework for judging the appropriateness of a particular measure for students’ own work.

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

1. Describe the current methods of assessing health status
2. Discuss health status measurement
3. Judge the appropriateness of particular measures for their own or other’s work

Email: awu@jhu.edu

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

309.715.01 ADVANCED METHODS IN HEALTH SERVICES RESEARCH: RESEARCH DESIGN (Cancelled - Department)

4 credits - Course offered this year - East Baltimore
Kasper, Judith

Covers components of research design for population-based studies drawn from secondary data. Topics include: a framework for evaluating research design, introduction to secondary data sources, defining study populations, complex sampling designs, data structure, and content in national health surveys, principles of questionnaire design, survey data collection methodologies and measure construction. Addresses important measurement topics, including measurement equivalence and case-mix adjustment. Emphasizes secondary data from national and international health and health care surveys, but also addresses major health program administrative datasets (e.g. Medicare, Medicaid). Student exercises emphasize the development and acquisitions of skills needed to manipulate data from large population survey or administrative datasets to answer a specific research question.

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

1. Identify and critique the primary components of quasi-experimental and observational research designs
2. Evaluate the design, sampling principles, structure, and data collection methods, of large complex national health and health care surveys (a major resource for health services research), as well as the implications of these for data analysis
3. Create variables and conduct preliminary analyses using data from a large complex national health or health care survey
4. Discuss the general principles of questionnaire development, with particular application to health and health care surveys
5. Evaluate administrative data applications in health services research

Email: jkasper1@jhu.edu
Lecture: T TH 1:30 PM - 3:20 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
undergraduates are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; students without the pre-requisite courses noted must obtain consent of instructor prior to registration.
Prerequisite: 309.616-617 or 300.713 or consent of instructor

309.730.98 PATIENT SAFETY AND MEDICAL ERRORS

3 credits - Course offered only this year - Barcelona, Spain
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. Students learn the basics of conducting an incident investigation, gain an understanding of the advantages and limitations of error reporting, learn how to disclose errors and adverse events, and learn models for improving safety in hospitals and other health care organizations from both the micro and macro points of view.

Email: awu@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; students without the pre-requisite courses noted must obtain consent of instructor prior to registration.
Prerequisite: 309.616-617 or 300.713 or consent of instructor
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

Lecture: W TH F 8:30 AM - 6:00 PM
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No undergraduate and interdivisional students are not permitted in this section
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Full-time JHU students must obtain permission to register from Judy Holzer in HPM.
This course will be offered for 3 days in Barcelona. Students must physically be in Barcelona to participate. Students are required to complete readings prior to the start of the course. The paper outline will be due Dec 8, 2017 with the final paper due on Dec 21, 2018.

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
Consent required for some students; Any student wanting to take this class who is not an HPM doctoral student must obtain consent
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.
311.820.01 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: 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
Consent required for all students;

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
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.

311.865.93 TSINGHUA DRPH SEMINAR
1 credits - Course offered this year - Beijing, China
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

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311.867.93 TSINGHUA GRADUATE SEMINAR
1 credits - Course offered this year - Beijing, China
Shi, Leiyu
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 in the Tsinghua cohort program.
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: lshi2@jhu.edu
Lecture: M 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: Pass/Fail
Consent required for all students; Restricted to students enrolled in the Tsinghua DrPH cohort only.
This course will be offered for 1-day in Beijing China. Students are required to complete assignment prior to the first class session.

312.601.01 FUNDAMENTALS OF MANAGEMENT FOR HEALTH CARE ORGANIZATIONS
3 credits - Course offered this year - East Baltimore
Bittle, Mark; Chin, David
Focusing on U.S. health care delivery systems, discusses how to manage in health care organizations including management processes organizational structures and types of governance and management issues of U.S.-based health care delivery systems. Introduces key topics and concepts including health care systems; managing health care organizations; administrative management responsibilities of health care environments; approaches to performance improvement and financial management.
Upon successfully completing this course, students will be able to:
1. Compare and contrast the functions and processes required to manage an effective healthcare organization
2. Create job designs for managerial roles and expectations of managers in health care organizations
3. Analyze health care organizations and their functions in order to facilitate change and performance improvement
4. Apply management theories and tools to the analysis of a current health care organizational issues
5. Practice and reflect on the working collaboratively in team-based assignments
6. Evaluate the managerial and technical challenges of managing health care organizations
Email: mbittle1@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 20, No maximum enrollment required, Waitlist Enabled: No
Open to graduate students only
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 300.651 Introduction to the US Healthcare System
Students who take this course should NOT register for 312.600.81 or 221.602.60.

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

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 HPM,IH

312.603.93 FUNDAMENTALS OF BUDGETING AND FINANCIAL MANAGEMENT

3 credits - Course offered this year - Beijing, China
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

Lecture: F SA 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
Prerequisite:
This course will be offered over a 3-day period in Beijing. Students are required to complete assignments prior to the start of class.

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
Jointly offered with HPM, IH
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
undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; because of enrollment cap, all students must obtain permission to register
Prerequisite:
Administrative Course Fee: 25.0000
fee will cover the cost of course materials

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
Restricted to HPM MHS/HFM students
Grading Options: Pass/Fail

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

313.602.01 ECONOMIC EVALUATION II
3 credits - Course offered this year - East Baltimore
Levy, Joseph
Builds on the theory and methods taught in Economic Evaluation I to allow students to gain an understanding of intermediate topics in CEA. Provides students with experience of hands on development of decision trees. Focuses on having students become familiar with best practices in this growing field. Establishes the ability to critically appraise published work and construct simple cost-effectiveness models using Excel and other software. Prepares students for more complex modeling covered in Economic Evaluation III-IV.

Upon successfully completing this course, students will be able to:
1. Identify the key components of CEAs and critically review CEA and related literature
2. Construct a decision tree model
3. Quantify, visualize and communicate the effects of uncertainty in CEA
4. Describe the role of health technology appraisal both within and outside the United States
5. Discuss examples of ethical issues that can arise in applying economic evaluation to the allocation of societal health care resources

Email: jlevy@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Required if Economic Evaluation I was not completed in term 1 of 2018-2019.
Prerequisite: Economic Evaluation I (313.601.01)
Final grade applies to all terms
Jointly offered with IH

313.610.01 HEALTH ECONOMICS FOR MANAGERS
3 credits - Course offered this year - East Baltimore
Hough, Douglas
Applies the analytical tools of economics to issues in health care that are especially relevant to managers and leaders of health care organizations. Examines topics including: the use of economic incentives to influence health behavior; asymmetric information and the role of agency in health care; the application of behavioral economics to health care; government as payer and regulator, and equity/ethical considerations; the role of health insurance; and the theory of the firm as it applies to physicians, hospitals, and systems.

Upon successfully completing this course, students will be able to:
1. Apply economic tools appropriately to analyze business issues in health care
2. Develop an analytical, logically-ordered, critically constructive style of analysis of issues in health care organization, delivery, and financing
3. Integrate current literature on economic concepts, methods, and applications to issues in health care and the general political economy
4. Apply lessons from class to real-life situations, in health care and in the general political economy

Email: Douglas.Hough@jhu.edu
Lecture: 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
Prerequisite: Introduction to Microeconomics (313.639) or equivalent course in basic microeconomics

313.643.01 HEALTH ECONOMICS
3 credits - Course offered this year - East Baltimore
Sen, Aditi

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 89 of 150
Introduces the analytical tools of economics and applies them to issues in healthcare. Topics include: resource allocation in health care; government as payor and regulator; asymmetric information and the role of agency; the market for health insurance; market structure and competitive strategy as it applies to health care organizations; the market for labor in health care; and the market for innovations and technology. Uses mainstream neoclassical microeconomic theory as the basis for analysis, but also explores the implications when the assumptions of this model are violated. Uses a standard health economics text as the main reading, but uses journal articles in the field to examine how the profession is analyzing health care and public health issues.

Upon successfully completing this course, students will be able to:
1. Apply economic tools and thinking to analyze issues in health care delivery and financing, public health, health care organizations, and health policy
2. Develop a critically constructive style of analysis of issues in health care organizations, 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: asen@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Undergraduates are NOT permitted in this course
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 318.603.01 or similar prior coursework in basic microeconomic theory
Jointly offered with HPM, IH, PFRH

313.654.01 ADVANCED HEALTH ECONOMICS II
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 in 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
Consent required for all students; all students must obtain consent from instructor
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 313.653
Multi-term with 313.653
final grade awarded at the end of 4th term

313.654.01 ADVANCED HEALTH ECONOMICS II
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 in employed in the literature
2. Apply comparative statics to health economic problems
3. Create their own models of health economic phenomenon

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 90 of 150
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 must obtain consent from instructor
Prerequisite: 313.653
Multi-term with 313.655
final grade awarded at the end of 4th term

313.654.01 ADVANCED HEALTH ECONOMICS II
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 in 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 must obtain consent from instructor
Prerequisite: 313.653
Multi-term with 313.656
final grade awarded at the end of 4th term

313.671.01 MATHEMATICAL MICROECONOMICS II (Discontinued)
3 credits - Course offered this year - East Baltimore
Bridges, John
Explores advanced topics of mathematical microeconomics including: second order conditions, multiple constraints (Kuhn-Tucker), oligopoly, general equilibrium, welfare economics and game theory. Provides students with a graduate level approaches to key economic questions. Fosters a greater understanding of the role of mathematics in solving complex economic issues involving multiple agents.

Upon successfully completing this course, students will be able to:
1 Solve for second order conditions in optimization
2 Utilize advanced mathematical techniques in the presence of multiple constraints
3 Conceptualize and Illustrate the economic consequences of a monopolist
4 Use mathematics and game theory to identify equilibrium in oligopoly
5 Discuss economic concepts associated with public goods and externalities
6 Apply the economic and mathematics to solve problems facing society

Email: jbridge7@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 7, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Completion of 313.670, Mathematical Microeconomics I or consent of instructor
Terms graded individually
313.685.81 THE ECONOMICS OF TOBACCO CONTROL
1 credits - Course offered this year - Internet
Waters, Hugh
Introduces students to the economic tools and analysis used to confront the public health challenges caused by smoking. Reviews the evidence of the health and economic consequences of tobacco use. Emphasizes the rationale for increases in taxes, financial incentives to discontinue tobacco cultivation, and regulatory measures such as bans on smoking in public places and restrictions on access for minors. Provides economic tools and background information for public health specialists, policymakers, the news media, and others interested in using evidence-based policy to prioritize and address public health concerns related to tobacco control.
Upon successfully completing this course, students will be able to:
1 Calculate the economic impacts of tobacco consumption
2 Discuss the role that economic analysis plays in the tools and policies available to confront this public health challenge

Email: waters@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning
This course was offered in 2009/10 as 313.841.51

315.703.81 LEADING CHANGE THROUGH HEALTH IT
3 credits - Course offered this year - Internet
Davison, Ashwini
Prepares learners to lead organizations implementing new IT systems. Covers the knowledge and skills that enable clinical and public health informaticians to lead and manage changes associated with implementation, adoption, and evaluation of effective use of clinical and public health information systems.
Upon successfully completing this course, students will be able to:
1 Evaluate the opportunity for changing health information systems with organizational goals and culture in mind
2 Outline the steps involved in leading health information system implementation
3 Determine the strategies involved in conducting organizational change management and establishing governance
4 Articulate a plan for mitigating the risks involved in managing health IT related projects
5 Anticipate the changes to clinical or public health-related workflow resulting from deployment of a health IT system
6 Communicate the importance of bridging the gap between clinical and non-clinical team members while implementing changes in health IT

Email: ashdadivison@jhmi.edu
Enrollment: Minimum 15, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to On-line learning
Jointly offered with ME
This is the same course as SOM 600.902

317.610.01 RISK POLICY, MANAGEMENT AND COMMUNICATION
3 credits - Course offered this year - East Baltimore
Fox, Mary; Burke, Thomas
Examines the role of the risk sciences in the public policy process. A case study approach presents the broad societal context of risk based decision making, including the scientific, social, economic, legal and political factors that drive the policy process. Provides an overview of risk management tools and the application of risk communication principles and strategies. The goal is to provide an understanding of how the risk sciences are applied in the formulation and implementation of public health risk policy in "the real world."
Upon successfully completing this course, students will be able to:
1 Prepare a health risk policy case study distinguishing among relevant policy options
2 Select and present scientific data to inform the policy development and decision-making processes
3 Practice good risk communication skills
4 Evaluate the influence of economic, social, and political factors on health risk policy debates

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 92 of 150
317.615.81 TOPICS IN RISK ASSESSMENT
2 credits - Course offered this year - Internet
Fox, Mary; Nachman, Keeve
Uses a case study approach of a selected risk-based public health issue to integrate student's application of the skills in the risk sciences (risk assessment, risk management, and risk communication).
Upon successfully completing this course, students will be able to:
1. Identify and critically assess key science and policy issues involved in the application of the risk sciences to public health policy decision-making
2. Develop solutions for addressing public health problems

317.700.98 CLIMATE CHANGE ADAPTATION IN PUBLIC HEALTH: LARGE WORLD CITIES
3 credits - Course offered this year - Barcelona, Spain
Sheehan, Mary
Provides an overview of the science behind climate change and highlights the particular risks of global mega-cities due to their concentrated populations, urban heat-island effect, frequent proximity to coasts and rivers, and locus of transport and trade. Uses the WHO and US CDC Guides to Vulnerability for Public Health and the UN Habitat Guide to Vulnerability Assessment for Cities to identify populations at greatest risk from climate impacts. Critically evaluates through case studies actual climate and health adaptive policies as they are implemented in real-life contexts in several large, innovative world cities including San Francisco, London, Rio de Janeiro, Durban, and Copenhagen.
Upon successfully completing this course, students will be able to:
1. Describe the basic science behind climate change and the epidemiological evidence for its adverse health impacts
2. Organize and conduct a public health climate vulnerability assessment in a multi-hazard urban context
3. Critically evaluate a range of current and newly-emerging policy and practice tools available to public health policymakers and practitioners to target resilience and preparedness efforts toward the most vulnerable
4. Compare and contrast how these tools are being implemented today in several large world cities

Email: msheeh10@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
interdivisional registration is not permitted for this section.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Full-time degree-seeking students must obtain permission from Judy Holzer prior to registration
This course will be offered for 3 days in Barcelona. Students must physically be in Barcelona to participate. Students are required to complete readings prior to the start of class. Final paper proposal due Dec 1, 2017. Final paper due on Dec 19, 2017. Note, students who took course 317.843.98 during the AY 14/15 should not register for this course.

318.611.01 STATISTICAL ANALYSIS FOR POLICY MAKING II
3 credits - Course offered this year - East Baltimore
Giandrea, Michael

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 93 of 150
Introduces the basic concepts and methods of statistics as applied to public policy analysis. Demonstrates methods of exploring, organizing and presenting data, and introduces measures of central tendencies, correlation, analysis of variance, and multivariate analysis. Introduces and employs the statistical package STATA, as well as Microsoft Excel to manipulate data and prepare students for the remaining course work in the sequence.

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

1. Demonstrate the ability to apply fundamental concepts to data analysis
2. Describe the basic concepts of probability and random variables
3. Define the foundations for classical inference involving confidence intervals and hypothesis testing
4. Apply inferential methods to the means of normal distributions
5. Apply and interpret basic summary and modeling techniques for data

Email: mgiandr1@jhu.edu
Lecture: W 5:30 PM - 8:30 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
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
Multi-term with 318.610
Students must register for 318.610 and 318.611 in order to receive a grade.
Final grade applies to all terms

318.616.01 PROGRAM EVALUATION IN PUBLIC POLICY II
3 credits - Course offered this year - East Baltimore
Orr, Larry
Introduces the fundamental principles and practices involved in the design, implementation, and analysis of program evaluations. Topics to be considered include the evaluation of ongoing programs and test of new interventions being considered for broader adoption; determining whether programs are ‘working’; procedures involved in implementing an evaluation in the field, including potential pitfalls; procedures for collecting and analyzing data.

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

1. Outline the fundamental principles and practices involved in the design, implementation and analysis of program evaluation
2. Discuss the evaluation of ongoing programs and tests of new interventions being adopted
3. Describe the basic statistics principles for designing an evaluation
4. Examine procedures involved in implementing an evaluation
5. Identify the basic ideas of cost-benefit and process analyses
6. Discuss the role of evaluation results in the policy process

Email: lorr5@jhu.edu
Lecture: TH 3:30 PM - 6:30 PM
Enrollment: Minimum 10, Maximum 27, 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: 318.615
Multi-term with 318.615
Students must register for both 318.615 and 318.616 in order to receive a grade.
Final grade applies to all terms

318.623.01 SOCIAL POLICY FOR VULNERABLE POPULATIONS IN THE U.S.
3 credits - Course offered this year - East Baltimore
McGinty, Beth
Explores the social determinants underlying poor health outcomes among vulnerable populations in the U.S. and considers policy approaches to address those determinants. Explores examples of vulnerable populations including but not limited to groups facing extreme poverty, homelessness, serious mental illness, addiction, and disability. Examines definitions of vulnerability; the array of social determinants contributing to poor health outcomes among vulnerable populations in the U.S.; current U.S. social policy approaches for vulnerable populations in the areas of healthcare, disability, poverty, housing, and criminal justice policy; and the politics of social policy in the US. Provides students with opportunities for integrating social policy concepts, theories, and frameworks through an in-depth analysis of the sources of vulnerability and related policy approaches to improve health and social outcomes in specific vulnerable populations.

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

1. Assess the array of social determinants contributing to poor health outcomes among vulnerable populations in the U.S.
2. Appraise the range of policy mechanisms that can be used to improve health and social outcomes among vulnerable populations.
3. Critique existing U.S. social policy approaches for vulnerable populations in the areas of healthcare, disability, poverty, housing, and criminal justice policy.
4. Discuss the politics of social policy in the U.S.
5. Critically evaluate the sources of vulnerability and related policy approaches to improve health and social outcomes in a specific vulnerable population.

Email: bmcginty@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

318.654.01 ADOLESCENTS, CRIME AND JUSTICE (Discontinued)

4 credits - Course offered this year - East Baltimore
Altschuler, David

Explores theoretical frameworks for childhood transition to adulthood encompassing developmental psychology and neuroscience theories in the context of crime, delinquency and misconduct. Examines the US justice system in both the historical and present context as they relate to the response and treatment of children and adolescents involved in crimes. Explores and debates public policy questions related to the linkages between illicit drug use, crime, gangs, as well as incarceration, institutionalization and capital punishment for youth.

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

1. Explain the historical evolution of thinking and theoretical framework describing the nature of childhood and the transition to adulthood.
2. Identify how crime, delinquency and misconduct involving adolescents and younger children are defined, measured and interpreted in official record data and other sources.
3. Discuss theories of developmental psychology and neuroscience associated with children and adolescents.
4. Classify the justice system’s responses to children and adolescents caught committing crime and engaging in misconduct.
5. Evaluate the treatment of children and adolescents in the U.S. justice system over the last 50 years.
6. Identify the objectives behind institutionalization of youth and the role of reentry.
7. Examine the relationship between youth crime, illicit drug involvement and the impact of adolescent gang involvement.
8. Discuss and debate the application of the death penalty in the U.S. to adolescents over time.
9. Develop and present a policy brief related to an issue in adolescent crime.

Email: dma@jhu.edu
Lecture: T TH 8:30 AM - 10:20 AM
Enrollment: Minimum 10, Maximum 25, Waitlist Enabled: Yes
undergraduates are not permitted in this class
Grading Options: Letter Grade or Pass/Fail
Final grade applies to all terms

318.810.01 FIELD PLACEMENT - MPP

3 credits - Course offered 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: 318.810 during term 1

318.864.98 CURRENT ISSUES IN POLICY ANALYSIS
2 credits - Course offered only this year - Barcelona, Spain

Sheehan, Mary

Provides policy researchers with a set of analytical frameworks to gain a greater understanding of policy issues. Explores all aspects of a topical policy issue from its origins, transformations, and impact on health and social justice. Policy topics are determined each year according to faculty interest, student need, and policy saliency. Uses case studies, policy analysis readings, and discussions to foster student learning. Some sessions focus directly on translating policy research into policy alternatives while others focus on the political and social environment.

Upon successfully completing this course, students will be able to:
1. Identify complex problems and recognize priority issues by using a policy analysis lens.
2. Cite and explain the key factors that shape the debate on current policy issues
3. Demonstrate application of policy literacy
4. Identify social, cultural, economic, commercial and institutional factors that promote or hinder the design and implementation of public policies
5. Employ policy analysis tools to current public issues to create more meaningful opportunities for change
6. Analyze opportunities for action and potential objections to change

Email: msheeh10@jhu.edu

Lecture: M T 8:30 AM - 6:00 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No interdivisional registration is not permitted for this section.

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Full-time degree-seeking students must obtain permission from Judy Holzer prior to registering for this course.

The issue that will be addressed for this session is climate change and health. This course will be offered for 2 days in Barcelona. Students must physically be in Barcelona to participate. Students are required to complete readings prior to the start of class. Final outline due Dec 3, 2018. Final paper due Dec 21, 2018

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
319.610.94 PRINCIPLES OF MANAGEMENT IN PUBLIC HEALTH
3 credits - Course offered this year - India

Departmental Faculty
Introduces the basic principles of management in the context of public health. Covers basic management functions such as planning, organizing, implementation, coordination, monitoring, supervision, leading and controlling. Explores strategic management and decision making tools. Addresses core management areas in public health – planning, human resources management, management information systems, logistics and supply chain, financial management and budgeting, communication, and organizational culture and behavior. Discusses concepts of leadership and motivation.

Upon successfully completing this course, students will be able to:
1. Discuss the importance of management in improving performance, efficiency and effectiveness in public health
2. Describe critical management functions in public health
3. Explain organization culture and its influence on performance
4. Review strategies and decision making process
5. Discuss critical principles of management and core functional areas in public health

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
This section is offered in Jaipur, India

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
Prerequisite:

220.601.81 FOUNDATIONS OF INTERNATIONAL HEALTH
4 credits - Course offered this year - Internet

Brieger, William; Kalbarczyk, Anna
Provides an overview of foundational approaches and issues in International Health, preparing students to gain the skills and attributes needed to work in global public health. Examines conditions faced by disadvantaged populations, primarily in low and middle income countries (LMICs), and pathways to achieving better health outcomes. Applies principles of health equity and social justice in analyzing global health policies and programs, and develops skills to apply different frameworks for diverse types of public health intervention. Students develop and articulate evidence-informed arguments concerning public health strategies in different contexts, and practice communication skills that demonstrate respect for other cultures and perspectives. They use a range of tools to prepare for work in global public health, including how to conduct situational analyses across a range of settings, how to analyze scale-up, sustainability, and equity, and how to move research into practice.

Upon successfully completing this course, students will be able to:
1. Characterize major domains of global public health, including the associated social determinants and burdens of disease, and the key interventions and approaches to improve outcomes within those domains
2. Apply principles of social justice and human rights to assess global health policies and programs, and their impact on health equity
3. Demonstrate interpersonal communication skills that demonstrate respect for other perspectives and cultures
4. Use scientific evidence for health program planning, implementation, and evaluation in low and middle-income country settings
5. Develop and articulate arguments for global health strategies using evidence from reliable sources
6. Describe the roles and relationships of the entities influencing global health
7. Identify different dimensions of capacity building in global health, and apply capacity building concepts to health policies and program interventions in low and middle income country settings
8. Conduct a situation analysis across a range of cultural, economic, and health contexts, identifying the relationships among patterns of morbidity, mortality, and disability with demographic and other factors in shaping the circumstances of the population of a specified community, country, or region

Email: wbriege1@jhu.edu

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

220.606.01 DOCTORAL SEMINAR IN INTERNATIONAL HEALTH II
3 credits - Course offered this year - East Baltimore
O'Brien, Katherine
Discusses how to identify a thesis topic, write a proposal, seek funding, understand challenges in execution, and thesis format and write up. Students read five doctoral theses, one from each Department of International Health program, and student groups lead discussions with the former students and their thesis advisors in class.

Upon successfully completing this course, students will be able to:
1. Think and write critically
2. Use a case-based approach to identify a doctoral thesis topic and to understand the challenges of conducting doctoral work from initiation to publication

Email: kobrien2@jhu.edu
Lecture: F 1:30 PM - 4:20 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Only first year International Health doctoral students
Grading Options: Pass/Fail
Prerequisite: 220.605 Doctoral Seminar in International Health I
Terms graded individually

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

221.612.01 CONFRONTING THE BURDEN OF INJURIES: A GLOBAL PERSPECTIVE
3 credits - Course offered this year - East Baltimore
Bachani, Abdulgafoor

Provides an understanding of approaches to measuring the burden of injuries around the world and familiarizes students with current estimates of the burden of injuries in the global and developing world. Develops basic skills for assessment of injury epidemiology. Provides an appreciation of how to use these measures for planning interventions for injury prevention and creates awareness of the economic implications of injuries in the developing world. Promotes effective use of data for appropriate policy analysis for reduction of injury burden.

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 99 of 150
Upon successfully completing this course, students will be able to:

1. Identify the current estimates of the burden of injuries globally with special reference to the developing world
2. Describe approaches to measuring the burden of injuries, including costs
3. Assess the magnitude of the problem and evaluate the current/potential interventions
4. Use data for policy development and provide tools to present policy options for reduction of injury burden

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

1. Identify the current estimates of the burden of injuries globally with special reference to the developing world
2. Describe approaches to measuring the burden of injuries, including costs
3. Assess the magnitude of the problem and evaluate the current/potential interventions
4. Use data for policy development and provide tools to present policy options for reduction of injury burden

Email: abachani@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
Consent required for some students; Undergraduates allowed with instructor's consent
Prerequisite: 340.601; recommended 305.610
Jointly offered with HPM
Undergraduates allowed with instructor's consent

221.612.81 CONFRONTING THE BURDEN OF INJURIES: A GLOBAL PERSPECTIVE

3 credits - Course offered this year - Internet
Bachani, Abdulgafoor

Provides an understanding of approaches to measuring the burden of injuries around the world and familiarizes students with current estimates of the burden of injuries in the global and developing world. Develops basic skills for assessment of injury epidemiology. Provides an appreciation of how to use these measures for planning interventions for injury prevention and creates awareness of the economic implications of injuries in the developing world. Promotes effective use of data for appropriate policy analysis for reduction of injury burden.

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

1. Identify the current estimates of the burden of injuries globally with special reference to the developing world
2. Describe approaches to measuring the burden of injuries, including costs
3. Assess the magnitude of the problem and evaluate the current/potential interventions
4. Use data for policy development and provide tools to present policy options for reduction of injury burden

Email: abachani@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Undergraduates allowed with instructor's consent
Prerequisite: Introduction to Online Learning; 340.601; 305.610 is recommended.
Jointly offered with HPM
Undergraduates allowed with instructor's consent

221.614.01 INTERNATIONAL POLITICAL SCIENCE FOR PH PRACTITIONERS

2 credits - Course offered this year - East Baltimore
Burnham, Gilbert

Provides a basic understanding of structures of authority and power; economics and political systems; role and limits of international organizations in development; current concepts of development and the political process; state collapse; and the origins of conflicts. Focus is on developing countries. Compares regional political trends and forces in Asia, Africa, Latin America, and the former Soviet bloc that affect health of populations and development of health services. It is an introduction for Public Health students to International Political Science. Stress aspects of political science which have the greatest impact on development and health of populations, particularly in developing countries.

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

1. Define a collapsed state and list the signs of impending state weakness
2. Discuss the limitations of fragile states and be able to set out the ways health systems must adapt to function in these circumstances
3. List the ways political trends affect disease patterns and development programs

Email: gburnha1@jhu.edu

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

Enrollment: Minimum 10, Maximum 66, Waitlist Enabled: Yes
221.627.01 ISSUES IN THE REDUCTION OF MATERNAL AND NEONATAL MORTALITY IN LOW INCOME COUNTRIES
4 credits - Course offered this year - East Baltimore
Mullany, Luke; Creanga, Andreea

Graded and designed so that students understand the clinical and social causes of high maternal and newborn mortality and morbidity. Exposes students to the clinical, program and policy interventions that address these issues, and evaluates the strength of the evidence supporting these interventions. Offers practical exercises for students to: 1.) understand the scope and epidemiology of both maternal and neonatal problems, and 2.) design and assess programmatic responses to address them. Upon completion, students will have the knowledge base to be able to contribute to program and policy responses with an informed perspective to avert maternal and newborn deaths in different contexts.

Upon successfully completing this course, students will be able to:
1. Identify causes of maternal and newborn mortality and morbidity (from a biological, social and health systems perspective)
2. Understand the effective elements of antenatal care, essential obstetric care, and post natal/newborn care at facility and community levels
3. Understand the key elements of different service delivery strategies and the evidence base supporting each of them
4. Define and calculate indicators commonly used for baseline assessment, monitoring and evaluation of programs aimed at reducing maternal and newborn morbidity and mortality
5. Discuss mechanisms to influence policy, as well as clinical, social and behavior interventions aimed at reducing maternal and newborn mortality

Email: lmullany@jhu.edu
Lecture: M W 3:30 PM - 5:20 PM
Enrollment: Minimum 6, Maximum 42, Waitlist Enabled: Yes
Restricted to graduate students.
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

221.637.81 HEALTH INFORMATION SYSTEMS
3 credits - Course offered this year - Internet
Baqui, Abdullah

Graded systematically presents population-based and provider-based methods by which data are secured and analyzed to provide indicators of health service use, health risk behavior, and outcomes relative to health status. Targets health status indicators as the basis of planning and evaluation across a wide range of health objectives and measurement characteristics examined. Introduces health information resources available through the World Wide Web and develops skills to search and access data through the Internet.

Upon successfully completing this course, students will be able to:
1. Explain the objectives of a health information system (HIS)
2. Recognize the types of decisions that HIS are designed to make
3. Interpret the types of information (typical health indicators) needed for each of the decisions HIS is designed to make
4. Identify the major systems of health information with special reference to methods of data collection and problems of measurement
5. Demonstrate the use of different systems of health information for public health practice
6. Evaluate the strengths and limitations of different systems of health information
7. Decide the best health information system in a given context for calculating typical health indicators

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

221.639.01 HEALTH CARE IN HUMANITARIAN EMERGENCIES
3 credits - Course offered this year - East Baltimore
Burnham, Gilbert
Introduces the provision of basic health requirements for refugees other displaced populations. This includes the health of persons displaced by conflict as well as natural and manmade disasters. Although its main concern is with the health needs of those displaced in low and middle income countries it also touches on issues of persons resettled to developed countries. The course addresses epidemiologic assessments, control of communicable and non-communicable diseases, nutrition, mental health needs, establishing and managing health services, reproductive health services, ethical decision making, application of International Humanitarian Law, and coordinating activities among agencies in international contexts.

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

1. Determine the health needs of a disaster affected population.
2. Discuss how a health surveillance system would be designed.
3. Outline the principal components of reproductive health services.
4. Examine the approaches suitable for mental health problems among displaced populations and the ethical issues in prioritizing health services in humanitarian emergencies.
5. Explain the components of health services for displaced populations.
6. Analyze how both communicable and non-communicable diseases would be managed for a displaced population.

Email: gburnha1@jhu.edu
Lecture: M W 5:30 PM - 6:50 PM
Enrollment: Minimum 10, Maximum 45, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

221.639.81 HEALTH CARE IN HUMANITARIAN EMERGENCIES
3 credits - Course offered this year - Internet
Burnham, Gilbert

Introduces the provision of basic health requirements for refugees other displaced populations. This includes the health of persons displaced by conflict as well as natural and manmade disasters. Although its main concern is with the health needs of those displaced in low and middle income countries it also touches on issues of persons resettled to developed countries. The course addresses epidemiologic assessments, control of communicable and non-communicable diseases, nutrition, mental health needs, establishing and managing health services, reproductive health services, ethical decision making, application of International Humanitarian Law, and coordinating activities among agencies in international contexts.

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

1. Determine the health needs of a disaster affected population.
2. Discuss how a health surveillance system would be designed.
3. Outline the principal components of reproductive health services.
4. Examine the approaches suitable for mental health problems among displaced populations and the ethical issues in prioritizing health services in humanitarian emergencies.
5. Explain the components of health services for displaced populations.
6. Analyze how both communicable and non-communicable diseases would be managed for a displaced population.

Email: gburnha1@jhu.edu
Enrollment: Minimum 10, Maximum 45, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.

221.641.01 MEASUREMENT METHODS IN HUMANITARIAN EMERGENCIES
2 credits - Course offered this year - East Baltimore
Robinson, Courtland

Gives students a basic understanding and skills needed for measurement of populations and health indicators in humanitarian emergencies, particularly when conventional methods may not always be appropriate. Provides an introduction to various types of assessment methods, including rapid and participatory assessments, qualitative and quantitative methods, different sampling approaches and surveillance systems. Appropriate for students intending to be humanitarian practitioners or for researchers who wish to have basic understanding of the range of methods applied and common challenges encountered when working in humanitarian contexts.

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

1. Describe the objectives and common challenges to assessment in humanitarian settings.
2. Make informed decisions about the selection of measurement methods in humanitarian settings.
3. Gain experience with various measurement methods in a classroom setting that can be applied in humanitarian contexts.
221.645.01 LARGE-SCALE EFFECTIVENESS EVALUATIONS OF HEALTH PROGRAMS

4 credits - Course offered this year - East Baltimore
Marx, Melissa; Munos, Melinda; Roberton, Timothy

Discusses evaluation of evidence-based public health programs, with a focus on low income countries. Addresses methodological challenges in designing and conducting effectiveness evaluations in these settings. Designs comprehensive measurement plans with knowledge gained about pros and cons of different ways to collect new data and use and/or model existing data to address all parts of impact chains. Discusses ways to design the evaluation and disseminate findings to maximize acceptance and use of findings.

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

1. Identify stakeholders of an impact evaluation
2. Identify and document key objectives and answerable evaluation research questions that meet key stakeholders’ needs and are appropriate for program and setting
3. Select and/or develop SMART indicators that answer the evaluation questions
4. Propose a technically-sound design for evaluating the impact of program, focusing on key evaluation questions
5. Identify pros and cons of evaluation designs under various constraints
6. Identify appropriate sources of data and data collection methods to evaluate programs across the impact pathway
7. Describe barriers and strategies to overcome barriers to promoting the uptake of results by policy makers and program planners
8. Interpret evaluation results based on the design
9. Prepare a conceptual model of the program being evaluated, linking program inputs to health impact
10. Write a comprehensive evaluation plan and proposal

Email: mmarx@jhu.edu
Lecture: T TH 8:30 AM - 10:20 AM
Lab Section: 01 TH 1:30 PM-3:20 PM
Lab Section: 02 TH 3:30 PM-5:20 PM
Lab Section: 03 F 1:30 PM-3:20 PM
Special Lab Number: 221.945
Enrollment: Minimum 10, Maximum 48, Waitlist Enabled: Yes
No undergraduate students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Knowledge of basic biostatistics and epidemiology
Students are required to register for one of the three lab sections. There is a max of 16 for each section.
No undergraduate students

221.646.01 HEALTH SYSTEMS IN LOW AND MIDDLE INCOME COUNTRIES
3 credits - Course offered this year - East Baltimore
Bennett, Sara
Explores health systems in low and middle income countries (LMICs), and examines approaches to improving the performance of health systems. Focuses on frameworks, tools, skills, and strategies to understand, influence, and evaluate health systems in LMICs. Identifies key institutions, functions, and performance issues for national and local health systems. By using frameworks and tools, students gain experience in systematically analyzing health systems and methods to plan, implement, and evaluate changes in health systems in a variety of settings, including countries in various levels of demographic, epidemiologic and economic transitions. Covers key controversies in health systems, including issues in monitoring health systems performance, the role of the public sector, dealing with unregulated private health markets, linking priority health programs and health systems, raising accountability in the health system, etc.

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

1. Describe health systems frameworks, strategies and tools to analyze and evaluate health systems and their reforms in LMICs.
2. Explain and assess key systems, functions and institutions: oversight (e.g. governance, policy, regulation, public information), health care organization, and health financing.
3. Explain the role of different factors that contribute to health systems performance and health reforms.
4. Debate health systems issues concerning the roles of communities, public sector, markets, and other key institutions.

Email: sbennett@jhu.edu

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

Enrollment: Minimum 10, Maximum 75, Waitlist Enabled: Yes

no undergraduates

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; No consent required for Health Systems MSPH and PhD students and IH DrPH students. Consent required for students not in the Health Systems program.

Prerequisite: 220.601, Introduction to International Health, Highly Recommended.
Introduces gender analysis as an integral part of health research and interventions. Focuses on teaching students on how to incorporate gender analysis into health research and interventions. Explores: (1) theoretical approaches to gender and health, including intersectionality, masculinities, and non-binary approaches; (2) how gender and gender relations affects health needs, risks, experiences, and outcomes; and (3) ways in which gender analysis can be incorporated into health research and interventions, including the use of gender frameworks and questions, gender assessments, and transformative approaches. Examples will cover a range of international settings, with a focus on low-and-middle income country settings.

Upon successfully completing this course, students will be able to:
1. Explain the role of gender in shaping health inequities
2. Critically discuss different theoretical approaches to gender and health
3. Explain how gender health inequities affect health research and interventions
4. Explain how gender analysis is incorporated into health systems research
5. Incorporate gender analysis into their health research and interventions

Email: Rosemary.Morgan@jhu.edu
Lecture: M 1:30 PM - 3:20 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Only graduate students, no undergraduates
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

221.701.98 INTRODUCTION TO GENDER ANALYSIS WITHIN HEALTH RESEARCH AND INTERVENTIONS
2 credits - Course offered only this year - Barcelona, Spain
Morgan, Rosemary
Introduces gender analysis as an integral part of health research and interventions. Focuses on teaching students on how to incorporate gender analysis into health research and interventions. Explores: (1) theoretical approaches to gender and health, including intersectionality, masculinities, and non-binary approaches; (2) how gender and gender relations affects health needs, risks, experiences, and outcomes; and (3) ways in which gender analysis can be incorporated into health research and interventions, including the use of gender frameworks and questions, gender assessments, and transformative approaches. Examples will cover a range of international settings, with a focus on low-and-middle income country settings.

Upon successfully completing this course, students will be able to:
1. Explain the role of gender in shaping health inequities
2. Critically discuss different theoretical approaches to gender and health
3. Explain how gender health inequities affect health research and interventions
4. Explain how gender analysis is incorporated into health systems research
5. Incorporate gender analysis into their health research and interventions

Email: Rosemary.Morgan@jhu.edu
Lecture: TH F 8:30 AM - 6:00 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
undergraduate and interdivisional students are not permitted in this section
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Full-time JHU students must obtain permission to register from Judy Holzer in HPM. This course will be offered for 2 days in Barcelona. Students must physically be in Barcelona to participate. Students are required to complete readings prior to the start of the course. The final will be due on Dec 21, 2018.

221.810.01 HEALTH SYSTEMS PRACTICUM
variable credits field placement - Course offered this year - East Baltimore
Creanga, Andreea;Alonge, Olakunle
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: acreang3@jhu.edu

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

**221.820.01 THESIS RESEARCH HEALTH SYSTEMS**

variable credits thesis research - Course offered this year - East Baltimore

Students actively conduct research on topics of global health importance, including developing a research question, designing a study to answer the question, conducting the research and writing up the results in a scientific format.

This course will prepare you to be able to do the following:

1. Identify research questions of importance to health in underserved populations in low resource settings internationally and in the US.
2. Design a study or studies to answer the questions.
3. Develop an application to an Institutional Review Board to address human subjects research issues.
4. Write up the results of research for the scientific literature.

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

**221.830.01 POSTDOCTORAL RESEARCH HEALTH SYSTEMS**

variable credits - Course offered this year - East Baltimore

Information not required for this course type

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

**221.840.01 SPECIAL STUDIES AND RESEARCH HEALTH SYSTEMS**

variable credits - Course offered this year - East Baltimore

Information not required for this course type

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

**221.850.01 MSPH CAPSTONE HEALTH SYSTEMS**

variable credits 2-16 - Course offered this year - East Baltimore

Departmental Faculty

Offers students an opportunity to integrate and apply program skills and competencies to a public health problem in a format that approximates a professional practice experience. Fosters students' ability to produce scholarly papers that provide a meaningful contribution to knowledge of the health of underserved populations. Guides students' development of tangible evidence of expertise that addresses specific applied topics relevant to international health.

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

1. Develop a concise and cohesive written document that defines a public health problem, a population of interest, and have a defined geographic scope.
2 Conduct a comprehensive literature review
3 Synthesize relevant literature in a specific public health topic
4 Analyze and present public health data in a scholarly paper

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only for MSPH Health Systems students in their 2nd year
Grading Options: Pass/Fail
Prerequisite: All other MSPH HS requirements must be taken before or concurrently with the capstone project.

221.860.01 HEALTH SYSTEMS PROGRAM SEMINAR
1 credits - Course offered this year - East Baltimore
Constenla, Dagna; Rao, Krishna
Familiarizes Health Systems students with ongoing faculty research and activities, professionals and organizations in the field of international health, and provides a forum for discussion for current topics in health systems and international health.
Upon successfully completing this course, students will be able to:
1 Identify Health Systems Program faculty who can be mentors and informal advisors during their course of study
2 Explore and define long-term goals for a career in International Health Systems.
3 Identify research and practice opportunities in the Health Systems program

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 MHS students and doctoral students in the Health Systems Program and DrPH students in the Department of International Health
Grading Options: Pass/Fail
Consent required for some students; No consent required for Health Systems MHS and PhD students and IH DrPH students.
Consent required for students not in the Health Systems program.
Prerequisite:

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

222.642.01 ASSESSMENT OF NUTRITIONAL STATUS
3 credits - Course offered this year - East Baltimore
Schulze, Kerry
Covers dietary and physical activity assessment, anthropometry, body composition, and micronutrient status through lectures, in-class discussions, assignments, and data collection, analysis, and presentation. It is particularly oriented to techniques that are relevant for the assessment of populations and vulnerable groups. Laboratory sessions are used to teach and apply techniques of dietary data collection and interpretation, anthropometry (weight, height, skinfolds, and circumferences) and body composition (bioelectrical impedance analysis). Emphasizes using the topics as a basis for exploring the selection, reliability, applicability, and interpretation of different techniques in field settings.
Upon successfully completing this course, students will be able to:

1. Understand questions that can be addressed in populations using nutritional status indicators.
2. Describe performance characteristics (validity, reliability, dependability, sensitivity and specificity) of nutritional status indicators and measures and how they are assessed.
3. Know means of assessing diet, energy expenditure and physical activity, body composition and growth, and micronutrient status and under what circumstances they would be used.
4. Participate in discussions about current controversies in nutritional status assessment.
5. Collect, analyze, interpret nutritional status data and be able to summarize findings in an abstract and powerpoint presentation.

Email: kschulz1@jhu.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; if prerequisites are not met.
Prerequisite: Previous biology or nutrition class, Principles of Human Nutrition, IH 222.641 preferred.

222.644.01 CELLULAR BIOCHEMISTRY OF NUTRIENTS
3 credits - Course offered this year - East Baltimore
Lee, Sun Eun; De Luca, Luigi
Students learn biochemical processes of cellular macromolecules, such as DNA, RNA and protein synthesis, with particular emphasis on the function of essential nutrients in these processes. Covers biochemical aspects of carbohydrate, protein, and fat metabolism, and introduces essential concepts of molecular biology, such as structure and function of intracellular organelles and fundamental cellular processes. Topics also include nutritional and hormonal regulation of gene expression and concepts of anti-nutritional detoxification to give the nutrition student a full appreciation of the relevance of nutritional biochemistry studies and cells to population perspectives. The course structure consists of core lectures led by faculty.

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

1. Discuss the most important biochemical processes, such as DNA, RNA and protein synthesis.
2. Describe the role that different essential nutrients play in these and other life processes in higher organism with special emphasis on the human organism.
3. Discuss fundamental processes that permit the maintenance or nutrient homeostasis in higher organisms.
4. Discuss how essential nutrients govern the utilization of other nutrients and how they may control hormone synthesis and function.
5. Discuss pathological observations in the field on the basis of our instructions on essential nutrient deficiency manifestations.

Email: slee278@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
Prerequisite:

222.659.01 CRITICAL THINKING IN NUTRITION II (Cancelled - Department)
1 credits - Course offered this year - East Baltimore
Cheskin, Lawrence
Introduces graduate students of nutrition to the seminal literature in the field. Teaches students how to interpret and evaluate literature, and foster discussion and debate among students and faculty on current issues. Faculty selects seminal papers and participates in the discussion. Students are expected to read each paper as well as discuss and explain the methods and results in class.

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

1. Discuss the peer review process and the construction of a research paper.
2. Analyze critically the key elements of specific journal articles in the field of nutrition through guided discussions and written assignments.
3. Construct alternative ways to answer research questions when the article being critically analyzed falls short or has limitations.
222.662.01 OBESITY IN PUBLIC HEALTH (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Jones-Smith, Jessica
Examines obesity as a public health problem, (including prevalence, trends and disparities as well as the health, psychosocial, and economic consequences of obesity and its associated co-morbidities). Explores physiologic, psychological, economic, and cultural drivers of food consumption. Identifies key issues and approaches for current and future public health and environmental approaches to obesity
Upon successfully completing this course, students will be able to:
1. Explain global trends in obesity and disparities in risk
2. Explain the consequences of obesity at the individual and societal levels
3. Critique competing arguments about the causes of obesity and the obesity epidemic
4. Evaluate current practices of obesity prevention and treatment in various settings, such as schools, childcare settings, workplaces, and communities
5. Propose new approaches for preventing or treating obesity in a specific setting

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 implemeneter.
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.

222.815.01 HUMAN NUTRITION - REGISTERED DIETITIAN (RD) PROGRAM PRACTICUM
Email: cheskin@jhu.edu
Lecture: T 3:30 PM - 4:20 PM
Enrollment: Minimum 2, Maximum 20, Waitlist Enabled: Yes
limited to PhD students and master's students
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required if 222.658 was not completed.
Prerequisite: 222.658

Email: jonessmith@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: None
Jointly offered with HPM

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

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 109 of 150
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

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
3. Recognize the features of an engaging presentation

Email: apalme17@jhu.edu
Lecture: T 12:00 PM - 1:20 PM

**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

**223.662.01 VACCINE DEVELOPMENT AND APPLICATION**
4 credits - Course offered this year - East Baltimore
Karron, Ruth; Hammitt, Laura
Reviews the processes used to evaluate all aspects of vaccine development and the use of immunizations for disease prevention. Emphasizes in-depth understanding of vaccines successfully introduced into routine immunization schedules. Discusses procedures and oversight at each step in the process, including post-licensure policy making and monitoring for safety and effectiveness.

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 111 of 150
Upon successfully completing this course, students will be able to:

1. Describe vaccines that are currently in use throughout the world or vaccines for which licensure is likely within the near future.
2. Discuss the processes involved in developing vaccines including: discuss and data needed, and decision-making at each step.
3. Discuss problems that can occur at each step in the process of making vaccines.
4. Discuss the different types of vaccines including the relative advantages and disadvantages of each type.
5. Discuss the process of developing and revising guidelines for the use of vaccines.
6. Learn where up-to-date information on vaccines and guidelines for their use can be found.

Email: rkarron@jhu.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to graduate students.
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
Students must listen to a one-hour online lecture during the week at their convenience.

**Learning Materials:**

- (Other) Epidemiology and Prevention of Vaccine-Preventable Diseases (The Pink Book)
  Centers for Disease Control and Prevention,
  $0.00
  Comment: http://www.cdc.gov/vaccines/pubs/pinkbook/index.html

**223.662.81 VACCINE DEVELOPMENT AND APPLICATION (Discontinued)**

4 credits - Course offered this year - Internet
Halsey, Neal
Reviews the processes used to evaluate all aspects of vaccine development and the use of immunizations for disease prevention. Emphasizes in-depth understanding of vaccines successfully introduced into routine immunization schedules. Discusses procedures and oversight at each step in the process, including post-licensure policy making and monitoring for safety and effectiveness.

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

1. Describe vaccines that are currently in use throughout the world or vaccines for which licensure is likely within the near future.
2. Discuss the processes involved in developing vaccines including: discuss and data needed, and decision-making at each step.
3. Discuss problems that can occur at each step in the process of making vaccines.
4. Discuss the different types of vaccines including the relative advantages and disadvantages of each type.
5. Discuss the process of developing and revising guidelines for the use of vaccines.
6. Learn where up-to-date information on vaccines and guidelines for their use can be found.

Email: nhalsey1@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to graduate students.
Grading Options: Letter Grade or Pass/Fail

**223.802.01 GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PROGRAM SEMINAR 2**

1 credits - Course offered this year - East Baltimore
Tam, Yvonne;Charron, Karen;Yori, Pablo
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 and deliver an audience appropriate oral presentation on a public health topic.
2. Create a public health professional resume suitable for practicum and job searching.
3 Compare and contrast various forms of communication methods for consumption by participants, policy makers and/or broader public

4 Discuss authorship of scientific and non-scientific publications in academic and non-academic setting in relation to personal research and writing contributions

Email: yvonneyotam@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; Consent required for all students

Prerequisite: 223.861

Limited to GDEC MSPH students

223.810.01 GLOBAL DISEASE EPIDEMIOLOGY AND CONTROL PRACTICUM

variable credits field placement - Course offered this year - East Baltimore

Tam, Yvonne

Complements and reinforces the didactic portion of the MSPH program. Provides students with an opportunity to apply the knowledge gained during the first year, to develop skills in epidemiologic and data analysis skills applied to diseases of importance in low and middle income countries according to individually designed learning objectives, and to work as part of a team in an applied research or practice project. Students are placed in a variety of professional settings, which may include: government, non-government organizations (NGOs), multi-lateral, private, and/or for-profit sector. Provide opportunity for feedback for student performance and placement experience

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

1 Integrate and apply knowledge, methods and skills learned in courses taken on the first year of the MSPH in a practical setting, to allow for the seamless transition from student to public health professional.

2 Develop new skills essential for functioning as an effective global health professional, in assuming responsibility on the ground and becoming a reliable and collaborative member of a project team, an effective communicator, writer, trainer and implementer.

3 Evaluate a program or field project as it relates to the socio-cultural and health context, behavioral and health impact, community involvement and program process.

4 Develop a proposal, and/or report, or other written document that analyzes and synthesizes public health data related to their practicum.

5 Take initiative, provide direction, and participate in the implementation, evaluation and/or analysis required to establish and achieve project goals.

6 Communicate effectively, manage relationships and participate in teams

Email: 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

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
**223.840.01 SPECIAL STUDIES AND RESEARCH DISEASE CONTROL**

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**

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**

Tam, Yvonne; Charron, Karen; Yori, Pablo

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 and deliver an audience appropriate oral presentation on a public health topic
2. Create a public health professional resume suitable for practicum and job searching
3. Compare and contrast various forms of communication methods for consumption by participants, policy makers and/or broader public
4. Discuss authorship of scientific and non-scientific publications in academic and non-academic setting in relation to personal research and writing contributions

Email: yvonneyotam@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**

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 114 of 150
1 credits - Course offered this year - East Baltimore

Mullaney, 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

223.867.01 SPECIAL TOPICS IN VACCINE SCIENCE
1 credits - Course offered this year - East Baltimore

Shet, Anita

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:

224.689.01 HEALTH BEHAVIOR CHANGE AT THE INDIVIDUAL, HOUSEHOLD AND COMMUNITY LEVELS
4 credits - Course offered this year - East Baltimore

Winch, Peter

Provides students with conceptual tools to analyze health-related behaviors and the social, cultural and environmental context in which they occur. Draws concepts and theories from medical anthropology, psychology and sociology are applied to programmatic examples from Latin America, Africa and Asia concerning care-seeking, treatment of sick children, insecticide-treated mosquito nets, voluntary counselling and testing, sexual risk behaviors, intimate partner violence and other behavior change challenges in public health.

Upon successfully completing this course, students will be able to:
1. Describe conceptual tools drawn from medical anthropology pertinent to design of behavior change interventions including standards of efficacy, illness taxonomies, illness etiology, levels of causality, meanings of medication, public and private domains, social risk and gender roles
2. Identify and map the key components of common models of health behavior change at the individual level, and difficulties encountered when trying to apply them in different cultural contexts
3. Describe psychological and anthropological perspectives on risk perceptions, and models of diffusion of innovations and influence of the mass media and apply to scenarios.

4. Be familiar with basic terminology for describing households, kinship systems, communities and social capital and identify their significance for public health interventions.

5. Recognize the basic components of the intervention modalities, including Social Marketing, Counseling, Harm Reduction, Diffusion of Innovation, and Community Mobilization.

6. Integrate the major theories covered in class with the various interventions modalities presented; and

7. Apply appropriate combinations of theoretically based intervention modalities to scenarios.

Email: pwinch@jhu.edu

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

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

224.697.01 QUALITATIVE RESEARCH PRACTICUM I: PARTNERSHIPS AND PROTOCOL DEVELOPMENT

2 credits - Course offered this year - East Baltimore

Saleem, Haneefa; Surkan, Pamela

Places students in teams collaborating with a local community-based organization or JHU faculty member to develop a qualitative research project. Introduces key topics in qualitative research including conducting field research, developing study protocols and data collection instruments, and interacting with qualitative research participants and collaborators. Addresses the practical aspects of qualitative study design (e.g. choosing between data collection methods, resolving logistical challenges, and operationalizing an iterative research design) as well as the practical aspects of ethical review (including the JHSPH IRB and school ethical review processes). Prepares students to develop the components needed to begin the qualitative research project conducted in 224.698.01: Qualitative Research Practicum II: Collecting Qualitative Data and 224.699.01: Qualitative Research Practicum III: Analyzing and Writing Qualitative Findings (NOTE: concurrent or prior enrollment required).

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

1. Describe the context (organizational, historical, economic, etc.) of the public health questions being answered through qualitative methods.

2. Describe the basic features of qualitative research and design of qualitative studies.

3. Develop qualitative interview guides, focus group discussion guides, and observation forms.

4. Prepare and submit a qualitative research protocol and associated materials to ethical review.

Email: hsaleem1@jhu.edu

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

Enrollment: Minimum 10, Maximum 75, Waitlist Enabled: Yes

Restricted to students who have completed 224.690.01 Qualitative Research Theory and Methods & 224.691.01 Qualitative Data Analysis or are enrolled in these courses for the current academic year.

Grading Options: Pass/Fail

Prerequisite:

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

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.

**224.861.01 SOCIAL AND BEHAVIORAL INTERVENTIONS PROGRAM SEMINAR II: PARTICIPATORY APPROACHES AND THE ROLE OF COMMUNITY**

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

Leontsini, Elli

Creates space for discussion of participatory approaches and the role of researchers and implementers; introduces participatory methods and points out manuals that provide detailed guidance; discusses case studies; provides some direct contact with community actors.

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

1. Consider the role of community in global health interventions and draw from participatory approaches as needed

Email: eleontsi@jhu.edu

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

Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes

SBI MSPH students

Grading Options: Pass/Fail

Consent required for some students; Anyone who is not in the SBI MSPH program

Prerequisite:

**224.864.01 DOCTORAL SEMINAR IN RESEARCH METHODS IN APPLIED MEDICAL ANTHROPOLOGY II**

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

Winch, Peter; Kennedy, Caitlin

Discusses methods for collecting and analyzing qualitative data; quantifying ethnomedical beliefs; and integrating qualitative and quantitative methods. Topics include cultural consensus analysis, scale development and testing, multi-dimensional scaling, analysis of structured observation data, development of manuals for qualitative data collection, and the use of social science data in the design of public health interventions.

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

1. Describe the evolution in the concepts and methods of cognitive anthropology over the past 50 years
2. Explain the implications of key concepts in cognitive anthropology (e.g. prototypicality, marked and unmarked terms) for the design, analysis and interpretation of quantitative data collected with instruments informed by the findings of qualitative studies
3. Describe the problem of intracultural variation, and its implication for public health and list different types of intracultural variation
4. Describe types of research questions for which structured observation would be appropriate
5. List different ways of conducting structured observation, and select the form of structured observation that would be appropriate for different research questions
6. Identify approaches to data analysis that would be appropriate for different kinds of structured observation data, and list the steps in conducting each analysis approach
7. List the assumptions made in cultural consensus analysis, the types of data for which cultural consensus analysis should always be conducted, the steps in conducting cultural consensus analysis, and the strengths and weaknesses of this type of analysis
8. Distinguish between cultural consensus theory and cultural schema theory
9. Describe the steps in conducting free-listing, and common threats to the validity of free-listing data; analyze and interpret a set of free-listing data
10. List the characteristics of proximity data, and describe different ways proximity data can be collected and analyzed; list common threats to the validity proximity data collected through pile sorting (card sorting)
11. Describe the steps in conducting Guttman scaling, situations where Guttman scaling may be appropriate, and the strengths and weaknesses of Guttman scaling

Email: pwinch@jhu.edu

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

Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes

Grading Options: Pass/Fail
Mental Health

330.602.01 THE EPIDEMIOLOGY OF SUBSTANCE USE AND RELATED PROBLEMS
3 credits - Course offered this year - East Baltimore

Johnson, Renee

Presents an overview of the epidemiology of substance use and substance use disorders, within a public health framework. Initially, we review how drugs are classified and regulated, and then we examine trends in estimates of prevalence and incidence of drug and alcohol use and problems. Explores the epidemiology of the most common drugs of abuse, such as alcohol, marijuana, opioids, and cocaine.

Upon successfully completing this course, students will be able to:
1. Describe drug policy in the US, including how substances are regulated;
2. Describe the leading drugs of abuse in the US and their prevalence of use and health and social impacts;
3. Examine the overlap between substance use and mental disorders;
4. Explain key concepts in substance use epidemiology, such as tolerance, withdrawal, addictive potential, etc;
5. Consider the role of epidemiology in informing and evaluating policy and public health interventions targeting substance use and substance use disorders;
6. Understand a variety of approaches to prevention of substance use, screening and treatment for substance use disorders, and diagnosis of substance use disorder; and
7. Be a competent consumer of substance use epidemiology research.

Email: rjohnson@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: PH.340.601 - Principles of Epidemiology or JHU undergrad course AS.280.350 Fundamentals of Epidemiology

330.603.01 PSYCHIATRIC EPIDEMIOLOGY
3 credits - Course offered this year - East Baltimore

Eaton, William; Volk, Heather

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

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

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

No undergraduates

Grading Options: Letter Grade or Pass/Fail
Prerequisite: 330.617.01—Psychopathology for Public Health. Those with a clinical background in psychiatry, psychology, or social work are exempted from this requirement.
And
340.601.01 Principles of Epidemiology; or
340.721.01 Epidemiologic Inference in Public Health; or
340.751.01 Epidemiologic Methods I; or
another prior or concurrent course in epidemiology, approved by the instructor.

Jointly offered with EPI

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

330.607.98 PREVENTION OF MENTAL DISORDERS: PUBLIC HEALTH INTERVENTIONS
3 credits - Course offered only this year - Barcelona, Spain
Mendelson, Tamar
Introduces the basic principles and methods that guide research on the prevention of and early intervention with mental disorders and drug abuse. Includes public health interventions that operate at multiple ecological levels, including the community (e.g., mobilization, media), school (e.g., changes in classroom management and organization), family (e.g., parent training strategies), and individual (e.g., social competence strategies). Focuses on specific topics in prevention and intervention trial design, community and institutional base building, intervention theory and monitoring, and data analysis techniques and findings.
Upon successfully completing this course, students will be able to:
1 Describe a public health approach to the prevention and control of mental disorders and substance abuse
2 Apply concepts learned to the development and evaluation of preventive interventions for individuals, families, neighborhoods, and communities

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsphs.edu/courses - Page 120 of 150
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: M T W 8:30 AM - 6:00 PM

Enrollment: Minimum 1, Maximum 50, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; All full-time degree-seeking JHU students must obtain permission from Judy Holzer in HPM in order to register

Prerequisite: No prerequisites. However, knowledge of basic epidemiologic and developmental principles will be helpful in interpreting the research presented.

This course will be offered over a 3-day period in Barcelona Spain. Students must physically travel to Spain to take the class. Students will completing readings prior to the start of the course. The final exam will be due no later than Dec 21, 2018.

**330.611.01 WRITING PUBLISHABLE MANUSCRIPTS FOR THE SOCIAL AND BEHAVIORAL SCIENCES**

3 credits - Course offered this year - East Baltimore

Letourneau, Elizabeth

Provides training in the preparation of manuscripts for submission to peer-reviewed journals, with a focus on empirical papers and systematic reviews. Develops students' ability to serve as reviewers and critically evaluate the written work of peers. Covers topics relevant to effective communication and dissemination of ideas, including journal selection, preparation of cover letters, and responses to reviewers. Incorporates informal presentations from diverse JHSPH faculty members, as well as student critiques of other students' works in progress.

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

1. Understand how to formulate and organize an empirical paper and systematic review
2. Produce a manuscript to be submitted to a peer-reviewed journal
3. Offer critical feedback as a peer reviewer

Email: ElizabethLetourneau@jhu.edu

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

Enrollment: Minimum 2, Maximum 20, Waitlist Enabled: Yes

Enrollment is restricted to PhD students in the second year or beyond.

Grading Options: Pass/Fail

Consent required for all students; Consent is required to establish that interested students have a well-developed paper idea and completed (or near completed) data analysis.

Prerequisite: Students must begin the course with a well-formulated idea for an empirical research paper and completed (or near completed) data analysis.

**330.620.01 ISSUES IN MENTAL HEALTH RESEARCH IN DEVELOPING COUNTRIES**

3 credits - Course offered this year - East Baltimore

Bass, Judy

Introduces mental health as an integral part of global health research, including conducting needs assessments and intervention monitoring and evaluation. Presents and critiques strategies for integrating local cultural perspectives into research models. Examines methods of adapting psychiatric assessment tools for use cross-culturally and presents challenges for developing interventions for use in low-resource contexts. Encourages use of critical and creative thinking skills throughout to discuss the issues involved in this relatively new area of study.

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

1. Describe prevalent mental health problems in developing countries and discuss the issues unique to understanding mental health in these contexts
2. Illustrate ways that culture can affect mental health conceptualization, identification and assessment
3. Define and compare methods of cross-cultural assessment of mental health problems
4. Recognize issues and challenges inherent in adapting strategies for prevention programming, intervention development and dissemination in developing countries

Email: jbass1@jhu.edu

Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Course restricted to graduate students only
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.601.01 PRINCIPLES OF EPIDEMIOLOGY or 340.751.01 EPIDEMIOLOGIC METHODS 1 or permission of instructor

330.620.81 ISSUES IN MENTAL HEALTH RESEARCH IN DEVELOPING COUNTRIES
3 credits - Course offered this year - Internet
Bass, Judy
Introduces mental health as an integral part of global health research, including conducting needs assessments and intervention monitoring and evaluation. Presents and critiques strategies for integrating local cultural perspectives into research models. Examines methods of adapting psychiatric assessment tools for use cross-culturally and presents challenges for developing interventions for use in low-resource contexts. Encourages use of critical and creative thinking skills throughout to discuss the issues involved in this relatively new area of study.

Upon successfully completing this course, students will be able to:
1. Describe prevalent mental health problems in developing countries and discuss the issues unique to understanding mental health in these contexts
2. Illustrate ways that culture can affect mental health conceptualization, identification and assessment
3. Define and compare methods of cross-cultural assessment of mental health problems
4. Recognize issues and challenges inherent in adapting strategies for prevention programming, intervention development and dissemination in developing countries

Email: jbass1@jhu.edu

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Course restricted to graduate students only
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning required. Recommended Psychiatric Epidemiology, but not required

330.622.01 NEUROIMAGING: METHODS AND APPLICATIONS IN MENTAL AND BEHAVIORAL HEALTH
3 credits - Course offered this year - East Baltimore
Bakker, Arnold; Carlson, Michelle
Provides an introduction to neuroimaging methods, relevance and possible implementations of these methods and background to critically evaluate neuroimaging applications in mental and behavioral health research. Introduces basic principles of neuroimaging as applied to human subjects research and specifically public health research. Reviews various imaging applications in the context of their specific methods, source of signal, goals and limitations, and research design and statistics and relevance to mental and behavioral health. Encourages critical evaluation of neuroimaging methods in public mental and behavioral health through review of published studies.

Upon successfully completing this course, students will be able to:
1. Describe the underlying principles of neuroimaging physics and image formation
2. Identify key technical aspects of imaging research
3. Describe the specific methods, source of the signal, goals and limitations and research design issues for functional MRI, diffusion tensor imaging, magnetic resonance spectroscopy, perfusion imaging and positron emission tomography applications
4. Evaluate possible uses of each imaging method to mental and behavioral health research
5. Critically evaluate research methods using neuroimaging applications in published literature

Email: abakker@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 5, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: None

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

Upon successfully completing this course, students will be able to:
1. Define the components of a comprehensive and effective community mental health system
2. Analyze the governance structure of a system
3. Define and analyze the issues facing delivery of mental health services to a variety of vulnerable populations
4. Analyze a problem and the ramifications of various solutions
5. Design a model utilizing the concepts learned that effectively incorporates the most appropriate financing and service delivery approach to achieve values and goals and best address the specific issues identified

Email: dagus2@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: None required but 330.603.01 is recommended.

330.660.01 GRANT WRITING FOR THE SOCIAL AND BEHAVIORAL SCIENCES

Targets the development of effective research proposals in public mental health, including the identification of research questions, factors related to significance and innovation, study design, and analytic approaches. Reviews of research proposals and articles address issues such as topic selection, sample selection, measurement, and analytic strategies. Reviews strengths and weakness of proposals and studies and considers recent advances in epidemiologic and statistical methods as alternative approaches for addressing research questions.

Upon successfully completing this course, students will be able to:
1. Identify the review criteria used by NIH, other federal agencies, and other potential funders.
2. Prepare a grant proposal that meets review criteria established by funders
3. Critique grant proposals in terms of strengths and weaknesses
4. Create biosketches in support of grant proposals
5. Determine who to identify the assets that should be highlighted in grant proposals

Email: brion@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: Pass/Fail
Consent required for some students; Consent required for students who have not taken all of the prerequisites
Prerequisite: 340.751-753 and 140.621-624; or consent of instructor
This course is limited to doctoral students who have completed basic course sequences in epidemiology and biostatistics and first year Department of Mental Health course sequence or those who have received permission of the instructor.

330.800.01 MPH CAPSTONE MENTAL HEALTH

The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
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. Discuss age-related cognitive change in cognition in animal models
2. Discuss age-related cognitive change in major cognitive domains across the age range
3. Identify challenges of screening older persons for cognitive impairment
4. Review statistical challenges associated with clinical trials in older persons
5. Discuss approaches to modifying age-related cognitive declines

Email: grebok1@jhu.edu
Lecture: TH 3:30 PM - 5:20 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students;
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; Gross, Alden
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.
330.811.01 MHS THESIS IN MENTAL HEALTH: FROM PROPOSAL TO PUBLICATION I
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 a data-driven paper in partial fulfillment of the Master of Health Science (MHS) degree in the Department of Mental Health. Students will be provided with basic research and organizational skills needed for successful completion of the MHS project.

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

Upon successfully completing this course, students will be able to:
1. Formulate and clearly communicate research questions, study design, and findings
2. Review and critically evaluate existing literature and/or analytical approaches
3. Critique and edit the final MHS project

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

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

260.612.01 PRINCIPLES OF IMMUNOLOGY II

4 credits - Course offered this year - East Baltimore

Scott, Alan

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

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

1. Define the principles of autoimmunity and transplantation
2. Define the basis underlying primary and acquired immune deficiencies
3. Define the immune mechanisms employed to combat bacterial, viral and parasitic infections
4. Define the mechanisms that regulate allergy and hypersensitivity
5. Define the mechanisms for immunization

Email: ascott5@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
Consent required for some students; Consent is required for undergraduate students.
Prerequisite: 260.611
Required for MMI PhD students.

260.615.01 CRITICALLY REVIEWING THE SCIENTIFIC LITERATURE

2 credits - Course offered this year - East Baltimore

Margolick, Joseph

Unlike the typical literature review course, focuses specifically on literature that is flawed in the approach or methods used to examine a scientific question and examines how well the conclusions drawn are justified by the data. Oral discussions of assigned literature are accompanied by weekly 2-3 page written reviews, which provides opportunities for students to get feedback on their writing skills, as well as their critical reading skills.

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

1. Critically review methods used to analyze a scientific question
2. Identify biases in scientific literature
3. Identify conclusions in literature that are not justified by the data

Email: jmargol1@jhu.edu
Lecture: W 3:30 PM - 5:20 PM
Enrollment: Minimum 8, No maximum enrollment required, Waitlist Enabled: No
MHS students in MMI
Grading Options: Letter Grade or Pass/Fail
Prerequisite: None

260.625.01 SCIENTIFIC GRANT WRITING
2 credits - Course offered this year - East Baltimore
Hardwick, J.-Marie
Covers strategies for constructing a compelling scientific grant application, common errors in grantsmanship and how to avoid them, grant application review criteria, ethics related to grant writing and reviewing, and identification of funding sources. Students prepare a short 6-page NIH-style proposal and a revision of this same proposal following review. Proposal topics are selected by the student and developed with the instructor. Students also prepare critiques of classmates’ anonymous, instructor-edited proposals for discussion in class.

Upon successfully completing this course, students will be able to:
1. Identify essential components of hypothesis-driven research plans
2. Construct a proposal intended to convince reviewers
3. Gain grantsmanship skills by identifying the strengths and weaknesses of other proposals
4. Experience the strengths and caveats of a peer-review system

Email: hardwick@jhu.edu
Lecture: T 3:30 PM - 4:50 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite:
Recommended for, but not restricted to PhD students in laboratory sciences.

260.631.01 IMMUNOLOGY, INFECTION AND DISEASE
3 credits - Course offered this year - East Baltimore
Scott, Alan
Presents the fundamental cellular, molecular and genetic mechanisms that initiate and control immune responses elicited during pathogen challenge and vaccination.

Upon successfully completing this course, students will be able to:
1. Demonstrate the basic principles of the cellular and molecular basis for the vertebrate immune response
2. Discuss the pathogenesis of bacterial, viral and parasitic pathogens
3. Analyze the rationale behind vaccines and vaccination
4. Define the fundamentals of the Genetics of immunity and how this impacts the susceptibility of individuals and populations to diseases of public health importance

Email: ascott5@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

260.635.01 BIOLOGY OF PARASITISM
5 credits - Course offered this year - East Baltimore
Sullivan, David; Shiff, Clive
Presents a biological basis of parasitic lifestyles including host responses and parasite evasion of host defense mechanisms, transmission, epidemiology, diagnosis, clinical manifestations, pathology, treatment, and control of the major helminthic and protozoan infections of man

Upon successfully completing this course, students will be able to:
1. Discuss the biological basis for host-parasite adaptation
2. Define the scope of parasitic infections of global public health importance
3. Learn epidemiological concepts of relevance to parasite infections
4. Learn methods of diagnosis, identification and detection of parasites
5. Learn pathological changes associated with parasite infections
6. Discuss the role of vectors and intermediate hosts in parasite transmission
7 Learn the role of vertebrate innate and adaptive immune system in controlling parasites
8 Learn molecular biology concepts unique to parasite infections
9 Define the biochemical targets for drugs targeting parasites
10 Define the mechanisms of drug resistance
11 Define the immune evasion strategy employed by certain parasites

Email: dsulliv7@jhmi.edu
Lecture: M W F 1:30 PM - 2:20 PM
Lab Section: 01 M W F 2:30 PM - 3:20 PM
Enrollment: Minimum 5, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Required for MMI PhD students. MMI ScM and MHS students may opt to count this course towards their requirements.
Laboratory sessions examine living and preserved parasites, gross pathology, histopathology, and vectors. Journal discussions based on research papers and topics of fundamental importance to parasitology involve student participation in a seminar format.

260.701.81 ANATOMY OF SCIENTIFIC ERROR
3 credits - Course offered this year - Internet
Bosch, Gundula; Casadevall, Arturo
Examines sources of error in scientific practice (misconduct or honest mistakes, methodological or systematic errors). Presents real-world examples to analyze errors that cause problems in science across the disciplines. Introduces methodological and mathematical approaches to error reduction. Explores the review- and retraction mechanisms for journal articles and grants as methods of science self-correction. Discusses historic and contemporary cases where errors constitute sources of innovation.

Upon successfully completing this course, students will be able to:
1 Define the current understanding of experimental rigor, the meaning of academic ethics and the limits of reproducibility in an interdisciplinary context
2 Describe the sources of error in scientific practice as well as approaches for reducing errors
3 Formulate recommendations for avoiding mistakes and misconduct in scientific practice
4 Explain the procedures, advantages and disadvantages of review and retraction mechanisms for scientific journal articles
5 Appraise the role of errors in discovery and innovation

Email: gbosch2@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No none
Grading Options: Letter Grade or Pass/Fail
Prerequisite: none

260.708.60 EVIDENCE-BASED TEACHING IN THE BIOMEDICAL AND HEALTH SCIENCES – PRACTICE
3 credits - Course offered this year - East Baltimore
Bosch, Gundula
Provides students interested in gaining hands-on teaching experience with opportunities to plan and develop classroom materials on self-selected topics and deliver them in an interdisciplinary classroom setting, mentored by professional educators. Explores evidence-based instructional and assessment strategies to meet identified learner needs in the life and health sciences. Introduces students to a growing community of educational practitioners and scholars across the JHBSPH departments and JH divisions.

Upon successfully completing this course, students will be able to:
1 Apply the literature on adult learning theory to real-life, educational situations
2 Appraise and revise self-designed lesson plans and assessment strategies with classmates and mentors from other disciplines.
3 Practice teaching and assessment plans in the classroom and assess learning outcomes.
4 Critique classmates' teaching and make recommendations for improvement.
5 Evaluate their own teaching based on learner assessments as well as mentor and peer feedback.
6 Formulate an action plan to enhance existing strengths and work areas for improvement in their teaching.
7. Implement and sustain their knowledge and skills in evidence-based teaching by joining a continuous, cross-disciplinary community of practice.

Email: gbosch2@jhu.edu

Enrollment: Minimum 2, Maximum 12, Waitlist Enabled: Yes
grade students or postdoctoral fellows; instructor consent
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Students interested in taking this course need to have either successfully completed 260.707 or discuss with the instructor if equivalent preparation, e.g. through appropriate sections of the JHU Teaching Academy, is assured.
Prerequisite: PH.260.707 or PH.350.750 or Preparing Future Faculty Teaching Academy (PFFTA)

260.710.81 COMMUNICATION PRACTICE FOR HEALTH SCIENCE PROFESSIONALS
3 credits - Course offered this year - Internet
Klaas, Brian; Bosch, Gundula
Introduces students to current trends in presentation design and delivery. Focuses on narrative-oriented thinking to improve information dissemination. Emphasizes clarity and simplicity in communication practice in multiple settings, targeting both lay and interdisciplinary expert audiences.

Upon successfully completing this course, students will be able to:
1. Construct visual presentations around simple, clear narratives
2. Formulate concise statements and brief lightning speeches about current research topics without presentation aids
3. Explain the need for their research in multiple formats, targeted at interdisciplinary and lay audiences

Email: bklaas@jhu.edu

Enrollment: Minimum 4, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduates
Prerequisite:
Part of the R3 graduate science initiative

Learning Materials:
- (Book) Better Presentations: A Guide for Scholars, Researchers, and Wonks
  Schwabish, Jonathan
  Amazon or Other $14.47

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

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).

260.802.01 TOPICS IN IMMUNOLOGY II
1 credits - Course offered this year - East Baltimore

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 129 of 150
Employs a journal club presentation/discussion format to explore advanced topics in basic immunology, the tenants of experimental design in immunology and the theory and practice of immunological methods. This is the core discussion class for 260.611-.612.

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

1. Explain the basic elements in the experimental design of immunological studies
2. Define the theory and practice behind major methods and techniques used in modern immunological research
3. Describe the components of well-constructed tables and figures
4. Realize improved presentation skills
5. Define the elements of a well-constructed manuscript
   - Explain the basic elements in the experimental design of immunological studies
   - Define the theory and practice behind major methods and techniques used in modern immunological research
   - Describe the components of well-constructed tables and figures
   - Realize improved presentation skills

Email: ascott5@jhu.edu
Lecture: T 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
PhD graduate students in MMI and CMM.
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Please contact the instructor for consent
Prerequisite: Restricted to PhD graduate students in MMI and the CMM program.

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

260.813.01 SURVIVAL SKILLS FOR ACADEMIA IN THE LAB SCIENCES (Discontinued)
2 credits - Course offered this year - East Baltimore
Klein, Sabra; Pekosz, Andrew

Aimed at providing MMI and other lab sciences with the skills necessary to present and publish data and to find post-docs and/or jobs in the laboratory sciences. Topics include time management and organization, preparing effective conference presentations, manuscripts, and curriculum vitae, networking, interviewing, and getting hired.

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

1. Give effective presentations at conferences
2. Think creatively and independently
3. Prepare an application package, interview and get hired for a postdoc or job (either academic or non-academic)
4. Improve time management
5. Organize a poster or verbal presentation
6. Write effective cover letters
7. Prepare a curriculum vitae or resume
8. Write and review manuscripts
9. Present data more effectively
10. Successfully network

Email: sklein2@jhu.edu
Lecture: T 12:00 PM - 12:50 PM
Enrollment: Minimum 5, Maximum 20, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; consent of instructor is required for non-MMI students & MMI MHS students
Prerequisite:

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.

260.854.01 CURRENT LITERATURE IN MICROBIAL IMMUNITY
1 credits - Course offered this year - East Baltimore
Bream, Jay; Scott, Alan; Zavala, Fidel

Reviews and discusses, in depth, current publications in the field of microbial immunity, with emphasis on the areas of innate/adaptive immunity, pathogenesis, and vaccination.

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

1. Critically evaluate instructor selected scientific literature in microbial immunity, vaccine immunology, and regulation of the immune response with a primary focus on contemporary literature
2. Assess a wide variety of experimental methods and approaches used to measure cellular and humoral immunity to microbial challenge
3. Develop skills and strategies to critically evaluate the primary literature in terms of hypothesis testing, the suitability of experimental approach, and conclusions as they relate to established immunological paradigms
4. Develop student oral presentation skills

Email: jbream1@jhu.edu
Lecture: W 1:30 PM - 2:50 PM

Enrollment: Minimum 5, Maximum 24, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Principles of Immunology I

This is distinct from a journal club in that students are graded on the depth and quality of their presentation and understanding of topics discussed.

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

600.601.86 SEMINARS IN PUBLIC HEALTH (Discontinued)
2 credits - Course offered this year - Internet
Chandran, Aruna
Introduces the basic principles of the practice of public health at the local, regional, national, and international levels. Uncover relevant public health topics through a combination of presentations by experts, discussions, and lectures. Focuses on the core competencies required for the effective assessment and improvement of the health and well-being of communities. Explores the public health approach to describing the health of a population, including the importance of understanding the social and cultural context surrounding every community. Covers a broad spectrum of population-based, prevention-oriented issues relevant to public health in the private and public sectors of both domestic and international communities, including global health promotion, disease prevention, health care delivery systems, environmental issues, 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 what public health is, and the core public health services necessary for improving population health and reducing health inequities
2. Discuss the magnitude of a specific public health problem, including recent relevant research findings, public health burden, and intervention strategies
3. Explain the application of a holistic contextual approach to understanding the problems affecting the health and well-being of communities
4. Compare public health assessment and control efforts for one disease or population to that of another

Email: achandr3@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: None

600.602.86 SEMINARS IN PUBLIC HEALTH: ADVANCED TOPICS

2 credits - Course offered this year - Internet
Chandran, Aruna

Expands upon the 1st term of Seminars in Public Health to focus on how to effect public health change. Uses a combination of expert presentations and engaging discussions to explore topics including identification of key stakeholders, acknowledging competing governance priorities, and gathering support for population-level interventions. Explores the dissemination of public health messages, understanding key aspects of speaking to a range of stakeholder audiences and utilizing available communication tools. Focuses on examples of successful advocacy for change, and key lessons learned. Encourages students to utilize the public health approach discussed over the two terms to refine their future career goals.

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

1. Explain how to identify and engage key stakeholders that affect population health, both within and outside of the health sector
2. Discuss communication strategies and tools that are important in the dissemination of public health messages
3. Explain using historical examples how population-level change has been achieved using a public health approach
4. Reflect on how personal career goals and aspirations have changed or been refined having learned about the importance of public health in improving population health and achieving health equity

Email: achandr3@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to OPAL students
Grading Options: Pass/Fail
Prerequisite: 600.601.86 Seminars in Public Health

600.702.86 INTERMEDIATE EPIDEMIOLOGY

4 credits - Course offered this year - Internet
Golub, Elizabeth T.; Gange, Stephen

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

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

1. Critically analyze public health literature and utilize a framework to illustrate strengths and limitations in the epidemiologic approach

Email: achandr3@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to OPAL students
Grading Options: Pass/Fail
Prerequisite: 600.601.86 Seminars in Public Health
2 Compare and contrast study design aspects of randomized clinical trials, cohort studies, and nested study designs, specifically regarding methods for participant selection, data summarization and population comparisons
3 Identify sources of bias resulting from participant selection and measurement
4 Describe the impact of biases resulting from participant selection and measurement on epidemiologic inferences and approaches for ameliorating their influence
5 Articulate and illustrate (using DAGs) concepts and terminology used to define a ‘cause’ in epidemiology
6 Define and distinguish confounding, effect modification, and mediation
7 Contrast classical (e.g., regression-based) and modern (e.g., propensity-score) approaches for addressing confounding and mediation

Email: egolub@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 Epidemiology (600.701.86) or equivalent (with instructor permission) and either Public Health Statistics 1 (600.711.86) or Statistical Concepts in Public Health 1 (600.709.86)

601.732.86 SPATIAL DATA TECHNOLOGIES FOR MAPPING
4 credits - Course offered this year - Internet

Shields, Timothy; Curriero, Frank
Examines technologies for collecting, obtaining and creating spatial data. Considers technologies including GPS, tablets, tracking devices, cell phones, mHealth, Google Earth, remote sensing applications, and the Internet. Integrates spatial data from the aforementioned technologies into ArcGIS for spatial analysis. Introduces other GIS related software applications such as QGIS, ERDAS, and R. Explores relevant properties of spatial data such as metadata, confidentiality/disclosure and spatial data accuracy. Covers additional topics and concepts that reinforce the spatial science paradigm: Spatial Data, GIS, and Spatial Statistics.

Upon successfully completing this course, students will be able to:
1 Identify appropriate spatial data technologies for public health research and practice applications
2 Design a protocol for collecting, obtaining and/or creating spatial data for a public health research or practice application
3 Integrate data from advancing technologies into ArcGIS for spatial analysis
4 Assess relevant features of spatial data accuracy and develop proper metadata methodology

Email: tshields@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students enrolled in MAS and Certificate in Spatial Analysis for Public Health
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Spatial Analysis for Public Health (601.731.86)

601.932.86 SPATIAL ANALYSIS LAB 2
2 credits - Course offered this year - Internet

Curriero, Frank
Applies spatial concepts and skills towards identifying a public health project that can be the focus of the MAS Integrative Activity. Prepares students to translate projects into a set of spatial objectives that align with the spatial science paradigm. Details out the mechanisms and processes needed for collecting, creating and/or obtaining necessary supporting data for the chosen project.

Upon successfully completing this course, students will be able to:
1 Identify a public health project that can be the focus of the MAS Integrative Activity
2 Translate a public health problem into a written set of spatial objectives that align with the spatial science paradigm
3 Describe how to collect, create and/or obtain spatial data supporting a public health problem
4 Write a literature review on the use of spatial science for a public health problem

Email: fcurriero@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students enrolled in the MAS in Spatial Analysis Program
Grading Options: Pass/Fail
Prerequisite: Spatial Analysis for Public Health (601.731.86), Spatial Data Technologies for Mapping (601.732.86), Spatial Analysis Lab 1 (601.931.86), Introduction to Epidemiology (600.701.86), Public Health Statistics 1 (600.711.86).

602.671.86 COLLECTIVE IMPACT: DEVELOPING AND LEADING COMMUNITY PARTNERSHIPS TO IMPROVE POPULATION HEALTH
3 credits - Course offered this year - Internet
Bittle, Mark
Identifies the elements necessary to create a culture of collaboration. Following deliberate, evidence-based methods, evaluates components of cultural transformation. Examines strategies related to building infrastructure for collaboration, including application of the Collective Impact Framework.
Upon successfully completing this course, students will be able to:
1. Develop and articulate the role for their organization as a member of a community-oriented, population health management model using the Collective Impact framework
2. Understand and apply the key principles of cultural transformation in building lasting strategic collaborations with partners outside the 4 walls of the healthcare system
3. Create meaningful measures of success that encourage, align, and engage all members of the collaborative

Email: mbittle1@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:

602.681.86 APPLICATIONS IN ACCOUNTABLE CARE: ASSESSING QUALITY AND EFFECTIVENESS OF POPULATION HEALTH INITIATIVES
3 credits - Course offered this year - Internet
Baker, David
This course examines approaches by health plans, employers, and providers to evaluate population health management initiatives, define and measure quality from a population perspective, and assess the impact of Delivery System Reform and multi-payer alignment on outcomes examine new approaches to outcome and cost measurement. By focusing on the role of value measurement as part of a strategic agenda to transform quality and costs, participants will learn how to enable systematic improvement in the care delivery process.
Upon successfully completing this course, students will be able to:
1. Describe the fundamental differences between contemporary approaches to evaluation and assessment of population health initiatives
2. Examine new approaches to outcome and cost measurement
3. Explain the essential competencies for health care quality assessment in population health and accountable care
4. Assess models of measuring quality and effectiveness at the population health level including application of methods to stratify and assess high- and low-risk individuals, wellness initiatives, and self-health management and define and measure outcomes at each level
5. Apply concepts that enable systematic improvement in the care delivery process

Email: dbaker26@jhmi.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

602.721.86 ORGANIZING FOR PUBLIC HEALTH: A SYSTEMS APPROACH
2 credits - Course offered this year - Internet
Paina, Ligia; Bishai, David
Systems thinking, (ST), is a holistic approach to analyzing how components of complex systems interact and adapt. Through systems thinking we can understand how societies organize themselves to achieve collective health goals and how different actors contribute to policy outcomes. 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.

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsphs.edu/courses - Page 135 of 150
Upon successfully completing this course, students will be able to:

1. Identify characteristics of a system and the unintended consequences of public health system changes
2. Critically appraise systems models
3. Assess strengths and weaknesses of applying the systems approach to public health problems
4. Use participatory modeling approaches to understand how to engage with diverse stakeholders, how unanticipated consequences emerge, and what to do about them
5. 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
Restricted to students in an OPAL certificate or degree program
Grading Options: Letter Grade or Pass/Fail

602.741.86 BEHAVIORAL ECONOMICS AND RISK: VALUE-BASED PAYMENT METHODS AND INCENTIVES
4 credits - Course offered this year - Internet

Hough, Douglas

Provides students with tools from mainstream and behavioral economics that can be used for managing population health. Demonstrates the value – and limitations – of these approaches for influencing the decision-making of providers and the health behaviors of individuals, with particular attention to value-based payment methods and incentives. Examines the influence of payment design on provider and patient behaviors and applies concepts of behavioral economics to evaluate and propose essential elements of effective payment models and incentives designed to improve health and reduce costs. Draws on articles from the popular press and professional journals that illustrate how these approaches have been applied in experimental and real situations.

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

1. Compare and contrast the different approaches of mainstream and behavioral economics
2. Articulate the advantages and limitations of economic principles – both mainstream and behavioral – to influence human behavior
3. Apply the principles and concepts of mainstream and behavioral economics to design incentive-based interventions to improve individual health behavior
4. Apply the principles and concepts of mainstream and behavioral economics to design payment systems that reward providers for addressing population health issues that their patients and communities face

Email: Douglas.Hough@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in MAS in Population Health Management
Grading Options: Letter Grade or Pass/Fail

Learning Materials:

• (Book) Against the Gods
  Bernstein, P.L.
  Amazon or other $11.00
  1998

• (Book) Behavioral economics and healthy behaviors: Key concepts and current research
  Hanoch, Yaniv
  Amazon or other $35.00
  2017

• (Book) Behavioral economics and public health
  Roberto, Christina
  Amazon or other $40.00
  2016

603.651.86 CASE STUDIES IN QUALITY AND PATIENT SAFETY

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 136 of 150
2 credits - Course offered this year - Internet
Engineer, Lilly; Edrees, Hanan

• Provides an understanding of the approaches undertaken by US and international health care organizations (HCOs) to institute quality and patient safety initiatives in patient care
• Explores the extent, relevance and impact of the HCO's structure and strategy on quality and patient safety functions,
• Introduces the Baldrige Performance Excellence framework to assess the quality and patient safety functions,
• Describes the quality and safety domains using case studies of different HCOs in the US and international settings,
• Emphasizes how the internal HCO culture and external HCO environment serve as facilitators or barriers for implementing quality and patient safety initiatives, and
• Highlights key HCO roles senior- and middle-level management play both at the institutional and departmental levels to enable effective practical implementation of quality and patient safety initiatives, including resource allocation.

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

1. Describe an HCO's quality and safety functions using the Baldrige Performance Excellence framework
2. Analyze the importance of the HCO's context and culture in which the quality and patient safety initiatives are implemented
3. Assess the facilitators and potentially address the challenges that one may face while implementing quality and patient safety initiatives in an HCO
4. Critique the quality and patient safety functions within an HCO in the context of the HCO's overall structure and strategy

Email: lenginee@jhsph.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to OPAL MAS Patient Safety and Healthcare Quality students
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

603.711.86 SCIENCE OF PATIENT SAFETY
4 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. Explores the extent, nature and impact of safety problems. Introduces definitions for key concepts including error, adverse event, and harm. Provides a framework for understanding factors that cause, mitigate, and prevent errors and patient harm. Emphasizes the role of both individuals and systems in improving patient safety. Explains the importance of achieving a culture of safety, and the concept of high reliability in health care organizations. Points to roles that involve the practical application of this knowledge.

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

1. Describe key frameworks for assessing and improving patient safety
2. Analyze the extent of problems in patient safety in medical care
3. Assess the role of various systems and factors in creating safety
4. Assess the role of various systems and factors in causing errors and adverse events

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Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in the OPAL programs
Grading Options: Letter Grade or Pass/Fail

604.603.86 ETHICS IN GLOBAL HEALTH PRACTICE
2 credits - Course offered this year - Internet
Merritt, Maria

Equips students to identify and analyze critical ethical issues in global health practice. It provides a forum for discussion of and deliberation about these issues, enabling students to explore a range of possible solutions. Students will practice using central concepts and frameworks of public health ethics to consider systematically the responsibilities of public health professionals in real-world global health cases.

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

1. Identify critical ethical issues in the practice of public health (including research) in developing countries
2. Apply selected conceptual resources to elucidate key ethical concepts operating in case examples of public health practice

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 137 of 150
3 Consider systematically the ethical responsibilities of actors with decision-making authority over the practice of public health in developing countries
4 Analyze case examples that call for the application of key ethical concepts to developing-country contexts

Email: mmerrit2@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only MAS students
Grading Options: Letter Grade or Pass/Fail

604.621.86 DESIGN AND PLANNING OF PRIMARY HEALTH CARE PROJECTS

4 credits - Course offered this year - Internet
Burnham, Gilbert; Edward, Anbrasi
Provides students an opportunity to learn the components for developing a proposal for primary health care program. This includes elements of costing human resources, financial management, training and supervision, and other basic components of primary health care management. Students practice developing the typical components of a project proposal.

Upon successfully completing this course, students will be able to:
1 Explain the need for a project to improve health services or introduce new approaches or interventions
2 Conduct a 30-cluster household survey to substantiate and quantify needs identified
3 Write realistic, appropriate and measurable project objectives
4 Develop an implementation strategy for a primary health care project
5 Develop a Human Resources plan and to manage project personnel
6 Create a health monitoring and evaluation component for the project
7 Write a budget and the narrative summary for the project you have designed

Email: gburnha1@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only students in MAS students in GHPM, Community-based PHCPGH, HH, and Certificate in GHP allowed
Grading Options: Letter Grade or Pass/Fail

604.641.86 DISASTER PREPAREDNESS

2 credits - Course offered this year - Internet
Sauer, Lauren
Introduces public health emergency preparedness concepts and procedures that are relevant for natural disasters, technological disasters, terrorism, and emerging threats such as infectious disease outbreaks and pandemics. Describes the roles of various agencies and organizations engaged in emergency preparedness and response and global health security. Describes the interactions across these agencies and organizations that help to ensure public health and safety. Provides an overview of methods to address different types of public health emergencies, including both planning and response perspectives with a focus on recent domestic and international public health emergencies and their consequences.

Upon successfully completing this course, students will be able to:
1 Identify and describe various types of public health emergencies, and the main public health activities associated with preparing for and responding to such events
2 Define the structure and organization of disaster preparedness and response efforts, including incident management system and the responsibilities of governmental and nongovernmental entities
3 Analyze the risks and consequences of various types of public health emergencies
4 Conduct post-emergency/catastrophe assessments for the purpose of informing future public health preparedness systems

Email: lsauer2@jhmi.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only students in the MAS in Humanitarian Health
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

605.671.86 TOBACCO REGULATORY SCIENCE

4 credits - Course offered this year - Internet

2nd term information is correct as of October 31, 2018. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 138 of 150
Kennedy, Ryan

This course will provide students with an overview of tobacco product regulation, including cigarettes, smokeless tobacco, shisha, and emerging nicotine delivery systems, such as e-cigarettes. Students will gain a working knowledge of tobacco regulatory frameworks, including the Framework Convention of Tobacco Control (Articles 9 and 10), and national policies, including the Family Smoking Prevention and Tobacco Control Act. Students will learn about past regulatory successes, including fire-safe cigarettes, flavor and menthol bans, and emerging strategies to limit nicotine content. Students will learn to search industry patents to understand how product innovation is protected and presented. Finally, they will study the tobacco industry’s tactics to counter tobacco regulation by critically assessing of media stories.

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

1. Understand tobacco product design and the numerous techniques used to increase product attractiveness and addictiveness
2. Explore the complexity of tobacco product regulation, including regulating product contents such as additives and nicotine concentrations
3. Identify tobacco industry arguments and tactics against regulation of tobacco product contents, design, and emissions
4. Understand contemporary issues in the field of tobacco regulatory science, including emerging products such as electronic nicotine delivery systems

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Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in the Certificate in Global Tobacco Control
Grading Options: Letter Grade or Pass/Fail

605.701.86 LEADERSHIP IN TOBACCO CONTROL
2 credits - Course offered this year - Internet
Tamplin, Stephen

Through lectures, discussion, and exercises, students develop an understanding of the role of the tobacco control leader in policy development and implementation and the essential knowledge and skills this role requires. Provides a framework for understanding the process of working effectively with and leading others and emphasizes the role of the leader in leading change and developing a vision for the future of tobacco control.

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

1. Identify and articulate the “7 habits of highly effective people” and the “5 learning disciplines” of a learning organization
2. Articulate the fundamentals of leading and coordinating the efforts of an interdisciplinary team and developing the leadership capacity of team members
3. Apply a systems-thinking approach and related analytical tools to complex problem-solving
4. Understand the key elements of effectively communicating data to key stakeholders in support of policy development and implementation
5. Understand and describe contemporary approaches to leadership and management

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Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to OPAL Certificate in Global Tobacco Control student
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

Population, Family and Reproductive Health

380.600.01 PRINCIPLES OF POPULATION CHANGE
4 credits - Course offered this year - East Baltimore
Bell, Suzanne

Provides students with a basic understanding of the field of demography—the study of human populations and how they change by birth, death, and migration. Examines how and why birth and death rates change, and how governments and other groups attempt to take into account the effects of birth rates, death rates, and migration on public health, the economy, the environment, and other aspects of human well-being.

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

1. Describe the major trends in birth rates, death rates, population growth, and age composition historically up to the present
2. Evaluate the major explanations for changes in birth and death rates historically and in recent years
3 Describe ways in which demographic trends and population distribution affect the health of populations and individuals
4 Assess the major public policy issues related to birth rates, death rates, and migration affecting both more developed and less developed countries
5 Critically evaluate demography related articles in the peer-reviewed and lay literature

380.600.81 PRINCIPLES OF POPULATION CHANGE (Discontinued)
4 credits - Course offered this year - Internet
Mosher, William
Provides students with a basic understanding of the field of demography—the study of human populations and how they change by birth, death, and migration. Examines how and why birth and death rates change, and how governments and other groups attempt to take into account the effects of birth rates, death rates, and migration on public health, the economy, the environment, and other aspects of human well-being.
Upon successfully completing this course, students will be able to:
1 Describe the major trends in birth rates, death rates, population growth, and age composition historically up to the present
2 Evaluate the major explanations for changes in birth and death rates historically and in recent years
3 Describe ways in which demographic trends and population distribution affect the health of populations and individuals
4 Assess the major public policy issues related to birth rates, death rates, and migration affecting both more developed and less developed countries
5 Critically evaluate demography related articles in the peer-reviewed and lay literature

380.602.94 BASIC DEMOGRAPHY AND POPULATION DYNAMICS
3 credits - Course offered this year - India
Kumar, Dhirendra; Das, Arindam
Acquaints students with global population trends and patterns; population and health. Enhances technical skills and knowledge regarding use of demographic data for policy analysis development, program strategies and priorities. Examines measures and indicators of nuptiality, fertility, mortality and migration, and migrant health issues. Provides skills in making population estimation and projection.
Upon successfully completing this course, students will be able to:
1 Explain population scenarios, trends, and patterns
2 Discuss population composition and characteristics
3 Discuss basic concepts in population dynamics, fertility, mortality, migration, urbanization and its relationship with health

380.603.01 DEMOGRAPHIC METHODS FOR PUBLIC HEALTH
4 credits - Course offered this year - East Baltimore
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
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: 380.604.81 LIFE COURSE PERSPECTIVES ON HEALTH

380.604.81 LIFE COURSE PERSPECTIVES ON HEALTH
4 credits - Course offered this year - Internet
Hughes, M. E.; Minkovitz, Cynthia
Teaches students to frame public health issues using a multilevel, life course perspective. Provides a conceptual framework with which to understand the development of health over time and the interrelated effects of biological, psychological, and social factors on health. Elaborates and illustrates the framework by considering health in specific life stages, highlighting multilevel, life course influences on health, processes by which social influences “get under the skin”, and multilevel, life course approaches to research and practice. Students create a conceptual framework illustrating the application of the framework to a public health outcome their choice.

Upon successfully completing this course, students will be able to:
1. Explain the foundations of a multilevel life course approach to health determinants
2. Identify the elements of an effective conceptual framework
3. Discuss key health influences over the life course and the pathways and processes by which these influences shape health
4. Describe examples of health interventions informed by a multilevel life course perspective
5. Create a conceptual framework that communicates a multilevel life course perspective on a specific public health outcome
6. Analyze the advantages, disadvantages, and challenges of applying a multilevel life course perspective to a specific public health outcome.

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Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.
Students must have instructor's permission to enroll in the class after the first week of the term.

380.624.01 MATERNAL AND CHILD HEALTH LEGISLATION AND PROGRAMS
4 credits - Course offered this year - East Baltimore
Minkovitz, Cynthia
Analyzes the structure, organization, administration and management of social and health service programs serving the maternal and child health populations. Lectures, discussions, and analysis of current research and practice present the goals and impact of national programs such as Title V MCH/CSHCN, Medicaid/CHIP, Head Start, Family Planning, WIC/Nutrition, community/migrant health centers, child welfare, and of privately sponsored programs.

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

1. Using a systems framework, identify how MCH service can influence the health of women, children, adolescents, and families
2. Describe the structure of the health care system that provides services for women, children, and adolescents with a special focus on the public sector that serves those of low income in the United States and in developing countries
3. Describe the body of United States federal legislation that mandates and provides funds for the delivery of services to women and children
4. Apply strategies to influence the legislative, budget, and administrative processes at the federal, state, regional, and community levels
5. Apply tools and strategies to manage MCH services and related programs
6. Identify key issues related to the implementation and evaluation of maternal and child health policy and programs in the United States and abroad
7. Construct administrative memos to convey information regarding maternal and child health

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:

380.624.81 MATERNAL AND CHILD HEALTH LEGISLATION AND PROGRAMS

4 credits - Course offered this year - Internet

Harvey, Elizabeth

Analyzes the structure, organization, administration and management of social and health service programs serving the maternal and child health populations. Lectures, discussions, and analysis of current research and practice present the goals and impact of national programs such as Title V MCH/CSHCN, Medicaid/CHIP, Head Start, Family Planning, WIC/Nutrition, community/migrant health centers, child welfare, and of privately sponsored programs.

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

1. Using a systems framework, identify how MCH service can influence the health of women, children, adolescents, and families
2. Describe the structure of the health care system that provides services for women, children, and adolescents with a special focus on the public sector that serves those of low income in the United States and in developing countries
3. Describe the body of United States federal legislation that mandates and provides funds for the delivery of services to women and children
4. Apply strategies to influence the legislative, budget, and administrative processes at the federal, state, regional, and community levels
5. Apply tools and strategies to manage MCH services and related programs
6. Identify key issues related to the implementation and evaluation of maternal and child health policy and programs in the United States and abroad
7. Construct administrative memos to convey information regarding maternal and child health

Email: lizzie.harvey@gmail.com

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

380.642.81 CHILD HEALTH AND DEVELOPMENT (Cancelled - Department)

3 credits - Course offered this year - Internet

Blum, Robert

Focuses on the core processes of growth and development in early to middle childhood. Considers developmental theories, issues and research findings related to physical growth and cognitive, emotional, and social development. Considers appropriate instruments to assess growth and development. Evaluates efficacy of popular early intervention programs designed to enhance development in at-risk populations of children.
Upon successfully completing this course, students will be able to:

1. Describe the critical domains of health and development during early and middle childhood
2. Apply developmental theory and research methods to a discussion of children’s well-being
3. Explain the major determinants of health and development during childhood
4. Acquire skills needed to effectively communicate about child health and development research to policy makers and the public

Email: rblum@jhu.edu

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

There are two options for the 3 discussion sessions. A student may opt for either live chat or on-campus discussions to be held on November 5th, 12th, 19th and December 3rd and 17th.

380.655.01 SOCIAL AND ECONOMIC ASPECTS OF HUMAN FERTILITY
2 credits - Course offered only this year - East Baltimore
Becker, Stan; Tsui, Amy

The study of fertility is an integral part of population studies (along with mortality and migration) and gives essential background for those studying women’s, infant and perinatal health. This course will cover social and economic theories of fertility, will explore fertility transitions in India, China, the USA and Sub Saharan Africa, will examine major distal and intermediate determinants of fertility and will consider policies affecting fertility around the world. The course will be based on readings that are discussed by student and faculty participants.

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

1. Describe the classic theories of fertility decline, and identify those explaining low and high fertility
2. Describe how factors such as gender roles, education, family and social class affect fertility through the proximate determinants
3. Evaluate literature on fertility and present it in a professional manner

Email: sbecker2@jhu.edu
Lecture: TH 12:00 PM - 1:20 PM
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

380.662.01 CRITIQUING THE RESEARCH LITERATURE IN MATERNAL, NEONATAL, AND REPRODUCTIVE HEALTH
4 credits - Course offered this year - East Baltimore
Strobino, Donna

Discusses the sources of data and analytic and conceptual basis for methodological approaches to the study of maternal, neonatal, and reproductive health. Critically evaluates selected research articles in maternal, neonatal, and reproductive health.

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

1. Identify the usefulness and limitations of data from routinely collected records and major national surveys for studying maternal, neonatal and reproductive health
2. Use the analytic and conceptual basis of various methodological approaches for studying pregnancy, maternal, newborn, and reproductive health as a guide to evaluating research
3. Evaluate measures of pregnancy, maternal, newborn, and reproductive health
4. Evaluate measures of social and biological factors and their relation to maternal, newborn, and reproductive health
5. Critically evaluate studies related to maternal, newborn and reproductive health and identify valid inferences from the studies

Email: dstrobi1@jhu.edu
Lecture: T TH 8:30 AM - 10:20 AM
Enrollment: Minimum 8, Maximum 20, Waitlist Enabled: Yes
Undergraduates must obtain instructor consent.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Undergraduates must obtain instructor consent to register. Permission required for all students registering after the 1st week of Add/Drop.
Prerequisite:

380.681.01 STRATEGIC LEADERSHIP PRINCIPLES AND TOOLS FOR HEALTH SYSTEM TRANSFORMATION IN DEVELOPING COUNTRIES

4 credits - Course offered this year - East Baltimore
Lozare, Benjamin; Mosley, Henry

Introduces students to the principles of strategic leadership, placing these in the context of facilitating health systems change in developing countries. Covers the following topics: mental models and the household production of health, systems thinking and strategic leverage, personal mastery and commitment to change, action-learning principles and practice, shared vision and creative tension, the theory of constraints and root cause analysis, strategy design and key moves, implementation with accountability, and linking data to action. Develops leadership skills via interactive computer exercises using STARGuide software, small group work and class presentations.

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

1. Recognize the importance of self reflection to clarify one’s values and purpose in life, and understand how one’s mindset (world mental models) shapes the reality that one observes

2. Describe the underlying relationships and deeper patterns that shape it, and identify leverage points for change

3. Engage stakeholders at every level in coalitions to generate a shared vision of a better future

4. Build committed action-learning teams based on shared goals and values, mutual respect, and a willingness to take risks and learn from mistakes

5. Negotiate conflict, accepting differences, but taking actions from which all sides can learn and benefit

6. Create organizations with a climate of trust, transparency, mutual cooperation and a desire to learn continuously

7. Communicate effectively by holding conversations focused on outcomes, balancing advocacy with inquiry, and clarifying assumptions, beliefs and feelings within oneself and others

Email: blozare1@jhu.edu
Lecture: TH 5:30 PM - 7:20 PM
Enrollment: Minimum 12, Maximum 36, Waitlist Enabled: Yes
Masters and Doctoral students
Grading Options: Pass/Fail
Consent required for all students; Permission from instructor is required for this course.
Jointly offered with HBS

380.720.01 MASCULINITY, SEXUAL BEHAVIOR & HEALTH: ADOLESCENCE & BEYOND

3 credits - Course offered this year - East Baltimore
Marcell, Arik

Focuses on male health with particular attention to sexual and reproductive health and healthcare use among adolescents, extending throughout the lifespan. Assesses the principal health concerns for sexual and reproductive health, the associated population-based risk factors, and the relative impact of each risk factor. Students critically examine the meaning of masculinity and the impact of masculinity beliefs on males’ health and healthcare use. Students also evaluate strategies to promote population health including the policies and programs or health care delivery that address health concerns and behavior for male sexual and reproductive health.

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

1. Explore domestic and international perspectives to identify principle sexual and reproductive health concerns and approaches for men

2. Apply masculinity theory, in relation to the socio-ecological and other frameworks, to assess its relative influences on men’s health, and healthcare use

3. Assess the principle concerns and relative impacts of associated population-based risk factors affecting sexual and reproductive health and healthcare needs for men across the lifespan

4. Consider necessary strategies to promote men’s sexual and reproductive health that address developmentally specific health needs and behaviors across the lifespan

5. Evaluate community- and clinic-based intervention studies for men’s sexual and reproductive health needs and their relative population-based risk factors

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6 Learn about student generated topics of interest related to men’s sexual and reproductive health needs and their relative population-based risk factors

7 Evaluate strategies to promote population health including identifying further training needs for medicine and public health, policies, programs, health services, and systems delivery that address sexual and reproductive health and healthcare for men

Email: amarcell@jhu.edu
Lecture: F 9:00 AM - 11:50 AM
Enrollment: Minimum 8, Maximum 15, Waitlist Enabled: Yes
Consent required for undergraduates.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Enrollment by undergraduates requires consent of the instructor.
Prerequisite:

380.740.81 NUTRITION PROGRAMS, POLICY AND POLITICS IN THE UNITED STATES: THE IMPACT ON MATERNAL, CHILD AND FAMILY HEALTH
3 credits - Course offered this year - Internet
Paige, David
Addresses nutrition programs, policies, and politics in the US, and their impact on economically disadvantaged mothers, children, and families. Defines and explores food insecurity. Examines nutrition programs directed at high-risk populations. Reviews the administrative and political considerations of nutrition programs and discusses the nutritional impact on health, growth and development. Discusses corporate and commercial interests, their role in shaping the political discussion and their impact on food and nutrition policy.

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

1 Explain the historical basis for domestic nutrition policy and programs directed at economically disadvantaged women, infants, children, and families
2 Describe the politics of nutrition supplementation programs in the United States
3 Define nutritional risk and food insecurity to understand the basis for characterizing individuals as food insecure, hungry, obese and malnourished; and to more accurately assess nutritional risk, and target public health interventions
4 Assess the efficacy and limitations of major nutrition programs
5 Describe how political entities can impact public health nutrition programs directed at pregnant women, children and families
6 Explain the intersection of nutrition, policy and politics

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

380.742.01 FAMILY - HEALTH, PUBLIC HEALTH AND POLICY
3 credits - Course offered this year - East Baltimore
Riley, Anne; Davis, Anna
Focuses on understanding how programs and policies are likely to affect the capacities of families to develop and maintain health, and on teaching students to apply analytic methods to evaluate the relative value and impact of various programs or policies.

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

1 Understand the role of family capacities in shaping family health and the health of family members
2 Apply Family Impact Analysis methodology to evaluate the likely effects of proposed policies on different types of families
3 Plan ways to include a family orientation in public health surveillance and assurance efforts

Email: ariley1@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 7, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

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Prerequisite:

Learning Materials:

- (Book) Family Policy Matters: How Policymaking Affects Families and What Professionals Can Do
  Bogenschneider, Karen
  Amazon $51.44

380.756.01 POVERTY, ECONOMIC DEVELOPMENT, AND HEALTH (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Bishai, David
Introduces students to leading theories in economic development and in the macroeconomic determinants of the health of populations, communities, and individuals. Reviews both historical and current cases to answer the following questions: What is economic development? How does economic development occur? Which aspects of development improve and which aspects are detrimental to human health? Can policymakers plot more "hygienic" plans for economic development? Do investments in health and family planning cause economies to prosper?

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

1. Distinguish competing definitions of household poverty, macroeconomic development and describe the flaws in commonly used development indicators
2. Distinguish among the major theories that explain reasons behind economic development
3. Distinguish and evaluate leading theories that link economic development to health, demographic transition, and urbanization
4. Summarize current research on the interaction between urbanization, poverty, and health
5. Evaluate research claims that health investments stimulate economic development
6. Decide when historical public health interventions were and were not suited to the economic environment of the target population

Email: dbishai1@jhu.edu
Lecture: T TH 1:30 PM - 3:20 PM
Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

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

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

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

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

380.817.01 PFRH FIRST YEAR DOCTORAL SEMINAR PART 1

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Hughes, M. E.
Facilitates students’ transitions into the PFRH doctoral program. Reviews program requirements and school and departmental resources. Hones skills students need for success in a doctoral program. Develops students’ abilities to formulate scientific questions and understandings of the scientific process. Guides students as they focus their areas of research interest.

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

1. Describe the requirements, timeline, and benchmarks of the PFRH doctoral program
2. Locate opportunities and resources for doctoral students within PFRH, JHSPH, and JHU
3. Read scientific articles effectively and efficiently
4. Describe the nature of scientific questions and formulate hypotheses
5. Explain the role of the scientific community in the research process
6. Articulate their area of specialization orally and in writing

Email: mehughes@jhu.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No
Only open to first-year PFRH doctoral students.
Grading Options: Pass/Fail
Prerequisite: None.

380.820.01 THESIS RESEARCH 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
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
PFRH Doctoral Students only
Grading Options: Pass/Fail
Prerequisite: Must be PFRH Doctoral Student; must have completed second-year comprehensive exams.

380.824.01 RESEARCH SEMINAR IN POPULATION, FAMILY AND REPRODUCTIVE HEALTH II
2 credits - Course offered this year - East Baltimore

Minkovitz, Cynthia; Strobino, Donna
Provides experience in critical evaluation of historical and contemporary research pertinent to the focal areas within Population, Family and Reproductive Health. Addresses a range of topics, drawing on research from multiple academic disciplines. Students and faculty critique and discuss conceptual frameworks and empirical articles and examine their methodological and disciplinary perspectives of the research or articles related to the focal areas.

Upon successfully completing this course, students will be able to:
1. Apply diverse conceptual frameworks to public health issues pertinent to focal areas within PFRH
2. Critique empirical articles addressing public health issues related to focal areas in PFRH
3. Compare and contrast the approaches of various academic disciplines to public health issues of relevance to focal areas in PFRH
4. Recognize and critically evaluate common study designs and methods used in research relevant to focal areas in PFRH

Email: cmink@jhu.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
Second year doctoral students in Population, Family and Reproductive Health (PFRH)
Grading Options: Pass/Fail
Prerequisite: Successful completion of courses required in first year of doctoral program in PFRH

380.830.01 POSTDOCTORAL RESEARCH 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

380.840.01 SPECIAL STUDIES AND RESEARCH POPULATION, FAMILY AND REPRODUCTIVE HEALTH
variable credits 1-22 - Course offered this year - East Baltimore
Blum, Robert

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

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

380.870.01 PFRH SPECIAL STUDIES IN PUBLIC HEALTH PRACTICE
variable credits Credits will vary according to scope of activity. The preceptor/advisor will determine the number of units. - Course offered this year - East Baltimore

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

Upon successfully completing this course, students will be able to:
1. Information not required for this course type

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

380.881.01 LESSONS IN LEADERSHIP: APPLICATIONS FOR POPULATION, FAMILY AND REPRODUCTIVE HEALTH II
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.

380.881.01 LESSONS IN LEADERSHIP: APPLICATIONS FOR POPULATION, FAMILY AND REPRODUCTIVE HEALTH II
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 380.882
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.

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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