SCHEDULE INFORMATION
This schedule includes all courses expected to be offered by the Johns Hopkins Bloomberg School of Public Health during the 1st Term of academic year 2020-21. The listing is based on data supplied by the academic departments and approved by the subcommittee of the Committee on Academic Standards as of July 28, 2020. 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. The most recent course descriptions are included in the JHSPH Course Directory: http://www.jhsph.edu/courses/

PLEASE NOTE
Section numbers .01 and .02 will be offered virtually, rather than on-site, for 1st and 2nd terms of the 2020-2021 academic year. The courses will be a mix of synchronous activities (that would be during the scheduled course times) and asynchronous activities. Students can visit the “Virtual Classroom Approach” section of the CoursePlus syllabus page to learn about each course's plans.

Section .81 courses are designed to be fully online. They rely more heavily on asynchronous teaching, with a few synchronous Livetalk sessions.

REGISTRATION INFORMATION
Continuing students may register for 1st Term through August 25, 2020 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. 1st Term tuition payments are due via the web (https://sis.jhu.edu/sswf) by Friday, September 18, 2020. Changes to 1st Term registrations for full-term courses may be processed via Self-Service during the published Add/Drop period for 1st Term. The 1st Term Add period runs from Mon. August 31 through Sun., September 6. The Drop period runs from Mon. August 31 through Sun., September 13.

School of Medicine Post Doctoral Fellows cannot register via Self-Service; they must register in person at the Registrar's Office at the School of Medicine (733 N. Broadway, Suite 147). SOM Post Docs must adhere to all course restrictions and required permissions and are responsible for any course materials/ lab fees. Registration information is available at https://www.jhsph.edu/offices-and-services/student-affairs/records-and-registration/som-post-docs.html.

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. 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. Registrations during the Add/Drop period require payment in full at time of registration.

Tuition is assessed at a rate of $1197 per credit unit. Students receive a 100% tuition refund for any withdrawals made prior to the end of the Drop period (September 13). However, there is no tuition refund after the Drop period.

REQUIRED APPROVALS
All students in the School (with the exception of Special Students Limited) 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 August 27, 2020
COURSE LISTING CODES
Course listings consist of the following: a three character department code—the second two characters identify the department in which the course is offered, the third character may be used to indicate a division or cluster within the department. Refer to the list below for department/division codes.

DEPARTMENT/DIVISION CODES

120  Biochemistry and Molecular Biology
140  Biostatistics
180-188 Environmental Health Engineering
220-224 International Health
260  Molecular Microbiology and Immunology
300-319 Health Policy and Management
330  Mental Health
340  Epidemiology
380  Population and Family Health Sciences
390  Clinical Investigation
410-415 Health Behavior and Society
550-551 Adjunct Studies
552  “Cells to Society/Leadership” (CEPH courses)
600-699 Online Programs for Applied Learning
700  Bioethics (Berman Institute)

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

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

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

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

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

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

**700.601.01 Foundations of Bioethics**

3 credits - Course offered this year - East Baltimore

Barnhill, Anne

Offers an introduction to central approaches and issues in bioethics. Includes a discussion of the history of the field and the issues that led to its birth and growth internationally. Introduces philosophical, empirical and non-empirical approaches to bioethics and core ethical issues in clinical care, public health, science and research. Provides a foundation for future study in bioethics.

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

1. Discuss the history of bioethics and how it evolved as a field
2. Differentiate methods and approaches in bioethics including philosophical, empirical, and non-empirical approaches
3. Identify ethical issues in clinical practice, public health, science, and research and examine approaches to addressing them
4. Apply a global perspective to bioethics issues

**Method of Assessment**

<table>
<thead>
<tr>
<th>Participation</th>
<th>40</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>60</td>
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</tbody>
</table>

Email: abarnhi1@jhu.edu

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

Enrollment: Minimum 6, Maximum 30, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for undergraduate students

Prerequisite: None

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**700.603.01 Introduction to Ethical Theory**

3 credits - Course offered this year - East Baltimore

Rieder, Travis

Explores the relationship between philosophical ethical theory and the practical world of bioethics. In particular, examines the classical accounts of moral obligation and virtue in the context of a variety of contemporary bioethical problems. Further presents the distinction between individual bioethics and collective bioethics, with the goal of determining how the theoretical grounding for these fields differ. The motivating questions are both methodological and substantive: First, how does theory contribute to bioethical investigations? And second, does reflection on ethical theory tell us what to do concerning particular, bioethical problems?

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

1. Identify and articulate the theoretical underpinnings of particular moral claims
2. Apply various theoretical tools to particular, concrete cases
3. Identify the weaknesses of moral positions as a result of those positions' theoretical assumptions
4. Defend a methodological position concerning the value and use of theory in bioethics
5. Defend a substantive position concerning the correct moral theory

**Method of Assessment**

<table>
<thead>
<tr>
<th>Participation</th>
<th>10</th>
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<tbody>
<tr>
<td>Weekly Argument Reconstructions</td>
<td>30</td>
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<tr>
<td>Midterm Paper</td>
<td>20</td>
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<tr>
<td>Final Exam</td>
<td>40</td>
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</tbody>
</table>

Email: trieder@jhu.edu

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

Enrollment: Minimum 6, Maximum 30, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent required for undergraduate students
Prerequisite: None

Learning Materials:
- (Book) Moral Theory: An Introduction (Elements of Philosophy)
  Timmons, Mark
  Amazon.com $32.00

700.605.01 Critical Reasoning for Bioethics
2 credits - Course offered this year - East Baltimore
Barnhill, Anne
Introduces critical thinking skills that are widely used in bioethics research and practice. Introduces argument mapping techniques and gives students practice extracting arguments from texts and mapping those arguments. Introduces students to common strengths and weaknesses of arguments and gives students practice in evaluating arguments.
Upon successfully completing this course, students will be able to:
1. Extract arguments from written texts and visually map those arguments
2. Evaluate the strengths and weaknesses of arguments
3. Formulate good arguments and express them in text
4. Identify the features of good critical writing.

Method of Assessment
1. Weekly homework assignments 80%
2. Class presentation 20%

Method of Assessment Detail:
Weekly homework assignments: 80%. Class presentation: 20%
Email: abarnhi1@jhu.edu
Lecture: F 1:30 PM - 3:20 PM
Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Restricted to MBE students, Bioethics PhD students, and Berman Institute Post-Doctoral Fellows
Grading Options: Letter Grade or Pass/Fail

700.645.01 Fogarty Bioethics Fellows Seminar
1 credits - Course offered this year - East Baltimore
Ali, Joseph
Provides a small, interactive setting for discussion of research ethics, ethics committees, and ethics concepts among the trainees and between trainees and affiliated faculty. Sessions are divided among the following activities: reviewing and critiquing journal articles related to research ethics; trainees’ individual presentations on practicum research progress; guest speakers related to research ethics cases and/or concepts; and development and presentation of original case studies by each trainee. Topics include standard of care, justice, inducements, research ethics committees, informed consent, and gender roles in research decisions.
Upon successfully completing this course, students will be able to:
1) Discuss key literature in international research ethics
2) Critically analyze case studies in research ethics
3) Present research ethics cases and original research proposals
4) Identify ethics issues in cases related to ethics and research

Method of Assessment
1. Participation 10%
2. Presentation of individual research proposals in progress (4 presentations per student; 10% each) 40%
3. Fully drafted practicum research proposal 50%

Method of Assessment Detail:
50% fully drafted practicum research proposal
40% presentation of individual research proposals in progress (4 presentations per student; 10% each)
10% participation in article and case discussions
Email: jali@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Fogarty African Bioethics Training Program Fellows
Grading Options: Pass/Fail
Consent required for all students; to ensure students have prerequisites
Prerequisite: Prior or concurrent enrollment in: 306.665 and 306.655

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

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

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 2, Maximum 10, Waitlist Enabled: Yes
MBE students only
Grading Options: Pass/Fail
Consent required for all students; Consent required for all students
Biochemistry and Molecular Biology

120.600.01 Biochemistry I (Cancelled - Department)

5 credits - Course offered this year - East Baltimore

Bryant, Randy

Explores the structures of the principal cellular macromolecules and their roles in cellular processes. Emphasizes the forces that underlie specific recognition processes. Considers the mechanisms of enzyme action and biochemistry of nucleic acids.

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

1. Describe the construction of the principal cellular macromolecules
2. Analyze the forces that determine the three-dimensional structure of these molecules in aqueous solution
3. Relate the structures of macromolecules to their functions
4. Identify the methods used to study these questions in detail

Method of Assessment

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<th>Percentage</th>
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<tbody>
<tr>
<td>1. Exam(s)</td>
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<td>2. Exam(s)</td>
<td>33</td>
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<tr>
<td>3. Exam(s)</td>
<td>33</td>
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</tbody>
</table>

Email: fbryant1@jhu.edu

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

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

Priority registration will be given to students in the Bloomberg School of Public Health. All others need permission from contact to register.

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; Consent required for non-Bloomberg students

Prerequisite: Introductory organic chemistry.

120.600.02 Biochemistry I (Cancelled - Department)

5 credits - Course offered this year - East Baltimore

Bryant, Randy

Explores the structures of the principal cellular macromolecules and their roles in cellular processes. Emphasizes the forces that underlie specific recognition processes. Considers the mechanisms of enzyme action and biochemistry of nucleic acids.

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

1. Describe the construction of the principal cellular macromolecules
2. Analyze the forces that determine the three-dimensional structure of these molecules in aqueous solution
3. Relate the structures of macromolecules to their functions
4. Identify the methods used to study these questions in detail

Method of Assessment

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<td>2. Exam(s)</td>
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<tr>
<td>3. Exam(s)</td>
<td>33</td>
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</tbody>
</table>

Email: fbryant1@jhu.edu

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

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

Priority registration will be given to students in the Bloomberg School of Public Health. All others need permission from contact to register.

Grading Options: Letter Grade or Pass/Fail

Consent required for all students; Consent required for non-Bloomberg students

Prerequisite: Introductory organic chemistry.

120.602.01 Concepts of Molecular Biology

4 credits - Course offered this year - East Baltimore

Bailey, Scott; Leung, Anthony

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 4 of 156
Discusses synthesis of macromolecules, the genetic code, regulation of gene expression and gene function, and recent advances in biotechnology.

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

1. Explain the molecular mechanisms underlying the central dogma
2. Describe genome structure and gene regulation

Method of Assessment Percentage
1. Exam(s) 99

Email: scott.bailey@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, Maximum 75, Waitlist Enabled: Yes
Required for all BMB students. Priority registration given to JHSPH students
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Priority registration given to JHSPH students. Undergraduates and non-JHSPH students require instructor permission.
Prerequisite: Introductory biochemistry or consent of instructor

120.604.81 Introduction to Molecular Biology
3 credits - Course offered this year - Internet
Bailey, Scott

Molecular biology deals with how nucleic acids and proteins interact within the cell to promote proper growth, division, and development. This course will provide an overview of these processes, including DNA replication, repair, transcription, splicing, protein synthesis, and gene regulation in different organisms. We will also explore many biological tools that have been developed from molecular biology processes, such as DNA sequencing and gene editing (CRISPR-Cas9).

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

1. Compare and contrast bacterial and eukaryotic DNA replication, DNA repair, transcription, and translation
2. Give examples of DNA and histone modifications and predict how they will affect gene expression.
3. Describe how pre-mRNA splicing occurs and explain how alternative splicing can generate protein diversity.
4. Explain how molecular biology processes like the CRISPR-Cas9 system are being used to modify eukaryotic genomes.
5. Distinguish between different molecular biology techniques that are used to isolate, separate, and probe for specific nucleic acids, proteins, and their interactions.

Email: scott.bailey@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
CANNOT take this course if already enrolled or completed 120.602.01 Concepts of Molecular Biology
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning. A strong college level background in the biological sciences is required.

120.610.81 Introduction to Biochemistry: Protein Structure and Enzyme Catalysis
3 credits - Course offered this year - Internet
Bryant, Randy

Covers the physical and chemical properties of the amino acids, the various elements of protein structure, and the cooperative behavior of multimeric proteins. Explore the kinetics of enzyme-catalyzed reactions, and the active site mechanisms of representative classes of enzymes. Describes the molecular basis of action for selected enzyme inhibitor-based drugs.

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

1. Compare and contrast the physical and chemical properties of amino acids
2. Describe the primary, secondary, and tertiary elements of protein structures
3. Explain the molecular basis for the cooperative behavior of multimeric proteins
4. Determine and interpret the steady state kinetics of enzyme catalyzed reactions
5. Describe the active site mechanisms of representative classes of enzymes
6. Explain how irreversible and reversible enzyme inhibitors are being used as drugs

Method of Assessment Percentage
1. Exam(s) 33
2. Exam(s) 33
3. Exam(s) 33

Method of Assessment Detail:
There will be three equally weighted exams – each counting as 1/3 of the final grade.

Email: fbryant1@jhu.edu

Enrollment: Minimum 10, Maximum 60, Waitlist Enabled: Yes
Not open for BMB MHS students; Not open for students who have taken PH120.600 (BioChem I); Graduate students only;
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Students should have a background in general and organic chemistry

120.616.01 Advanced Concepts in Biochemistry, Cell and Molecular Biology
variable credits 1-2 - Course offered this year - East Baltimore
Jordan, Phil

Provides a platform for students, postdoctoral fellows and faculty to present and discuss scientific papers from the current literature that deal with mechanisms underlying disease along with accompanying methods. Explores additional aspects that are relevant to conducting and conveying laboratory research, including study design and statistical analysis, manuscript and grant review, policy and practice, and risk assessment.

Upon successfully completing this course, students will be able to:
1. Critically evaluate scientific papers and the quality of the science, including experimental design, data analysis, and statistical approaches
2. Assess new methodological approaches in the areas of biochemistry, physiology, biophysics, cell and molecular biology, genomics, epigenetics, proteomics, and metabolomics
3. Evaluate etiology of diseases and defects, such as Cancer and developmental perturbations, at the molecular, cellular, tissue, whole-organ, animal, and individual-to-population levels
4. Demonstrate the skills necessary for conducting and conveying laboratory research, including study design and manuscript preparation
5. Give a high-quality presentation that effectively conveys summaries of scientific results and advanced concepts

Method of Assessment

Method of Assessment Detail:
Registration for 1 credit means the participation is considered to be 100% of the method for assessment. Participation involves critical evaluation of scientific papers and the quality of the science, including experimental design, data analysis, and statistical approaches.

Registration for 2 credits requires presenting a journal article during one of the sessions during the term. Presentation involves preparing and presenting a powerpoint presentation of the main findings of the journal article. Presentation is considered as 50% of the method for assessment. Participation is considered to be other 50% of the method for assessment.

Email: pjordan8@jhu.edu
Lecture: F 12:00 PM - 1:20 PM

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Restricted to PhD and ScM students, and Postdoctoral Fellows. Consent is required for MHS students. No undergraduates.
Grading Options: Pass/Fail
Consent required for some students; Consent is required for MHS students.

120.620.01 Fundamentals of Reproductive Biology (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Jordan, Phil

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 6 of 156
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

Method of Assessment
1. Final Exam 40%
2. Quizzes 60%

Email: pjordan8@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: A previous college-level course in basic biology is very helpful.
The course material in the first few class sessions is designed with refresher material, to bring students with limited or rusty backgrounds in the biological sciences up to speed.

120.620.81 Fundamentals of Reproductive Biology
3 credits - Course offered this year - Internet
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

Method of Assessment
1. Final Exam 40%
2. Quizzes 60%

Method of Assessment Detail:
Final exam and quizzes
Email: pjordan8@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Priority given to graduate students in JHSPH
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students
Prerequisite: Introduction to Online Learning

120.644.01 BMB SCM Laboratory Rotations
variable credits 4-8 - Course offered this year - East Baltimore
Jordan, Phil
All departmental ScM students spend one to three terms, respectively, participating in the research activities of departmental faculty's laboratories. Students select appropriate rotations in consultation with their academic advisor and the ScM Program Director. The objective is to provide the opportunity for interaction with several faculty members, so that a thesis laboratory may be identified. The course aims to broaden a student's knowledge of laboratory techniques and skills, expose the student to a variety of research areas and to develop the ability to carry out a research project.
Upon successfully completing this course, students will be able to:
1. Perform laboratory techniques and skills
2. Design experiments for a variety of research areas in the BMB
3. Interact effectively with faculty and fellow lab members about lab-based research
4. Develop and carry out a research project based on hypothesis-driven or discovery-driven studies

Method of Assessment
1. Participation 50%
2. Project(s) 50%

Method of Assessment Detail:
Meet expectations for time commitments to research (33%), dependent on credit commitment (e.g., for 5 credits - minimum 18 hr/week). Maintain appropriate research notes (including research plan, hypothesis, future work and related published research), 33%. Communicate research findings with supervisor in form or presentation (33%).

Email: pjordan8@jhu.edu

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

120.800.01 MPH Capstone: Biochemistry and Molecular Biology
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

Email: pjordan8@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Restricted to MPH students
Prerequisite: All other MPH core requirements must be taken before or concurrently with the Capstone project.

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 (Cancelled - Department)
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

Method of Assessment

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<th>Percentage</th>
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<tr>
<td>1. Participation</td>
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<tr>
<td>2. Lab Assignments</td>
</tr>
</tbody>
</table>

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

Grading Options: Pass/Fail

Consent required for all students; Prospective students must make arrangements with a faculty member for this research experience.

120.822.01 Seminars in Research in Biochemistry and Molecular Biology

1 credits - Course offered this year - East Baltimore

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

120.825.01 Advanced MHS Student Research (Cancelled - Department)

5 credits - Course offered this year - East Baltimore

Departmental Faculty

Jordan, Phil

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

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

1. Identify a research question of significance in biomedical science
2. Design hypothesis-driven or discovery-driven experimental studies to address the question
3. Maintain research notes, including summaries of results and data interpretation
4. Propose future research endeavors related to current research
5. Relate research to relevant current literature

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

Grading Options: Pass/Fail

Consent required for all students; All students must receive consent prior to registration

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**

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**Departmental Faculty**

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.

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

1. Identify areas of interest for current and future research

**Method of Assessment**

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<tr>
<td>1. Special Study</td>
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**Enrollment:** Minimum 10, No maximum enrollment required, Waitlist Enabled: No

BMB MHS, ScM, PhD students and postdocs only

**Grading Options:** Pass/Fail

120.850.01 Biochemical Techniques

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

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**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

**Method of Assessment**

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<th>Percentage</th>
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<tr>
<td>1. Ability to design experiments and to interpret results in their scientific context</td>
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**Enrollment:** Minimum 10, No maximum enrollment required, Waitlist Enabled: No

BMB PhD Students only

**Grading Options:** Pass/Fail

Only open to BMB PhD students

120.852.01 Core Research Literature

variable credits BMB students taking this course should enroll for 2 credits. MMI students taking this course should enroll for 1 credit. - Course offered this year - **East Baltimore**

Bryant, Randy

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

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

1. Read and critically evaluate primary research literature in Biochemistry, Molecular and Cellular Biology

**Email:** fbryant1@jhu.edu

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

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

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

**120.872.01 Special Studies-Current Topics in BMB**

1 credits - Course offered this year - East Baltimore

Matunis, Michael

Introduces students to the faculty and to current research being conducted in their respective laboratories within the Department of Biochemistry and Molecular Biology and by other training faculty of the Cancer Biology Training Program.

Informs doctoral students about research opportunities in each laboratory and allows them to make informed decisions about their choices for laboratory rotations during their first year. Similarly, informs current MHS students who are considering the ScM Program during the second year about potential research opportunities in laboratories of BMB faculty. Provides time for faculty presentation, student questions and further discussion.

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

1. Understand the research interests and scientific approaches of the training faculty
2. Make informed decisions regarding laboratory rotations during the first year for doctoral students
3. Investigate areas of potential interest for master's students considering the option of pursuing laboratory research toward the ScM degree during their second year
4. Initiate a dialogue between students and faculty about various aspects of scientific research encompassed by the departmental training program

**Method of Assessment**  
Percentage

1. Attendance  
99

Email: mmatuni1@jhu.edu

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

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

Grading Options: Pass/Fail

**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

**140.611.01 Statistical Reasoning in Public Health I (Cancelled - Department)**

3 credits - Course offered this year - East Baltimore

McGready, John

Provides students with a broad overview of biostatistical methods and concepts used in the public health sciences. Emphasizes the interpretation and conceptual foundations of statistical estimation and inference.

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

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 11 of 156
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

Method of Assessment Percentage
1. Exam(s) 99

Email: jmcgrea1@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment: Minimum 9, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for some students

140.611.81 Statistical Reasoning in Public Health I
3 credits - Course offered this year - Internet
McGready, John
Provides students with a broad overview of biostatistical methods and concepts used in the public health sciences. Emphasizes the interpretation and conceptual foundations of statistical estimation and inference.

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

Method of Assessment Percentage
1. Exam(s) 99

Email: jmcgrea1@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 need instructor's consent
Prerequisite: Introduction to Online Learning.

140.620.20 Advanced Data Analysis Workshop
2 credits - Course offered this year - East Baltimore
Kong, Xiangrong
Covers methods for the organization, management, exploration, and statistical inference from data derived from multivariable regression models, including linear, logistic, Poisson and Cox regression models. Students apply these concepts to two or three public health data sets in a computer laboratory setting using STATA statistical software. Topics covered include generalized linear models, product-limit (Kaplan-Meier) estimation, Cox proportional hazards model.

Upon successfully completing this course, students will be able to:
1. Conduct a simple linear, logistic or survival regression and correctly interpret the regression coefficients and their confidence interval
2 Conduct a multiple linear, logistic or survival regression and correctly interpret the coefficients and their confidence intervals
3 Examine residuals and adjusted variable plots for inconsistencies between the regression model and patterns in the data and for outliers and high leverage observations
4 Fit and compare different models to explore the association between outcome and predictor variables in an observational study

Method of Assessment | Percentage
--- | ---
1. Quizzes | 40
2. Final Exam | 60

Email: xkong4@jhu.edu
Days & Times with Start & End Dates: Oct 03, 2020 - Oct 04, 2020
Lecture: 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; Restricted to students in the Tsinghua DrPH cohort only
Prerequisite: Data Analysis Workshops I and II (140.613 and 140.614)
This course will be offered over a 2-day period in Baltimore. Students may be required to complete assignments prior to the start of class.

140.621.01 Statistical Methods in Public Health I (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Diener-West, Marie
Introduces the basic concepts and methods of statistics as applied to diverse problems in public health and medicine. Demonstrates methods of exploring, organizing, and presenting data, and introduces fundamentals of probability, including probability distributions and conditional probability, with applications to 2x2 tables. Presents the foundations of statistical inference, including concepts of population, sample parameter, and estimate; and approaches to inferences using the likelihood function, confidence intervals, and hypothesis tests. Introduces and employs the statistical computing package, STATA or R, to manipulate data and prepare students for remaining course work in this sequence.

Upon successfully completing this course, students will be able to:
1 Explain the role of quantitative methods and sciences in describing and assessing a population’s health
2 Use statistical reasoning to formulate public health questions in quantitative terms within the scientific method
3 Select quantitative data collection methods and variables appropriate for a given public health context
4 Design and interpret graphical and tabular displays of statistical information, including stem and leaf plots, box plots, Q-Q plots and frequency tables.
5 Distinguish and use appropriate probability models (binomial, Poisson, and Gaussian) to describe trends and random variation in public health data.
6 Employ statistical methods for inference, including tests and confidence intervals, to draw public health inferences from data.
7 Analyze quantitative data using either the Stata statistical analysis package or R package to construct tables and graphs and perform statistical methods for inference.
8 Interpret results of data analysis for public health research, policy or practice

Method of Assessment | Percentage
--- | ---
1. Assessments | 20
2. Quizzes | 10
3. Exam(s) | 70

Email: mdiener@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
For MPH, DrPH, "special students" and MSPH degree candidates
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent Required for non-PH students
Administrative Course Fee: 40.0000

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 13 of 156
140.621.02 Statistical Methods in Public Health I (Cancelled - Department)

Bandeen-Roche, Karen

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

Upon successfully completing this course, students will be able to:
1. Explain the role of quantitative methods and sciences in describing and assessing a population’s health
2. Use statistical reasoning to formulate public health questions in quantitative terms within the scientific method
3. Select quantitative data collection methods and variables appropriate for a given public health context
4. Design and interpret graphical and tabular displays of statistical information, including stem and leaf plots, box plots, Q-Q plots and frequency tables.
5. Distinguish and use appropriate probability models (binomial, Poisson, and Gaussian) to describe trends and random variation in public health data.
6. Employ statistical methods for inference, including tests and confidence intervals, to draw public health inferences from data.
7. Analyze quantitative data using either the Stata statistical analysis package or R package to construct tables and graphs and perform statistical methods for inference.
8. Interpret results of data analysis for public health research, policy or practice

Method of Assessment

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1. Assessments</td>
<td>20</td>
</tr>
<tr>
<td>2. Quizzes</td>
<td>10</td>
</tr>
<tr>
<td>3. Exam(s)</td>
<td>70</td>
</tr>
</tbody>
</table>

Email: kbandee1@jhu.edu

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

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

For PhD, ScD, ScM and MHS degree candidates

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Consent of instructor required for non-PH students

Administrative Course Fee: 40.0000

140.621.81 Statistical Methods in Public Health I

Diener-West, Marie

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

Upon successfully completing this course, students will be able to:
1. Explain the role of quantitative methods and sciences in describing and assessing a population’s health
2. Use statistical reasoning to formulate public health questions in quantitative terms within the scientific method
3. Select quantitative data collection methods and variables appropriate for a given public health context
4. Design and interpret graphical and tabular displays of statistical information, including stem and leaf plots, box plots, Q-Q plots and frequency tables.
5. Distinguish and use appropriate probability models (binomial, Poisson, and Gaussian) to describe trends and random variation in public health data.
6. Employ statistical methods for inference, including tests and confidence intervals, to draw public health inferences from data.

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 14 of 156
7 Analyze quantitative data using either the Stata statistical analysis package or R package to construct tables and graphs and perform statistical methods for inference.

8 Interpret results of data analysis for public health research, policy or practice

Method of Assessment | Percentage
--- | ---
1. Assessments | 20
2. Quizzes | 10
3. Exam(s) | 70

Method of Assessment Detail:

Assessments 20%, Quizzes 10%, Exams 70%

Email: mdiener@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 non-PH students

Prerequisite: Introduction to Online Learning is required prior to participating in any of the School's Internet-based courses.

140.633.81 Biostatistics in Medical Product Regulation

2 credits - Course offered this year - Internet

Wang, Chenguang

Addresses the application of many principles of biostatistics in the context of medical product development and regulation. Provides a basis for understanding international regulation as outlined in various guidance documents. Opportunities provided through presentations and discussions to learn about applications to study design, conduct, analyses, and inferences. Presents examples of products, product development processes, and opportunities for innovation in clinical trial design and analysis.

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

1 Explain the relevance and application of statistics to the regulatory process
2 Differentiate between well-designed and conducted clinical research in the development and evaluation of new medical products
3 Locate internet sources for regulatory requirements, and regulatory review and evaluation information

Email: cwang68@jhmi.edu

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

Grading Options: Pass/Fail

Prerequisite: Basic epidemiology and biostatistics

140.636.01 Computer Science for BioInformatics (Cancelled - Department)

4 credits - Course offered this year - East Baltimore

Departmental Faculty

Introduces the computational hardware and programming model upon which analysis tools and languages are based. Introduces and uses three main languages (Python, Perl, SQL) and their underlying rationale to develop computer science concepts such as data structures, algorithms, computational complexity, regular expressions, and knowledge representation. Draws examples and exercises from high-throughput sequence analysis, proteomics and modeling of biological systems. Reinforces key concepts through lectures with live computer demonstrations, weekly readings, and programming exercises. Has students working with a High Performance Compute Cluster and the Amazon cloud.

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

1 Explain key fundamental concepts from computer science including notions of data structures, algorithms and computational complexity
2 Describe programming paradigms and techniques, e.g. top-down vs bottom-up programming, procedural programming, object oriented programming, functional programming and database programming.
3 Code in the Python, Perl, SQL and 'regular expression' programming languages (including the ability to use bioinformatics libraries and maintain version control).
4 Represent and organize (in a scalable manner) large amounts of data from high-throughput biology experiments or other sources
5 Search and use the wealth of software development resources available on the web
6 Use High Performance Computing (HPC) and Cloud computing platforms and be able to describe the advantages the limitations of each.
140.641.01 Survival Analysis
3 credits - Course offered this year - East Baltimore
Wang, Mei-Cheng
Introduces fundamental concepts, theory and methods in survival analysis. Emphasizes statistical tools and model interpretations which are useful in medical follow-up studies and in general time-to-event studies. Includes hazard functions, survival functions, types of censoring and truncation, Kaplan-Meier estimates, log-rank tests and their generalization. For parametric inference, includes likelihood estimation and the exponential, Weibull, log-logistic and other relevant distributions. Discusses in detail statistical methods and theory for the proportional hazard models (Cox model), with extensions to time-dependent covariates. Includes clinical and epidemiological examples (through class presentations). Illustrates various statistical procedures (through homework assignments).

Upon successfully completing this course, students will be able to:
1. Understand features of time-to-event data
2. Explain fundamental concepts in survival analysis
3. Describe statistical methods which are useful in medical follow-up studies and in general time-to-event studies
4. Properly use software and packages to conduct time-to-event data analysis

Method of Assessment | Percentage
--- | ---
Homework | 60
Final Exam | 40

Email: mcwang@jhu.edu

140.646.01 Essentials of Probability and Statistical Inference I: Probability
4 credits - Course offered this year - East Baltimore
Rohde, Charles
Introduces students to the theory of probability and the formal language of uncertainty. Includes the basic concepts of probability; random variables and their distributions; joint, marginal and conditional distributions; independence; distributions of functions of random variables; expectations; moment generating functions; probability and expectation inequalities; convergence concepts and limit theorems; order statistics. 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. Discuss the probabilistic foundation of modern statistics
2. Solve basic probability problems

Email: crohde1@jhu.edu

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 16 of 156
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.

140.651.01 Methods in Biostatistics I
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 interval for means, proportions, and counts; maximum likelihood estimation; sample size determinations; elementary non-parametric methods; graphical displays; and data transformations. Also introduces R and concepts are presented both from a theoretical, practical and computational perspective.

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. List the distinctions between the fundamental paradigms underlying statistical methodology
4. Identify the basics of maximum likelihood
5. Identify 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

Method of Assessment

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<tbody>
<tr>
<td>1. Homework</td>
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<tr>
<td>2. Midterm</td>
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<tr>
<td>3. Final Exam</td>
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</tbody>
</table>

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 9:30 AM-10:30 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Working knowledge of calculus and linear algebra

Students will choose one lab time: Tuesday OR Wednesday. The recommended book for the course is Methods in Biostatistics with R (https://leanpub.com/biostatmethods/). A free copy will be sent to all students enrolled in the course.

140.711.01 Advanced Data Science I
3 credits - Course offered this year - East Baltimore
Leek, Jeffrey; Peng, Roger

Focuses on hands-on data analyses with a main objective of solving real-world problems. Teaches the necessary skills to gather, manage and analyze data using the R programming language. Covers an introduction to data wrangling, exploratory data analysis, statistical inference and modeling, machine learning, and high-dimensional data analysis. Teaches the necessary skills to develop data products including reproducible reports that can be used to effectively communicate results from data analyses. Trains students to become data scientists capable of both applied data analysis and critical evaluation of the next generation next generation of statistical methods.

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
4. Apply a range of statistical methods for inference and prediction
Method of Assessment Percentage
1. Homework 99

Email: jtleek@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 4, Maximum 40, Waitlist Enabled: Yes
Enrollment restricted to 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
Final grade applies to all terms

140.721.01 Probability Theory I (Cancelled - Department)
3 credits - Course offered this year - East Baltimore
Rosenblum, Michael
Presents the first part of the classical results of probability theory: measure spaces, LP spaces, probability measures, distributions, random variables, integration, and convergence theorems.
Upon successfully completing this course, students will be able to:
1. Rigorously define the probability measure corresponding to a given experiment
2. Define a random variable and the sigma-algebra it generates
3. Integrate with respect to a probability measure
4. Understand convergence of random variables, and the conditions required to prove convergence in expectation

Email: mrosen@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for any students who are not in the Biostatistics PhD program
Prerequisite: Calculus, real analysis
The course will include 30 minutes per week of lab (time TBA)

140.731.01 Statistical Theory I
4 credits - Course offered this year - East Baltimore
Ogburn, Elizabeth
Introduces probability and inference, including random variables; probability distributions; transformations and sums of random variables; expectations, variances, and moments; properties of random samples; and hypothesis testing.
Upon successfully completing this course, students will be able to:
1. Manipulate and describe random variables
2. Derive and describe the properties of hypothesis tests and point estimates from random samples

Method of Assessment Percentage
1. Homework 55
2. Class participation 15
3. Final Exam 30

Email: eogburn@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for any students who are not in the Biostatistics PhD program
Prerequisite: Linear algebra; matrix algebra; real analysis; calculus.
One 1-hour lab per week (time TBA)

140.751.01 Advanced Methods in Biostatistics I

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses
Lindquist, Martin

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

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

1. Review key concepts in linear algebra
2. List random vectors and matrices
3. Develop the least squares approach for linear models
4. List projections in vector spaces
5. Discuss the connection between least squares and maximum likelihood approaches
6. Discuss estimability, and in particular, the Gauss Markov theorem
7. Discuss the distribution theory under normality assumptions
8. Compare least squares to generalized least squares
9. Describe the concept of testing linear hypothesis
10. Compare approaches to calculate simultaneous confidence intervals

Email: mlindquist@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Biostatistics 1st-year PhD students.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for students other than Biostatistics 1st-year PhD students.
Prerequisite: 140.673-674 & elementary course in matrix algebra; students must also register for 140.752

140.755.01 Advanced Methods in Biostatistics V (Cancelled - Department)

Zipunnikov, Vadim

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

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

1. Give examples of different types of data arising in public health studies
2. Use modern statistical concepts such as Generalized Linear Models for inference
3. Describe models for polytomous outcomes
4. Apply theoretical concepts to scientific data using R and Stan software
5. Conduct and interpret logistic, conditional logistic, and probit regression inference
6. Extend models to account for clustering and correlation
7. Introduce the mixed effects framework and describe its relationship to multilevel models
8. Introduce models that account for measurement error in the covariates
9. Provide new computational tools for complex models including Markov Chain Monte Carlo (MCMC) and Expectation Maximization (EM) algorithms
10. 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: 140.751-4
140.771.01 Advanced Statistical Theory I (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Scharfstein, Daniel
Focuses on drawing large sample inferences about "parameters" in statistical models. Develops asymptotic theory for maximum likelihood estimation, M-estimation, and generalized method of moment (GMM) estimation. Discusses formal techniques for constructing estimators in semi-parametric models. Pays particular attention to models for longitudinal and survival data. Special topics presented by guest lecturers. Involves rigorous mathematical arguments so that familiarity with concepts in advanced calculus, real analysis, and measure theory will be required.
Upon successfully completing this course, students will be able to:
1. Understand large sample theory underlying commonly used statistical procedures such as maximum likelihood, M-estimation, and GMM-estimation.
2. Understand the foundations of semi-parametric inference.
3. Understand the foundations of the counting process approach to survival analysis.
Email: dscharf@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Real Analysis, Measure-Theoretic Probability, Introduction to Statistical Theory I-II
Final grade applies to all terms

140.776.01 Statistical Computing
3 credits - Course offered this year - East Baltimore
Peng, Roger
Covers practical issues in statistical computing. Includes programming in R, calling complied code from R, accessing R libraries, creating R packages with documentation, debugging, organizing and commenting code. Topics in statistical data analysis and optimization provide working examples.
Upon successfully completing this course, students will be able to:
1. Install and configure software necessary for a statistical programming environment
2. Discuss generic programming language concepts as they are implemented in a high-level statistical language
3. Write and debug programs using R and C
4. Build and organize a software package with documentation for publishing on the internet
5. Discuss and implement basic statistical computing algorithms for optimization, linear regression, and Monte Carlo
Email: rdpeng@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.621 or equivalent

140.800.01 MPH Capstone Biostatistics
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Upon successfully completing this course, students will be able to:
1. Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience
Lecture: TBA
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

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 some students; Consent required only if students have not already completed PhD core courses
Prerequisite: Ph.D. core courses or consent from the instructors

140.860.01 Current Topics in Biostatistics Research
1 credits - Course offered this year - East Baltimore

Colantuoni, Elizabeth; Ji, Hongkai
Features presentations by Biostatistics faculty, postdocs and senior students on their research, with a focus on the public health and scientific questions driving the work, why the research makes a difference for the subject area and how to translate the research into practice. Offers an opportunity for discussion and clarification of key Biostatistical concepts being taught in the core courses and how they apply to problems in public health and science. Provides an opportunity for students and faculty to come together and discuss novel research questions and the role that Biostatisticians have in helping to support, enrich and promote solutions to these novel research questions.

Upon successfully completing this course, students will be able to:
1. Discuss current research being conducted by or in collaboration with faculty in the Biostatistics department
2. Interact with Department of Biostatistics faculty, postdocs and students
3 Develop foundational insights into mapping public health and scientific problems onto the foundation of biostatistical theory and methodology

Method of Assessment | Percentage
--- | ---
1. Active listening and participation | 50
2. Attendance | 50

Method of Assessment Detail:
Active listening and participation 50%; attendance 50%.

Email: ejohnso2@jhmi.edu
Lecture: TH 9:00 AM - 9:50 AM

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for some students; Consent required for non-Biostatistics students
Student must attend 7 of 8 seminars in order to pass the course.

**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**

**390.631.01 Principles of Drug Development**

2 credits - Course offered this year - **East Baltimore**
Hutfless, Susan M.

Presents principles underlying preclinical and clinical development of new therapeutic drugs and devices. Describes and evaluates specific examples, and discusses legal and ethical regulations that apply to drug development. Uses a case-based class format.

Upon successfully completing this course, students will be able to:
1. Describe how new drugs and devices are taken from the laboratory to the marketplace in the United States
2. Distinguish Phase I, II, III, and IV studies
3. Evaluate the balance between medical benefit, medical risk, economic reward, and economic risk in the decision making process as it relates to drugs and devices in development

Method of Assessment | Percentage
--- | ---
1. Presentation(s) | 50
2. Exam(s) | 50

Email: shutfle1@jhmi.edu
Lecture: W 1:30 PM - 2:50 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Students who are not GTPCI or CDSE (Pharmacoepidemiology) certificate students need permission. Also, PHS Seniors: Instructor permission required

**390.673.01 Ethical and Regulatory Issues in Clinical Research**

3 credits - Course offered this year - **East Baltimore**
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
Lecture: M 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; This course is geared toward GTPCI and SOCI students, however it is open to scientists, clinicians, and other degree students.
Part of the four-course series in the Science of Clinical Investigation award program.

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

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

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

Email: lluboms1@jhmi.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

390.820.01 Thesis Research in Clinical Investigation
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

390.840.01 Special Studies and Research in Clinical Investigation
variable credits 1-11 - Course offered this year - East Baltimore
Departmental Faculty
Determined by student's advisor.
Upon successfully completing this course, students will be able to:

1. Perform original research which will provide educational experiences not available in the formal coursework curriculum.

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Environmental Health and Engineering

180.609.01 Principles of Environmental Health I
4 credits - Course offered this year - East Baltimore
Latshaw, Megan

Presents concepts, principles, and applications underlying the field of environmental health. Topics include contaminant sources, fate and transport, exposure and dose, study design in toxicology, climate change, environmental justice, and the built environment. Emphasizes policy, practice, and systems-based approaches. Discussions and exercises focus on reviewing current environmental health issues in the media, evaluating peer-reviewed literature on these issues, and deliberating on potential opportunities for prevention and intervention.

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

2 Describe the sources and range of hazards to human health that exist within the environment
2 Explain behavioral and psychological factors that impact environmental health
3 Explain the social, political, and economic determinants related to environmental and health inequities
4 Explain how globalization affects global burden of disease, and equity in well-being, health outcomes, and access to care
5 Evaluate studies of potentially-toxic exposures and adverse health effects, in both animals and humans
6 Identify policies to mitigate, measure and prevent adverse health effects caused by environmental or occupational hazards
7 Interpret articles from the current environmental health literature
8 Identify current and emerging environmental problems that pose a risk to public health
9 Identify the contribution that environmental health practice makes within public health
10 Explain an ecological perspective on the connections among human health, animal health, and ecosystem health

Method of Assessment

| 1. Active participation in discussions | 15 |
| 2. Assignments                       | 30 |
| 3. Exam(s)                           | 55 |

Method of Assessment Detail:

Assignments involve both individual and group-associated activities. Class discussion includes summarizing environmental health news articles (both on the discussion forum and in-class), critical review of a journal article, and a mock exam exercise. In-class exams comprise about ten short answer questions, which involve applying concepts covered in lecture to the interpretation of peer-reviewed journal articles.

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

Enrollment: Minimum 10, Maximum 70, Waitlist Enabled: Yes
Enrollment limited to degree-seeking students in SPH graduate programs. Permission from instructor required for non-EHE students.

Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent is required for non-EHE degree candidates.

Prerequisite:
MHS and ScM students in EHE are required to take both Principles of Environmental Health I & II; PhD students in EHE only take PEH I.

180.611.01 The Global Environment, Climate Change, and Public Health
4 credits - Course offered this year - East Baltimore
Kuiper, Jordan
Explores how global environmental issues such as global warming, urban sprawl, deforestation, mining, environmental refugees, biodiversity loss, and food security may cause increasing human harm. Provides an overview of the science and policy issues related to the changing environment, how environmental problems affect human health, and emphasizes potential solutions and sustainable development methods essential for resolving a myriad of environment-health problems.

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

1. Identify a range of global environmental problems and their impact on public health
2. Explain the complexities and inter-relationships of a range of global environmental problems
3. Develop potential solutions to global environmental problems using the discuss gained in this course
4. Evaluate environment-related stories and claims in the lay press as to accuracy, relevance, and global importance
5. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g. One Health)

Method of Assessment | Percentage
--- | ---
0. Participation | 10
1. Homework | 50
2. Final Exam | 40

Email: jkuiper1@jhmi.edu
Lecture: T TH 8:30 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

180.624.81 Biotechnology and Health Security
3 credits - Course offered this year - Internet
Gronvall, Gigi

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

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

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

Method of Assessment | Percentage
--- | ---
1. Participation | 20
2. Quizzes | 20
3. Short written assignments | 60

Method of Assessment Detail:

20% Participation
20% Quizzes
60% Short written assignments

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

180.634.81 Public Health Emergencies: Risk Communication and Decision Science
3 credits - Course offered this year - Internet
Watson, Crystal

Explores the science of risk communication and decision making. Discusses risk perception, communication guidance, and news media portrayal of risks. Reviews existing guidance on risk decision making. Presents previous and current public health emergencies as practice-based examples of risk communication and decision making. Examines public health emergency scenarios to prepare students for communication and decision making in their future work.

Upon successfully completing this course, students will be able to:
1. Identify the human factors that influence decision making under uncertainty and time pressure
2. Explain techniques for improved decision making in a crisis
3. Analyze decision making in past public health emergencies
4. Apply decision science to improve public health decision making
5. Articulate the importance of communicating effectively about risks from and responses to public health threats
6. Apply components of effective risk communication to provide messages to policy makers and the public about health risks and protective actions
7. Identify common pitfalls in risk communication and how to avoid them
8. Critique existing risk communication controversies

Method of Assessment

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<td>Participation</td>
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<td>Written Assignment(s)</td>
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Method of Assessment Detail:
• Class participation (10% of final grade, assessed based on attendance and active participation in class discussion and lectures)
• Description of Topic (10% of course grade, pass/fail)
• Decision-Making Case Analysis (25% of course grade, graded)
• Risk Communication memo (25% of course grade, graded)
• Case Study After Action Report (30% of course grade, graded)

Email: cwatson@jhu.edu

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

180.661.01 Writing Scientific Papers I
1 credits - Course offered this year - East Baltimore
Davis, Meghan

Enables doctoral students to attain skills in formulating research hypotheses and writing successful scientific papers, including dissertation proposals, grant proposals and papers submitted to peer-reviewed journals. It confers skills in identifying and using online information sources and in saving papers and creating bibliographies.

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

Method of Assessment

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<tr>
<td>Participation</td>
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Method of Assessment Detail:

This course includes assignments outside of and participation in class meetings. This process will increase the student’s skills in developing a research topic and a specific hypothesis for testing in a dissertation project or research proposal through defining what is known and what is not known on the subject. The ultimate product of this series of courses will be the preparation and presentation of a scientific paper or “mini-commentary” at the end of the fourth term.

Email: mdavis65@jhu.edu

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

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

Restricted to PhD students in EHE

Grading Options: Pass/Fail

Consent required for some students; Consent required for students not enrolled in the EHE PhD program.

Prerequisite:

Final grade applies to all terms

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
Enrollment restricted to PhD students in EHE
Grading Options: Pass/Fail

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
Restricted to MHS students in EHE
Grading Options: Pass/Fail
The student's adviser serves as course instructor.

182.615.81 Airborne Particles (Cancelled - Department)
4 credits - Course offered this year - Internet
Koehler, Kirsten
Describes the basics of airborne particles through a mathematical framework. Explores properties of gases, particle motion, size statistics, Brownian motion and diffusion, curvilinear motion of particles, particle deposition and clearance in the human respiratory system, filtration, aerosol samplers, and sampling methodology, optical properties and electrical properties of aerosols.

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

Email: kkoehle1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent required for undergraduate students and for students who have not taken college-level physics

182.622.81 Ventilation and Hazard Control
4 credits - Course offered this year - Internet
Quiros-Alcala, Lesliam
Covers the principles of industrial ventilation and engineering controls for airborne hazards. Provides competency in general ventilation and industrial ventilation design.

Upon successfully completing this course, students will be able to:
1. Discuss the occupational/environmental health approach to risk management
2. Define the characteristics of local exhaust and general dilution ventilation
3. Analyze the performance of ventilation systems
4. Select an appropriate exhaust hood, balance flow in ducts, determine exhaust fan requirements, and choose the appropriate air cleaning technology to use for standard industrial operations
5. Design a balanced local exhaust ventilation system integrating all components

Method of Assessment

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<td>1. Homework</td>
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<td>2. LiveTalks</td>
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<td>3. Final Exam</td>
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Email: lalcala1@jhmi.edu

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 28 of 156
182.631.01 Principles of Occupational Safety (Discontinued)
2 credits - Course offered this year - East Baltimore
Knowles, Emory
Introduces the organizational framework in which safety sciences are practiced in the U.S. Illustrates professional and scientific methodologies by focusing on selected, substantive areas of practice (systems safety, nature of accidents, electrical hazards, fire and fire suppression, explosions and explosives, and falls and walking and working surfaces).
Upon successfully completing this course, students will be able to:
1. Describe the conceptual background on fundamentals of occupational safety via focusing on historical and current industry perspectives, selected literature, and high-hazard areas of study such as fire protection, confined spaces, electrical safety, etc.
2. Discuss skills integration via utilization of demonstration materials from real-world incidents
3. Become resource "Resourceful" via use of Internet and other communication vehicles
4. Describe the skills and discuss of policies, procedures, programs, and regulations so that there is a discussing of approaches that can be used to decrease probability of incidents and reduce costs for any type of organization
5. Provide fundamental guidance on the management and evaluation of safety programs

Email: eknowle1@jhu.edu
Lecture: F 1:30 PM - 3:20 PM

182.810.01 MS 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

Email: eknowle1@jhu.edu
Lecture: F 1:30 PM - 3:20 PM

182.845.01 Ms 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

Email: eknowle1@jhu.edu
Lecture: F 1:30 PM - 3:20 PM

182.850.01 Ms Essay
variable credits 1-22 - Course offered this year - East Baltimore
Departmental Faculty
Students work with their adviser to formulate, research, finalize, and gain approval of their master’s essay, which is based on a required Independent Professional Project (IPP). Students write the essay as a professional report summarizing the findings of the IPP. This represents a substantive application of professional technical skills through the process of collecting and summarizing data and reviewing appropriate literature.

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

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

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
MS students in EHE only
Grading Options: Pass/Fail
Consent required for some students; Course only available to MS students in EHE

The student’s adviser serves as course instructor. Successful completion of the MS essay is required for graduation from the program.

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 10, No maximum enrollment required, Waitlist Enabled: No
EHE ScM students only
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

184.830.01 Postdoctoral Research Environmental Health and Engineering
variable credits 1-22 - Course offered this year - East Baltimore
Departmental Faculty
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

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 30 of 156
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

Method of Assessment: Participation

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Method of Assessment: Individual presentation OR self-assessment

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Email: genee.smith@jhu.edu

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

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 EHE

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

Method of Assessment: Participation

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Method of Assessment: Attendance

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Email: mkohr1@jhu.edu

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

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

Grading Options: Pass/Fail

Consent required for some students; Consent required for students not in EHE

Prerequisite: Consent required for students not in EHE

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.

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

187.610.01 Public Health Toxicology
4 credits - Course offered this year - East Baltimore
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

Method of Assessment

<table>
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<tr>
<th>Method of Assessment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1. Four Exams</td>
<td>61</td>
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<tr>
<td>2. Four Quizzes</td>
<td>18</td>
</tr>
<tr>
<td>3. Written Assignment(s)</td>
<td>21</td>
</tr>
</tbody>
</table>

Method of Assessment Detail:
Four closed book online exams: each 50 points – total 200 points
Four weekly open book online quizzes: each 15 points – total 60 points
Written Assignment (Op/Ed): 70 points
Total points possible: 330

Email: jbressl1@jhu.edu

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 32 of 156
188.680.81 Fundamentals of Occupational Health

3 credits - Course offered this year - Internet

Cadorette, Maureen

Introduces selected important topics in occupational health through lectures, readings, and class discussion. Provides an overview of the field, including the history of occupational health; analysis of case studies in the history of asbestos, coal workers pneumoconiosis, and uranium mining; identification of the burden of occupational injuries and diseases; application of the toxicologic paradigm to activities in occupational health; analysis of occupational health hazards; identification of the association between social, behavioral, and organizational factors and health outcomes in the workplace; identification of legal, regulatory, and ethical issues; analysis and research in clinical and non-clinical emerging issues in occupational health; and an introduction to the concepts of occupational health in developing countries.

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

1. Describe some of the historical aspects of occupational health and safety (OHS) and define how these events helped to shape OHS today
2. Discuss the societal costs of occupational illnesses and injuries and the importance of prevention in the field of OHS
3. Identify the association between social, behavioral, and organizational factors and health outcomes in the workplace
4. Illustrate how the concepts of exposure assessment, the hierarchy of controls, biological monitoring, medical screening, and surveillance are used to prevent occupational injuries and illnesses
5. Determine the contributions of the core OHS disciplines to the multi-disciplinary OHS team
6. Discuss and compare the key laws that govern the workplace and the executive agencies that are responsible for the regulation and enforcement of these laws
7. Assess the complex environment in which the occupational health professional works
8. Judge the rationale for health promotion/improvement activities in the workplace
9. Compare and contrast OHS as practiced in the U.S. to OHS practiced in international workplaces

Email: mcadore1@jhu.edu

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

188.694.81 Health of Vulnerable Worker Populations

3 credits - Course offered this year - Internet

Agniew, Jacqueline; Fitzgerald, Sheila

Discusses occupational safety and health program considerations for vulnerable populations, including all levels of prevention and using examples such as the health needs of women workers, shift workers, aging workers, workers’ families, and workers with chronic diseases or impairments. Focuses on strategies for identifying and removing barriers that affect health and work performance, program development and management responsibilities, and cost issues related to selected preventive and rehabilitative programs. Presents relevant research findings on the ability of vulnerable populations to benefit from safe and healthy working lives.

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

1. Identify, for selected vulnerable subgroups, the bias and social inequities, such as racism, that influence their health and need for specific occupational health services
2. Describe the application of research findings to the practice of health professionals, including safety specialists, nurses, physicians, health educators, and others
3. Examine the contribution of workplace exposures and experiences to the well-being of workers’ families
4. Analyze the occupational health needs of a specific vulnerable worker population, such as minority workers, disabled workers, and workers who are immigrants
5. Prepare and present written and oral testimony to advocate for changes at the organizational, community, and government levels to meet the needs of a vulnerable worker group

Email: mcadore1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning
Method of Assessment | Percentage
--- | ---
1. Participation | 20
2. Final Paper | 30
3. Advocacy Assignment | 50

Method of Assessment Detail:
Preparation and delivery of brief oral testimony, backed by a written document, to advocate for changes or interventions on behalf of a vulnerable worker population according to a selected mock scenario. Scenarios address challenges related to bias, inequities, and discriminatory decisions and practices that demand changes in policy, legislation, resource distribution, education, or other solutions. Students post 5-minute recordings of their testimony.

Email: jagnew@jhu.edu

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

188.840.01 Special Studies and Research Environmental Health & Engineering
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

Email: jagnew@jhu.edu

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

188.861.01 Advanced Topics in Toxicology and Physiology (Cancelled - Department)
1 credits - Course offered this year - East Baltimore
Kohr, Mark; Mitzner, Wayne
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

Method of Assessment | Percentage
--- | ---
1. Discussion | 50
2. Presentation(s) | 25
3. Written Assignment(s) | 25

Email: mkohr1@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

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 34 of 156
340.612.01 Epidemiologic Basis for Tuberculosis Control

2 credits - Course offered this year - East Baltimore

Golub, Jonathan; Chaisson, Richard

Considers subjects and epidemiologic principles relevant to control measures against tuberculosis. Topics include source and interpretation of tuberculin sensitivity; risk factors; prevention by case-finding and treatment, vaccination, and chemoprophylaxis; and elements of control programs in developed and undeveloped areas. Lectures, Group Projects and review of the tuberculosis literature are primary components.

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

1. Describe the epidemiology of tuberculosis
2. Explain the basic concepts of tuberculosis infection, disease, prevention and treatment, and the correlation between HIV infection and tuberculosis
3. Evaluate tuberculosis literature and apply it to tuberculosis control needs of the present and future in both industrialized and non-industrialized populations

Method of Assessment

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<td>2. LiveTalks</td>
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<td>3. Participation</td>
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<td>4. Final Exam</td>
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Email: jegolub@jhsph.edu

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

Enrollment: Minimum 6, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; PHS undergraduates only must obtain permission to take the course from the course instructor

Prerequisite:

Jointly offered with IH

340.616.01 Epidemiology of Aging

3 credits - Course not offered until 2021 - 2022 - East Baltimore

Gross, Alden

Addresses the rapidly increasing need for specialized knowledge among epidemiologists in order to effectively promote the health of the aging society in the US (in 2020, 20% of the US population will be 65 or older). Introduces the epidemiology of aging and age-related disorders, including overviews of the public health impact of an aging society and the demographics and biology of aging. Covers the descriptive and analytic epidemiology of prevalent chronic conditions in the aged, methodologic challenges essential to consider in research on older adults, and strategies for prevention of age-related disorders.

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

1. Discuss and evaluate the public health significance and challenges of an aging population and the associated of changes that make health issues for older persons unique.
2. Describe the epidemiology of major geriatric syndromes, including physical disability, falls, and cognitive decline and their public health implications
3. Discuss opportunities for prevention of diseases and syndromes in the context of the aging phenotypes of older adults
4. Integrate general epidemiologic methods and specific gerontology knowledge when evaluating epidemiological literature pertaining to older adults.

Method of Assessment

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<td>1. LiveTalks</td>
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<td>2. Midterm</td>
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<td>3. Final Paper</td>
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Email: agross14@jhu.edu

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

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

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Auditors only are required to obtain consent
Prerequisite: 1 graduate course each in Epidemiology and Biostatistics (340.601, 721, or 751 prior or concurrent & 140.621 recommended).

### 340.616.81 Epidemiology of Aging

3 credits - Course not offered until 2021 - 2022 - Internet

Gross, Alden

Addresses the rapidly increasing need for specialized knowledge among epidemiologists in order to effectively promote the health of the aging society in the US (in 2020, 20% of the US population will be 65 or older). Introduces the epidemiology of aging and age-related disorders, including overviews of the public health impact of an aging society and the demographics and biology of aging. Covers the descriptive and analytic epidemiology of prevalent chronic conditions in the aged, methodologic challenges essential to consider in research on older adults, and strategies for prevention of age-related disorders.

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

1. Discuss and evaluate the public health significance and challenges of an aging population and the associated changes that make health issues for older persons unique.
2. Describe the epidemiology of major geriatric syndromes, including physical disability, falls, and cognitive decline and their public health implications.
3. Discuss opportunities for prevention of diseases and syndromes in the context of the aging phenotypes of older adults.
4. Integrate general epidemiologic methods and specific gerontology knowledge when evaluating epidemiological literature pertaining to older adults.

**Method of Assessment**

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<td>Midterm</td>
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<td>Final Paper</td>
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Email: agross14@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; Auditors only are required to obtain consent

Prerequisite: 1 graduate course each in Epidemiology and Biostatistics (340.601, 721, or 751 prior or concurrent & 140.621 recommended).

Student who are unable to attend the live talk sessions will be asked to listen to the recorded version of the talk(s) and answer assigned questions.

### 340.646.01 Epidemiology and Public Health Impact of HIV and AIDS

4 credits - Course offered this year - East Baltimore

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. Apply knowledge in the biological and genetic basis of HIV infection and host response in the human body.
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. Analyze the economics of HIV treatments.
5. Analyze vertical transmission of HIV from pregnant women to their newborns in the US and other parts of the world.
6. Analyze intervention modalities used to interrupt vertical transmission of HIV.
7. Predict future issues and trends of HIV/AIDS by discussing the concept of HIV candidate vaccines (biology, genetics, uptake, and dispersal), the economic burden of HIV/AIDS in the world, and the future projections of HIV/AIDS cases during the upcoming decade.
8. Identify and discuss several HIV-1 co-infection with other important infectious agents.

Email: hfarzad1@jhu.edu

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

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

Prerequisite: There are no prerequisites for this course. However, an understanding of basic science concepts and biology will be assumed. Basic epidemiologic principles and other quantitative skills will prove handy in understanding the distribution of the disease and in interpreting research findings.

**340.653.01 Epidemiologic Inference in Outbreak Investigations**

3 credits - Course offered this year - **East Baltimore**
Taha, Taha; Jennings, Jacky

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

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

Email: ttaha1@jhu.edu
Lecture: T TH 1:30 PM - 2:50 PM

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

Prerequisite: Students must have basic knowledge of infectious diseases. Knowledge of introductory epidemiology and biostatistics is essential. Suggested courses: 340.627, and 340.601 or 340.721 AND 340.722, or 340.751.

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

**340.654.81 Epidemiology and Natural History of Human Viral Infections**

6 credits - Course offered this year - **Internet**
Farzadegan, Homayoon

Emphasizes biology, epidemiology and pathogenesis of diseases caused by human viruses. Discusses virus interaction with host, diagnostic methodologies, immunization and treatment of viral infections. Examines relationships between oncogenesis and viral infections, such as Hepatitis/liver cancer, HPV/cervical cancer, EBV/Burkitt's lymphoma and HTLV/leukemia. Covers the biology and natural history of major viral families (such as retroviruses, rabies, and others). Also covers Prion diseases, which are similar to, but not viral infections.

Upon successfully completing this course, students will be able to:
1. Describe the biological and genetic structures and functions of viruses and their components, including and microbiology
2. Identify the physiologic steps of viral pathogenesis
3. Discuss virus-host interactions
4. Recognize the advantages and limiting factors related to antiviral treatment options
5. List several viruses and describe the processes by which they can cause cancer
6. Recall the interaction between viral agents and other factors in the disease pathway
7. Compare the pathogenesis of retroviruses with other viruses, including the mechanisms of invasion and integration and synthesis of new viral particles
8. Recognize and describe the issues of treatment, prevention, and future concerns of human immunodeficiency virus and AIDS
9. Compare and contrast the epidemiology and natural history of other human viral pathogens, including influenza, herpes simplex virus, bovine spongiform encephalitis and others
340.660.01 Practical Skills in Conducting Research in Clinical Epidemiology and Investigation
3 credits - Course offered this year - East Baltimore
Jacobson, Lisa; McKay, Heather; Reed, Nicholas

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

Upon successfully completing this course, students will be able to:
1. Identify the required components of a clinical research study
2. Prepare an informed consent for a clinical research study
3. Develop a plan for conducting clinical research
4. Construct a recruitment strategy
5. Distinguish among basic data collection procedures
6. Develop data collection forms
7. Assess quality assurance procedures for specific clinical study designs
8. Distinguish and identify reporting requirements for clinical studies

Method of Assessment Percentage
1. Lab Assignments 33
2. Homework 25
3. Exam(s) 25
4. Participation 17

Email: ljacob1@jhu.edu
Lecture: T TH 10:30 AM - 11:50 AM

Enrollment: Minimum 5, Maximum 40, Waitlist Enabled: Yes
Restricted to graduate students.
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Please contact Dr. Jacobson for consent.
Prerequisite: 340.752 Epidemiologic Methods II and 140.622 Statistical Methods in Public Health or 140.652 Methods in Biostatistics

340.687.01 Epidemiology of Kidney Disease
2 credits - Course offered this year - East Baltimore
Appel, Lawrence; Fadrowski, Jeffrey

Since kidney disease is characterized as an epidemic worldwide, and the prevalence continues to rise, learners study kidney disease comprehensively, emphasizing chronic and end-stage kidney disease. In addition to the basics of kidney disease epidemiology, highlights controversies and areas of ongoing and future research by reviewing findings from cohort studies, clinical trials, and landmark studies. Lectures emphasize methodological issues specific to the study of kidney disease.

Upon successfully completing this course, students will be able to:
1. Assess the scope of kidney disease in the U.S. and worldwide in terms of prevalence, causes, and societal- and patient-level impacts
2. Identify common co-morbidities associated with chronic and end-stage kidney disease and understand their impact
3. Recognize and problem-solve methodological challenges related to the study of kidney disease and its progression
4. Describe effective strategies to slow chronic kidney disease progression and current controversies due to lack of evidence and/or limitations in existing studies
Review trends in kidney transplantation/acute kidney injury and the evidence for current management practices

Email: lappel@jhsph.edu
Lecture: T 1:30 PM - 3:20 PM
Enrollment: Minimum 8, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Auditors must obtain consent from the instructor.
Prerequisite:

340.696.01 Spatial Analysis I: ArcGIS
3 credits - Course offered this year - East Baltimore
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: 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
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. A limited number of laptops are available during class to be shared when needed. Replaces course Spatial Analysis and GIS 1, 140.662. Do not take the course if you have completed 140.662.

340.721.60 Epidemiologic Inference in Public Health I (Cancelled - Committee Decision)
5 credits - Course offered this year - East Baltimore
Celentano, David; Deal, Jennifer
Introduces principles and methods of epidemiologic investigation of disease and other health states. Presents different types of study designs, including randomized trials, cohort and case-control studies; measurement of exposures and outcomes; risk estimation; surveillance; program evaluation; and causal inference. Discusses evaluation measures for screening programs and health interventions. Links epidemiologic inferences with the development of policy. Activities provide experience in applying epidemiologic methods, interpreting findings, and drawing inferences.
Upon successfully completing this course, students will be able to:
1. Define epidemiology, describe how it is used in public health, and recognize how exposure, disease and health states may vary based on person, place and time
2. Identify, calculate and interpret measures of disease frequency, validity and reliability, and associations (relative and absolute) as appropriate to the research question and study design
3. Describe and compare and contrast the strengths and weaknesses (biases) of epidemiologic study designs, including ecologic, cross-sectional, case-control, cohort, and clinical trials
4. Explain the role of epidemiologic methods and inferences in determining the etiology of disease and other health states (e.g., aging, injury, mental health) in preventing disease and improving health
5. Summarize how epidemiologic methods and inferences are used in public health practice, including in conducting outbreak investigation and surveillance, evaluating screening programs and health interventions, and in developing health and environmental policy

Method of Assessment

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<td>1. Assignments</td>
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<td>2. Midterm</td>
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1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 39 of 156
3. **Final Exam**  
25

Email: dcelent1@jhu.edu  
Lecture: M W 10:30 AM - 11:20 AM  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
graduate students only  
Grading Options: Letter Grade or Pass/Fail  
Prerequisite: None  
This class blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. This class will meet 2 times per week. Students are expected to spend 1.25 hours per week on class work, in addition to regular homework.

**Learning Materials:**

- (Book) *Epidemiology*  
  Gordis, Leon  
  Amazon $46.00

**340.721.81 Epidemiologic Inference in Public Health I**  
5 credits - Course offered this year - Internet  
Deal, Jennifer; Celentano, David  
Introduces principles and methods of epidemiologic investigation of disease and other health states. Presents different types of study designs, including randomized trials, cohort and case-control studies; measurement of exposures and outcomes; risk estimation; surveillance; program evaluation; and causal inference. Discusses evaluation measures for screening programs and health interventions. Links epidemiologic inferences with the development of policy. Activities provide experience in applying epidemiologic methods, interpreting findings, and drawing inferences.

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

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

**Method of Assessment**  

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<td>3. Final Exam</td>
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**Method of Assessment Detail:**

Copy data from 340.721.60

Email: jdeal1@jhu.edu  
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No  
graduate students only  
Grading Options: Letter Grade or Pass/Fail  
Prerequisite: Introduction to Online Learning

This class blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. This class will meet 2 times per week. Students are expected to spend 1.25 hours per week on class work, in addition to regular homework.
Learning Materials:

- (Book) Epidemiology
  Gordis, Leon
  Amazon $46.00

340.728.01 Advanced Methods for Design and Analysis of Cohort Studies

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

Munoz, Alvaro; Cox, Christopher; Ng, Derek

Explores advanced methods useful for the design and analysis of cohort studies. Emphasizes methods for analyzing time-to-event data subject to staggered entries using advanced parametric and semi-parametric methods; analytical methods for incomplete observations in cohort studies; methods to measure effects of exposures on time-to-event using relative times and relative hazards; parametric survival analysis methods and taxonomy of hazard functions; coefficients of determination based on parametric models for survival data; regression methods for trajectories of biomarkers; methods for the analysis of interventions in observational studies: confounding by indication, marginal structural models for individual effectiveness; methods for estimating population effectiveness; and methods to jointly analyze longitudinal and survival data.

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

1. Analyze a moderately complicated real life data set from a large, long-term multicenter cohort study using advanced methods discussed in the lectures
2. Write a scientific report with a “Methods” and a “Results” section of a publishable manuscript

Method of Assessment

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<td>Lab Assignments</td>
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Method of Assessment Detail:

5 lab assignments for written submission, each 20%.

Email: amunoz@jhu.edu
Lecture: T TH 1:30 PM - 3:20 PM
Lecture: M 1:30 PM - 2:20 PM

Enrollment: Minimum 5, Maximum 50, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 340.753 and 140.623 or 653. Knowledge of statistical package.

340.731.01 Principles of Genetic Epidemiology 1

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

Duggal, Priya

Presents fundamental concepts and methods in genetic epidemiology. Reviews terminology of genetics, introduces principles of population genetics, and provides an overview of various genetic epidemiology study designs, covering fundamental analyses, inferences, plus their strengths and limitations. Presents methods for assessing familial aggregation/correlation and genetic linkage and association analyses will be presented with an emphasis on how these are used in genetic epidemiology. Covers statistical techniques for modeling inheritance of complex phenotypes in family data. Explains various study designs commonly used in genetic epidemiology to identify the genetic basis of Mendelian as well as common, complex diseases. Discusses the role of high throughput genomics technologies within the context of genetic epidemiology studies.

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

1. Present fundamental concepts and methods in genetic epidemiology
2. Review basic terminology in genetics and introduce various genetic epidemiology study designs, covering basic analysis, inferences, plus their strengths and limitations
3. Discuss basic terminology in the field of human genetics
4. Discuss the basic principles behind major molecular biology techniques, such as PCR, and their applications in genetic epidemiology studies
5. Discuss various exposures, or markers, used in genetic epidemiology studies
6. Discuss principles of Hardy-Weinberg Equilibrium and be able to estimate allele and genotype frequencies
7. Discuss and calculate simple statistics, such as odds ratios and LOD scores
8. Discuss the difference between linkage and association studies
9. Discuss the difference between family-based and population-based studies
10. Discuss the difference between direct and indirect association studies

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 41 of 156
11 Interpret results of a linkage study
12 Interpret results of an association study
13 Select an appropriate study design for addressing a particular question
14 Discuss the inferences drawn from the different genetic epidemiology studies

Method of Assessment

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<td>Lab Assignments</td>
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<td>Midterm</td>
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<td>Final Exam</td>
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Email: pduggal@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: College-level biology

340.751.01 Epidemiologic Methods 1
5 credits - Course offered this year - East Baltimore
Schrack, Jennifer;Mueller, Noel

First course in the Epidemiologic Methods sequence: introduces students to the principles and concepts used in epidemiologic research. Presents material in the context of an epidemiological framework with three major areas: populations and an introduction to study designs; measurement, including measures of accuracy and disease occurrence; and methods used for comparing populations. Synthesis lectures illustrate how these elements come together in modern epidemiological research. Laboratory exercises and assignments 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 Describe key features of populations in time in epidemiologic research
2 Identify and distinguish basic epidemiological study designs
3 Recognize important characteristics associated with measurement in epidemiologic studies
4 Distinguish and calculate validity and reliability measures that quantify the accuracy of measurement
5 Describe types, purposes, and key components of surveillance systems
6 Select, calculate, compare, and interpret basic population health measures and measures of association for comparing population health measures.

Method of Assessment

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<td>Assignments</td>
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Email: jschrac1@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: 340.951
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: Prior or concurrent enrollment in Statistical Methods in Public Health I (140.621) or Methods in Biostatistics I (140.651).

First term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 42 of 156
MPH students who earned a grade of "A" in 340.601 PRINCIPLES OF EPIDEMIOLOGY the summer term may opt to skip the course 340.751 and proceed into 340.752 EPIDEMIOLOGIC METHODS 2 during the 2nd term. While generally skipping 340.751 is not recommended there may be individual circumstances where it is appropriate, especially if additional preparatory work is done. Contact the Department of Epidemiology for more information: akhan@jhsph.edu. MPH students who have elected the Quantitative Sciences concentration may NOT skip the 340.751 course. You must register for one lab 340.951 when you register for this course. Labs begin at 10:15 AM.

340.800.01 MPH Capstone Epidemiology
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Upon successfully completing this course, students will be able to:
  1. Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Consent from the Capstone Supervisor is Required
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

340.810.01 Field Placement Epidemiology
variable credits 1-16 - Course offered this year - East Baltimore
Departmental Faculty
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 1, No maximum enrollment required, Waitlist Enabled: No
Students must gain permission to register for field placement
Grading Options: Pass/Fail
Consent required for all students; Consent required for all students
Prerequisite: 140.621 or 140.651 and 340.601 or 340.721 or 340.751 (one course each in epidemiology and biostatistics)
Please meet with Academic Program Manager (Fran Burman) before registering.

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

340.830.01 Postdoctoral Research Epidemiology
variable credits - Course offered this year - East Baltimore
Upon successfully completing this course, students will be able to:
  1. Conduct post-graduate research and write papers for publication
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
340.840.01 Special Studies and Research Epidemiology
variable credits - Course offered this year - East Baltimore
Upon successfully completing this course, students will be able to:
1. Become proficient in field of research; perform literature reviews; or conduct secondary data analysis at an advanced level

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

340.853.01 First Year Epidemiology Doctoral Seminar
1 credits - Course offered this year - East Baltimore
Rositch, Anne; Dowdy, David; Hamra, Ghassan
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

Method of Assessment
Percentage
0. Participation 50
1. Discussion Board 50

Email: arositch@jhu.edu
Lecture: T 9:30 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to PhD students in the Department of Epidemiology
Grading Options: Pass/Fail
Prerequisite: Concurrent enrollment in 340.751.
The course is offered terms 1-3. Students are required to take all three terms during their first year of enrollment.

340.860.01 Current Topics in Epidemiologic Research
1 credits - Course offered this year - East Baltimore
Camarata, Laura
Attended by staff, students, fellows, and faculty, this seminar series is an opportunity for engaging with the Department of Epidemiology for exposure to epidemiologic methods as applied in research settings. Provides a broader perspective on contemporary issues in epidemiology and its research, through presentations of current research in the field of epidemiology.
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
4. Increase awareness of the context of Epidemiology in current topics.

Method of Assessment
Percentage
1. Participation 50
2. Discussion 25
3. Active Listening 25

Email: lcamarat@jhsph.edu
Lecture: F 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 44 of 156
Grading Options: Pass/Fail
Consent required for some students; for special students and interdivisional students
Prerequisite: Basic understanding of epidemiology concepts helpful
Meets every Friday during the term. Seminars begin promptly at 12:15. Students must engage at least 6 sessions per term to pass the course.

340.863.01 Doctoral Seminars in Epidemiology
3 credits - Course offered this year - East Baltimore
Mehta, Shrut; Duggal, Priya
Provides an opportunity for doctoral students to discuss challenges in epidemiology and apply methods and principles learned in didactic courses to formulate research questions and specific aims. Students participate in the preparation of dissertation proposal components, develop skills to effectively communicate research questions, and critically evaluate the scientific merit of research proposals.
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

Method of Assessment

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<tr>
<td>Participation 50</td>
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<td>Discussion 25</td>
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<td>In-class Exercises 25</td>
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Method of Assessment Detail:
This is a seminar based course: attendance and participation are crucial components of the learning process
Email: smehta@jhu.edu
Lecture: T 3:30 PM - 6:20 PM
Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
Restricted to post-comprehensive exam second year doctoral students in Epidemiology
Grading Options: Pass/Fail
Prerequisite: 340.751-753 and the Dept. Epi. written comprehensive exam
Course will end earlier than scheduled.

340.865.01 Teaching Epidemiologic Methods and Concepts At the Graduate Level
variable credits 1 to 8 credits - Course offered this year - East Baltimore
Camarata, Laura
Review and evaluate critical skills in teaching and communicating science, epidemiology, methods, and theory to a wide range of individuals. Provides a feedback mechanism for learning best practices in education at the graduate level.
Upon successfully completing this course, students will be able to:
1. Guide learners to interpret and critique epidemiological studies, epidemiologic data and make valid inferences from study findings
2. Communicate effectively in oral and written formats with students, professionals and the public on issues related to epidemiology and public health
3. Provide epidemiologic critique and advice though advising students and professionals on epidemiologic concepts and methods and conducting peer review activities

Method of Assessment

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<tr>
<td>Reflection 50</td>
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<td>Discussion 50</td>
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Method of Assessment Detail:
Students will prepare their goals and objectives for evaluation by the teaching faculty as the culminating project per term.
Email: lcamarat@jhsph.edu
Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
PHD students in Epidemiology
Grading Options: Pass/Fail
Consent required for all students; Doctoral students must be approved to serve as a teaching assistant prior to registration
Prerequisite: 340.753 AND passing the department of epidemiology's written comprehensive exam at the doctoral level
Doctoral students must complete and communicate their teaching goals for the term prior to the start of the term. Students should attend all course activities assigned to the TA role.

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 the CCE programs 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:
Students must take this course at least twice during their programs.

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

Extradepartmental
550.001.01 English for Academic Purposes I
0 credits - Course offered this year - East Baltimore
Hong Smith, Vicki
Mainly for students whose first language is not American English and/or whose higher education experience in U.S. institutions is limited. Includes basic formats and expectations, cultural and linguistic sensitivity, correct source usage to avoid plagiarism, documentation styles and application, global and local writing issues, common grammar issues and other relevant issues in academic communication in English.
Upon successfully completing this course, students will be able to:

1. Apply strategies used in the three main stages of the writing process; spiral strategies include 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

Method of Assessment

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<td>class attendance</td>
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Email: vhongs@jhsph.edu

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

Grading Options: Pass/Fail

Consent required for all students; Consent of Student Affairs required. Please email Contact person.

Multi-term with 550.001

Final grade applies to all terms

Final grade applies to all terms

Online with optional individual conferences via Teams or Zoom if it is possible to reasonably synchronize our meeting time across different time zones. 2020 dates are 9/11, 9/13, 10/11, 11/1, 11/22, and 12/13.

550.001.01 English for Academic Purposes I

0 credits - Course offered this year - East Baltimore

Hong Smith, Vicki

Mainly for students whose first language is not American English and/or whose higher education experience in U.S. institutions is limited. Includes basic formats and expectations, cultural and linguistic sensitivity, correct source usage to avoid plagiarism, documentation styles and application, global and local writing issues, common grammar issues and other relevant issues in academic communication in English.

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

1. Apply strategies used in the three main stages of the writing process; spiral strategies include 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

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Email: vhongs@jhsph.edu

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

Grading Options: Pass/Fail

Consent required for all students; Consent of Student Affairs required. Please email Contact person.

Multi-term with 550.002

Final grade applies to all terms

Final grade applies to all terms

Online with optional individual conferences via Teams or Zoom if it is possible to reasonably synchronize our meeting time across different time zones. 2020 dates are 9/11, 9/13, 10/11, 11/1, 11/22, and 12/13.

550.600.60 Living Science Ethics - Responsible Conduct of Research

1 credits - Course offered this year - East Baltimore

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 47 of 156
Bosch, Gundula
Fosters the responsible conduct of scientific research using a combination of lectures, discussion and analysis of case studies. Topics include: data management, conflict of interest, scientific misconduct, questionable research practices, responsible authorship, peer review, collaborations with peers and industry, trainee-mentor relationships, research ethics and regulatory requirements of the conduct of animal and human research, and the scientist as a responsible member of society.

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

1. Explain the regulatory requirements that govern the modern research environment
2. Discuss the expectations for adherence to the ethical principles in the conduct of research
3. Apply ethical and regulatory principles to the trainee’s own current and future research program

Method of Assessment

1. Quizzes: 50%
2. Completion of attendance-taking records: 50%

Email: gbosch2@jhu.edu

Lecture: W 4:00 PM - 5:00 PM

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

Eligibility restricted to doctoral students. Other JHSPH students or fellows who are required to have in-person RCR training based on funding source may also enroll.

Grading Options: Pass/Fail

Prerequisite:

This course is offered through the JHSPH R3 Program series (jhsph.edu/r3gsi); Pre-recorded presentations and discussions will be held asynchronously on CoursePlus; Live sessions on zoom are filled with group activities on the days and times indicated.

550.603.81 Fundamentals of Immunology
3 credits - Course offered this year - Internet
Scott, Alan
Introduces the major molecular and cellular components of the immune system and provides a broad understanding of the biological concepts associated with the induction and regulation of innate and adaptive immune responses. Explores major mechanistic topic areas that include the innate recognition of pathogens, the molecular nature of antigens and antigen presentation; molecular basis for antibody and T-cell receptor structure and diversity; cytokine signaling in immune activation, T cell lineage commitment, cellular basis for antibody production, cellular basis for T cell activation and cellular immunity, and central and peripheral tolerance.

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

1. Categorize and differentiate pattern recognition receptors, their ligands and signal transduction events
2. Examine the relationships between structure and function for antibodies, T cell receptors and MHC molecules
3. Examine the genetic, molecular and cellular basis for the antigen specificity of antibody and T cell receptors and the role that receptor specific has in pathogen recognition and tolerance to self
4. Articulate the roles cytokines play in the differentiation, activation and regulation of immune responses
5. Examine the cellular and molecular basis for T cell development and selection
6. Examine the cellular and molecular basis for antibody production and T cell-mediated immunity

Email: ascott5@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Academic backgrounds in relevant scientific areas such as chemistry/biochemistry, biology/cell biology/molecular biology, environmental sciences, microbiology/immunology or biomedical engineering.

It should be emphasized that only students with a background the the basic cellular and molecular science will optimally profit from this course. It would be inappropriate for students without such backgrounds.
Learning Materials:
• (Book) Immunobiology
  Murphy, Kenneth
  Amazon $125.00
  2017

550.604.01 Qualitative Reasoning in Public Health (Cancelled - Committee Decision)
2 credits - Course offered this year - East Baltimore
Kennedy, Caitlin; Frattaroli, Shannon; Smith, Katherine Clegg
Provides students with a broad overview of qualitative methods and concepts used in the public health sciences. Emphasizes the conceptual foundations of qualitative research and how it is used in public health.
Upon successfully completing this course, students will be able to:
1. Explain the basic concepts of iterative design, purposive sampling, and reflexivity
2. Distinguish between objectivist and constructivist epistemologies
3. Provide examples of different types of qualitative data arising in public health studies
4. Identify when qualitative or quantitative methods are best suited to address a given research question
5. Describe key features of study quality (rigor) for qualitative studies
6. Contrast different approaches to qualitative data analysis
7. Describe ways in which qualitative research is incorporated into research projects

Method of Assessment

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<td>1. In-class Exercises</td>
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<td>2. Written Assignment(s)</td>
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Email: caitlinkennedy@jhu.edu
Lecture: F 10:00 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
Jointly offered with HBS, HPM, IH

550.604.81 Qualitative Reasoning in Public Health
2 credits - Course offered this year - Internet
Kennedy, Caitlin; Frattaroli, Shannon; Smith, Katherine Clegg
Provides students with a broad overview of qualitative methods and concepts used in the public health sciences. Emphasizes the conceptual foundations of qualitative research and how it is used in public health.
Upon successfully completing this course, students will be able to:
1. Explain the basic concepts of iterative design, purposive sampling, and reflexivity
2. Distinguish between objectivist and constructivist epistemologies
3. Provide examples of different types of qualitative data arising in public health studies
4. Identify when qualitative or quantitative methods are best suited to address a given research question
5. Describe key features of study quality (rigor) for qualitative studies
6. Examine and contrast different approaches to qualitative data analysis
7. Describe ways in which qualitative research is incorporated into research projects

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<td>2. Written Assignment(s)</td>
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Lecture activities (30% -- 6% each): There will be six interactive, in-class activities throughout the course for which a completed document will be collected at the end of the activity. Students are only required to submit five of the six lecture activities to receive full credit. Activities are graded based on completion (credit/no credit); there is no grade or partial credit given.

Reflections (30% -- 15% each): There will be two short reflections throughout the course that will be building blocks for the final memo assignment.

Final Memo (40%): Building and expanding on the short reflections, students will be expected to develop a memo answering a range of questions about qualitative research methodology related to the set of articles chosen. The final memo will be due Saturday, October 27th by 12:00pm. For more detailed guidelines, please refer to the Assignment Instructions on CoursePlus.

Email: caitlinkennedy@jhu.edu

Enrollment: Minimum 10, Maximum 150, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Jointly offered with HBS, HPM, IH

550.609.01 Life and Death in Charm City: Histories of Public Health in Baltimore, 1750 to the Present

3 credits - Course offered this year - East Baltimore

Mooney, Graham

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

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

1. Describe a variety of key public health issues in Baltimore between 1750-2000
2. Discuss and appreciate the historical origins of some of Baltimore’s current public health challenges
3. Assess the impact of policy interventions on the health of Baltimore’s population
4. Critically discuss the changing relationship between local, state and federal agencies (governmental and non-governmental) in the formation, implementation and evaluation of public health interventions in Baltimore
5. Locate, analyze and interpret qualitative and quantitative primary source materials (such as published and unpublished government documents, newspaper reports, maps and images)

Email: gmooney3@jhmi.edu

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

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

550.630.01 Public Health Biology (Cancelled - Department)

3 credits - Course offered this year - East Baltimore

Zirkin, Barry

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

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

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

Email: brzirkin@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: A modern, college-level course in biology.
Jointly offered with BIOCHEM,MMI
Fulfills a core biology requirement of the MPH program.

550.631.81 Biological Basis of Public Health
3 credits - Course offered this year - Internet
DiFrancesca, Heidi; Ketner, Gary; Zirkin, Barry
Discusses molecular, biochemical, cellular and immunological methodology and approaches for the mechanistic understanding, treatment and prevention of human diseases, and for understanding disease susceptibility. The focus will be on the application of biological methods and approaches to such critical issues as infectious disease, cancer, neurodegenerative disease, COPD, environmental toxicant effects on early development, and reproductive anomalies and their treatment.

Upon successfully completing this course, students will be able to:
1. Analyze the ways in which biochemical, molecular and cellular tools are applied to understand, treat, and prevent human diseases and conditions
2. Assess the role of genetic determinants in human disease and disease susceptibility
3. Critique how specific biological tools have been or can be utilized to treat and prevent human disease
4. Apply biological principles and tools to the creation of solutions to existing or potential public health threats

Method of Assessment Percentage
1. Midterm 50
2. Final Exam 50

Email: hdifrancesca@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: A strong college-level background in the biological sciences is required
Jointly offered with BIOCHEM,EHE,MMI

550.800.94 MPH Capstone Extradepartmental
2 credits - Course offered this year - India
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 1, No maximum enrollment required, Waitlist Enabled: No
Only students enrolled in the MPH program with IIHMR, Jaipur are permitted in this section
Grading Options: Pass/Fail
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.
This section is offered in Jaipur, India

550.844.01 Current Issues in Public Health: COVID-19 Pandemic Response

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 51 of 156
2 credits - Course offered this year - East Baltimore
Labrique, Alain; Atwell, Jessica E.; McGinty, Meghan D.
Explores current issues in the ongoing coronavirus pandemic. Discusses emerging knowledge about virology and epidemiology of SARS-CoV-2, the clinical presentation and treatment of COVID-19. Examines key ethical, social and policy challenges and opportunities to address them in our global response.
Upon successfully completing this course, students will be able to:
1. Describe key characteristics of the novel coronavirus SARS-CoV-2, including epidemiology, virology, transmission, diagnosis, testing, treatments including non-pharmacologic interventions, mental health challenges, and immunization and therapeutic strategies

Method of Assessment

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<tr>
<td>Participation</td>
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<td>Assignments</td>
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Method of Assessment Detail:
- Participation 50%
- Country or state COVID-19 response timeline 50%

Email: alabriq1@jhu.edu
Lecture: T TH 5:00 PM - 6:00 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite:
Jointly offered with IH

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.

550.850.01 MPH MBA Internship

12 credits - Course offered this year - East Baltimore
Departmental Faculty
MPH MBA Internship
Upon successfully completing this course, students will be able to:
1. Articulate how they have applied both MPH and MBA core principles in an applied professional setting

Enrollment: Minimum 1, Maximum 10, Waitlist Enabled: Yes
Grading Options: Pass/Fail

550.853.01 Seminar for MPH Concentration in Social and Behavioral Sciences I

1 credits - Course offered this year - East Baltimore
Kennedy, Ryan; Denison, Julie
Introduces students to research and practice activities related to social and behavioral sciences at JHU, and also introduces students to key concepts and tools needed to successfully complete a Capstone Project related to social and behavioral sciences.

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 52 of 156
Upon successfully completing this course, students will be able to:

1. Describe the steps in completing different types of Capstone Projects related to social and behavioral sciences (grant proposal, comprehensive literature review, plan for health behavior intervention, plan for program evaluation, formative research protocol, research project)

2. Access the information and technical support needed to successfully complete the different types of Capstone Projects

Email: rdkennedy@jhu.edu

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

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

Grading Options: Pass/Fail

Prerequisite: None

Jointly offered with HBS, IH

550.855.81 Ma Public Health Biology Thesis

variable credits 5-6 - Course offered this year - Internet

Zirkin, Barry

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

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

1. Compose, explain and defend a 20-30 page scholarly thesis that demonstrates a deep understanding of how biological principles and methods are used to understand, treat and/or prevent a particular condition of importance in the public health arena.

2. Critically evaluate data described in scientific papers and integrate data from multiple papers into coherent theories about the regulation of complex biological processes and diseases.

3. Synthesize public health principles learned during prior coursework through original writing project.

Email: brzirkin@jhu.edu

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

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

Grading Options: Pass/Fail

Jointly offered with BIOCHEM, EHE, MMI

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

550.860.82 Academic & Research Ethics at JHSPH

0 credits - Course offered this year - Internet module

Vernick, Jon

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

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

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

2. Practice proper attribution when referencing sources in academic assignments and scholarly works

3. Avoid violations of academic and research integrity such as plagiarism, cheating, research fraud and scientific misconduct

4. Conduct research in a responsible and professional manner with attention to maintaining integrity relative to authorship, data management and ownership, and protection of human and animal rights

Email: jvernic1@jhu.edu
**Enrollment:** Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Auditing not permitted

Grading Options: Pass/Fail

All students must complete during their first term of matriculation; failure to do so will result in blockage of further course registration

**550.867.01 Introduction to MPH Studies**

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

Diener-West, Marie

Introduces full-time MPH students to their educational program. Includes discussion group sessions with summer mentor faculty, enrichment seminars, required readings, and a final paper.

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

1. Define the interdisciplinary nature of public health
2. Articulate national and international perspectives of public health problems
3. Plan their educational program through the Individual Goals Analysis Paper

**Method of Assessment**

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<th>Method</th>
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<td>1. Discussion</td>
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<td>2. Seminar attendance</td>
<td>15</td>
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<td>3. Final Paper</td>
<td>75</td>
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**Method of Assessment Detail:**

Participation in Discussion Group; Attendance of enrichment seminars; Completion of final paper

Email: mdiener@jhu.edu

**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

**550.880.01 SS/R: General Preventive Medicine Residency-MPH**

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

Lam, Clarence; Hatef, Elham

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

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1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at [http://www.jhsph.edu/courses](http://www.jhsph.edu/courses) - Page 54 of 156
4 Enable residents to view health issues on a broad continuum from local to international perspective
5 Apply knowledge toward the protection of the public's health
6 Provide residents with the management and epidemiologic skills needed to address the overall health needs of underserved populations

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

550.890.01 SS/R: General Preventive Medicine Residency-Residency Year
variable credits Range of 6-16 credits - Course offered this year - East Baltimore
Lam, Clarence
Prepare residents in the theoretical, practical, and clinical knowledge and skills essential to leadership roles in the design, management, and evaluation of population-based approaches to health.
Upon successfully completing this course, students will be able to:
1 Prepare residents in the theoretical, practical, and clinical knowledge and skills essential to leadership roles in the design, management, and evaluation of population-based approaches to health
2 Provide training in the teaching, research, and practice of preventive medicine
3 Instill in residents the ability to synthesize clinical and population-based approaches to disease prevention and health promotion
4 Enable residents to view health issues on a broad continuum from local to international perspective
5 Apply knowledge toward the protection of the public's health
6 Provide residents with the management and epidemiologic skills needed to address the overall health needs of underserved populations
7 Residents will participate in a core course of modules known as "Fundamentals of General Preventive Medicine."
   Approximately 10 modules will be offered annually. Examples include Health Care Delivery; Injury Epidemiology and Prevention; Health Promotion; and Public Health Preparedness

Email: ckl@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to GPMR during post MPH year.
Grading Options: Pass/Fail

550.895.01 MPH Practicum (Non Departmental)
variable credits Credits are determined in conjunction with the MPH practicum coordinator - Course offered this year - East Baltimore
Departmental Faculty
The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.
Upon successfully completing this course, students will be able to:
1 Demonstrate that they have had a mentored public health practicum experience
2 Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience

Email: ckl@jhu.edu
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

550.895.94 MPH Practicum (Non Departmental)
variable credits Credits are determined in conjunction with the MPH practicum coordinator - Course offered this year - India
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 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: Pass/Fail
This section is offered in Jaipur, India

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

552.601.80 Foundational Principles of Public Health
0.5 credits - Course offered this year - Internet
Departmental Faculty
Provides a broad systematic understanding of the executive practice of public health from its inception to modern day. Uses case studies, as well as ethical and public health practice frameworks to provide students with a grounding in “what is public health practice,” why it is important, and why it is contested.
Upon successfully completing this course, students will be able to:
1 Recognize key factors that precipitate the establishment and evolution as well as erosion and destruction of public health systems in the U.S. and globally
2 Articulate the mission, vision and core functions and essential services of public health
3 Explore the role of public health systems to address key public health challenges
4 Use ethical and practice frameworks to reflect on the role and practice of public health

Method of Assessment
1. Participation 20%
2. Interim 40%
3. Final Exam 40%

Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 03, 2020 - Aug 30, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory
Course dates are 8/3-8/30.

552.601.81 Foundational Principles of Public Health
0.5 credits - Course offered this year - Internet
Departmental Faculty
Provides a broad systematic understanding of the executive practice of public health from its inception to modern day. Uses case studies, as well as ethical and public health practice frameworks to provide students with a grounding in “what is public health practice,” why it is important, and why it is contested.
Upon successfully completing this course, students will be able to:

1. Recognize key factors that precipitate the establishment and evolution as well as erosion and destruction of public health systems in the U.S. and globally
2. Articulate the mission, vision and core functions and essential services of public health
3. Explore the role of public health systems to address key public health challenges
4. Use ethical and practice frameworks to reflect on the role and practice of public health

Method of Assessment  Percentage
1. Participation  20
2. Interim  40
3. Final Exam  40

Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 31, 2020 - Sep 27, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory

552.602.81 The Role of Quantitative Methods in Public Health

0.5 credits - Course offered this year - Internet

Departmental Faculty
Covers the bases for the role of quantitative methods in public health, including how to formulate scientific questions quantitatively, different types of data, properties characterizing high or poor quality of measurements, the implications of statistical uncertainty, and the difference between association and causation. Uses illustrative case examples including the opioid epidemic and aging.

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

1. Use statistical reasoning to formulate public health questions in quantitative terms
2. Provide examples of different types of data arising in public health studies and of characteristics describing the quality of measurements
3. Interpret estimates and uncertainty for a single population quantity and for a comparison of populations
4. Articulate the distinction between correlation and causation and the benefit of randomization when estimating causal effects

Method of Assessment  Percentage
1. Participation  20
2. Interim  40
3. Final  40

Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 31, 2020 - Sep 27, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory

552.603.80 The Role of Qualitative Methods and Science in Describing and Assessing a Population’s Health

0.5 credits - Course offered this year - Internet

Departmental Faculty
Acquaints students with a broad overview of the use of qualitative research methods in public health. Explores the types of critical public health questions best addressed through a qualitative approach and introduces conceptual principles that are foundational to qualitative research. Exposes students to key issues in planning and conducting qualitative research, as well as strategies for analyzing qualitative data.

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

1. Identify when qualitative methods are best suited to generate insight on a public health concern
2. Distinguish between objectivist and constructivist epistemologies
3. Provide examples of different types of qualitative data arising in public health studies

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 57 of 156
4. Describe ways in which qualitative research is incorporated into current public health research
5. Describe different qualitative analytic approaches and means to evaluate rigor

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<th>Method of Assessment</th>
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<td>1. Participation</td>
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<td>2. Midterm</td>
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<td>3. Final Exam</td>
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Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 03, 2020 - Aug 30, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory
Course is offered 8/3 to 8/30.

552.603.81 The Role of Qualitative Methods and Science in Describing and Assessing a Population’s Health

0.5 credits - Course offered this year - Internet
Departmental Faculty
Acquaints students with a broad overview of the use of qualitative research methods in public health. Explores the types of critical public health questions best addressed through a qualitative approach and introduces conceptual principles that are foundational to qualitative research. Exposes students to key issues in planning and conducting qualitative research, as well as strategies for analyzing qualitative data.

Upon successfully completing this course, students will be able to:
1. Identify when qualitative methods are best suited to generate insight on a public health concern
2. Distinguish between objectivist and constructivist epistemologies
3. Provide examples of different types of qualitative data arising in public health studies
4. Describe ways in which qualitative research is incorporated into current public health research
5. Describe different qualitative analytic approaches and means to evaluate rigor

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<td>1. Participation</td>
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<td>2. Midterm</td>
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<td>3. Final Exam</td>
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Method of Assessment Detail:

Days & Times with Start & End Dates: Sep 28, 2020 - Oct 26, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory

552.604.81 Causes and Trends in Morbidity and Mortality

0.5 credits - Course offered this year - Internet
Departmental Faculty
Provides a broad understanding of the top causes of morbidity and mortality globally, in the U.S., and in Baltimore City, as well as the trends in these estimates. Introduces measurement of morbidity and mortality, and threats to the quality of measurements. Addresses the role of population characteristics (age, sex, region, race/ethnicity) in estimates and trends. Discusses case studies of major causes and trends in morbidity and mortality in defined populations.

Upon successfully completing this course, students will be able to:
1. Describe the trends and major causes of morbidity and mortality in the world, U.S., and Baltimore
2. Articulate the concepts that guide the methodology for measuring morbidity and mortality
3. Explain the role of population characteristics in differentiating major causes of morbidity and mortality

Method of Assessment

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<td>3. Final</td>
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**Method of Assessment Detail:**

Days & Times with Start & End Dates: Sep 28, 2020 - Oct 26, 2020

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

Grading Options: Satisfactory/Unsatisfactory

**552.605.81 The Science of Primary Secondary and Tertiary Prevention in Population Health**

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

Departmental Faculty

Provides a broad understanding of the different levels of public health prevention: primary, secondary, and tertiary and discusses the impact of each level on prevention in population health. Emphasizes the role of epidemiology in prevention and control; compares and contrasts the descriptive epidemiology, natural history, and pathologic and biologic characteristics as well as factors related to their etiology. Presents the impacts of recent advances in human genomics/genetics, immunology and metabolism on prevention strategies for chronic and acute disease. Introduces basic principles, theories, and methods in the field of prevention science. Identifies public health interventions that operate at multiple ecological levels, including the community, family, and individual. Introduces the role of resilience. Discusses case studies related to the prevention of different physical, mental, behavioral and infectious disease health problems.

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

1. Articulate the role of prevention science in public health
2. Explain the different levels of public health prevention
3. Identify prevention approaches at different ecological levels

**Method of Assessment**

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**Method of Assessment Detail:**

Days & Times with Start & End Dates: Aug 31, 2020 - Sep 27, 2020

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

Grading Options: Satisfactory/Unsatisfactory

**552.606.81 The Critical Importance of Evidence in Advancing Public Health Knowledge**

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

Departmental Faculty

Emphasizes the need to establish the credibility of the evidence, based on the rigor of the methods used in generating it (e.g., type of studies, rules of causality, the nature of errors) before employing evidence to advance knowledge, practice, or policy. Discusses the bases for debate about recommendations for particular interventions that impact a population’s health, how to weigh their benefits and harms, the ethics of scientific conduct, and effective communication in building evidence. Uses illustrative case examples, such as breast and prostate cancer screening, vaccines for measles and cervical cancer, nutritional sodium reductions, and the opioid epidemic.

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

1. Establish the credibility of the evidence
2. Assess the impact of credible evidence when applied to a population’s health
3. Weigh relative benefits and harms
4. Discuss the ethics of scientific conduct
5. Describe the role of effective communication in building evidence

**Method of Assessment**

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<td>2. Interim</td>
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<td>3. Final</td>
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Days & Times with Start & End Dates: Sep 28, 2020 - Oct 26, 2020

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

Grading Options: Satisfactory/Unsatisfactory
552.607.80 Essentials of Environmental Health
0.5 credits - Course offered this year - Internet
Departmental Faculty
Summarizes the public health impact of environmental agents (e.g. chemical, biological, physical) present in air, water, soil, food, and the community. Discusses how these agents cause adverse health effects as well as ways to assess the risk of such effects and apply strategies for preventive interventions. Presents systems that have major impacts on environmental health, as well as applications of the science in the real domestic and international world. Through four modules: Foundations; Exposures in Air, Water and Food; Systems; and Cases, exemplifies effects of specific environmental exposures.

Upon successfully completing this course, students will be able to:
1. Describe the foundations of environmental health, including toxicology and risk assessment
2. List the main types of environmental exposures that impact domestic and international public health
3. Use examples to explain the importance of systems thinking in environmental health, such as the climate or the built environment
4. Discuss applications of environmental health to solve issues in the workplace or community

Method of Assessment

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<td>Final Exam</td>
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Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 03, 2020 - Aug 30, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory
Course is offered 8/3 to 8/30.

552.607.81 Essentials of Environmental Health
0.5 credits - Course offered this year - Internet
Departmental Faculty
Summarizes the public health impact of environmental agents (e.g. chemical, biological, physical) present in air, water, soil, food, and the community. Discusses how these agents cause adverse health effects as well as ways to assess the risk of such effects and apply strategies for preventive interventions. Presents systems that have major impacts on environmental health, as well as applications of the science in the real domestic and international world. Through four modules: Foundations; Exposures in Air, Water and Food; Systems; and Cases, exemplifies effects of specific environmental exposures.

Upon successfully completing this course, students will be able to:
1. Describe the foundations of environmental health, including toxicology and risk assessment
2. List the main types of environmental exposures that impact domestic and international public health
3. Use examples to explain the importance of systems thinking in environmental health, such as the climate or the built environment
4. Discuss applications of environmental health to solve issues in the workplace or community

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Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 31, 2020 - Sep 27, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory

552.608.80 Biologic, Genetic and Infectious Bases of Human Disease
0.5 credits - Course offered this year - Internet

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 60 of 156
Departmental Faculty

Focuses on the basics of cellular and molecular biology, genetics, and infectious agents. Explains concepts that link basic biology to disease and population health. Illustrates application of biologic and genetic principles to population health using case studies.

Upon successfully completing this course, students will be able to:
1. Describe the basics of cellular function and how cellular dysfunction contributes to pathology
2. Explain how infectious agents contribute to disease in human populations
3. Explain how genetic factors contribute to disease in human populations
4. Apply cellular and genetic principles to understanding of model disease

Method of Assessment

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<tr>
<td>Participation</td>
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<td>Interim</td>
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<td>Final</td>
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Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 03, 2020 - Aug 30, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory
Course is offered 8/3 to 8/30.

552.608.81 Biologic, Genetic and Infectious Bases of Human Disease
0.5 credits - Course offered this year - Internet

Departmental Faculty

Focuses on the basics of cellular and molecular biology, genetics, and infectious agents. Explains concepts that link basic biology to disease and population health. Illustrates application of biologic and genetic principles to population health using case studies.

Upon successfully completing this course, students will be able to:
1. Describe the basics of cellular function and how cellular dysfunction contributes to pathology
2. Explain how infectious agents contribute to disease in human populations
3. Explain how genetic factors contribute to disease in human populations
4. Apply cellular and genetic principles to understanding of model disease

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<td>Interim</td>
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Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 31, 2020 - Sep 27, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory
Course is offered 8/31 to 9/27.

552.609.81 Psychological and Behavioral Factors That Affect A Population’s Health
0.5 credits - Course offered this year - Internet

Departmental Faculty

Shows the role of behavior in health, drawing from smoking and other risk behaviors. Examines factors along the socioecological continuum that influence such behavior. Highlights key determinants for achieving behavior change to improve health outcomes, such as feasibility, self-efficacy and social support. And introduces common types of behavior change interventions, such as counseling and social marketing.

Upon successfully completing this course, students will be able to:
1. Define psychological factors and explain their direct and indirect influence on population health
2. Define and distinguish between behavior, behavioral factor and public health outcome
3. Explain the role of behavior on poor and good health
2 Name and define socioecological factors along the continuum that influence behavior
3 Name and define key factors for behavior change
4 Recognize common types of behavior change interventions

Method of Assessment | Percentage
--- | ---
1. Participation | 20
2. Interim Assessment | 40
3. Final Exam | 40

Method of Assessment Detail:

Days & Times with Start & End Dates: Sep 28, 2020 - Oct 26, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory

552.610.80 The Social Determinants of Health
0.5 credits - Course offered this year - Internet
Departmental Faculty
Provides an overview of social, political, and economic influences on health and their role in producing health inequalities within and among populations. Emphasizes key axes of inequality: gender, race/ethnicity, and socioeconomic status. Explains conceptual foundations for social determinants of health and health inequalities. Summarizes evidence linking selected social, political, and economic factors to health and the pathways by which they influence health. Highlights importance of understanding social determinants of health, despite challenges of designing interventions targeting social determinants.

Upon successfully completing this course, students will be able to:
1. Identify and define the primary social, political and economic factors that influence population health
2. Describe the evidence linking these factors to health outcomes within and among populations
3. Explain the ways that these factors lead to health inequalities within and among populations
4. Explain what is meant by structural determinants of health, how they contribute to understanding population health, and why they can be difficult to target with interventions
5. Describe the general pathways through which social, political and economic factors affect health outcomes

Method of Assessment | Percentage
--- | ---
1. Participation | 20
2. Interim | 40
3. Final Exam | 40

Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 03, 2020 - Aug 30, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory
Jointly offered with PFRH
Course is offered 8/3 to 8/30

552.610.81 The Social Determinants of Health
0.5 credits - Course offered this year - Internet
Departmental Faculty
Provides an overview of social, political, and economic influences on health and their role in producing health inequalities within and among populations. Emphasizes key axes of inequality: gender, race/ethnicity, and socioeconomic status. Explains conceptual foundations for social determinants of health and health inequalities. Summarizes evidence linking selected social, political, and economic factors to health and the pathways by which they influence health. Highlights importance of understanding social determinants of health, despite challenges of designing interventions targeting social determinants.

Upon successfully completing this course, students will be able to:
1. Identify and define the primary social, political and economic factors that influence population health
2. Describe the evidence linking these factors to health outcomes within and among populations
3. Explain the ways that these factors lead to health inequalities within and among populations

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 62 of 156
4 Explain what is meant by structural determinants of health, how they contribute to understanding population health, and why they can be difficult to target with interventions

5 Describe the general pathways through which social, political and economic factors affect health outcomes

Method of Assessment | Percentage
--- | ---
1. Participation | 20
2. Interim | 40
3. Final | 40

Method of Assessment Detail:

Days & Times with Start & End Dates: Aug 31, 2020 - Sep 27, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory

552.611.81 Globalization and Population Health

0.5 credits - Course offered this year - Internet
Departmental Faculty

Evaluates in depth the complex relationship between globalization and health. Discusses this relationship across the four main dimensions of globalization (economic, political, cultural and environmental). Examines the existing evidence on the impact of globalization on global burdens of disease. Explores the opportunities of globalization and strategies for mitigating its negative effects.

Upon successfully completing this course, students will be able to:
1 Characterize the existing evidence on the impact of globalization on population health
2 Identify and explain the challenges of globalization and its effect on population health
3 Propose strategies for catalyzing the opportunities of globalization and mitigating its negative effects

Method of Assessment | Percentage
--- | ---
1. Participation | 20
2. Interim Assessment | 40
3. Final Exam | 40

Method of Assessment Detail:

Days & Times with Start & End Dates: Sep 28, 2020 - Oct 26, 2020
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory

552.612.81 Essentials of One Health

0.5 credits - Course offered this year - Internet
Davis, Meghan

Introduces the principles of One Health, the interface of human health, animal health and environmental health. Examines the methods and tools for the conduct of One Health studies and the design of One Health programs. Uses a systems thinking approach to explore multiple topics including food systems, food and animal policies, One Health governance, and stakeholder engagement.

Upon successfully completing this course, students will be able to:
1 Define the three One Health domains
2 Explain why a One Health perspective is important to the control of human disease
3 Describe how stakeholder engagement contributes to the success of One Health studies or programs
4 Apply One Health principles to research or government policy-making

Method of Assessment | Percentage
--- | ---
1. Participation | 20
2. Interim Assessment | 40
3. Final Exam | 40

Method of Assessment Detail:
Email: mdavis65@jhu.edu
Days & Times with Start & End Dates: Sep 28, 2020 - Oct 26, 2020
Enrollment: Minimum 6, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Satisfactory/Unsatisfactory

552.622.81 Creating, Implementing and Monitoring Budgets for Projects and Programs
1 credits - Course offered this year - Internet
Martin, Pamala
Addresses strategies for creating budgets for projects and programs. Stresses the essential role of budgets in promoting the health of organizations and resource management. Explores how budgets are used to facilitate project and program management, including assessing whether high-quality outcomes are being achieved on time and within resource constraints or whether changes to the work plan, budget, or available resources are needed.
Upon successfully completing this course, students will be able to:
1. Explain the basic principles of budget and resource management
2. Explain how to create and implement a work plan
3. Apply cost-benefit principles
4. Evaluate productivity monitoring tools
5. Evaluate the strengths of budgets and budget justifications

Email: pcmartin@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite:
Jointly offered with PFRH

552.625.81 Building Collaborations Across Sectors to Improve Population Health
0.5 credits - Course offered this year - Internet
Bittle, Mark
Provides an overview of the essential role of teams and teamwork in enhancing organizational performance and building multi-sector collaborations and partnerships in population health. Following deliberate, evidence-based methods for effective collaboration, identifies and discusses several key factors that can only be addressed through cross-sector efforts. These factors include the social determinants of health, complexity, context, and societal resistance. Introduces the Collective Impact Model, designed to tackle entrenched, socially complex issues, as an evidence-based model for effective, large scale, sustainable change.
Upon successfully completing this course, students will be able to:
1. Understand the evidence behind the stages of team development, team performance, and the essential skills for collaborative teamwork
2. Explain the elements of interdisciplinary team effectiveness and team leadership
3. Understand the key principles of systems thinking, adaptive leadership, and complexity as it applies to communities and addressing deeply entrenched, socially complex issues such as the determinants of health
4. Identify the characteristics of an effective, sustainable cross-sector collaboration, including mutual respect, maintaining a focus on shared values and goals, the roles of other professionals in solving public health problems, and methods of communicating with other professionals in ways that they understand
5. Explain the essential elements of the Collective Impact framework as the foundation of effective, and sustainable cross-sector collaboration

Method of Assessment

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<td>3. Interprofessional Event</td>
<td>20</td>
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Method of Assessment Detail:

Email: mbittle1@jhu.edu
Days & Times with Start & End Dates: Aug 31, 2020 - Sep 27, 2020

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Health Behavior and Society
410.600.01 Fundamentals of Health, Behavior and Society
4 credits - Course offered this year - East Baltimore
Sherman, Susan; Rimal, Rajiv
Introduces students to a social ecological perspective of population health. Challenges students to address societal and structural forces such as socioeconomic position, racial and ethnic and gender sources of inequality as well as interpersonal processes reflected in norms, networks, and social capital. Focuses on behavior, communication, decision-making, and health outcomes at the individual, family and community level. Applies these social and behavioral perspectives to a better understanding of health problems and prepares students to develop effective public health interventions for individuals, families, communities and populations.

Upon successfully completing this course, students will be able to:
1. Identify basic theories, concepts, and models from a range of social and behavioral science disciplines that are used in public health research and practice.
2. Describe the socioecological perspective and how social and behavioral factors affect health outcomes and public health responses.
3. Summarize public health research literature and explain how a study’s theoretical framework, methods, and findings fit within a socioecological perspective.
4. Use the socioecological model and its underlying theoretical perspectives to identify and explain multiple determinants of health and their influences on health and health behavior.
5. Compare how different theories and levels from the socioecological model shape our understanding of public health problems and their solutions.
6. Evaluate public health interventions to identify their theoretical foundations and assess how they address health determinants outlined by the socioecological model.

Method of Assessment Percentage
0. Lab Assignments 20
1. Midterm 45
2. Final Paper 35

Email: ssherman@jhu.edu
Lecture: M W 3:30 PM - 5:20 PM

Enrollment: Minimum 20, Maximum 100, Waitlist Enabled: Yes
Graduate students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: None.

410.612.01 Sociological Perspectives on Health
3 credits - Course offered this year - East Baltimore
Hendrickson, Zoe
Presents sociological concepts, paradigms, and theories frequently cited or used as sources of basic ideas and assumptions in contemporary analyses of health behavior and health systems. Discusses the social construction of concepts and theories, especially those that apply to our understanding of health and illness, and the implications of sociological perspectives for public health, including social stratification, deviance, social control, role performance, and stress.

Upon successfully completing this course, students will be able to:
1. Analyze several theoretical perspectives drawn from the social sciences and how they have been applied to issues of public health
2. Apply each perspective to a public health problem
3. Demonstrate that the perspective one begins with influences the scientific questions analyzed
4. Analyze the policy implications of each perspective
410.620.01 Program Planning for Health Behavior Change

3 credits - Course offered this year - East Baltimore

Jones, Vanya

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

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

1. Explain the importance of health behavior as a contributor to current public health problems
2. Describe the elements of at least two behavior change theories and their applicability to developing health education/health promotion programs
3. Describe at least three intervention methods and their applicability to successful health education/health promotion programs
4. Demonstrate skills in planning a health behavior change program by successfully completing a written needs assessment

Method of Assessment Percentage
0. Peer-feedback 10
1. Assignments 70
2. Quizzes 20

Learning Materials:

- (Book) Health Behavior and Health Education: Theory, Research, and Practice
  Glanz, Karen
  Amazon $61.00

410.641.67 Implementation and Evaluation for Tobacco Control (Cancelled - Committee Decision)

3 credits - Course offered this year - East Baltimore

Stillman, Frances A.

Studies global tobacco control methods in depth. Focuses on designing, implementing, and evaluating tobacco control interventions based on the need of a specific region or country. Highlights the use of multi-level solutions linking policy, communication, prevention, education, regulation, advocacy, and community organizing to address the interdisciplinary problem of tobacco use. Examines the aspects of tobacco use and tobacco control through lectures, case studies, presentations, and discussion.

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

1. Recognize theories that help in designing or guiding tobacco control strategies
2. Describe methods of obtaining data to support tobacco control programs and policies
3. Recognize the importance and review different methods to plan, implement, and evaluate tobacco control interventions
4. Determine the barriers and challenges that arise when implementing tobacco control policies or programs, and identify methods to overcome these barriers
5. Identify ways to disseminate and utilize data to support policy and research interventions to key stakeholders to promote change
Email: fstillm1@jhu.edu
Lecture: M T W TH F 9:00 AM - 12:00 PM

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
This course blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. This class will meet for 5 days during the 2-week Institute. Students are expected to spend 8 hours on class work during the 2-week Institute in addition to regular homework. Students are required to complete readings and assignments prior to the 2-week Institute. The final course assignment will be due on October 23rd, 2017.

410.643.67 Introduction to Qualitative Methods in Tobacco Control (Cancelled - Committee Decision)
3 credits - Course offered this year - East Baltimore

Stillman, Frances A.
Introduces students to applied research techniques used in tobacco control including direct observational studies, interviewing and focus groups, and analysis of tobacco industry documents. Guides students on the use of qualitative data collection techniques and provides examples of usage of these techniques. Introduces students to the use of the on-line databases and repositories of tobacco industry documents. Classroom sessions include lectures, discussions, and group work.

Upon successfully completing this course, students will be able to:
1. Describe common approaches to qualitative research in tobacco control
2. Articulate the relative appropriateness of an applied research technique and data analysis approach per a particular research question
3. Practice qualitative methods that are specific to tobacco control, such as tobacco industry document review

Email: fstillm1@jhu.edu
Lecture: T W TH F 9:00 AM - 12:00 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
This course blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. This class will meet for 5 days during the 2-week Institute. Students are expected to spend 8 hours on class work during the 2-week Institute in addition to regular homework. Students are required to complete readings and assignments prior to the 2-week Institute. The final course assignment will be due on October 22nd, 2017.

410.653.01 Contemporary Issues in Health Communication
1 credits - Course offered this year - East Baltimore

Moran, Meghan
Introduces students to some of the many contemporary communication issues that affect the health of the public. Addresses topics including interpersonal communication within the context of medical encounters, the use of story-telling and entertainment as educational strategies, and the role of news media in covering health topics; social marketing and media.

Upon successfully completing this course, students will be able to:
1. Identify at least three different health communication approaches used to influence the health of the public
2. Assess the relationship between patient-centered communication and patient outcomes
3. Describe the role of story-telling and news media on public knowledge, attitudes and behaviors relevant to individual and community health issues
4. Identify commercial marketing strategies used to influence consumer behavior
5. Explain the role of social marketing, advocacy and regulation in diminishing the impact of commercial marketing of unhealthy products

Method of Assessment Percentage
1. Participation 25
2. Written Assignment(s) 50
3. Written Assignment(s) 25

Email: mmoran@jhu.edu
Lecture: W 5:30 PM - 6:30 PM
Enrollment: Minimum 20, No maximum enrollment required, Waitlist Enabled: No
410.676.01 Clinical Health Behavior Change Experience in Weight Management

2 credits - Course offered this year - East Baltimore

Focuses on the practical application of principles from communication, behavioral, social science, and psychological theories in a clinical setting. Enables students to work directly with patients of the Johns Hopkins Weight Management Center (JHWMC) to promote behavior change in the areas of diet and fitness. Integrates theoretical concepts with practical clinical applications, and presents students the opportunity to work in a team setting with healthcare practitioners.

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

1. Describe the complex mechanisms underlying the obesity epidemic
2. Identify the interventions commonly employed to treat obesity in clinical settings
3. Assess standard (USDA) nutrition and physical activity recommendations for weight management
4. Identify psychosocial and psychological factors that impact behavior change
5. Describe cognitive-behavioral strategies to elicit change in patients
6. Apply principles from communication, behavioral, social science, and psychological theories to encourage health behavior change in others
7. Apply motivational interviewing (MI) theory and techniques
8. Evaluate the evidence regarding the efficacy of MI techniques for weight loss
9. Perform clinical practice skills such as reflective listening, empathy, barriers assessment, eliciting change talk, and goal setting

Enrollment: Minimum 1, Maximum 10, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

410.690.01 Ethnographic Fieldwork

3 credits - Course offered this year - East Baltimore

Owczarzak, Jill

Introduces students to ethnography as a method of qualitative research (fieldwork) and a product of this research (written accounts and monographs). Introduces skills and data collection methods fundamental to ethnographic fieldwork, particularly immersion, participant observation, writing field notes, and listening. Discusses what constitutes “the field” in ethnographic fieldwork, the holistic perspective, and “thick description.” Explores key theoretical and methodological issues in contemporary ethnographic fieldwork such as ethics, positionality, reflexivity, and power. Emphasizes the role of ethnographic research in public health. Prepares students to critically assess ethnographic writing. Combines lecture, discussion, and practical skill development.

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

1. Discuss some of the major concepts and theoretical developments that have shaped ethnographic inquiry from the mid-20th century to the present
2. Formulate research questions that probe the connections between the public’s health and the social worlds in which individuals and institutions are situated
3. Use multiple methods for the collection and interpretation of ethnographic data
4. Critically read and evaluate ethnographic texts
5. Distinguish ethnographic fieldwork from other forms of qualitative inquiry

Method of Assessment

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<td>3. Presentation(s)</td>
<td>10</td>
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Email: jillowczarzak@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM

Enrollment: Minimum 18, Maximum 54, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: None
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. All MPH students are required to do a capstone project.

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
Departmental Faculty
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
Owczarzak, Jill
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

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 69 of 156
Method of Assessment Percentage
1. Final Paper 99

Email: jillowczarzak@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

Method of Assessment Percentage
1. Participation 50
2. Written Assignment(s) 50

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 (Discontinued)
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.

Method of Assessment Percentage
1. Participation 50
2. Written Assignment(s) 50

Email: ibone1@jhu.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

410.863.01 Doctoral Seminar in Social and Behavioral Research and Practice
1 credits - Course offered this year - East Baltimore
German, Danielle

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 70 of 156
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

Method of Assessment: Participation
Percentage: 99

Email: danielle.german@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

Method of Assessment: Presentation(s)
Percentage: 50
2. Discussion
Percentage: 25
3. Participation
Percentage: 25

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

410.865.01 MSPH Seminar in Health Education and Health Promotion
1 credits - Course offered this year - East Baltimore
McDonald, Eileen

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

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

1. Develop their own definition for health education, health communication and health promotion
2. Discuss the historical and current issues related to the field of health education
3. Name at least three different professional organizations within public health and describe their roles and membership
4. Prepare a resume that best describes their skills and experiences to a potential employer

Email: emcdona1@jhu.edu
Lecture: W 12:00 PM - 1:20 PM

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

410.868.01 Program Planning for Health Behavior Change Practicum

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 71 of 156
Jones, Vanya

Explores program planning application through project-based experiential learning. Includes work in small groups to apply the PRECEDE-PROCEED needs assessment planning framework in a real world setting with a community-based organization or local government agency. Focuses on the basic methods of working with communities and community organizations, types of needs assessment tools, and the skills needed to develop these tools, through four seminar sessions and weekly sessions with community based organization representatives.

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

1. Describe the components necessary to work on a community-based project
2. Demonstrate the ability to obtain and incorporate feedback from the organization and course faculty to successfully complete deliverables for partner organization
3. Complete a planning PRECEDE framework based on a public health problem in Baltimore City
4. Explain their attitudes and values about working with communities and developing community partnerships
5. Incorporate theoretical constructs into a program planning tool such as a focus group guide
6. Develop a data collection tool based on the needs of a community-based organization

Email: vjones@jhu.edu

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

Enrollment: Minimum 5, Maximum 10, Waitlist Enabled: Yes

Graduate students only, with instructor consent.

Grading Options: Pass/Fail

Consent required for all students; Consent required for all students.

Prerequisite: Concurrently enrolled in 410.620.

While this class meets every other week for an hour and a half during the term, students have two meetings at the CBO with a member of the teaching team present, and students work with the CBO representative for up to 6 additional meetings. Students must organize their own transportation when visiting the CBO.

410.870.01 HBS Research and Proposal Writing Process for Doctoral Students I

Davey-Rothwell, Melissa

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 understand 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

Method of Assessment 

<table>
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<th>Percentage</th>
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<tbody>
<tr>
<td>1. Participation</td>
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<td>2. In-class Exercises</td>
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<tr>
<td>3. Written Assignment(s)</td>
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<tr>
<td>4. Presentation(s)</td>
</tr>
<tr>
<td>5. Final Paper</td>
</tr>
</tbody>
</table>

Email: mdavey1@jhu.edu

Lecture: F 10:00 AM - 11:50 AM

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

HBS doctoral students

Grading Options: Pass/Fail

Multi-term with 410.871
Final grade applies to all terms
Grade is given for both 410.870 and 410.871 upon completion of 410.871.

410.881.01 MHS Seminar in Social Factors in Health I
1 credits - Course offered this year - East Baltimore
Owczarzak, Jill
Introduces students to social science concepts in public health and to ongoing social factors research at JHSPH. Also introduces students to key concepts and tools necessary to successfully complete the MHS in Social Factors in Health degree program.
Upon successfully completing this course, students will be able to:
1. Demonstrate the relevance of social science concepts for public health
2. Identify examples of social factors in public health research
3. Describe the steps involved in completing the MHS in Social Factors in Health degree program

Method of Assessment
Percentage
1. Participation

Email: jillowczarzak@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

415.610.92 Practical Genetic Counseling
2 credits - Course offered this year - NIH - Bethesda, MD
Sapp, Julie
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 genetic counseling within clinical and research genetics services
2. Practice the skills needed for taking family and medical histories and constructing pedigrees
3. Explain the components of prenatal, pediatric, and adult genetics services and the role of genetic counseling
4. Contrast genetic counseling in clinical research settings and service settings
5. Explain various models of genetic counseling and how they pertain to overall service delivery and outcomes

Email: sappj@mail.nih.gov
Lecture: M 5:30 PM - 7:30 PM
Enrollment: Minimum 4, Maximum 8, Waitlist Enabled: Yes
Course restricted to ScM in Genetic Counseling students
Grading Options: Letter Grade or Pass/Fail
Jointly offered with NIH

415.611.92 Introduction to Human Genetics I
2 credits - Course offered this year - NIH - Bethesda, MD
Erby, Lori; 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

Method of Assessment
1. Midterm
2. Final Exam
3. Participation

Upon successfully completing this course, students will be able to:
1. Describe the history and goals of genetic counseling
2. Understand 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 understanding and decision making
4. Discuss the professional, legal, cultural, and ethical implications of how genetic counseling is practiced, today and in the future

Method of Assessment
1. Participation
2. Midterm

Method of Assessment
1. Participation
2. Midterm

Email: lorierby@jhu.edu
Lecture: TH 4:30 PM - 6:20 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: 415.610
Jointly offered with NIH

415.620.92 Introduction to Genetic Counseling I
2 credits - Course offered this year - NIH - Bethesda, MD
Erby, Lori; Cho, Megan

Introduces the scope of genetic counseling practice, laying a foundation for the JHU/NHGRI Genetic Counseling Graduate Program. Compares definitions of genetic counseling with objectives, practice standards and a code of ethics. Explores genetic counseling values as they relate to roles and responsibilities toward clients. Introduces ethical, legal and policy issues specific to genetic counseling in conjunction with a research agenda for the future. Includes case discussion, verbal critiquing of primary literature, role-playing, and semi-formal debates.

Upon successfully completing this course, students will be able to:
1. Describe the history and goals of genetic counseling
2. Understand 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 understanding and decision making
4. Discuss the professional, legal, cultural, and ethical implications of how genetic counseling is practiced, today and in the future

Method of Assessment
1. Participation
2. Midterm
3. Final Exam 30

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

Enrollment: Minimum 4, Maximum 10, Waitlist Enabled: Yes
Must be enrolled in ScM in Genetic Counseling Program
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
Multi-term with 415.621
Final grade applies to all terms
Jointly offered with HBS, NIH

415.631.92 Therapeutic Genetic Counseling II
2 credits - Course offered this year - NIH - Bethesda, MD

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

Upon successfully completing this course, students will be able to:
1. Discuss basic attending skills and assessment of clients’ concerns related to genetic conditions and risks
2. Practice establishing and acting on a therapeutic relationship in supervised role plays
3. Adopt a client-centered approach to counseling genetics clients
4. Describe core concepts in existential, cognitive-behavioral, self-in-relation, family systems, feminist and group theories as they relate to genetic counseling
5. Develop an applied theory of genetic counseling practice

Email: lorierby@jhu.edu
Lecture: W 3:00 PM - 4:50 PM

Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 415.630; Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH

415.670.92 Developmental Biology and Human Malformations I
1 credits - Course not offered until 2021 - 2022 - 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: lesb@mail.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 is required for non-Genetic Counseling training program students.
Multi-term with 415.671
Jointly offered with NIH

415.701.92 Genetic Counseling Lab I
2 credits - Course offered this year - NIH - Bethesda, MD
Erby, Lori
Explores interactive genetic counseling interventions as they apply to specific clinical settings and client needs. Presents key issues in client education for various medical specialties, and identifies research needs related to genetic counseling. Examines counseling issues through the use of role-plays.
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: lorierby@jhu.edu
Lecture: F 11:00 AM - 12:50 PM
Enrollment: Minimum 4, Maximum 12, Waitlist Enabled: Yes
HBS ScM in Genetic Counseling students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 415.630-631; Must be enrolled in ScM in Genetic Counseling Program
Multi-term with 415.702
Multiterm course. Grade assigned after completing Advanced Genetic Counseling II
Jointly offered with NIH

415.710.92 Medical Genetics and Genomic Medicine: from Diagnosis to Treatment I
2 credits - Course offered this year - NIH - Bethesda, MD
Muenke, Maximilian
Examines advances in the diagnosis of genetic disorders and treatments that result from genomic medicine. Focuses on examples from multiple malformation syndromes, autoinflammatory diseases, deletion/duplication syndromes, and Rasopathies.
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: 415.613.92 and 415.615.92
Multi-term with 415.711
Final grade applies to all terms
Jointly offered with NIH

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

415.840.92 SS/R: 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

415.851.92 Supervised Clinical Rotations: 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: Yes
Grading Options: Pass/Fail
Prerequisite: Must be enrolled in ScM in Genetic Counseling Program

Jointly offered with HBS, NIH

415.861.92 Genetic Counseling Seminar: Topics in the Field
2 credits - Course offered this year - NIH - Bethesda, MD

Information not required for this course type

Enrollment: Minimum 10, Maximum 16, Waitlist Enabled: Yes
Grading Options: Pass/Fail

Method of Assessment

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<th>Method of Assessment</th>
<th>Percentage</th>
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<tr>
<td>1. Assignments</td>
<td>80</td>
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<tr>
<td>2. Reflection</td>
<td>10</td>
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<tr>
<td>3. Self-assessments</td>
<td>10</td>
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</table>

Email: lorierby@jhu.edu

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

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 77 of 156
Email: lorierby@jhu.edu
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
Multi-term with 415.861
First and second terms should be listed as multi-term together
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.

**415.870.92 Genetic Counseling Clinical Supervision**
1 credits - Course offered this year - NIH - Bethesda, MD
Erby, Lori
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: 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; students must register for four terms.
Jointly offered with NIH

**415.881.01 Genetic Counseling Program Thesis Proposal Development II**
2 credits - Course offered this year - East Baltimore
Roter, Debra; Erby, Lori
Provides students with the skills to develop and write a proposal for their own research project, based on preliminary work done during the course's first term. Prepares students to refine their proposal for submission to the Executive Committee and prepare for the oral examination during the third term of the course (second quarter). Guides students, by the end of the three terms, to turn a nascent research idea into a proposal which will then become a thesis.

Upon successfully completing this course, students will be able to:
1. Demonstrate skills necessary to: a) summarize literature to support an original genetic-counseling related research question, b) propose a conceptually sound approach to formulate research questions or hypotheses to address the research question, and d) develop a study design and analytic approach to answer the study questions.
2. Prepare a first draft of a formal research proposal for independent thesis research

Email: droter1@jhu.edu
Lecture: W 9:30 AM - 11:20 AM
Enrollment: Minimum 3, Maximum 6, Waitlist Enabled: Yes
Grading Options: Pass/Fail
Prerequisite: 415.880. Must be enrolled in ScM in Genetic Counseling Program
Jointly offered with NIH
Will use departmental space
Health Policy and Management

300.600.81 Introduction to Health Policy

4 credits - Course offered this year - Internet

Anderson, Gerard

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

Method of Assessment

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<tbody>
<tr>
<td>1. Discussion</td>
<td>20</td>
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<td>2. Final Paper</td>
<td>45</td>
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<td>3. Group Project(s)</td>
<td>35</td>
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</table>

Email: ganderson@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introduction to Online Learning

300.651.01 Introduction to the U.S. Healthcare System

4 credits - Course offered this year - East Baltimore

Polsky, Daniel; Socal, Mariana

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.

Method of Assessment

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<th>Method</th>
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<tbody>
<tr>
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<td>60</td>
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<tr>
<td>2. Final Exam</td>
<td>40</td>
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Email: polsky@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:
300.721.01 Foundations in Health Policy I
2 credits - Course offered this year - East Baltimore
Barry, Colleen

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. Provide examples that demonstrate how different disciplines and theories are relevant to contemporary problems in health policy and conducting research to better understand these problems
3. Describe how theories and disciplines are used to develop conceptual frameworks helpful for guiding scholarly inquiry
4. Identify key sources of disagreements in a body of literature and discuss what kinds of evidence would be persuasive in supporting, refuting or refining a particular line of argument
5. Demonstrate how research can test a theory and help to re-formulate the theory based on new knowledge
6. Conduct a comprehensive literature review on a policy topic, and develop other forms of written communication skills critical to formulating, assessing and evaluating health policies to confront major public health challenges

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

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
ONLY PHD students in HPM permitted to register for this class
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
students must register for both 300.721 and 300.722 in order to receive a grade at the conclusion of 300.722
Final grade applies to all terms
PhD students in HPM ONLY

300.741.01 PhD Seminar in Health Policy: Using Secondary Data to Conduct Health Policy Research
1 credits - Course offered this year - East Baltimore
Nicholas, Lauren

Provides a small class-size, doctoral-focused experience and examines some of the most common data sources used in the field to study health policy and management research topics. Emphasizes secondary data sources and discusses: (1) data structure and challenges with conducting research with secondary data; (2) developing research questions and testable hypotheses using these data sources; (3) strategies for data cleaning, work flow management, and replication; (4) data protection and storage related concerns; and (5) orally communicating strengths and weaknesses of datasets in the context of research talks. Exposes doctoral students to faculty research projects and the specific datasets being used to conduct this research.

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

1. Explain data structure, methodological approaches and challenges associated with conducting research using some of the most common secondary datasets available for health policy and management research
2. Critically evaluate the use of various data sources for studying contemporary health policy and management issues

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

Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
2nd year (or beyond) HPM PhD students only
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 300.721-724 and successful passing of HPM PhD qualifying exam

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 1, 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.

300.830.01 Postdoctoral Research Health Policy and Management
variable credits credit registration is negotiated with faculty mentor - Course offered this year - East Baltimore
Departmental Faculty
information not required for this course type
Information not required for this course type

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

300.840.01 Special Studies and Research in Health Policy and Management
variable credits student and faculty determine appropriate number of credits for each registration period - Course offered this year - East Baltimore
Departmental Faculty
Not required for this course type
Upon successfully completing this course, students will be able to:
1. Not required for this course type

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

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

301.820.01 Thesis Research in Health Policy and Management
variable credits students and faculty determine appropriate number of credits of registration for each term - Course offered this year - East Baltimore
Departmental Faculty
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 1, 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
McGinty, Beth
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. Identify 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: bmcginty@jhu.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to Health & Public Policy concentration HPM PhD students.
Grading Options: Pass/Fail

305.610.01 Issues in Injury and Violence Prevention
2 credits - Course offered this year - East Baltimore
Vernick, Jon
Addresses prominent sources of injury, including motor vehicles, falls, fires, and firearms. Explores the biological, behavioral, and social issues relating to injury and violence prevention and policy. Emphasizes basic strategies for preventing injuries and deaths in the workplace, home, travel, and recreation, and the relative effectiveness of various types of approaches. Students who wish to write a paper may sign up for extra credit as special studies.

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

1. Define injuries as major public health problems
2. Describe current issues related to the prevention of injuries
3. Define state of the art methods for controlling injuries
4. Formulate their own attitudes toward causation and prevention of injuries
5. Recognize opportunities for reducing injuries and for injury control advocacy

Email: jvernic1@jhu.edu
Lecture: M W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Undergraduate students must obtain consent of instructor prior to registering
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Undergraduate students must obtain consent from instructor to register
Jointly offered with EHE

305.623.01 Fundamentals of Clinical Preventive Medicine
3 credits - Course offered this year - East Baltimore
Lam, Clarence; Gudzune, Kim
Examines the complex interplay between clinical preventive medicine, population medicine, and the practice of public health. Covers core topics for practice and for the preventive medicine board examination: prevention at the individual and community level; an evidence-based policy approach to prevention; and the creation and use of clinical governance standards and practice guidelines for prevention. Covers high-yield topics in short modules that employ a clinical prevention frame, including the latest science and best practices in traditional as well as more modern disease prevention topics.

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

1. Describe how health policy and politics impact recommendations for, availability of, and provision of preventive services within the U.S. healthcare system
2. Apply evidence-based resources for prevention at the community level
3. Identify key guidelines and evidence governing preventive service provision for patients
4. Explain the concepts and evidence underlying clinical preventive guidelines
5. Describe the core concepts of lifestyle medicine including and identify the leading causes of death related to lifestyle-prevalence illness

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 82 of 156
Apply skills and knowledge in motivational interviewing to engage in behavioral change and promoting environments that support healthy lifestyle choices among patients

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<thead>
<tr>
<th>Method of Assessment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1. Participation</td>
<td>15</td>
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<td>2. Assignments</td>
<td>50</td>
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<tr>
<td>3. Final Exam</td>
<td>35</td>
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</tbody>
</table>

Email: ckl@jhu.edu

Lecture: F 9:00 AM - 11:50 AM

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

Residents and affiliates of the Hopkins GPMR program, and by special approval, Hopkins clinicians who are interested in preventive medicine and population health

Grading Options: Letter Grade or Pass/Fail

Consent required for some students; No consent required for currently-enrolled GPMR Residents and affiliates; all other students please seek consent

Prerequisite: Students must complete at least 2 credits in the prerequisite Special Studies in General Preventive Medicine (550.880 or 550.890) prior to enrolling in this course. Special exceptions may be granted by the course director(s)/instructor(s).

Course meets regularly on Friday mornings but two sessions per course will be held on a Tuesday and Thursday evening, to accommodate guest speaker clinic schedules. Held in departmental conference room in 615 N. Wolfe Street Building

305.861.01 Graduate Seminar in Injury Research and Policy

1 credits - Course offered this year - East Baltimore

Johnson, Renee

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

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<tr>
<th>Method of Assessment</th>
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<tbody>
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<td>1. Participation</td>
<td>30</td>
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<tr>
<td>2. Seminar critiques</td>
<td>70</td>
</tr>
</tbody>
</table>

Email: rjohnson@jhu.edu

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

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

Grading Options: Pass/Fail

306.861.01 Graduate Doctoral Seminar in Bioethics

1 credits - Course offered this year - East Baltimore

Rieder, Travis

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: trieder@jhu.edu

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 83 of 156
307.864.01 Mental Health Services and Systems Practicum I (Cancelled - Department)

0.5 credits - Course offered this year - East Baltimore
Barry, Colleen; Stuart, Elizabeth; Kennedy-Hendricks, Alene

Part I of a year-long practicum that complements traditional coursework by providing exposure to the real-world settings and organizations that compose the mental health care infrastructure. Through site visits and opportunities to interact with representatives from different components of the mental health care system, students will develop an understanding of the historical evolution of the mental health care system in the U.S. and be introduced to the various settings through which mental health services are delivered, including emergency psychiatric services, intensive outpatient treatment, psychiatric rehabilitation, and early intervention.

Upon successfully completing this course, students will be able to:
1. Summarize the historical evolution of the mental health care system in the U.S.
2. Illustrate the functions of emergency psychiatric services, intensive outpatient treatment, psychiatric rehabilitation, and early intervention within the broader mental health system.
3. Differentiate the range of services available in the community to support recovery for long-term mental illnesses.
4. Assess the evidence on effectiveness of approaches to intervening in the treatment of mental illnesses.

Method of Assessment

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<th>Percentage</th>
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<tr>
<td>1. Reflection</td>
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<td>2. Participation</td>
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<tr>
<td>3. Grant concept paper</td>
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</table>

Email: cbarry@jhu.edu

Enrollment: Minimum 4, Maximum 10, Waitlist Enabled: Yes
PhD students and post-doc trainees only
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; PhD students and post-doctoral trainees who are not NIMH MHSS T32 trainees may enroll with instructor approval
Jointly offered with MH
Course will involve student field trips to offsite organizations. Course will require students to register as Student Observers of Clinical Care with the Johns Hopkins Health System.

308.615.81 The Opioid Crisis: Problem Solving Seminar

3 credits - Course offered this year - Internet
Sharfstein, Joshua

Uses interactive case-based and problem-based strategies to provide an overview of the impact of the opioid crisis in the United States. Enables students to develop skills to address different aspects of the opioid crisis. Addresses topics including stigma attached to opioid use and treatment of opioid use disorders, the development of strategies to address such stigma, the importance of data in identifying opportunities for response, assessment of current policy options for addressing the opioid crisis in the United States, and addressing the political challenges to support effective policymaking. Prepares students to undertake data collection at the state level.

Upon successfully completing this course, students will be able to:
1. Express the practical challenges of using data in confronting a rapidly evolving public health crisis.
2. Recognize the importance of cultural norms such as stigma in shaping the policy environment, and develop strategies for addressing stigma.
3. Construct a system-level intervention that employs effective strategies to address the opioid epidemic.
4. Distinguish between popular strategies that are unlikely to work and unpopular strategies that have a stronger evidence base for effectiveness.
5. Prepare a policy memo sensitive to both policy imperatives and political considerations.

Email: joshua.sharfstein@jhu.edu

Enrollment: Minimum 10, Maximum 75, Waitlist Enabled: Yes
undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Non-DrPH and Non-MPH Bloomberg Fellows must obtain permission from instructor in order to register
Prerequisite: Introduction to Online learning

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
only matriculated msph/hp permitted
Grading Options: Pass/Fail

308.867.01 MSPH Seminar in Health Policy
1 credits - Course offered this year - East Baltimore
Resnick, Beth A.
Introduces work undertaken in health policy settings and prepares students for professional career development.
Upon successfully completing this course, students will be able to:
1. Describe themselves, their strengths, and their personality preferences through use of MBTI and StrengthFinder 2.0 assessments.
2. Identify the Public Health Competencies and related skills
3. Develop a Career Development Action Plan
Email: bresnick@jhu.edu
Lecture: W 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to Masters students in HPM
Grading Options: Pass/Fail

309.600.81 Evaluating Quality Improvement and Patient Safety Programs
3 credits - Course offered this year - Internet
Marsteller, Jill
Prepares students to evaluate Quality Improvement/Patient Safety (QI/PS) projects by developing their competencies in the following areas: 1) Critiquing evaluations of QI/PS projects; 2) Designing a robust evaluation of a QI/PS project; and 3) Conducting a small scale qualitative study.
Upon successfully completing this course, students will be able to:
1. Enumerate and communicate the importance of environmental, organizational, group, provider, task, work system, implementation and patient influences on outcomes
2. Describe and evaluate strengths and weaknesses of designs for testing success of QI/PS interventions
3. Describe operational steps to conducting robust data collection and analysis (quantitative and qualitative)
4. Define and describe remedies for common problems in QI/PS studies
Email: jmarste2@jhu.edu
Enrollment: Minimum 8, No maximum enrollment required, Waitlist Enabled: No
undergraduate students are not permitted in this course
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to On-line learning

309.716.01 Advanced Methods in Health Services Research: Analysis
3 credits - Course offered this year - East Baltimore
Gaskin, Darrell J.
Discusses research questions typically asked in health services research. Students gain hand-on experience formulating these questions in terms that make them amenable to quantitative analysis. Topics include: defining causal pathways, choosing outcome variables, getting reliable model predictions, sample selection issues, and contending with partial observations.
Upon successfully completing this course, students will be able to:
1. Apply several econometrics techniques which are commonly used in health services research to their own research
2. Select appropriate econometrics models for their research questions and available data
3. Perform empirical analyses with survey data and administrative databases
Email: dgaskin1@jhu.edu
Lecture: T TH 9:00 AM - 10:20 AM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 140.621-624 or 140.651-654

309.861.01 Graduate Seminar in Health Services Research and Policy
1 credits - Course offered this year - East Baltimore
Wolff, Jennifer
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
Method of Assessment

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<th>Percentage</th>
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<tr>
<td>Participation</td>
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<td>Reflection</td>
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</table>

Email: jwolff2@jhu.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
This course is only for PhD students from the Department of Health Policy and Management in the health services research and policy concentration
Grading Options: Pass/Fail
Prerequisite:

311.615.81 Quality of Medical Care
3 credits - Course offered this year - Internet
Dy, Sydney M.
Introduces quality issues, including quality assessment and assurance performed by researchers, health systems, professional societies, and government and other third party organizations who pay for care. Provides a basis to evaluate the effectiveness of quality assessment and assurance activities. Describes different approaches to quality improvement and evaluation.
Upon successfully completing this course, students will be able to:
1. Describe a framework for analyzing and improving the quality of medical care
2. Explain how to assess quality of care for a medical condition, including: relative advantages/disadvantages of measuring structure, process, outcome; different assessment methods and need for risk adjustment; advantages and methods for assessing patient satisfaction
3. Describe the fundamental elements of quality assurance in the United States
4. Discuss how to develop a workable quality improvement and evaluation plan, including: theoretical framework, quality assessment, evaluating assessment results and developing goals for improvement, changing individual health professionals’ behavior

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<th>Method of Assessment</th>
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<td>1. Final Paper</td>
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<td>2. Midterm Paper</td>
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Method of Assessment Detail:
Student evaluation based on a midterm paper and a final paper.

Email: dy1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to graduate students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Required: Introduction to Online learning and an understanding of health care systems (or concurrent enrollment in Introduction to the US Health Care System). Strongly Recommended: Training and experience with writing US-style term papers or concurrent enrollment in 550.001.01 English for Academic Purposes I or similar training (eg, coursera – Academic English: Writing Specialization https://www.coursera.org/specializations/academic-english).

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
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

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<tr>
<th>Method of Assessment</th>
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<tbody>
<tr>
<td>1. Participation</td>
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<td>2. Presentation(s)</td>
<td>70</td>
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Email: lmorloc1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
DrPH students in health care management and leadership concentration only
Grading Options: Pass/Fail
Consent required for all students;

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.

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 87 of 156
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

### Method of Assessment
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<tr>
<td>Participation</td>
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<tr>
<td>Reflection</td>
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### Method of Assessment Detail:
- Email: lshi2@jhu.edu
- Days & Times with Start & End Dates: Sep 06, 2020 - Sep 06, 2020
- Lecture: TBA
- 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 Beijing. Students required to complete assignment prior to the class session.

### 312.602.01 Applied Methods for Optimizing Performance in Health Care Organizations

2 credits - Course offered this year - East Baltimore
Cady-Reh, Julie

Cases and Applications designed for MHA students who seek an understanding of continuous improvement in healthcare organizations. Content and framework designed to provide a broad exposure to current knowledge, competencies and management tools required for the effective operation of health care delivery systems. Focuses on how to apply continuous improvement tools and methodologies in various health care environments. Provides a detailed explanation of Lean and Six Sigma methodologies with opportunity to apply these skills to real world examples within health care settings.

Upon successfully completing this course, students will be able to:
1. Apply management theories and tools to the analysis of a current health care organization
2. Conduct analyses that support organizational decision-making
3. Assess simulation-learning experiences
4. Define the need for advanced problem solving and improvement methodologies used by project teams
5. Use basic lean six sigma tools for project definition and improvement analysis, implementation, and sustainability

### Method of Assessment
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<tr>
<td>Participation</td>
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<tr>
<td>Quizzes</td>
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<td>Group Work</td>
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</table>

### Method of Assessment Detail:
- Participation 20%, group exercises and case studies 30% and quizzes 50%
- Email: jreh1@jhmi.edu
- Lecture: T 8:30 AM - 10:20 AM
- Enrollment: Minimum 10, Maximum 36, Waitlist Enabled: Yes
- Undergraduates are not permitted in this course
- Grading Options: Letter Grade or Pass/Fail
- Consent required for some students; Non-MHA graduate students must obtain permission to register for this course.
- Prerequisite:

### 312.603.81 Fundamentals of Budgeting and Financial Management

3 credits - Course offered this year - Internet
Ward, William
Provides students with an understanding of budgeting as an important management tool. Focuses on budget development, evaluation of the financial status of a department or operating unit and the ability to determine what, if any, corrective actions need to be taken. Includes strategies for measuring and reporting skills. Considers the analytical tools used to support evaluation and decision-making including; volume adjusted variance analysis, benefit-cost ratio analysis, breakeven analysis, process flow analysis, benchmarking, and methods for building cost standards.

Upon successfully completing this course, students will be able to:
1. Explain budgeting as a key component of the administrative process
2. Develop budgets for service volume, revenues, salaries and supplies, and equipment
3. Evaluate the financial status of a department or operating unit and determine what, if any, corrective actions should be taken
4. Prepare marginal P&Ls, benefit-cost ratio analysis, and breakeven analysis and ad hoc financial analyses
5. Use benchmarking to improve operational performance

Method of Assessment Percentage
1. Midterm 40
2. Final Exam 60

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

312.617.81 Fundamentals of Financial Accounting
3 credits - Course offered this year - Internet
Priolo, Marco
Provides both a theoretical foundation and practical application to contemporary accounting principles and practices. Emphasizes accounting as the "language of business" with the pragmatic approach of learning the types and uses of financial statements, both external and internal. Topics include a review of the accounting cycle; understanding the environmental needs that drive the requirements for financial statements; a "hands on" review of how accounting events are recorded, resulting in the compilation of financial statements; and a review of external and internal financial statements.

Upon successfully completing this course, students will be able to:
1. Distinguish between financial and managerial accounting
2. Demonstrate a basic discussing of where financial transactions originate, and how they are recorded and presented in the financial statements
3. Explain changes in financial position, and results of operations
4. Discuss key elements of the statement of cash flows
5. Interpret and analyze the financial statements of a business, particularly those of a health care organization and be able to anticipate and comprehend the financial effects of managerial actions on the enterprise

Method of Assessment Percentage
1. Midterm 40
2. Final Exam 40
3. Participation 20

Email: mpriolo1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to graduate students.
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required
Prerequisite: Introduction to Online Learning

312.620.20 Performance Measurement in Health Care
2 credits - Course offered this year - East Baltimore
Matthes, Nikolas

Email: matriolo1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to graduate students.
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Consent required
Prerequisite: Introduction to Online Learning
Focuses on performance measurement for hospitals and describes key aspects and challenges of measurement initiatives in the current context of health care reform in general, and payment reform more specifically. The faculty, all senior health care professionals from the trenches, describe the regulatory environment, and Joint Commission and CMS requirements. They also summarize key measures used for public reporting and payment such as chart-abstracted clinical process, administrative data based outcomes, satisfaction, and efficiency. Highlights the advantages and disadvantages of each type of measure and discusses appropriate use of analytics and comparison data including patient satisfaction. Covers current public reporting and pay for performance initiatives and associated challenges. Another topic is emerging initiatives in the context of the electronic medical records, such as e-measures and meaningful use.

Upon successfully completing this course, students will be able to:
1. Discuss the evolution of performance measurement for hospitals and operational challenges for hospitals
2. Describe data analysis, composite scores, and benchmarking
3. Identify the components of payment reform including value-based purchasing, readmissions, and hospital-acquired conditions

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<tr>
<th>Method of Assessment</th>
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<tbody>
<tr>
<td>1. Final Paper</td>
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<tr>
<td>2. Participation</td>
<td>20</td>
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</table>

Email: nmatthe1@jhu.edu

Enrollment: Minimum 8, Maximum 35, Waitlist Enabled: Yes
Restricted to students in the Tsinghua DrPH cohort only
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; Part-time DrPH students in the Tsinghua cohort only
This course will be offered over a 2-day period in Baltimore. Students are required to complete assignments prior to the start of class.

312.623.20 Financial Management in Health Care I
3 credits - Course offered this year - East Baltimore
Ellis, John
Provides opportunities for students to apply knowledge of accounting, budgeting and financial management in a real world setting, emphasizing analysis and decision-making; applies in a broad range of healthcare settings, including the pharmaceutical, insurance, consulting and for-profit industries. Presents a “big picture” approach rather than micromanagement.

Upon successfully completing this course, students will be able to:
1. Identify the complexities and challenges of financing a healthcare business
2. Interpret the economic performance of the organization based on its financial statement
3. Develop operating plans as a result of financial trends and results
4. Present clear and concise conclusions and recommendations through oral presentation for action to a Board of Directors
5. Analyze the financial viability of a new business venture and how it contributes to the mission of the organization
6. Prepare business plans based upon multiple data points and business trends
7. Develop framework to measure and monitor organizational performance
8. Demonstrate teamwork skills within a work team resulting in a completed case study

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<tr>
<td>1. Peer-feedback</td>
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<tr>
<td>2. Participation</td>
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<tr>
<td>3. Team case preparation</td>
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<tr>
<td>4. Team case presentation</td>
<td>30</td>
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</table>

Email: jellis1@jhu.edu

Days & Times with Start & End Dates: Oct 03, 2020 - Oct 05, 2020
Lecture: M SA 8:30 AM - 4:50 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

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 90 of 156
This course will be offered over a 3-day period in Baltimore. Students are required to complete assignments prior to the start of class.

312.630.81 Healthcare Financial Management
3 credits - Course offered this year - Internet
Pio Roda, Claro
Provides managers and professionals, both novice and experienced, with the financially quantitative knowledge needed for planning, controlling and managing in contemporary health care organizations under constantly changing conditions. Provides a foundation in the basic financial management skills as well as their advanced application. Introduces the basic business finance approaches to decision-making and governance. Provides students with a sound conceptual and applied understanding of the role that financial and cost management play in the business setting decision-making process.

Upon successfully completing this course, students will be able to:
1. Discuss the importance and challenges of sound financial management in health care today.
2. Demonstrate a working knowledge of the key principles and techniques of financial management
3. Assess the financial health of an organization by reviewing key metrics and reports.
4. Identify all factors to consider in a major capital financing project.
5. Develop a comprehensive health care business plan supported by a thorough financial analysis.
6. Demonstrate effective teamwork skills within a project team culminating in a presentation to the class.

Email: cpiorod@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: 312.617 and 312.603
Students should be proficient in the use of Microsoft excel for analysis and computations.

312.660.20 Marketing in Health Care Organizations
3 credits - Course offered this year - East Baltimore
Conderacci, Greg
Introduces students to marketing concepts in health care through readings, guest speakers, small group exercises and individual study. Prepares students to conduct a situational analysis, understanding the market and consumer behavior as well as assessing the capabilities of the organization. Explores primary and secondary market research techniques. Discusses marketing strategy, including positioning and branding, program/service development, pricing, distribution, and promotion. Evaluation and measurement methods are explained.

Upon successfully completing this course, students will be able to:
1. Explain the purpose and value of the marketing function within a healthcare organization
2. Analyze trends within the industry and society and how to take best advantage of them
3. Apply modern marketing tools to analyze markets and to attract or influence people within them
4. Create an effective marketing plan
5. Employ group decision-making dynamics in class setting
6. Create an effective mission for an organization or a person
7. Explain the role and responsibilities of a marketing professional in the health sector
8. Describe the differences between sales, public relations and marketing and appreciate the essential role of each in a comprehensive marketing strategy
9. Develop a marketing plan for a specific product, service or program
10. Demonstrate basic sales techniques like questioning, listening, needs assessment, objection resolution, and positioning
11. Create an effective sales presentation

Method of Assessment

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<th>Activity</th>
<th>Percentage</th>
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<tr>
<td>1. Participation</td>
<td>40</td>
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<tr>
<td>2. Final Paper</td>
<td>60</td>
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</table>

Method of Assessment Detail:
final paper, class participation

Email: gconder1@jhu.edu

Days & Times with Start & End Dates: Oct 05, 2020 - Oct 07, 2020
312.670.20 Negotiation in Health Care Settings (Cancelled - Department)

3 credits - Course offered this year - East Baltimore

Lee, Stacey

Addresses the basic skills needed for effective negotiation of business relationships in health care and other settings. Focuses on understanding and developing a systematic approach to preparing for, structuring, and negotiating key business relationships. Presents basic process and conflict management skills needed for effective negotiation of business relationships in health care. Also explores the ethics of negotiation.

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

1. Use negotiation techniques to assess, plan and conduct effective two-party and multi-party negotiations
2. Use conflict management techniques to assess and manage two-party and multi-party conflicts
3. Identify behavioral elements of their own negotiation and conflict handling style and analyze the potential impact of various style elements
4. Develop and apply strategies to strengthen use of negotiation and conflict management styles and techniques
5. Analyze others' behavior in negotiation and conflict and apply strategies that are effective responses to those behaviors
6. Apply ethical frameworks when engaging in negotiation

Method of Assessment

<table>
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<tr>
<th>Percentage</th>
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<tbody>
<tr>
<td>1. Participation</td>
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<td>2. Written Assignment(s)</td>
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<td>3. Written Assignment(s)</td>
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<td>4. video Analysis</td>
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<td>5. Final Exam</td>
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</tbody>
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Email: StaceyB.Lee@jhu.edu

Days & Times with Start & End Dates: Sep 30, 2020 - Oct 02, 2020

Lecture: W TH F 8:30 AM - 4:50 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; Section restricted to students in the Tsinghua DrPH cohort only

This course will be offered over a 3-day period in Baltimore. Students are required to complete assignment prior to the start of class. The analysis critique will be due December 13, 2019.
Apply an understanding of the power of motivation (both extrinsic and intrinsic) to the development of leadership paths
4. Build strong teams, as well as a culture of engagement and satisfaction
5. Develop and apply their own leadership that optimize effective leadership and empower other leaders
6. Create a personal leadership development plan

Method of Assessment | Percentage
--- | ---
1. Leadership interview and Voice Thread | 35
2. Self-assessments | 20
3. Participation | 15
4. Personal Leadership Development Plan | 30

Method of Assessment Detail:
- Participation (15%), which includes attending ALL lectures and completing 2 assigned discussion board posts;
- Personal Leadership Shield and Voice Thread (20%);
- Leadership interview and Voice Thread (35%); and,
- Personal Leadership Development Plan (30%).

Email: mbittle1@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; priority for this section given to students enrolled in the MHA program.
All must obtain permission from Lakeasha Wormley to register
Prerequisite:

312.700.81 Leading Organizations
3 credits - Course offered this year - Internet
Bittle, Mark
Focuses on the essential principles of personal and interpersonal leadership that can be used in an organizational setting to enhance performance, align and empower personnel, and assure organizational engagement. Applies leadership skills in a hands-on practical way that encourages students to challenge their own beliefs and assumptions about what constitutes leadership. Offers a comprehensive review of contemporary issues and perspectives on leadership. Explores multidisciplinary and systems-oriented approaches as well as classic leadership theory and evolving contemporary beliefs. Includes topics such as development of leadership theories, personal assessment and development, values and ethics, motivation, power, followership, group dynamics, multiculturalism in leadership, conflict resolution, performance excellence, and the change process.
Upon successfully completing this course, students will be able to:
1. Recognize how leaders can lose their way and the value of self-awareness to create one’s leadership path
2. Assess their own leadership principles, values, and ethical boundaries, and how they will respond under pressure when challenged
3. Apply an understanding of the power of motivation (both extrinsic and intrinsic) to the development of leadership paths
4. Build strong teams, as well as a culture of engagement and satisfaction
5. Develop and apply their own leadership that optimize effective leadership and empower other leaders
6. Create a personal leadership development plan

Method of Assessment | Percentage
--- | ---
1. Leadership interview and Voice Thread | 35
2. Self-assessments | 20
3. Participation | 15
4. Personal Leadership Development Plan | 30

Method of Assessment Detail:
Participation (15%), which includes attending ALL lectures and completing 2 assigned discussion board posts; Personal Leadership Shield and Voice Thread (20%); Leadership interview and Voice Thread (35%); and, Personal Leadership Development Plan (30%).

Email: mbittle1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction on online learning

312.810.01 MHA Residency

variable credits students typically register for 16 credits but may be modified at the program's discretion - Course offered this year - East Baltimore
Charron, Karen

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

Method of Assessment Percentage
1. Final Paper 34
2. Field Placement Progress Reports 33
3. Evaluation of performance by residency organization 33

Email: kcharron@jhu.edu

Enrollment: Minimum 1, No maximum enrollment required, Waitlist Enabled: No
Open to 2nd year MHA students only
Grading Options: Pass/Fail
Prerequisite: successful completion of 1st year curriculum

312.867.01 MHA Seminar in Health Finance and Management

1 credits - Course offered this year - East Baltimore
Charron, Karen

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

Method of Assessment Percentage
1. Participation 20
2. Assignments 80
313.653.01 Advanced Health Economics I
2 credits - Course offered this year - East Baltimore
Gaskin, Darrell J.
Covers seminal publications in health economics and is targeted towards advanced Ph.D. students. Describes theoretical models in health economics for the determinants of health and demand for healthcare services, the foundations for cost-effectiveness analysis, the supply of healthcare services in competitive, monopolistic, and government-regulated markets, and the provision of private and public health insurance.

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

Method of Assessment | Percentage
--- | ---
1. Final Paper | 50
2. Presentation(s) | 25
3. Participation | 25

Email: dgaskin1@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: Health Economics I and II, 313.641 and 313.644
Multi-term with 313.654

313.790.93 Introduction to Economic Evaluation
3 credits - Course offered this year - Beijing, China
Departmental Faculty
Prepares students to read and interpret cost-effectiveness studies. Introduces the basic economic concepts that are needed in order to understand the recommendations from the United States Panel on Cost Effectiveness in Health and Medicine, such as the distinction between opportunity costs and budgetary costs. Considers review recommendations, particularly as they apply to cost-effectiveness research reports. Discusses the relationship between cost-effectiveness results and other elements of the health care policy decision-making process.

Upon successfully completing this course, students will be able to:
1. Read and interpret cost-effectiveness studies
2. Describe the methods for conducting scientifically-rigorous cost-effectiveness analyses

Method of Assessment | Percentage
--- | ---
1. Assignments | 50
2. Quizzes | 50

Days & Times with Start & End Dates: Jul 17, 2020 - Jul 19, 2020
Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
restricted to those in the Tsinghua cohort(s) only
Grading Options: Letter Grade or Pass/Fail
315.707.81 Introduction to Biomedical and Public Health Informatics
3 credits - Course offered this year - Internet
Lehmann, Harold
Provides a survey of issues in health IT and informatics, taking the system's perspective. Students leave with a number of frameworks they can use to critically appraise a wide variety of health IT problems and systems. Issues in common to clinical (medical) and public health information problems, as well as issues unique to each, are discussed.
Upon successfully completing this course, students will be able to:
1. Identify social, biomedical, and technological imperatives and risks for health IT and informatics
2. Describe the basic functions of database and Web technologies
3. Distinguish among data, information and knowledge
4. Describe the levels of interoperability standards, explain core issues of usability and diagram workflow
5. Match theories of information needs to specific instances
6. Explain policy issues of health IT and informatics at the national and individual levels and the application of health IT and informatics principles to public health

Email: lehmann@jhmi.edu
Enrollment: Minimum 15, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to online learning
Jointly offered with ME
This is the same course as SOM 600.903

317.600.01 Introduction to the Risk Sciences and Public Policy
4 credits - Course offered this year - East Baltimore
Nachman, Keeve
Provides an introduction to the basic paradigm for quantitative risk assessment and illustrates its application in the public policy process using case studies. Examines risk assessment in a broad societal context, considering social, economic, and political factors that affect risk decision-making; evolution of risk assessment; and the use of risk assessment in regulatory processes. Students complete a risk assessment exercise.
Upon successfully completing this course, students will be able to:
1. Achieve a general understanding of the concept of quantitative risk assessment and its application to public health problems
2. Identify the elements of a quantitative risk assessment, utilizing the general framework developed by the National Research Council
3. Evaluate a report of a quantitative risk assessment and interpret the policy relevance of the findings
4. Describe current uses of quantitative risk assessment in policy-making

Method of Assessment  Percentage
0. Participation 10
1. Homework 40
2. Quizzes 20
3. Exam(s) 30

Email: knachman@jhu.edu
Lecture: M W 5:00 PM - 6:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
Jointly offered with EPI

317.605.81 Methods in Quantitative Risk Assessment
4 credits - Course offered this year - Internet
Fox, Mary

Email is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 96 of 156
Introduces students to a variety of quantitative and qualitative methods used in hazard identification/characterization, exposure and dose-response assessment for chemical and microbial risk assessments. Students gain experience with selected methods through the assignments including probabilistic exposure assessment modeling, qualitative weight-of-evidence evaluation, and guided review and critique of existing risk analyses. Students learn to identify and evaluate assumptions used to bridge data gaps and to conceptualize and communicate variability and uncertainty. Guest speakers discuss current and emerging issues in chemical and microbial risk assessment and management.

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

1. Create, document, and describe a probabilistic exposure assessment model
2. Use selected software programs
3. Recognize and evaluate data gaps and models and assumptions used to fill them
4. Recognize and describe the influence of variability and uncertainty on risk estimates
5. Critique risk analyses

Email: mfox9@jhu.edu

Enrollment: Minimum 10, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 317.600 and Introduction to On-line learning
Jointly offered with EHE

318.603.01 Applied Microeconomics for Policymaking (Discontinued)

3 credits - Course offered this year - East Baltimore

Eisenberg, Matt

Introduces policy students to the theories, concepts, terminology and tools of microeconomics as it relates to the examination and analysis of public policies. Introduces vocabulary, which describes decision-making behavior of people, households, firms and governments. Describes theories of supply and demand, elasticity, utility-maximization and other concepts for examination and better understand public policy issues. Prepares students with an understanding of economic terminology and theories, which will allow them to use economic tools to examine decision-making and apply the concepts, terminology and tools to various policies and problems.

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

1. Describe the basic tools used in microeconomic analysis
2. Explain the key terminology and concepts of microeconomics
3. Utilize supply and demand models to evaluate different pricing policies including taxes, price ceilings and price floors
4. Discuss the role of "the economic way of thinking" in the context of public policy
5. Use the utility maximization theory and 2-D model to understand consumer behavior
6. Describe how markets operate and identify welfare outcomes for consumers and firms
7. Review market operations and identify welfare outcomes for consumers and firms
8. Examine common market failures and their application to public problems related to transportation policy (congestion, public transportation access), environmental health (obesity, pollution) and others
9. Evaluate different government remedies/interventions for market failures using the tools of supply and demand

Email: eisenberg@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:
Students must register for 318.603 and 318.604 in order to receive a grade
Final grade applies to all terms

318.603.81 Applied Microeconomics for Policymaking

3 credits - Course offered this year - Internet

Eisenberg, Matt
Introduces policy students to the theories, concepts, terminology and tools of microeconomics as it relates to the examination and analysis of public policies. Introduces vocabulary, which describes decision-making behavior of people, households, firms and governments. Describes theories of supply and demand, elasticity, utility-maximization and other concepts for examination and better understand public policy issues. Prepares students with an understanding of economic terminology and theories, which will allow them to use economic tools to examine decision-making and apply the concepts, terminology and tools to various policies and problems.

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

1. Describe the basic tools used in microeconomic analysis
2. Explain the key terminology and concepts of microeconomics
3. Utilize supply and demand models to evaluate different pricing policies including taxes, price ceilings and price floors
4. Discuss the role of “the economic way of thinking” in the context of public policy
5. Use the utility maximization theory and 2-D model to understand consumer behavior
6. Describe how markets operate and identify welfare outcomes for consumers and firms
7. Review market operations and identify welfare outcomes for consumers and firms
8. Examine common market failures and their application to public problems related to transportation policy (congestion, public transportation access), environmental health (obesity, pollution) and others
9. Evaluate different government remedies/interventions for market failures using the tools of supply and demand

Method of Assessment

1. Final Exam 40
2. Midterm 35
3. Homework 25

Method of Assessment Detail:
Homework (25%), Midterm exam (35%), Final exam (40%)

Email: eisenberg@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No undergraduates are not permitted in this course;
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

318.615.01 Program Evaluation for Public Policy I (Discontinued)

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 statistical 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
No undergraduates permitted
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Students not enrolled in the formal MPP program must obtain permission prior to registering
Prerequisite: 318.610-613 or 140.621-624 or equivalent
Multi-term with 318.616
Students must register for both 318.615 and 318.616 in order to receive a grade.
Final grade applies to all terms

318.636.01 Urban Policy
3 credits - Course offered this year - East Baltimore
Newman, Sandra
Explores urban issues through a policy lens. Examines a wide range of urban characteristics and the challenges cities face from fiscal stress and governance to poverty, homelessness, and drugs. Explores policy remedies proposed or tried in the past, how well they have worked, and what other strategies may be tried.
Upon successfully completing this course, students will be able to:
1 Describe the scope and complexity of a range of critical urban policy issues
2 Think analytically, systematically and logically about complex urban policy problems
3 Develop evidence-based targets for policy action
4 Communicate complex ideas in a straightforward, cogent manner, both orally and in writing

Email: sjn@jhu.edu
Lecture: M 1:30 PM - 4:20 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

319.602.94 Project Management and Evaluation
3 credits - Course offered this year - India
Joshi, Suresh
Covers basic concepts and principles of project management and project management cycles. Provides learning opportunities for developing project management skills, and translates modern management concepts into project planning and management using a Log Frame Approach (LFA). Describes implementation structure, coordination and supervision mechanisms, and project evaluation methods. Reviews human aspects of project management such as motivating people, team building, and improving personal influence and effectiveness.
Upon successfully completing this course, students will be able to:
1 Describe principles of project management
2 Explain project management cycle and major steps
3 Conduct situational analysis – SWOT
4 Conduct Problem analysis and define the objectives
5 Use logframe and indicators for monitoring the project
6 Develop systematic and time-bound action plans for project implementation
7 Explain human aspects of project management like motivating people, team building, gender issues, improving personal influence and effectiveness

Email: sjoshi@jhsphs.edu
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail

319.608.94 Finance Management, Accounting and Budgeting
3 credits - Course offered this year - India
Chaudhary, Monika; Sodani, PR
Explains the role of budgeting as a key component of the administrative process. Describes basic financial management concepts and techniques, and provides a foundation for integrating these techniques into health care organizations. Presents strategies for evaluating the financial status of a department or health unit in order to determine whether corrective actions need to be taken. Presents various analytical methods in management decision making, including benefit/cost ratio analysis, and break-even analysis.
Upon successfully completing this course, students will be able to:
1 Explain components of financial proposals for health care projects/studies
2 Describe the balance sheet and income statement in health care settings

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 99 of 156
3 Develop budgets for revenues, staffing and salaries, supplies and services, and equipment
4 Evaluate the financial status of a health service unit or department
5 Determine the cause(s) of performance deviation
6 Use a variety of analytical methods to support sound business decision-making

Email: mochaudh@jhsph.edu

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

220.601.01 Foundations of International Health (Cancelled - Committee Decision)
4 credits - Course offered this year - East Baltimore
Peters, David

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.

Method of Assessment

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<td>0. Assignments</td>
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<tr>
<td>1. Participation</td>
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</table>

Email: dpeters@jhu.edu

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

Enrollment: Minimum 10, Maximum 168, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

220.601.81 Foundations of International Health
4 credits - Course offered this year - Internet
Peters, David; Ruff, Andy; Limaye, Rupali
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

Method of Assessment

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<tr>
<td>Assignments</td>
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<td>Participation</td>
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Method of Assessment Detail:

Email: dpeters@jhu.edu

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

**220.605.01 Doctoral Seminar in International Health I**

3 credits - Course offered this year - **East Baltimore**
Katz, Joanne

Explores selective current and historic topics of relevance to International Health in the first term. Each topic comprises a set of readings, some of which are presented and discussed in class by students working in groups under the guidance of expert content faculty.

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

1. Think and write critically
2. Work in multidisciplinary teams to analyze complex issues of importance in International Health
3. Use evidence based perspectives to critically examine what interventions, programs and policies work, do not work, and why or why not

Email: jkatz1@jhu.edu

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

Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Only first year international health doctoral students (including Dr.PH)
Grading Options: Pass/Fail
Prerequisite: None
Terms graded individually
Students taking this course are required to take 220.606 in 2nd term.
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.

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 1-16 - Course offered this year - East Baltimore
Departmental Faculty
Special Studies and Research in International Health for DrPH students
Upon successfully completing this course, students will be able to:
1. TBD
Method of Assessment Percentage
1. TBD 99
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
DrPH students only
Grading Options: Pass/Fail

220.842.01 Doctoral Independent Goals Analysis - International Health
1 credits - Course offered this year - East Baltimore
Departmental Faculty
Develop a doctoral academic plan through discussions with faculty advisor resulting in the development of a written document called the Individual Development Plan. Review course tracking sheet based on skills and methods student plans to learn. The IDP is a living document that is part of the student's self-assessment and departmental annual review. Supports the student's successful performance in the program and prepares students for their intended future career.
Upon successfully completing this course, students will be able to:
1. Assess current skills, interests, and strengths
2. Develop skills to meet academic and professional goals

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 102 of 156
3 Communicate and collaborate with supervisors, advisors, potential employers, and mentors about evolving goals and related skills
4 Receive written feedback from the International Health department on the student's academic progress

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only PhD and postdoctoral students in International Health
Grading Options: Pass/Fail
Student registers for one credit with their academic advisor (or if postdoc, with faculty mentor) every year.

**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**
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

**221.613.01 Introduction to Humanitarian Emergencies (Cancelled - Department)**
3 credits - Course offered this year - **East Baltimore**
Doocy, Shannon; Spiegel, Paul
Introduces different types of humanitarian emergencies, humanitarian architecture and provides an overview of sectoral focus areas of humanitarian response. Informs students of the environment in which these emergencies occur and how public health responses in various types of emergencies and contexts differ. Explores mechanisms of preparedness, management of response to humanitarian emergencies and long-term recovery.
Upon successfully completing this course, students will be able to:
1 Define a humanitarian emergency and list the types of public health needs they create
2 List the common types of humanitarian emergencies and indicate their relative importance in terms of the size of the affected population and mortality.
3 Discuss responses to different types of humanitarian emergencies and how priorities may differ by location and type of emergency.
4 Describe humanitarian architecture, coordination mechanisms and list the organizations that are engaged in humanitarian response.

Email: doocy1@jhu.edu
Lecture: T TH 3:30 PM - 4:50 PM
Enrollment: Minimum 20, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

**221.619.01 Introduction to Microeconomics**
3 credits - Course offered this year - **East Baltimore**
Sorkin, Alan
Introduces economics of the business enterprise, the household, and the industry. Topics include supply and demand, price and income elasticity, equilibrium of the firm, and the measurement of poverty and inequality
Upon successfully completing this course, students will be able to:
1 Outline and explain the fundamental issues that underlie health economics
2 Discuss the concepts of health production and demand for healthcare services
3 Discuss the challenges of financing and providing healthcare
4 Describe how hospitals and physician services are organized
5 Discuss how market forces and public policy affects healthcare providers

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 103 of 156
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 man-made disasters. Although its main concern is with the health needs or those displaced in low and middle-income countries it also touches on the issue of persons resettled to developed countries. Addresses epidemiologic assessment, control of communicable and noncommunicable 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

Method of Assessment

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<tr>
<th>Assessment Type</th>
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<tbody>
<tr>
<td>Case Studies</td>
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<tr>
<td>Quizzes</td>
<td>20</td>
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<tr>
<td>Paper(s)</td>
<td>50</td>
</tr>
<tr>
<td>Participation</td>
<td>10</td>
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</tbody>
</table>

Email: gburnha1@jhu.edu

Enrollment: Minimum 10, Maximum 45, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning. Students will also need to learn how to use VoiceThread, tutorial is in the online library.

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

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

Method of Assessment

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<tr>
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<tr>
<td>Participation</td>
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<tr>
<td>In-class Exercises</td>
<td>40</td>
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</table>
Phone: pbspiegel@jhu.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Only students signed up for the MPH Concentration Health in Crisis and Humanitarian Assistance, or the Certificate in
Humanitarian Assistance
Grading Options: Pass/Fail
Prerequisite:
Meets every other Wednesday.
Dates are 9/9, 9/23, 10/07, 10/21

221.722.01 Quality Assurance Management Methods for Developing Countries
4 credits - Course offered this year - East Baltimore
Burnham, Gilbert; Edward, Anbrasi
Presents the principles and practice of total quality management methods for health systems in developing countries. Emphasizes integrated district-level health systems management; fostering a genuine team approach in the face of an authoritarian tradition; central importance of community governance; interventions performed according to standards and in an equitable fashion; introducing a measurement-based approach to problem solving, emphasizing analysis of service delivery process and outcome; and developing operational research as an integral component of the management system.
Upon successfully completing this course, students will be able to:
1. Describe the principles, concepts and methods for developing quality initiatives and explain how these can be used to improve essential public health services
2. Define quality from the perspective of all stakeholders, particularly in diverse populations
3. Explain how quality assurance principles can identify health barriers and how findings can be utilized to build equity in access and improve population health
4. Discuss how quality assurance re-design tools can lead to behavioral changes in populations as a result of improved health programming
5. Measure a performance gap and conduct a gap analysis to determine the root cause
6. Apply team-based problem-solving methods to address poor performance of public health services
7. Assess the costs of poor quality and of quality improvement
8. Develop performance monitoring systems and indicators to manage healthcare performance

Method of Assessment

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<tbody>
<tr>
<td>1. Assignments</td>
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<tr>
<td>2. Quizzes</td>
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<tr>
<td>3. Group Project(s)</td>
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</table>

Email: gburnha1@jhu.edu
Lecture: M W 1:30 PM - 3:20 PM
Enrollment: Minimum 10, Maximum 40, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Undergraduates must have consent

221.722.81 Quality Assurance Management Methods for Developing Countries
4 credits - Course offered this year - Internet
Edward, Anbrasi
Presents the principles and practice of total quality management methods for health systems in developing countries. Emphasizes integrated district-level health systems management; fostering a genuine team approach in the face of an authoritarian tradition; central importance of community governance; interventions performed according to standards and in an equitable fashion; introducing a measurement-based approach to problem solving, emphasizing analysis of service delivery process and outcome; and developing operational research as an integral component of the management system.
Upon successfully completing this course, students will be able to:
1. Describe the principles, concepts and methods for developing quality initiatives and explain how these can be used to improve essential public health services
2. Define quality from the perspective of all stakeholders, particularly in diverse populations
3 Explain how quality assurance principles can identify health barriers and how findings can be utilized to build equity in access and improve population health
4 Discuss how quality assurance re-design tools can lead to behavioral changes in populations as a result of improved health programming
5 Measure a performance gap and conduct a gap analysis to determine the root cause
6 Apply team-based problem-solving methods to address poor performance of public health services
7 Assess the costs of poor quality and of quality improvement
8 Develop performance monitoring systems and indicators to manage healthcare performance

Method of Assessment Percentage
1. Assignments 20
2. Quizzes 30
3. Group Project(s) 50

Email: aedward1@jhu.edu

Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning.

221.801.01 Health Systems Program Seminar I
1 credits - Course offered this year - East Baltimore
Shawar, Yusra; Patenaude, Bryan
Familiarizes Health Systems students with ongoing faculty research and activities, professionals and organizations in the field of international health, and provides a forum for discussion for current topics in health systems and international health.

Upon successfully completing this course, students will be able to:
1 Identify Health Systems Program faculty and staff who can be mentors and informal advisors during students' course of study
2 Define educational and long-term goals for a career in International Health Systems
3 Identify research and practice opportunities in the Health Systems program
4 Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings

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

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to Masters and doctoral students in the Health Systems program and DrPH students in the Department of International Health
Grading Options: Pass/Fail
Prerequisite:

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

Email: aedward1@jhu.edu

Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
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

<table>
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<tr>
<th>Method of Assessment</th>
<th>Percentage</th>
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<tr>
<td>1. Final Paper</td>
<td>99</td>
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1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 107 of 156
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No

Only for MSPH Health Systems students in their 2nd year

Grading Options: Pass/Fail

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

221.861.01 Doctoral Seminar in Health Systems
1 credits - Course offered this year - East Baltimore

Bachani, Abdulgafoor

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

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

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

Email: abachani@jhu.edu

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

Grading Options: Pass/Fail

222.641.60 Principles of Human Nutrition in Public Health
4 credits - Course offered this year - East Baltimore

Larsen, Vanessa

Prepares students for integrating the biology of nutrition into public health research and practice. Provides an integrated overview of the physiological requirements and functions of energy, macronutrients, and vitamins and minerals that influence health and risk for disease. Topics include dietary sources and nutrient requirements, status, absorption, metabolism, and function. Extends nutrition principles to the health and disease risks across the lifespan.

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

1. List the major macro and micronutrients and explain their relevance to human health
2. Explain the scientific rationale and public health significance of defining nutritional requirements in healthy individuals and populations, with reference to specific conditions such as pregnancy and lactation, early childhood, adolescence, and older age
3. Summarize the underlying nutrient related metabolic processes in maintaining health and preventing disease
4. Apply principles of human nutrition and evaluate their relevance to public health in a global context

Email: vgla@jhu.edu

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

Enrollment: Minimum 10, Maximum 110, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Basic background in biology/medical sciences

This class blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. Except for the first and last instructional weeks in which the class will meet twice a week, this class will meet once a week for 110 minutes. In addition to regular homework, students are expected to spend 110 minutes a week on class work (e.g. viewing online modules and completing problem sets).

Learning Materials:

- (Book) Essentials of Human Nutrition
  Mann and Truswell, Jim and A. Stewart
  JHU $70.00

222.657.01 Food and Nutrition Policy
2 credits - Course offered this year - East Baltimore

Klemm, Rolf; Heidkamp, Rebecca
Examines the policy making process underlying large-scale governmental, bilateral, and multilateral agency policies and initiatives that directly or indirectly affect 1) the availability and quality of food and 2) the health and nutrition status of populations. Draws examples from the United States as well as low and middle income countries. Faculty and guest lecturers with diverse experience in developing and implementing food and nutrition policies lead the discussions.

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

1. Identify food and nutrition problems amenable to policy intervention and describe the epidemiological scope and the social, political and economic determinants that have implications for policy formation
2. Identify various policy options that can be used to address a specific food & nutrition problems in a given setting / context
3. Describe key stages in the policy process including the role of evidence and ethical implications in/for each stage
4. Identify the key stakeholder groups that influence the policy process and propose strategies for reaching groups and building coalitions that will help advance the policy process
5. Identify and apply principles of leadership and governance that relate to building collaboration and facilitating decision making across the policy process.
6. Advocate for or against food and nutrition policies from the perspective of diverse stakeholder groups
7. Evaluate the potential of a specific food and nutrition policy to impact population health and and health inequities by assessing the adequacy of design and identifying the factors (e.g stakeholders, context) which hindered or helped policy formation, adoption and/or implementation
8. More effectively communicate with policy-maker and other stakeholder group audiences through written (policy brief) and oral (elevator speech, interview) approaches

Email: rklemm1@jhmi.edu
Lecture: M 3:30 PM - 5:20 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: There are no formal prerequisites for taking the course; however, students are expected to be familiar with the basic principles of nutrition. Students are strongly encouraged to broaden their reading in the subjects related to the nutritional problems and policies that are addressed in the course in order to fully participate in class discussions and in order to prepare a paper critiquing a specific food or nutrition policy.

222.658.01 Critical Thinking in Nutrition
1 credits - Course offered this year - East Baltimore
Schulze, Kerry
Introduces graduate students in the field of nutrition to seminal peer-reviewed papers representing common study designs in nutrition research. Teaches students how to interpret and evaluate literature in nutrition and to foster discussion and debate among students and faculty. Participating faculty select seminal papers and lead class discussions to illustrate strengths, limitations, and other qualities of the selected papers. Students are expected to read each paper and discuss in class, including explaining the rationale, methods, results, and interpretation of findings, and will similarly independently evaluate papers chosen by faculty as part of two written class assignments.

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

1. Discuss how scientific and experimental findings make their way into the nutritional literature through didactics and examination of selected peer-reviewed journal articles of importance
2. Critically analyze journal articles pre-selected by several members of the nutrition faculty through guided reading, in-class guided discussion and debate, and written follow-up assignments

Email: kschulz1@jhu.edu
Lecture: F 1:30 PM - 2:20 PM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

222.810.01 Human Nutrition Practicum
variable credits field placement - Course offered this year - East Baltimore
Hurley, Kristen
Complements and reinforces the didactic portion of the MSPH program. Provides students with an opportunity to apply the knowledge gained during the first year, to develop field, laboratory, or clinical skills related to nutrition research or programs according to individually designed learning objectives, and to work as part of a team in an applied research or practice project. Students are placed in a variety of professional settings, which may include: government, non-government organizations (NGOs), university projects, and multi-lateral, private, and/or for-profit sector. Practicum locations exist in the US and typically most regions of the world. Provide opportunity for feedback for student performance and placement experience

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

1. Integrate and apply methods and skills learned in courses taken on the first year of the MSPH in a practical setting.
2. Develop new skills essential for functioning as an effective global health professional, in assuming responsibility on the ground and becoming a reliable and collaborative member of a project team, an effective communicator, writer, trainer and implementer.
3. Evaluate a program or field project as it relates to public health nutrition
4. Integrate and understand knowledge through critical literature reviews, and analysis and interpretation of scientific data
5. Develop a proposal, take initiative, provide direction, and participate in the implementation, evaluation and/or analysis required to establish and achieve project goals.
6. Communicate effectively, manage relationships and participate in teams
7. To allow for the seamless transition from student to public health professional.

Email: khurley2@jhu.edu

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

222.815.01 Human Nutrition - Registered Dietitian (Rd) Program Practicum

variable credits 1-16 credits - Course offered this year - East Baltimore

Caulfield, Laura

Engages the student, the placement agency, and the faculty in shared responsibility for the provision and acquisition of practical experience in a nutrition-related public health area. Led by the Johns Hopkins Bayview Clinical Nutrition Department, the practicum extends from June (following the year of coursework) to February of the next calendar year (3rd quarter of the subsequent academic year). Consists of a series of specific rotations in clinical, food service and community nutrition, and culminates in a 10-week public health placement.

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

1. Integrate and apply methods and skills learned in courses taken on the first year of the MSPH in a practical setting.
2. Develop new skills essential for functioning as an effective global health professional, in assuming responsibility on the ground and becoming a reliable and collaborative member of a project team, an effective communicator, writer, trainer and implementer.
3. Evaluate a program or field project as it relates to public health nutrition.
4. Integrate and understand knowledge through critical literature reviews, and analysis and interpretation of scientific data.
5. Develop a proposal, take initiative, provide direction, and participate in the implementation, evaluation and/or analysis required to establish and achieve project goals.
6. Communicate effectively, manage relationships and participate in teams.
7. To allow for the seamless transition from student to public health professional.

Method of Assessment Percentage
1. Preceptor evaluation 45
2. Written Assignment(s) 15
3. Essay on entire practicum experience (individual rotations and overall experience) 20
4. Assignments 20

Email: lcaulfi1@jhu.edu

Enrollment: Minimum 4, Maximum 8, Waitlist Enabled: Yes
Grading Options: Pass/Fail

Administrative Course Fee: 7500.0000
Training rotations, materials, incidentals, meeting registration, contin. ed & administrative costs

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

Method of Assessment

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<th>Percentage</th>
<th>Final Paper</th>
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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

Humphrey, Jean H.
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.

Method of Assessment | Percentage
--- | ---
1. Participation | 75
2. Reflection | 25

Email: jhumphr2@jhu.edu
Lecture: T 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite:

222.861.01 Doctoral Seminar in Proposal Development
1 credits - Course offered this year - East Baltimore
Caulfield, Laura
Facilitates doctoral students in the development of research ideas and their dissertation proposals. Topics will vary by term but will include the following: how to develop a research idea, and components of a solid research proposal — background, design, methods, sample size, analysis, writing to different audiences, research designs in nutrition, ethical review, funding sources and requirements, budgeting, staff management, thesis and manuscript preparation, and professional development.

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

1. Identify the differences between a resume and curriculum vitae.
2. Identify the components of a research career that they would like to pursue and opportunities at JHU to support the process.
3. Conduct a literature review in an area of interest.
4. Develop a concept paper for a study in an area of interest.
5. Write an NIH-style grant on a research topic of interest.
6. Give presentations on a research topic of interest.

Email: lcaulfi1@jhu.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
doctoral students only
Grading Options: Pass/Fail

223.615.01 Digital Health Strategies to Control COVID19 (Cancelled - No Enrollment)
2 credits - Course offered this year - East Baltimore
Agarwal, Smisha; Labrique, Alain; Mohan, Diwakar
Identifies and explains digital tools for COVID19 contact tracing that add value to traditional contact tracing by improving its efficiency and accuracy. These tools are varied in purpose, features and complexity, and can aid in limiting the spread of infections through effective management of exposure and contact data, automation of tasks, and allowing self-reporting of cases and contacts. Distinguishes areas where digital tools might be a useful ally and discuss the process of selection and development of appropriate technologies to mount an effective response. Covers needs assessment, ethics and privacy, complexity and deployment aspects of this problem.

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

Method of Assessment | Percentage
--- | ---
1. Participation | 25
2. App critique | 25
3. Paper(s) | 50
Method of Assessment Detail:
  Participation through discussion forums. The paper is a technology assessment
Email: sagarw23@jhu.edu
Lecture: TH 8:30 AM - 10:20 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
This course will be taught virtually via Zoom on Thursdays 8:30-10:20am EST. No in-person attendance due to Covid-related teaching and social distancing guidelines.

223.672.81 Data Mgmt Methods in Health Research Studies (Discontinued)
5 credits - Course offered this year - Internet
Holt, Elizabeth
Presents data management techniques needed to implement a health research study in domestic and international settings. Discusses methods of designing and monitoring patient data flow, with an emphasis on data collection, editing, documentation, management, and preparation for analysis using database software packages. Involves lectures and completion of a tutorial designed to build data management skills. Geared to students preparing to undertake research.
Upon successfully completing this course, students will be able to:
  1. Develop a coding guide for a data collection instrument
  2. Edit collected data and document edit decisions
  3. Design a double data entry system
  4. Design a system to identify out-of-range and illogical values, document the related edit decisions, and produce a cleaned data table in preparation for analysis
  5. Prepare administrative reports
  6. Prep data for analysis
  7. Evaluate an operations manual for a research study
  8. Evaluate questionnaires for format, design, content, wording, coding, etc.
Email: eholt@jhsph.edu
Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning; 340.601 - Principles of Epidemiology.
No audits.

223.801.01 Global Disease Epidemiology and Control Program Seminar 1
1 credits - Course offered this year - East Baltimore
Chou, Victoria; Tam, Yvonne
Introduces students to the diverse projects and research activities led by faculty in the Global Disease Epidemiology and Control (GDEC) program. Presents key institutes and centers working to improve international health and introduces faculty-led case studies to identify challenges in ongoing research and practice initiatives. Examines and reflects on the history of prevention and control activities using the book, "A History of Global Health," by Randall M. Packard as a framework. Teaches critical skills such as developing a search strategy and conducting a literature review to support scholarly publications.
Upon successfully completing this course, students will be able to:
  1. Develop skills needed for public health practice, including problem-solving, analytic thinking, communication, and collaboration
  2. Reflect and interpret the history of global public health, its philosophy and values, through publications related to disease control programs and research
  3. Apply new knowledge and problem-solving skills to address public health issues
  4. Identify opportunities and challenges in conducting research and practice activities in low resource settings

Method of Assessment

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<tr>
<th>Method</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Participation</td>
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<tr>
<td>Discussion</td>
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<td>Reflection</td>
<td>70</td>
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1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 113 of 156
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

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.

223.830.01 Postdoctoral Research Disease Control
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

223.840.01 Special Studies and Research Disease Control
variable credits - Course offered this year - East Baltimore
Information not required for this course type

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

223.850.01 MSPH Capstone Global Disease Epidemiology and Control
variable credits 2-16 - Course offered this year - East Baltimore
Departmental Faculty
Offers students an opportunity to integrate and apply program skills and competencies to a public health problem in a format that approximates a professional practice experience. Fosters students’ ability to produce scholarly papers that provide a meaningful contribution to knowledge of the health of underserved populations. Guides students’ development of tangible evidence of expertise that addresses specific applied topics relevant to international health.
Upon successfully completing this course, students will be able to:
1. Develop a concise and cohesive written document that defines a public health problem, a population of interest, and have a defined geographic scope
2. Conduct a comprehensive literature review
3. Synthesize relevant literature in a specific public health topic
4. Analyze and present public health data in a scholarly paper
Method of Assessment Percentage
1. Final Paper 99

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.

223.861.01 Global Disease Epidemiology and Control Program Doctoral Seminar
1 credits - Course offered this year - East Baltimore
Salmon, Daniel
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
Method of Assessment Percentage
1. Participation 50
2. Presentation(s) 50
Method of Assessment Detail:
seminar will grade on presentations, participation and class discussions.
Email: dsalmon1@jhu.edu
Lecture: W 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
IH GDEC doctoral students only
Grading Options: Pass/Fail

224.630.81 The Obesity Epidemic Problem Solving Seminar: What We Can Learn from Native American Communities
3 credits - Course offered this year - Internet
Rosenstock, Summer; Barlow, Allison

Provides an overview of trends in obesity in the US, examines use/limitations of data from national surveys and describes how the epidemic varies geographically, by race/ethnicity and socio-economic status. Lectures and activities survey the complex, multi-faceted set of factors that contribute to the obesity epidemic and propagate disparities. Case studies in Native American communities, where some of the highest obesity rates exist, illustrate the importance of community collaboration and inclusion of culture in developing public health programs and policies. This class analyzes how the integration of knowledge, cultural norms and values, and engagement of multiple stakeholders is critical to shaping effective programs and policies. Course prepares students to identify and assess communities with obesity risk factors and propose culturally sensitive strategies to decrease obesity and eliminate underlying health disparities.

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

1. Explain how the obesity epidemic varies geographically, across race/ethnicity and socio-economic status, and explore why these disparities exist—with case examples from Native American communities
2. Explain the critical importance of data in identifying opportunities for intervention as well as the limitations of surveillance systems and national surveys in developing, monitoring and evaluating policies and programs addressing obesity in the US
3. Analyze the complex and multi-faceted set of factors that impact the obesity epidemic, including social determinants and biological, behavioral, policy, environmental and systems-level factors
4. Identify populations most affected by obesity and community stakeholders key to improving obesity
5. Integrate knowledge of cultural norms and values, community concerns and evidence-based practice while developing recommendations to shape policies and programs
6. Integrate knowledge, approaches, methods, and values from multiple professions and systems to address the obesity crisis
7. Propose strategies to decrease obesity and eliminate underlying health disparities that organize diverse stakeholders, including researchers, practitioners, community leaders and other partners
8. Propose strategies to cultivate new resources and revenue streams to address the obesity crisis in a given community

Email: srosens1@jhu.edu

Enrollment: Minimum 10, Maximum 35, Waitlist Enabled: Yes
DrPH student or Bloomberg fellows in the MPH program
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; urse is designed for the DrPH cohort to meet specific DrPH requirements. Those who are not DrPH students must obtain instructor consent to register.

224.690.81 Qualitative Research Theory and Methods
3 credits - Course offered this year - Internet
Kennedy, Caitlin; Dalglish, Sarah L.

Introduces practical skills for conducting qualitative research in domestic and international settings. Provides an overview of theoretical foundations of qualitative research and different methodologies for qualitative inquiry, including programmatic qualitative research, grounded theory, ethnography, phenomenology, narrative analysis, and case studies. Enables students to develop, interpret, and evaluate three common qualitative data collection methods: in-depth interviews, focus groups, and observation. Emphasizes understanding the basic principles and techniques critical for conduct, including question formation, tool design, sampling, data generation, ethics, and quality. Critically assesses the use of qualitative methods in the published health literature.

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

1. Identify epistemological differences between qualitative and quantitative research paradigms
2. Differentiate between various methodologies for qualitative inquiry, including ethnography, phenomenology, grounded theory, narrative analysis, and case studies
3. Formulate appropriate qualitative research questions and study designs
4. Describe and use multiple methods for the collection of qualitative data, including interviews, focus groups, and observation
5. Articulate the relative appropriateness of different types of data collection for a particular study

Email: srosens1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: Yes
DrPH student or Bloomberg fellows in the MPH program
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; urse is designed for the DrPH cohort to meet specific DrPH requirements. Those who are not DrPH students must obtain instructor consent to register.
6 Discuss issues related to data quality and strategies for improving data quality
7 Describe ethical adaptations necessary when conducting research in other cultural and linguistic settings

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<tr>
<th>Method of Assessment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1. Discussion Board</td>
<td>30</td>
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<tr>
<td>2. Quizzes</td>
<td>30</td>
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<td>3. Exam(s)</td>
<td>40</td>
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</table>

Method of Assessment Detail:

Email: caitlinkennedy@jhu.edu

Enrollment: Minimum 18, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:
This course does not offer a fieldwork component. Students interested in managing and analyzing qualitative data are encouraged to take the sequel course: 224.691.01 Qualitative Data Analysis

224.810.01 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 question.
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

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsphs.edu/courses - Page 117 of 156
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
Method of Assessment Percentage
1. Paper(s) 99

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.

224.860.01 Social and Behavioral Interventions Program Seminar I:Applied Social Science & Global Health
1 credits - Course offered this year - East Baltimore
Kennedy, Caitlin; Harvey, Steve
Discusses the history and philosophy of social sciences in public health. Students read the book "Global Health: Why Cultural Perceptions, Social Representations, and Biopolitics Matter" by Mark Nichter. This book serves as a starting point for a series of discussions on why a thorough understanding of the historical, cultural, social and economic context is important in global public health practice; how globalization affects global burden of disease, health equity, and relationship with the social and physical environment; and the role of applied social science theory and methods in shaping and evaluating social and behavioral interventions.
Upon successfully completing this course, students will be able to:
1. Recognize key historical and philosophical underpinnings of applied social science and global health
2. Identify the core functions and essential services of public health as applied in various international health contexts
3. Explain how globalization affects global burden of disease, health equity, and relationship with the social and physical environment
4. Gain an appreciation for current themes in applied social science and global health
Email: caitlinkennedy@jhu.edu
Lecture: M 12:00 PM - 1:20 PM
Enrollment: Minimum 5, Maximum 30, Waitlist Enabled: Yes

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 118 of 156
SBI MSPH and SBI PhD students
Grading Options: Pass/Fail
Prerequisite:

224.863.01 Doctoral Seminar in Research Methods in Applied Medical Anthropology I
4 credits - Course offered this year - East Baltimore
Closser, Svea
Discusses and explores advanced topics in qualitative methods, including participant observation, interviews and focus groups, content analysis, discourse analysis, and online ethnography. Discusses theories in medical anthropology that are particularly useful in the design and analysis of international health interventions.
Upon successfully completing this course, students will be able to:

1. Describe different ways in which the concept of ethnography as a methodology is operationalized in qualitative studies on health
2. Identify the appropriate qualitative method(s) for a given research question, including participant observation, interviews, focus groups, content analysis, discourse analysis, performance analysis, and/or phenomenology
3. Describe the strengths, limitations, and varieties of practice for each of the methods listed above, and design research projects that use these methods appropriately and to their best advantage
4. Evaluate methodologies used in published qualitative studies
5. Determine how history and power relations affect relationships between a researcher and those they interact with, and consider ways to confront these issues
6. Assess the ways that health and illness is constructed, and how politics and power shape these constructions
7. Integrate core medical anthropological concepts into the framing of research questions and the analysis of results

Method of Assessment

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<tr>
<td>0. Discussion</td>
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<td>1. Participation</td>
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<td>2. Final Paper</td>
<td>25</td>
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<td>3. Peer-feedback</td>
<td>10</td>
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Email: sclosser@jhu.edu
Lecture: T TH 8:30 AM - 10:20 AM
Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for all students; All students except SBI doctoral students must request consent from instructor
Prerequisite: 224.690 and 224.691 Qualitative Research or equivalent

Mental Health

330.602.81 The Epidemiology of Substance Use and Related Problems
3 credits - Course offered this year - Internet
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 of use and use disorders. Covers the most common drugs of abuse, including alcohol, tobacco/nicotine, marijuana, opioids, and cocaine. Included are lectures from those with expertise in specific drugs or areas of study within substance use epidemiology.
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.
Method of Assessment

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<td>4. Assignments</td>
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Method of Assessment Detail:

Class Participation, including viewing Live Talks (live or recorded) and discussion board participating (22%); three quizzes with multiple choice and short-answer questions (36%); a 1000-word research brief on the epidemiology of substance use for a population (21%); and a 1,500 word article summary (21%).

Email: rjohnson@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introduction to Online Learning is required prior to participating in any of the School's Internet-based courses. PH.340.601 - Principles of Epidemiology or any introductory epidemiology course including JHU undergrad course AS.280.350 Fundamentals of Epidemiology

Class Participation, including viewing Live Talks (live or recorded) and discussion board participating (22%); three quizzes with multiple choice and short-answer questions (36%); a 1000-word research brief on the epidemiology of substance use for a population (21%); and a 1,500 word article summary (21%).

330.604.01 Seminars in Research in Public Mental Health
1 credits - Course offered this year - East Baltimore

Bass, Judy; Parisi, Jeanine M.
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

330.617.60 Psychopathology for Public Health (Cancelled - Department)
3 credits - Course offered this year - East Baltimore

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 120 of 156
Examines the major mental disorders, emphasizing the current thinking regarding their essential features and their assessment in public health research. Class sessions include lectures by the instructor and by experts in particular disorders. Reviews best-practice non-pharmacological and pharmacological approaches to the treatment of disorders, and commonly-utilized measures in public health and clinical contexts, including self- and informant-report measures, clinician-administered scales, and structured interviews.

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

1. Describe the history, structure, and limitations of current systems for classification of mental disorders, including the Diagnostic and Statistical Manual of Mental Disorders (DSM), Research Domain Criteria (RDoC), and alternative approaches
2. Describe the presentations and key features of major psychiatric syndromes, including anxiety and mood disorders, schizophrenia, and others
3. Describe current etiological perspectives for major mental disorders and explain how these disorders can co-occur with or reciprocally influence other health conditions in populations
4. Identify best-practice non-pharmacological and pharmacological approaches to the treatment of disorders
5. Identify appropriate measures for the assessment of particular disorders in public mental health research

Method of Assessment | Percentage
--- | ---
1. Quizzes | 24
2. Participation | 13
3. Attendance | 13
4. Final Exam | 50

Email: aspira@jhu.edu
Lecture: T TH 1:30 PM - 2:20 PM
Enrollment: Minimum 10, Maximum 70, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent is required for undergraduate students.

This course blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. This class will meet twice a week. Students are expected to spend 8 hours a week on class work in addition to regular homework.

330.617.81 Psychopathology for Public Health

Examines the major mental disorders, emphasizing the current thinking regarding their essential features and their assessment in public health research. Class sessions include lectures by the instructor and by experts in particular disorders. Reviews best-practice non-pharmacological and pharmacological approaches to the treatment of disorders, and commonly-utilized measures in public health and clinical contexts, including self- and informant-report measures, clinician-administered scales, and structured interviews.

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

1. Describe the history, structure, and limitations of current systems for classification of mental disorders, including the Diagnostic and Statistical Manual of Mental Disorders (DSM), Research Domain Criteria (RDoC), and alternative approaches
2. Describe the presentations and key features of major psychiatric syndromes, including anxiety and mood disorders, schizophrenia, and others
3. Describe current etiological perspectives for major mental disorders and explain how these disorders can co-occur with or reciprocally influence other health conditions in populations
4. Identify best-practice non-pharmacological and pharmacological approaches to the treatment of disorders
5. Identify appropriate measures for the assessment of particular disorders in public mental health research

Method of Assessment | Percentage
--- | ---
1. Quizzes | 24
2. Participation | 13
3. Attendance | 13
4. Final Exam | 50

Email: aspira@jhu.edu
Lecture: T TH 1:30 PM - 2:20 PM
Enrollment: Minimum 10, Maximum 70, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent is required for undergraduate students.

This course blends traditional classroom time and outside-of-class activities with a corresponding reduction in class sessions. This class will meet twice a week. Students are expected to spend 8 hours a week on class work in addition to regular homework.
330.657.01 Statistics for Psychosocial Research: Measurement (Cancelled - Department)
4 credits - Course offered this year - East Baltimore
Leoutsakos, Jeannie-Marie; Xue, Qian-Li
Presents quantitative approaches to measurement in the psychological and social sciences. Topics include the principles of psychometrics, including reliability and validity; the statistical basis for latent variable analysis, including exploratory and confirmatory factor analysis and latent class analysis; and item response theory. Draws examples from the social sciences, including stress and distress, social class and socioeconomic status, personality; consumer satisfaction, functional impairment and disability, quality of life, and the measurement of overall health status. Intended for doctoral students.

Upon successfully completing this course, students will be able to:
1. Read and evaluate scientific articles as regards measurement in public health
2. Design and conduct studies of reliability and validity.
3. Fit latent variable models, including factor analyses, latent class analyses, and latent trait analyses (IRT).

Email: jsheppar@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for all students;
Prerequisite: 140.621-624, former 140.601-604, or 140.651-654, or consent of instructor
Jointly offered with BIOSTAT

330.657.81 Statistics for Psychosocial Research: Measurement
4 credits - Course offered this year - Internet
Leoutsakos, Jeannie-Marie
Presents quantitative approaches to measurement in the psychological and social sciences. Topics include the principles of psychometrics, including reliability and validity; the statistical basis for latent variable analysis, including exploratory and confirmatory factor analysis and latent class analysis; and item response theory. Draws examples from the social sciences, including stress and distress, social class and socioeconomic status, personality; consumer satisfaction, functional impairment and disability, quality of life, and the measurement of overall health status. Intended for doctoral students.

Upon successfully completing this course, students will be able to:
1. Read and evaluate scientific articles as regards measurement in public health
2. Design and conduct studies of reliability and validity.
3. Fit latent variable models, including factor analyses, latent class analyses, and latent trait analyses (IRT).

Email: jsheppar@jhsph.edu
Lecture: M W 10:30 AM - 11:50 AM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Consent is required for Special Student Limited, undergrads and for those students without the prerequisite stats
Prerequisite: Introduction to Online Learning, and 140.621-624, former 140.601-604, or 140.651-654, or consent of instructor
Jointly offered with BIOSTAT

330.662.01 Public Mental Health (Cancelled - Department)
2 credits - Course offered this year - East Baltimore
Fallin, Dani Margaret
Provides an overview and framework for the full spectrum of public mental health. Presents key concepts in public health applied to mental and behavioral health and disorders. Discusses the causes and consequences of mental health disorders, the frameworks for understanding the origins of these disorders, strategies for treatment and prevention, and issues related to health services and policy for mental and behavioral health.
Upon successfully completing this course, students will be able to:
1. Develop their own definition of public mental health
2. Articulate key questions addressed in the study of public mental health
3. Map the central perspectives of public mental health across departmental curriculum
4. Create a plan for integrating key concepts into their public health training

Email: dfallin@jhu.edu
Lecture: F 1:30 PM - 3:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Prerequisite: None

330.662.81 Public Mental Health
2 credits - Course offered this year - Internet
Fallin, Dani Margaret
Provides an overview and framework for the full spectrum of public mental health. Presents key concepts in public health applied to mental and behavioral health and disorders. Discusses the causes and consequences of mental health disorders, the frameworks for understanding the origins of these disorders, strategies for treatment and prevention, and issues related to health services and policy for mental and behavioral health.
Upon successfully completing this course, students will be able to:
1. Develop their own definition of public mental health
2. Articulate key questions addressed in the study of public mental health
3. Map the central perspectives of public mental health across departmental curriculum
4. Create a plan for integrating key concepts into their public health training

Method of Assessment

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Method of Assessment Detail:</th>
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</thead>
<tbody>
<tr>
<td>1. Participation 40</td>
<td>40% Participation in group discussion and presentations;</td>
</tr>
<tr>
<td>2. Written Assignment(s) 30</td>
<td>30% Preparation of individualized training plan or essay; 30% course proposal project</td>
</tr>
<tr>
<td>3. Project(s) 30</td>
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</tbody>
</table>

Email: dfallin@jhu.edu

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

330.664.01 Introduction to Mental Health Services
3 credits - Course offered this year - East Baltimore
Mojtabai, Ramin
Examines issues in mental health care utilization, including definition of need for mental health care, concerns about the treatment gap in the community, treatment seeking and barriers to care (most importantly stigma and financial barriers) and treatment seeking models and predictors of mental health treatment-seeking in community settings. Also introduces students to the study of delivery of mental health care, including historical trends in the delivery of mental health care in the US, the mental health care system's governance and financing, quality and outcomes of mental health care and mental health services for children and older adults and treatment services for substance disorders.
Upon successfully completing this course, students will be able to:
1. Discuss approaches to definition and measurement unmet need for mental health care and barriers to care including stigma and financial barriers

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 123 of 156
2 Discuss treatment seeking behavior and theoretical models of health service utilization
3 Describe historical trends in utilization and delivery of mental health services including psychiatric medications and services for treatment of substance disorders
4 Discuss financing and organization of mental health care system in the US
5 Discuss issues of quality and outcome of mental health care and evidence-based practice
6 Identify salient features of mental health service use and delivery for children and older adults

Method of Assessment | Percentage
--- | ---
0. Participation | 10
1. Midterm | 30
2. Final Exam | 30
3. Final Paper | 30

Email: rmojtab1@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 5, Maximum 50, Waitlist Enabled: Yes
No undergraduate students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: There are no formal prerequisites but prior coursework in abnormal psychology or psychiatric epidemiology is recommended as is familiarity with psychiatric diagnosis and treatment.

330.800.01 MPH Capstone Mental Health
2 credits Must have 1-4 credits per term for two terms. - Course offered this year - East Baltimore
Departmental Faculty
The MPH Capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.
Upon successfully completing this course, students will be able to:
1 Synthesize, integrate and apply the skills and competencies they have acquired to a public health problem that approximates a professional practice experience

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Consent from the Capstone Supervisor is Required.
Prerequisite: All other MPH core requirements must be taken before or concurrently with the capstone project.

330.802.01 Seminar on Aging, Cognition and Neurodegenerative Disorders
2 credits - Course not offered until 2021 - 2022 - 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 models of improving care for patients with dementia
2 Describe biomarkers that have been examined in neurodegenerative disorders, and how they may be used to improve the conduct of clinical trials
3 Review the genetic causes and/or risks for the major neurodegenerative diseases
4 Discuss animal models of neurodegenerative disorders and how they can be used to find improved treatments for patients

Email: grebok1@jhu.edu
Lecture: TH 3:30 PM - 5:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students;
Prerequisite:
Predoctoral and Postdoctoral students from A&S, SPH and SOM students participating in the NIA Training Program on Age-Related, Cognitive and Neuropsychiatric Disorders are required to take this course.

330.805.01 Seminar on Statistical Methods for Mental Health (Cancelled - Department)
1 credits - Course offered this year - East Baltimore
Linton, Sabriya L.; Stuart, Elizabeth
Students discuss recent advances in statistical methods in mental health. Class sessions include student and faculty presentations as well as discussions of recent articles in the literature. Topics include missing data, longitudinal data analysis, causal inference, and measurement.
Upon successfully completing this course, students will be able to:
1. Identify the key areas of research in statistical methods for mental health
2. Describe recent developments in the field
3. Critically evaluate studies in this area
Email: slinton1@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 BOSTAT
Will be held in department space.

330.820.01 Thesis Research Mental Health
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

330.830.01 Postdoctoral Research Mental Health
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

330.840.01 Special Studies and Research Mental Health
variable credits - Course offered this year - East Baltimore
Information not required for this course type
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail

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

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

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

**Molecular Microbiology and Immunology**

260.600.01 Introduction to the Biomedical Sciences *(Cancelled - Department)*

4 credits - Course offered this year - East Baltimore

Bosch, Gundula; Wear, Margaret

Students apply basic anatomy and physiology principles to current public health problems. Students learn through specific reading assignments, individual activities, whole class discussions, short objective tests as well as case studies. Brief, supplementary presentations focus on seminal discoveries and current research topics in the public health field.

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

1. Describe the structure and function of the major organ systems of the human body, using the language of the biomedical sciences
2. Explain how genetic, anatomical and physiological dysfunctions affect individual human health
3. Discuss examples in which genetic, anatomical and physiological health issues are extrapolated to public health problems of populations
4. Demonstrate the importance of working together as a multidisciplinary public health team

Method of Assessment

<table>
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<tr>
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<tbody>
<tr>
<td>1. Quizzes</td>
<td>10</td>
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<tr>
<td>2. Problem sets</td>
<td>20</td>
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<tr>
<td>3. Discussion Board</td>
<td>40</td>
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<tr>
<td>4. Final Project</td>
<td>30</td>
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</table>

Email: gbosch2@jhu.edu

Enrollment: Minimum 15, Maximum 80, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Restricted to full-time masters and doctoral students registered for first term

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

260.600.81 Introduction to the Biomedical Sciences

4 credits - Course offered this year - Internet

Bosch, Gundula

Students apply basic anatomy and physiology principles to current public health problems. Students learn through specific reading assignments, individual activities, whole class discussions, short objective tests as well as case studies. Brief, supplementary presentations focus on seminal discoveries and current research topics in the public health field.

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

1. Describe the structure and function of the major organ systems of the human body, using the language of the biomedical sciences
2. Explain how genetic, anatomical and physiological dysfunctions affect individual human health
3. Discuss examples in which genetic, anatomical and physiological health issues are extrapolated to public health problems of populations
4. Demonstrate the importance of working together as a multidisciplinary public health team

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<td>3. Discussion Board</td>
<td>40</td>
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<tr>
<td>4. Final Project</td>
<td>30</td>
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</table>

Email: gbosch2@jhu.edu

Days & Times with Start & End Dates: Jul 06, 2020 - Aug 21, 2020
Enrollment: Minimum 4, No maximum enrollment required, Waitlist Enabled: No

No restrictions

Grading Options: Letter Grade or Pass/Fail

Prerequisite: Introduction to Online Learning Course:
https://courseplus.jhu.edu/core/index.cfm/go/course.home/cid/90/

This 8 week part-time, online course is offered immediately prior to the first term. Registrants must indicate this course on their FIRST term registrations, NOT their summer registrations.

**260.607.01 Methods in life sciences, literature and practice**

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

Hardwick, J.-Marie

Focuses on understanding laboratory research technologies and applying this knowledge to evaluate current scientific literature. Achieves these goals through in-depth small group discussions with a range of faculty expertise, weekly assigned reading, short projects, short writing assignments or other activities. Each session has both faculty and student leaders; some sessions held in Core facilities. Topic areas include molecular biology, genomics, protein structure and strategies to evaluate the literature (primarily term 1), microscopy technologies, image analysis, flow cytometry and lab notebook archiving (primarily in term 2), cell biology, organelle dynamics, cell signaling, data management and experimental design (primarily term 3).

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

1. Understand a wide range of research technologies used in the basic science laboratory and core facilities
2. Assess whether the evidence supports published conclusions
3. Identify the limitations of experimental methods
4. Use some computational tools, online databases and resources

**Method of Assessment**

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<tr>
<td>Participation</td>
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<tr>
<td>Presentation(s)</td>
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<tr>
<td>Written Assignment(s)</td>
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</tbody>
</table>

Email: hardwick@jhu.edu

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

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

Grading Options: Pass/Fail

Designed for MMI PhD students; also open to masters students.

**260.611.01 Principles of Immunology I**

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 tissue, cellular and molecular components that constitute the vertebrate innate and adaptive immune system
2. Explain the generation of lymphocyte antigen receptors and the molecular and cellular basis for diversity and specificity of receptors on immune cells
3. Define the basis for antigen presentation to T cells
4. Define the basis for recognition of self and non-self recognition
5. Define the development and survival of lymphocytes
6. Explain the major signaling pathways used by immune cells
7. Define T cell-mediated and B cell-mediated immunity

Email: ascott5@jhu.edu

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

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1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 127 of 156
Consent required for some students; Consent is required for undergraduate students.
Prerequisite: A course in advanced biology
Required for MMI PhD students.

260.623.01 Fundamental Virology
4 credits - Course offered this year - East Baltimore
Griffin, Diane
 Discusses cellular, molecular, genetic, and immunological principles that govern viral infection. Presents a survey of main virus groups with detailed discussion of several representative human pathogens. Topics include replication strategies, pathogenesis, carcinogenesis, vaccination, and the use of viruses as tools in molecular and cell biology. Emphasizes interactions of viral and host cell processes.
Upon successfully completing this course, students will be able to:
1 Discuss basic mechanisms of animal virus replication
2 Discuss basic cellular and host responses to viral infection
3 Become familiar with the major virus families that cause human disease
4 Discuss the mechanisms by which viruses in these families cause disease
5 Discuss how viruses in these families are transmitted and maintained in populations

Email: dgriffi6@jhmi.edu
Lecture: M W F 3:30 PM - 4:50 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Required for MMI students. All students taking this course should have a good cell biology background.

260.636.01 Evolution of Infectious Disease
3 credits - Course offered this year - East Baltimore
Klein, Sabra; Norris, Douglas; Markham, Richard
 Introduces students to the concept of how bacteria, parasites, viruses and even fungi have evolved and are still evolving to persist, emerge, and re-emerge in both the developed and developing world. Enables public health workers to develop new strategies and approaches that can be used to aid in the control of the major infectious disease epidemics that continue to threaten both the developed and developing world.
Upon successfully completing this course, students will be able to:
1 Apply knowledge of the genetic bases of evolution to a discussion of the pathogenesis of infectious diseases
2 Apply principles of the molecular basis of evolution in a discussion of how pathogens, including viruses, bacteria, parasites, and fungi, persist or have emerged as major public health threats
3 Demonstrate an understanding of the molecular basis of evolution for discussion of how pathogens are transmitted from animal reservoirs to humans
4 Explain the ecological connections among humans, vectors, and the environment that impact persistence and emergence of infectious diseases in humans

Email: sklein2@jhu.edu
Lecture: M W 1:30 PM - 2:50 PM
Enrollment: Minimum 5, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

260.700.81 How Do We Know? - Theory and Practice of Science
3 credits - Course offered this year - Internet
Bosch, Gundula; Casadevall, Arturo
 Examines the nature and philosophical foundations of science using an interdisciplinary approach that emphasizes critical thinking and storytelling; discusses the principles of good scientific practice – rigor, reproducibility and responsibility (the 3R’s) - by exploring revolutionary discoveries in the life, public health and natural sciences; elaborates the relationship between theory, practice and serendipity in scientific discovery, and concludes with a discussion of the role of scientists in society.
Upon successfully completing this course, students will be able to:
1 Analyze the notions of "science", "knowledge", "paradigm" and "truth"
2 Appraise the impact of revolutionary discoveries on the evolution of scientific knowledge and beliefs
Employ the norms of science – rigor, responsibility and reproducibility (the 3 “R’s”) - in scientific practice
4 Demonstrate understanding of scientific core concepts and methods through effective communication with peer and lay audiences
5 Evaluate the role of scientists in society

Email: gbosch2@jhu.edu

Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

260.704.60 Critical Dissection of the Scientific Literature: Taking the Scalpel to Journal Articles
3 credits - Course offered this year - East Baltimore
Wear, Margaret
Challenges the classical format of a journal club by preparing students to critically evaluate literature across the science disciplines. Acquaints students with concrete applications of the 3 R’s of good scientific practice: rigor, responsibility, and reproducibility. Discusses techniques for effective research literature analysis and evaluation. Emphasizes in-depth understanding of journal article preparation, data evaluation, and the context of conclusions and discussion points within a given research field.

Upon successfully completing this course, students will be able to:
1. Describe the elements of a well-constructed journal article publication
2. Analyze the experimental strategies and techniques, as well as the corresponding data presented in scientific publications in the light of the norms of good scientific practice
3. Evaluate the claims made and conclusions drawn in journal articles from epistemological and logical perspectives
4. Formulate constructive critique of the research presented in the interdisciplinary primary literature
5. Propose recommendations for improvement of the critique points found
6. Recognize the broader significance of the work presented in the scientific context of the field.

Method of Assessment

<table>
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<tbody>
<tr>
<td>0. Participation</td>
<td>20</td>
</tr>
<tr>
<td>1. Presentation(s)</td>
<td>45</td>
</tr>
<tr>
<td>2. Peer-feedback</td>
<td>25</td>
</tr>
<tr>
<td>3. Final Presentation</td>
<td>10</td>
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</tbody>
</table>

Email: mwear1@jhmi.edu

Lecture: TH 3:30 PM - 5:20 PM
Enrollment: Minimum 3, Maximum 24, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: none
This course is part of the R3 Science Education Initiative series (http://tiny.cc/JHSPH-MMI-R3). May be taken as a companion to PH.260.700: How do we know what is true: Theory and Practice of Science, or on its own. PH.260.700 is not a prerequisite.

260.704.81 Critical Dissection of the Scientific Literature: Taking the Scalpel to Journal Articles
3 credits - Course offered this year - Internet
Wear, Margaret
Challenges the classical format of a journal club by preparing students to critically evaluate literature across the science disciplines. Acquaints students with concrete applications of the 3 R’s of good scientific practice: rigor, responsibility, and reproducibility. Discusses techniques for effective research literature analysis and evaluation. Emphasizes in-depth understanding of journal article preparation, data evaluation, and the context of conclusions and discussion points within a given research field.

Upon successfully completing this course, students will be able to:
1. Describe the elements of a well-constructed journal article publication
2. Analyze the experimental strategies and techniques, as well as the corresponding data presented in scientific publications in the light of the norms of good scientific practice
3. Evaluate the claims made and conclusions drawn in journal articles from epistemological and logical perspectives
4. Formulate constructive critique of the research presented in the interdisciplinary primary literature
5 Propose recommendations for improvement of the critique points found
6 Recognize the broader significance of the work presented in the scientific context of the field.

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<td>25</td>
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<tr>
<td>4. Final Presentation</td>
<td>10</td>
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</tbody>
</table>

Method of Assessment Detail:
Online discussions (discussion board) and zoom-mediated group conversations about the weekly literature assignments; presentations of assigned articles and preprints are enhanced by continuous, constructively-critical peer feedback.

Email: mwear1@jhmi.edu

Enrollment: Minimum 3, Maximum 24, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

This course is part of the R3 Science Education Initiative series (http://tiny.cc/JHSPH-MMI-R3). May be taken as a companion to PH.260.700: How do we know what is true: Theory and Practice of Science, or on its own. PH.260.700 is not a prerequisite.

260.707.81 Evidence-Based Teaching in the Biomedical and Health Sciences: Foundations

Bosch, Gundula

Acquaints students interested in teaching in biomedical and health professional settings with the foundations of how adults learn as well as the science of learning. Explores practical applications of evidence-based teaching techniques most relevant to the biomedical and public health professions. Discusses a variety of assessment techniques, and their alignment with learning objectives and educational strategies using state of the art course design.

Upon successfully completing this course, students will be able to:
1. Employ modern instructional design methods to build a practice-applicable teaching unit.
2. Examine the literature and practice-based applications of evidence-based teaching techniques most relevant to biomedical and public health settings
3. Apply strategies for assessing learner’s needs
4. Design practice-applicable teaching modules according to learner-needs oriented objectives, congruent assessment methods and evidence-based, instructional tools
5. Articulate an educational philosophy

<table>
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<tr>
<th>Method of Assessment</th>
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<td>1. Educational philosophy statement</td>
<td>30</td>
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<tr>
<td>2. Teaching module design plan</td>
<td>30</td>
</tr>
<tr>
<td>3. Discussion</td>
<td>40</td>
</tr>
</tbody>
</table>

Email: gbosch2@jhu.edu

Enrollment: Minimum 3, No maximum enrollment required, Waitlist Enabled: No
Graduate students and post-doctoral fellows, from all JH divisions and institutions
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

This course is part of the R3 Graduate Science Initiative series (http://tiny.cc/JHSPH-MMI-R3) and prerequisite for the mentored teaching practice course “Evidence-Based Teaching - Practice” (PH.260.708.60), offered in the second term.

260.713.01 R3 Writing Seminar for Graduate Students

Simpson, Brian; Bosch, Gundula

Acquaints students with established methods to overcome writing block and write productively. Introduces participants to realistic goal setting and achievement. Prepares students to structure their thoughts and bring them to paper in a reasonable time. Emphasizes the value of learning from others’ work and helping others improve to constantly self-improve.
Upon successfully completing this course, students will be able to:

1. Describe established methods for successful writing planning, organization, and operationalization.
2. Implement a daily writing plan including self-set goals and accountability mechanisms.
3. Produce text outlines and drafts in daily portions according to the writing plan developed.
4. Employ methods to help revise own and others' text drafts.
5. Create text versions of acceptable quality for further use in theses, prose or publications.

Method of Assessment | Percentage
--- | ---
1. Participation | 15
2. Project(s) | 15
3. Peer-feedback | 30
4. Written Assignment(s) | 40

Method of Assessment Detail:

15% course participation; 15% Daily Writing Plan; 30% peer feedback; 40% written assignments (outlines, drafts, revisions)

Email: bsimpso1@jhu.edu
Lecture: W 9:00 AM - 9:50 AM
Enrollment: Minimum 2, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Letter Grade or Pass/Fail
Prerequisite: none

This course is part of the JHSPH R3 Graduate Program Series.

**260.720.81 Communications Primer for the Public Health Sciences**

1 credits - Course offered this year - Internet
Klaas, Brian; Bosch, Gundula

Acquaints students with the basics of effective oral and written communications in the form of brief exercises. Focuses on clarity and simplicity in presentation practice across disciplines and cultures to emphasize central messages. Introduces students to writing succinctly for advocacy using "compelling writers strategies" for opinion pieces and short speeches.

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

1. Construct visual presentations around simple, clear narratives.
2. Explain the rationale for important public health topics across disciplines and to the public.
3. Formulate clear and concise oral and written messages in the form of motivational presentations and opinion pieces.

Method of Assessment | Percentage
--- | ---
1. Quizzes | 10
2. Presentation(s) | 30
3. Written Assignment(s) | 30
4. Peer-feedback | 30

Method of Assessment Detail:

Weekly deliverables will have both formative and summative assessment character. Methods will comprise exercises that exemplify typical, authentic exercises in oral and written communication, i.e. a brief, motivational lightning talk presentation and an OpEd piece. An initial quiz as well as peer-to-peer feedback activities and participation factor into the modes of assessment as well.

Email: bklaas@jhu.edu
Enrollment: Minimum 4, Maximum 80, Waitlist Enabled: Yes
Grading Options: Letter Grade or Pass/Fail

Course is an offspring of 260.710.
Students interested in more extensive communications training are advised to enroll in 260.710.60/.81 Communications Practice for Health Science Professionals.

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.

260.801.01 Topics in Immunology I
1 credits - Course offered this year - East Baltimore
Scott, Alan
Employs a journal club presentation/discussion format to explore advanced topics in basic immunology, the tenants of experimental design in immunology and the theory and practice of immunological methods. This is the core discussion class for 260.611-.612.

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

Email: ascott5@jhu.edu
Lecture: T 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 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

260.820.01 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
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

Srinivasan, Prakash

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: psriniv3@jhu.edu
Lecture: TH 12:00 PM - 1:20 PM
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Required for MMI students.

**260.830.01 Postdoctoral Research Molecular Microbiology and Immunology**
variable credits - Course offered this year - East Baltimore

Information not required for this course type

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

**260.840.01 SS/R: Molecular Microbiology and Immunology**
variable credits - Course offered this year - East Baltimore

Information not required for this course type

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

**260.851.01 Laboratory Rotations**
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

260.852.01 Molecular Biology Literature
2 credits - Course offered this year - East Baltimore
Hardwick, J.-Marie
Each week, discusses over two sessions the assigned paper from historic or current scientific literature. The first session covers only the methodologies and how they work, the second covers the scientific advancements achieved with these methods. Each session has both student and faculty discussion leaders.
Upon successfully completing this course, students will be able to:
1 Understand the scientific evidence that supports the basic principles of molecular biology
2 Understand basic molecular biology methods used in the research laboratory
3 Identify the limitations of experimental methods to determine if the published evidence supports the authors’ conclusions

Email: hardwick@jhu.edu
Lecture: W F 9:00 AM - 10:20 AM

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

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

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

Online Programs for Applied Learning

600.601.86 Seminars in Public Health
2 credits - Course offered this year - Internet
Chandran, Aruna
Introduces basic principles of public health practice at local, national, and international levels. Uncovers relevant public health topics through expert presentations and discussions. Focuses on the core competencies required for the effective improvement of the health of communities. Explores the public health approach to describing a community's health, including the importance of understanding its social context. Introduces topics in public health history and philosophy, including its core functions and the 10 Essential Services. Covers a spectrum of 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, and environmental issues. Explores influences on the health of populations, including biological/genetic factors, behavioral/psychological factors, globalization and social/political/economic determinants of health.
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 and significance of a specific public health problem, understanding the critical importance of scientific evidence in advancing public health knowledge and how to apply this evidence to explore the problem’s public health burden as well as potential intervention strategies.
3 Explain the application of a holistic contextual approach to understanding the problems affecting the health and well-being of communities, including the influences of behavioral, psychological, biological, genetic, social, political, economic and environmental factors on health.

4 Compare public health assessment and control efforts for one disease or population to that of another

Email: aachandr3@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students enrolled in OPAL programs.
Grading Options: Pass/Fail
Prerequisite: None

600.611.86 Professional Development Workshops: Effective online Searching
2 credits - Course offered this year - Internet
Twose, Claire
Introduces and explores online sources for finding high-quality, full-text research articles. Also prepares students to use advanced search techniques efficiently within these sources and to manage references using tools such as RefWorks, EndNote, Zotero and Mendeley. Finally, students learn about tools available to use to stay current on topics related to the public health field.
Upon successfully completing this course, students will be able to:
1 Identify online sources for finding high-quality literature and data
2 Evaluate websites and research studies to ensure that they are reliable and of high-quality
3 Apply advanced search techniques to efficiently locate relevant articles from bibliographic databases
4 Explain the role that open access plays in the scholarly environment
5 Use online tools to store and manage references
6 Identify online tools to use when establishing yourself as a professional in the field

Email: ctwose@jhmi.edu
Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Enrollment in this course is restricted to students enrolled in an OPAL degree or certificate program.
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

600.710.86 Statistical Concepts in Public Health 2
3 credits - Course offered this year - Internet
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

Email: jmcgrea1@jhu.edu
600.712.86 Public Health Statistics II
4 credits - Course offered this year - Internet
McGready, John
Employs a conceptual framework to highlight the similarities and differences between linear, logistic and Cox Proportional Hazards methods, in terms of usage and the interpretations of results from such models. Provides details for these regression approaches in the “simple” scenario, involving relating an outcome to single predictor. Following this overview of simple regression, explores the use of multiple regression models to compare and contrast confounding and effect modification, produce adjusted and stratum-specific estimates, and allow for better prediction of an outcome via the use of multiple predictors. Offers a brief introduction to linear spline models and propensity score methods for adjustment.

Upon successfully completing this course, students will be able to:
1. Interpret the results from simple and multiple linear, logistic and Cox regression models
2. Illustrate how hypotheses tests can be expressed as simple regression models
3. Explain the assumption of proportional hazards, and what this means regarding the interpretation of hazard (incidence rate) ratios from Cox regression models
4. Describe the conditions necessary for an exposure/outcome relationship to be confounded by one or more other variables
5. Explain the concept of effect modification, and how it differs from confounding
6. Use the results from all regression types covered (linear, logistic and Cox) to assess confounding and effect modification

Email: jmcgrea1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to MAS in Patient Safety and Healthcare Quality students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 600.709.86 Statistical Concepts in Public Health 1

600.713.86 Public Health Statistics II
4 credits - Course offered this year - Internet
McGready, John
Employs a conceptual framework to highlight the similarities and differences between linear, logistic and Cox Proportional Hazards methods, in terms of usage and the interpretations of results from such models. Provides details for these regression approaches in the “simple” scenario, involving relating an outcome to single predictor. Following this overview of simple regression, explores the use of multiple regression models to compare and contrast confounding and effect modification, produce adjusted and stratum-specific estimates, and allow for better prediction of an outcome via the use of multiple predictors. Offers a brief introduction to linear spline models and propensity score methods for adjustment.

Upon successfully completing this course, students will be able to:
1. Interpret the results from simple and multiple linear, logistic and Cox regression models
2. Illustrate how hypotheses tests can be expressed as simple regression models
3. Explain the assumption of proportional hazards, and what this means regarding the interpretation of hazard (incidence rate) ratios from Cox regression models
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5. Explain the concept of effect modification, and how it differs from confounding
6. Use the results from all regression types covered (linear, logistic and Cox) to assess confounding and effect modification

Email: jmcgrea1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to MAS in Patient Safety and Healthcare Quality students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 600.709.86 Statistical Concepts in Public Health 1

601.731.81 Spatial Analysis for Public Health (Discontinued)
4 credits - Course offered only this year - Internet
Shields, Timothy; Curriero, Frank
Introduces the field of spatial analysis for public health. Examines concepts through the use of ArcGIS Geographic Information System (GIS) mapping software as a tool for integrating, manipulating, and displaying public health related spatial data. Covers GIS topics including mapping, geocoding, and manipulations related to data structures and topology. Introduces the spatial science paradigm: Spatial Data, GIS, and Spatial Statistics and uses selected case studies to demonstrate concepts along the paradigm. Focuses on using GIS to generate and refine hypotheses about public health related spatial data in preparation for follow up analyses.

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 of address information to both the spatial point and area level resolution
3. Create and critique maps appropriate for addressing public health related objectives
4. Identify the key differences between a GIS spatial analysis and a spatial statistical analysis as it is referenced in the spatial science paradigm

Method of Assessment

<table>
<thead>
<tr>
<th>Method of Assessment</th>
<th>Percentage</th>
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<tr>
<td>1. Participation</td>
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<td>2. Final Project</td>
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<td>3. Assignments</td>
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<tr>
<td>4. Quizzes</td>
<td>5</td>
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</table>

Method of Assessment Detail:

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 136 of 156
Assessments (8 total): Quiz 5%, Assignment 1: 5%, Assignment 2: 20%, Assignment 3: 20%, Assignment 4: 20%, Final Project: 25% and Participation: 5%

Email: tshields@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite: None

ArcGIS required software (one-year free license provided to JHSPH students) is made for the PC platform; MAC users will need to install a windows operating system to run ArcGIS.

601.731.86 Spatial Analysis for Public Health

4 credits - Course offered this year - Internet

Shields, Timothy; Curriero, Frank

Introduces the field of spatial analysis for public health. Examines concepts through the use of ArcGIS Geographic Information System (GIS) mapping software as a tool for integrating, manipulating, and displaying public health related spatial data. Covers GIS topics including mapping, geocoding, and manipulations related to data structures and topology. Introduces the spatial science paradigm: Spatial Data, GIS, and Spatial Statistics and uses selected case studies to demonstrate concepts along the paradigm. Focuses on using GIS to generate and refine hypotheses about public health related spatial data in preparation for follow up analyses.

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 of address information to both the spatial point and area level resolution
3. Create and critique maps appropriate for addressing public health related objectives
4. Identify the key differences between a GIS spatial analysis and a spatial statistical analysis as it is referenced in the spatial science paradigm

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: None

ArcGIS required software (one-year free license provided to JHSPH students) is made for the PC platform; MAC users will need to install a windows operating system to run ArcGIS.

602.631.86 Essentials of Population Health Management

3 credits - Course offered this year - Internet

Davison, Ashwini

Population health refers to outcomes for a group of individuals. Acquaints students with key concepts related to maintaining the health and wellness of populations. Examines the importance of determinants of health, including medical care, public health, genetics, personal behaviors and lifestyle, and a broad range of social, environmental, and economic factors. Explores this broad view of the determinants of population health and its impact on organizations that may not think of themselves as being in the business of health, such as housing organizations, employers, schools, and others who make decisions and create environments that can help or hinder good health. Population health management (PHM) has emerged as an important strategy for healthcare providers and payers. This course examines the challenges and opportunities to improving health within and across populations, as well as models of value-driven accountable care.

Upon successfully completing this course, students will be able to:
1. Describe population health and the related factors influencing the health and wellness of a defined community
2. Identify and stratify prospective populations and explain contemporary population health strategies
3. Discuss key components of integrated population health management and how value-based care payments models are being used to influence provider and patient behaviors

Method of Assessment Percentage
0. Assignments 30
1. Quizzes 30
2. LiveTalks 10
3. Discussion Board 10
4. Group Project(s) 20

Email: ashdavison@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

Prerequisite:

602.651.81 Principles and Applications of Advanced Payment Models in Population Health Management

3 credits - Course offered only this year - Internet

Siddiqi, Alvia; Bittle, Mark

Presents an overview of major issues related to the design, function, management, regulation, and evaluation of health insurance and managed care plans and implications for population health management. Provides a firm foundation in basic concepts pertaining to private and public sector health insurance/benefit plans. Key topics include population care delivery and payment innovations and management techniques, provider payment models, risk-sharing and other incentives for organizational integration, quality and accountability, cost-containment. Innovative payment models and initiatives supporting health care providers and health care organizations in testing alternative care delivery and payment models are reviewed in the context of three core strategies for improving the US health system: improving the way health care providers are paid, improving the way care is delivered, and increasing the availability of information to guide decision-making.

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

1. Identify issues related to the design, function, management, regulation and evaluation of health insurance programs on managing care organizations, including ACOs
2. Distinguish between both private and public sector programs and the impact on delivery system transformation of CMMI payment initiatives
3. Evaluate the impact of payment models on population health programs and stakeholders and the impact of the various models on health care expenditures and utilization, beneficiary and health care provider experiences with care, and, where feasible, health outcomes

Method of Assessment Percentage
1. Quizzes 25
2. Discussion Board 30
3. Group Work 45

Method of Assessment Detail:
Quizzes: 25%, Individual discussion board assignments: 30%, Group case study: 45%

Email: asiddi29@jh.edu

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

602.651.86 Principles and Applications of Advanced Payment Models in Population Health Management

3 credits - Course offered this year - Internet

Siddiqi, Alvia; Bittle, Mark

Presents an overview of major issues related to the design, function, management, regulation, and evaluation of health insurance and managed care plans and implications for population health management. Provides a firm foundation in basic concepts pertaining to private and public sector health insurance/benefit plans. Key topics include population care delivery and payment innovations and management techniques, provider payment models, risk-sharing and other incentives for organizational integration, quality and accountability, cost-containment. Innovative payment models and initiatives supporting health care providers and health care organizations in testing alternative care delivery and payment models are reviewed in the context of three core strategies for improving the US health system: improving the way health care providers are paid, improving the way care is delivered, and increasing the availability of information to guide decision-making.

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

1. Identify issues related to the design, function, management, regulation and evaluation of health insurance programs on managing care organizations, including ACOs
2. Distinguish between both private and public sector programs and the impact on delivery system transformation of CMMI payment initiatives
3 Evaluate the impact of payment models on population health programs and stakeholders and the impact of the various models on health care expenditures and utilization, beneficiary and health care provider experiences with care, and, where feasible, health outcomes

Method of Assessment | Percentage
--- | ---
1. Quizzes | 25
2. Discussion Board | 30
3. Group Work | 45

Email: asiddi29@jh.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:

602.701.86 Applied Concepts and Foundations of High Performance for Population Health
3 credits - Course offered this year - Internet
Engineer, Cyrus; Marsteller, Jill; Engineer, Lilly

This course will provide students with an understanding of the core features, characteristics, values, culture and systems that lead to high performance for population health. It will introduce students to evidence based approaches such as the Baldrige framework that allow organizations to address performance gaps and develop robust processes and a culture of continuous improvement and excellence to improve the health of populations. The course will utilize a case study approach to share best practices within population health that lead to sustained high performance.

Upon successfully completing this course, students will be able to:
1. Identify major external forces and their role in shaping missions and managerial challenges
2. Explain the basic concepts and foundations of high performing organizations
3. Analyze the role of leadership in developing core values and concepts
4. Perform a performance gap analysis using an evidence based framework
5. Apply principles from an evidence based framework to improve organizational performance
6. Create a performance management and improvement plan for their organization

Email: cengine1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to OPAL MAS in Population Health Management students
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Must have completed all 1st year courses to enroll in this course

602.701.93 Applied Concepts and Foundations of High Performance for Population Health
3 credits - Course offered this year - Beijing, China
Engineer, Cyrus; Marsteller, Jill; Engineer, Lilly

This course will provide students with an understanding of the core features, characteristics, values, culture and systems that lead to high performance for population health. It will introduce students to evidence based approaches such as the Baldrige framework that allow organizations to address performance gaps and develop robust processes and a culture of continuous improvement and excellence to improve the health of populations. The course will utilize a case study approach to share best practices within population health that lead to sustained high performance.

Upon successfully completing this course, students will be able to:
1. Identify major external forces and their role in shaping missions and managerial challenges
2. Explain the basic concepts and foundations of high performing organizations
3. Analyze the role of leadership in developing core values and concepts
4. Perform a performance gap analysis using an evidence based framework
5. Apply principles from an evidence based framework to improve organizational performance
6. Create a performance management and improvement plan for their organization

Method of Assessment | Percentage
--- | ---
1. Participation | 20
2. Reflection | 30

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 139 of 156
3. Paper(s) 50

Method of Assessment Detail:
Class participation including attendance: 20%, Weekly reflection summaries: 30%, Best practice paper: 50%
Email: cengine1@jhu.edu

Enrollment: Minimum 10, Maximum 12, Waitlist Enabled: Yes
Restricted to students in the Tsinghua cohort
Grading Options: Letter Grade or Pass/Fail

Consent required for all students; Students must be in the Tsinghua cohort to enroll.

**602.711.86 Health Behavior: Improving Health Through Health Education/Promotion**

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

Kennedy, Ryan

The purpose of this course is to provide students with an overview of the field of health education/health promotion and an opportunity to develop skills in needs assessment and program planning. We will review the importance of health behavior as a contributor to current public health problems, as well as the role of health education and health promotion in addressing these problems. Students will learn how to use planning frameworks (PRECEDE/PROCEED and Social Marketing) for conducting needs assessments and designing health promotion programs. Theories of health behavior change will be introduced and their applications to health behavior change interventions described. Examples of health education and health promotion programs from health care and community settings will be presented.

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

1. Explain the importance of health behavior as a contributor to current public health problems
2. Describe the elements of at least two behavior change theories and their applicability to developing health education/health promotion programs
3. Describe the application of theory-based needs assessment to the selection of intervention methods and strategies
4. Demonstrate skills in planning a health behavior change program by successfully completing a written needs assessment

Email: rdkennedy@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
Prerequisite: Must have completed all 1st year courses to enroll in this course

**Learning Materials:**

- (Book) Health Behavior and Health Education: Theory, Research, and Practice
  Glanz, Karen
  Amazon $9.75
  2015

**603.702.86 Quality Improvement Tools**

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

Sawyer, Melinda; Paine, Lori

Describes, demonstrates and trains in the use of key tools used at leading institutions to improve quality of care and patient safety. These include the Comprehensive Unit-based Safety Program (CUSP), Plan Do Study Act (PDSA), Translating Research into Practice (TRIP), Human Factors Analysis and Classification System (HFACS), Systems Engineering Initiative for Patient Safety (SEIPS), Lean Six Sigma, Management Discussion & Analysis (MD&A), Safer Matrix, briefings, debriefings and TeamSTEPPS®. Presents a framework and strategies for the successful implementation of quality improvement interventions, including specific approaches, methods, structures and resources to promote uptake of the components of an intervention. Learners gain first hand experience through role playing, individual and group exercises and simulations with each of the techniques.

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

1. Describe key tools in quality improvement and patient safety, including the Comprehensive Unit-based Safety Program (CUSP), TRIP, Lean Six Sigma
2. Explain the application of each tool in the context of health care
3. Describe the elements in the process of implementing a known effective intervention.

4. Demonstrate the steps involved in applying each of the tools.

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<tr>
<th>Method of Assessment</th>
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<tr>
<td>0. Participation</td>
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<tr>
<td>1. LiveTalks</td>
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<td>2. Quizzes</td>
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<tr>
<td>3. Assignments</td>
<td>60</td>
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</tbody>
</table>

Email: Msawyer1@jhmi.edu

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

Restricted to students in MAS in Patient Safety and Healthcare Quality

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 603.711.86 Science of Patient Safety

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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<tr>
<td>1. Final Paper</td>
<td>50</td>
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<td>2. Quizzes</td>
<td>40</td>
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<tr>
<td>3. Participation</td>
<td>10</td>
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</tbody>
</table>

Email: awu@jhu.edu

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

Restricted to students in the OPAL programs

Grading Options: Letter Grade or Pass/Fail

604.601.81 Public Health Humanitarian Emergencies

4 credits - Course offered only this year - Internet

Spiegel, Paul

Introduces different types of humanitarian emergencies, humanitarian architecture and provides an overview of sectoral focus areas of humanitarian response. Informs students of the environment in which these emergencies occur and how public health responses in various types of emergencies and contexts differ. The course explores mechanisms of preparedness, management of response to acute and prolonged humanitarian emergencies as well as long-term recovery.

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

1. Define a humanitarian emergency and list the types of public health needs each type may create.
2. List the common types of humanitarian emergencies and indicate their relative importance in terms of the size of the affected population and mortality.
3. Explain humanitarian architecture, coordination mechanisms and the organizations that are engaged in humanitarian response.
4. Analyze responses to different types of humanitarian emergencies and how priorities may differ by location and type of emergency.
5. Critique case studies of different humanitarian settings and their response.
6. Appraise the current and future challenges that face humanitarian action.
Method of Assessment | Percentage
--- | ---
1. Assignments | 30
2. Quizzes | 50
3. Participation | 20

Method of Assessment Detail:
Student evaluation based on quizzes (50%), assignments (30%), and participation (LiveTalk/Discussion Forum) (20%).

Email: pbspiegel@jhu.edu

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

604.601.86 Public Health Humanitarian Emergencies
4 credits - Course offered this year - Internet
Spiegel, Paul
Introduces different types of humanitarian emergencies, humanitarian architecture and provides an overview of sectoral focus areas of humanitarian response. Informs students of the environment in which these emergencies occur and how public health responses in various types of emergencies and contexts differ. The course explores mechanisms of preparedness, management of response to acute and prolonged humanitarian emergencies as well as long-term recovery.

Upon successfully completing this course, students will be able to:
1. Define a humanitarian emergency and list the types of public health needs each type may create
2. List the common types of humanitarian emergencies and indicate their relative importance in terms of the size of the affected population and mortality
3. Explain humanitarian architecture, coordination mechanisms and the organizations that are engaged in humanitarian response
4. Analyze responses to different types of humanitarian emergencies and how priorities may differ by location and type of emergency
5. Critique case studies of different humanitarian settings and their response
6. Appraise the current and future challenges that face humanitarian action

Email: pbspiegel@jhu.edu

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

Only MAS in Humanitarian Health
Grading Options: Letter Grade or Pass/Fail
Prerequisite:

604.701.86 Assessment Approaches in Humanitarian Settings
3 credits - Course offered this year - Internet
Doocy, Shannon;Robinson, Courtland
The goal of the course is to give students an overview of selected field-based methods used in humanitarian emergencies to measure basic health indicators and demographic characteristics of affected populations. Upon completion, students will be able to describe the assessment process in the various phases of humanitarian emergencies. Students will also be able to describe a variety of methods, both qualitative and quantitative, used in field-based assessments of humanitarian emergencies. These include: qualitative assessments, quantitative surveys, population estimation, and site planning.

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

Email: doocy1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in MAS in Humanitarian Health
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 604.601.86 Public Health in Humanitarian Emergencies

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 142 of 156
604.715.86 Health Needs and Service Provision in Humanitarian Emergencies

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. 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, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in MAS in Humanitarian Health
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Introduction to Online Learning

605.621.86 Tobacco Prevention and Control

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 includes practical approaches for 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 and the Framework Convention on Tobacco Control (FCTC) using lectures, case studies, and discussion.

Upon successfully completing this course, students will be able to:
1. Describe the concepts and principles of tobacco control along with the components of a comprehensive tobacco control approach and how they have been applied at the local, state, national and international levels
2. Describe the scope of the tobacco epidemic and the social-ecological model's approach for dealing with this epidemic
3. Identify the interference employed by transnational tobacco companies to undermine tobacco control and public health
4. Discuss different types of tobacco products as well as how tobacco is used by different populations
5. Compare states and countries on their implementation of tobacco policy approaches
6. Describe the historical context for tobacco control upon which current evidence-based policies and practices are built

Email: fstillm1@jhu.edu

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

605.651.81 Strategic Communication Planning

Lozare, Benjamin

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 143 of 156
Focuses on the step-by-step design, implementation, evaluation, and critique of communication programs designed to change behavior relevant to tobacco control. Allows students to create actual health communication campaigns guided by P-Process worksheets.

The course will explore the concept of stages applied to tobacco control – strategic defensive, stalemate, strategic offensive, and consolidation. At the individual level, the course will sharpen approaches to specific audience segments such as non-smoker unlikely to smoke, non-smoker likely to smoke, occasional smoker and established smoker.

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

1. Plan and conduct formative communication research and root cause analysis
2. Define appropriate audience segments
3. Formulate strategic communication objectives and design appropriate messages
4. Select media and choose appropriate media mix
5. Understand the process of developing materials
6. Manage communication teams and impact evaluation

Method of Assessment

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<th>Percentage</th>
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<tbody>
<tr>
<td>1. LiveTalks</td>
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<td>2. Midterm</td>
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<td>3. Project(s)</td>
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<td>4. Assignments</td>
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Method of Assessment Detail:

- Mid-term: 20%
- LiveTalk participation: 10%
- Class project presentation: 50%
- Assignments and comments on other students' work: 20%

Email: blozare1@jhu.edu

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

605.651.86 Strategic Communication Planning

4 credits - Course offered this year - Internet

Lozare, Benjamin

Focuses on the step-by-step design, implementation, evaluation, and critique of communication programs designed to change behavior relevant to tobacco control. Allows students to create actual health communication campaigns guided by P-Process worksheets.

The course will explore the concept of stages applied to tobacco control – strategic defensive, stalemate, strategic offensive, and consolidation. At the individual level, the course will sharpen approaches to specific audience segments such as non-smoker unlikely to smoke, non-smoker likely to smoke, occasional smoker and established smoker.

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

1. Plan and conduct formative communication research and root cause analysis
2. Define appropriate audience segments
3. Formulate strategic communication objectives and design appropriate messages
4. Select media and choose appropriate media mix
5. Understand the process of developing materials
6. Manage communication teams and impact evaluation

Email: blozare1@jhu.edu

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

606.601.86 Fundamentals in Global Health Practice

4 credits - Course offered this year - Internet

Brieger, William

Provides an introduction to these issues. Students have an opportunity to apply these skills by analyzing the health situation in select low and middle-income countries.
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

MAS students only

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

607.701.86 Health and Safety Preparation for Global Health Assignments

1 credits - Course offered this year - Internet

Kalbarczyk, Anna

Whether you've traveled before or not, living and working internationally can be challenging. Learn how best to prepare and make the most of your time. Explores health and wellness concerns for 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 resources and services required for international travel and understand when to engage them.
2. Locate and evaluate resources for identifying regionally-specific health concerns.
3. Practice safe travel protocols including travel registration.
4. Examine ethical dilemmas in global health placements.
5. Create a travel plan using knowledge of risks, preventive measures, and interventions as applied to a specific country.

Email: akalbarc@jhu.edu

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

Restricted to students in MAS in Global Health Planning and Management and students in MAS in Community-based Primary Health Care Programs in Global Health

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

607.704.81 Essential Medicines, Commodities and Supplies Needed for Community Level Primary Health Care Interventions

2 credits - Course offered only this year - Internet

Brieger, William

Primary health care programs in low and middle-income countries require essential health commodities be made available at the community level. Logistic systems need to be developed to ensure that commodities are adequately estimated and delivered. In addition, systems for safely maintaining and monitoring stocks are needed at the community level.

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

1. Provide examples of essential medicine formularies for primary health care in low- and middle-income countries.
2. Apply the steps in essential medicines, commodities and supplies procurement and supply in a sample country.
3. Describe the best safe practices for managing essential medicines, commodities and supplies at the community level.

Email: wbriege1@jhu.edu

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

MAS students only

Grading Options: Letter Grade or Pass/Fail

Prerequisite:
Method of Assessment | Percentage
--- | ---
1. Quizzes | 20
2. Case Study development | 80

Method of Assessment Detail:
- Quizzes: 20%; Case study development: 80%

Email: wbriege1@jhu.edu

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

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

**607.704.86 Essential Medicines, Commodities and Supplies Needed for Community Level Primary Health Care Interventions**

2 credits - Course offered this year - Internet

Brieger, William

Primary health care programs in low and middle-income countries require essential health commodities be made available at the community level. Logistic systems need to be developed to ensure that commodities are adequately estimated and delivered. In addition, systems for safely maintaining and monitoring stocks are needed at the community level.

Upon successfully completing this course, students will be able to:
1. Provide examples of essential medicine formularies for primary health care is low- and middle-income countries
2. Apply the steps in essential medicines, commodities and supplies procurement and supply in a sample country
3. Describe the best safe practices for managing essential medicines, commodities and supplies at the community level

Email: wbriege1@jhu.edu

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

Restricted to students in MAS in Community-based Primary Health Care Programs in Global Health

Grading Options: Letter Grade or Pass/Fail

Prerequisite:

**607.711.81 Applying Evaluation to More Effectively Reach Communities Through Primary Health Care**

3 credits - Course offered only this year - Internet

Winestock Luna, Jennifer; Perry, Henry

Presents fundamental concepts and approaches for evaluating primary health care programs in low- and middle-income countries. Prepares students to analyze real-world programs so that they can make basic decisions resulting in evaluation designs that can be practically applied. Discusses actual experiences of working with implementers to design evaluations that balance methodological rigor with restraints of time and budget. Includes fundamental concepts such as choosing indicators, objectives and appropriate study designs; working with implementers who may not be evaluation experts; and understanding context.

Upon successfully completing this course, students will be able to:
1. Explain the process for determining critical details of a project or program in order to design an appropriate evaluation
2. Explain important aspects of primary health care that permit health improvement in low- and middle-income countries
3. Develop objectives, indicators and study designs that have the appropriate amount of rigor for the project or program situation
4. Compare and contrast the uses for quantitative and qualitative information in evaluation designs
5. Design a conceptual framework and practical approach that can serve as a base for developing an evaluation design
6. Determine the most appropriate evaluation design given the limitations of time and budget and the nature of project/program activities

Method of Assessment | Percentage
--- | ---
1. Assignments | 30
2. Participation | 10
3. Final Project | 60

Method of Assessment Detail:
- Coursework: 30%, Participation: 10%, Final project: 60%

Email: lwinston1@jhu.edu

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 146 of 156
607.711.86 Applying Evaluation to More Effectively Reach Communities Through Primary Health Care

3 credits - Course offered this year - Internet

Winestock Luna, Jennifer; Perry, Henry

Presents fundamental concepts and approaches for evaluating primary health care programs in low- and middle- income countries. Prepares students to analyze real-world programs so that they can make basic decisions resulting in evaluation designs that can be practically applied. Discusses actual experiences of working with implementers to design evaluations that balance methodological rigor with restraints of time and budget. Includes fundamental concepts such as choosing indicators, objectives and appropriate study designs; working with implementers who may not be evaluation experts; and understanding context.

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

1. Explain the process for determining critical details of a project or program in order to design an appropriate evaluation
2. Explain important aspects of primary health care that permit health improvement in low- and middle-income countries
3. Develop objectives, indicators and study designs that have the appropriate amount of rigor for the project or program situation
4. Compare and contrast the uses for quantitative and qualitative information in evaluation designs
5. Design a conceptual framework and practical approach that can serve as a base for developing an evaluation design
6. Determine the most appropriate evaluation design given the limitations of time and budget and the nature of project/program activities

Email: lwinest1@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in MAS in Community-based Primary Health Care Programs in Global Health
Grading Options: Letter Grade or Pass/Fail

Learning Materials:

- (Other) Rapid Health Surveys Principles and Sampling Design Handbook
  Davis, R.
  $0.00
  2009

**608.705.86 Emerging Trends in Pharmaceutical Systems Strengthening**

3 credits - Course offered this year - Internet

Eng, Maria

Explores pharmaceuticals management and universal health coverage effective, feasible frameworks and possible metrics to measure capacity and accountability. Considers the big picture in pharmaceutical systems: pharma regulatory harmonization and convergence; country, global, and donor financing policies; and sustainability strategies. Presents and contrasts different countries regulatory systems for medicines. Introduces the importance of pharmaceutical harmonization convergence/reliance. Addresses selected challenges within the pharmaceutical services delivery framework among under-served and within LMIC populations.

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

1. Explain why medicines and related services are crucial to attaining UHC and solving current global health challenges
2. Identify key concepts such as access to medicines, appropriate use, and how systems to ensure safe, effective, quality-assured and affordable medicines
3. Apply systems thinking to identify major factors and barriers to access to and appropriate use of medicines and related services and interventions to address them

1st term information is correct as of August 27, 2020. For latest information visit Course Catalog at http://www.jhsph.edu/courses - Page 147 of 156
4 Define pharmaceutical systems in the context of health systems including key frameworks and metrics
5 Describe the core components of pharmaceutical financing and illustrate the significance of medicines expenditures both on medical products themselves and on their management to health budgets (e.g., in the context of UHC) and households (e.g., as primary driver of out-of-pocket spending and catastrophic health expenditures)
6 Identify key elements of various pharmaceutical management information systems (PMIS), including linkage of product and consumer data, and explain how to promote use of data for decision making
7 Describe key components and scope of pharmaceutical regulatory systems
8 Explain how National Medicines Regulatory Authorities (NMRAs) and other key regulatory stakeholders ensure safe, effective, and quality-assured medicines within the context of Universal Health Coverage
9 Describe key principles of pharmacovigilance systems within a regulatory and public health context including risks and opportunities
10 Identify the merits and challenges of regulatory harmonization, reliance, and cooperation

Email: meng@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in MAS in Global Health Planning and Management
Grading Options: Letter Grade or Pass/Fail
Prerequisite: Health systems experience preferred.

608.712.86 Frameworks and Tools for Health Systems in Global Settings
3 credits - Course offered this year - Internet
Morgan, Rosemary
Explores health systems in global settings, with a focus on low and middle income (LMIC) contexts, 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 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
5 Differentiate potential strategies for addressing key controversies in health systems

Method of Assessment
Percentage
1. Participation 25
2. Paper(s) 30
3. Final Paper 45

Method of Assessment Detail:
Participation in Lectures, LiveTalks & discussion forum - 25%, Paper 1, Problem Statement - 30%, Final Paper - 45%

Email: Rosemary.Morgan@jhu.edu

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Restricted to students in the MAS in Global Health Planning and Management
Grading Options: Letter Grade or Pass/Fail
Prerequisite: 606.601.86 Fundamentals in Global Health Practice

Population, Family and Reproductive Health
380.604.01 Life Course Perspectives on Health
4 credits - Course offered this year - East Baltimore
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 life course approach to understanding population health
2. Explain the social, political and economic determinants of population health over the life course
3. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity
4. Describe the psychological and behavioral factors that affect a population’s health over the life course
5. Explain how societal, behavioral, psychological factors interact with biological and genetic factors to affect population health over the life course
6. Describe how a multilevel life course perspective integrates societal, behavioral, psychological and biological determinants of health over the life course
7. Create a conceptual framework that communicates a multilevel life course perspective on a specific public health outcome
8. Assess the advantages and challenges of applying a multilevel life course perspective on health in public health research and practice

Method of Assessment

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<td>1. Assignments</td>
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<td>2. Participation</td>
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<tr>
<td>3. Conceptual framework illustrating a multilevel, life course perspective on a public health outcome (four assignments)</td>
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Email: mehughes@jhu.edu

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

Enrollment: Minimum 10, Maximum 90, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Consent required for all students;

Students must have instructor’s permission to enroll in the class after the first week of the term.

380.611.81 Fundamentals of Program Evaluation

4 credits - Course offered this year - Internet

Mirabal-Beltran, Roxanne

Familiarizes students in different types of program evaluation, including formative research, process evaluation, impact assessment, cost analysis, and theory-based evaluations. Students gain practical experience through a series of exercises involving the design of a logic model, selection of indicators and data sources, and the design of an evaluation plan to measure both a process and impact evaluation. Covers experimental, quasi-experimental, and non-experimental study designs, including the strengths and limitations of each.

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

1. Describe a program from the lens of an evaluator
2. Develop a logic model and explain the theory of change within the model
3. Select indicators based on the logic model
4. Identify sources of data at the program and population level corresponding to different types of evaluation
5. Describe the purpose of formative research and identify the most common methods
6. Explain the elements of experimental and quasi-experimental designs, and explain how they address the threats to validity
7. Design a process and impact evaluation and select appropriate qualitative and quantitative methods for each type of evaluation

Method of Assessment

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<tr>
<td>0. Participation</td>
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1. Written Assignment(s) 75
2. Final Presentation 20

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 auditors.
Prerequisite: Course is prerequisite for 380.612

380.744.81 Nutrition and Growth in Maternal and Child Health
3 credits - Course offered this year - Internet

Paige, David
Examines the impact of nutritional status on growth, development, intellectual performance, health status, and the onset and progress of chronic diseases. Considers ethnic, cultural, and environmental issues related to food intake as well as the relationship between physical activity and health. Examines the origin and basis for the identification and assessment of community need using the national nutrition monitoring system. Reviews federally funded nutrition program outcomes and their policy implication.

Upon successfully completing this course, students will be able to:
1. Describe the biological determinants of growth, nutrition and development throughout the prenatal, fetal, childhood and adolescent periods.
2. Examine the factors contributing to and impinging on growth during critical periods of development.
3. Identify the interrelationship of nutritional factors influencing normal growth; and the negative consequences associated with nutritional insults.
4. Analyze dietary data for nutrient intake, apply the results to current nutrition guidance, and recognize the advantages and limitations of the various approaches to evaluating dietary intake.
5. Identify risk factors associated with the critical periods of growth framework and discuss their role in preventing or ameliorating results of negative exposures to growth and development during each critical period.

Email: dpaige@jhu.edu

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

380.755.81 Population Dynamics and Public Health
2 credits - Course offered this year - Internet

Hughes, M. E.
Provides an introduction to population dynamics, the processes by which populations change, as a foundation for understanding population health. Students learn how births, deaths, and migrations determine the size, growth, age-sex structure, and geographic location of populations. Students review the proximate and indirect causes of population change and assess their socioeconomic, environmental, and public health consequences. Students calculate and interpret basic measures used to describe populations and measure population dynamics, and learn the main sources of population data and their strengths and limitations.

Upon successfully completing this course, students will be able to:
1. Describe global and nation-specific trends in population size, age-sex structure, and geographic distribution
2. Describe global and nation-specific trends in fertility and discuss the proximate determinants and most important indirect determinants of these trends
3. Describe global and nation-specific trends in mortality and discuss some of the factors that explain mortality differentials among populations
4. Explain how changes in fertility, mortality, and migration determine population growth and age-sex structure
5. Summarize the interrelationships among economic development, population and health policies, and population dynamics
6. Recognize the impact of population growth on the global environment
7. Calculate and interpret the basic measures used to describe populations and measure population dynamics
8. Identify selected sources of population data and describe their strengths and limitations
Method of Assessment | Percentage
--- | ---
1. Quizzes | 72
2. Final Exam | 28

Email: mehughes@jhu.edu

Enrollment: Minimum 30, Maximum 200, Waitlist Enabled: Yes

Grading Options: Letter Grade or Pass/Fail

Prerequisite: None

380.767.01 Couples and Reproductive Health (Cancelled - Department)

variable credits 2-3 - Course offered this year - East Baltimore

Becker, Stan

Reviews and discusses readings on couples and reproductive health such as: Definitions of couples and of reproductive health; sociological, anthropological and economic perspectives; fertility decision making; critiques of a couple approach from feminists and from those concerned primarily with less stable sexual partnerships for STD/AIDS prevention, and design of couple studies and service delivery interventions.

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

1. Critique conceptual frameworks
2. Prepare and give a presentation to the class
3. Write a paper on a topic of choice (optional)
4. Discuss the relevant literature in couples and reproductive health

Email: sbecker2@jhu.edu

Lecture: T 3:00 PM - 4:50 PM

Enrollment: Minimum 6, No maximum enrollment required, Waitlist Enabled: No

Grading Options: Letter Grade or Pass/Fail

Prerequisite: 380.600 or 380.755.60 or 380.755.81 or AS280.225 (for undergraduate students)

Class may count as 3 credits if students take the lab portion of the course.

380.768.81 Selected Topics in Women’s Health and Women’s Health Policy

4 credits - Course offered this year - Internet

Pearson, Erin

Discusses major health concerns among women within a life course framework that integrates biological determinants of health and the social, cultural and economic contexts of women’s lives. Focuses on developed countries though issues in developing countries are introduced. Examines a spectrum of current health and policy concerns, and may include family planning, preventive services for women, chronic disease, migration, gender-based violence, mental health and disability. Also includes historical perspectives and a gender justice framework for viewing health policies.

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

1. Assess women’s health and health concerns within the context of a life course framework which addresses the social, cultural and economic contexts in which women live
2. Describe definitions of women’s health in current use and evaluate the applicability of a gender justice framework for viewing women’s health policies in developed and developing countries for selected health concerns
3. Describe current health and policy concerns for selected topics such as family planning, preventive services for women, chronic disease, migration, mental health, gender-based violence, and disability
4. Compare and contrast varying stakeholder’s perspective on current and critical issues pertaining to women’s health and health policy

Method of Assessment | Percentage
--- | ---
0. Written Assignment(s) | 72
1. Discussion Board | 18
2. Participation | 10

Email: pearson.erin@gmail.com

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

Students who take 380.667, Women’s Health Policy may not take this course.
Grading Options: Letter Grade or Pass/Fail
Consent required for some students; Instructor consent required after first week of class.
Prerequisite: None
Course is an offspring of 380.667
The total points in this course add up to 100. There are three written assignments - one on statistics, one on gender justice, and a third blog post. Each of these assignments is worth 21 points.
Second, there are quizzes on many of the readings. As long as you TAKE the quiz you will get full credit. These are each worth one point for a total of 14.
Third, the TA and I ask that you put comments on the discussion board at least 24 hours before the livestalk. These comments are worth three points each for a total of nine points.
Fourth, we ask that you post either a response to the reading or a response to other people’s comments on the discussion board at least three times throughout the course. This can be something you found interesting in the readings or something you found interesting in someone else’s comments. These are also each worth three points for a total of nine points.
Finally, participation (based on listening to the lectures and attending livestalks) is worth five points.

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.

380.810.01 Field Placement 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

380.817.01 PFRH First Year Doctoral Seminar Part 1
1 credits - Course offered this year - East Baltimore
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.

380.823.01 Research Seminar in Population, Family and Reproductive Health I
2 credits - Course offered this year - East Baltimore
Minkovitz, Cynthia; Strobino, Donna
Provides experience in critical evaluation of historical and contemporary research pertinent to Population, Family and Reproductive Health. Adresses a range of topics, drawing on research from multiple academic disciplines. Students and faculty critique and discuss conceptual frameworks and empirical articles and examine the methodological and disciplinary perspectives of the research or articles.
Upon successfully completing this course, students will be able to:
   1 Apply diverse conceptual frameworks to public health issues pertinent to PFRH
   2 Critique empirical articles addressing public health issues related to PFRH
   3 Compare and contrast the approaches of various academic disciplines to public health issues of relevance to PFRH
   4 Recognize and critically evaluate common study designs and methods used in research relevant to PFRH
Email: cmink@jhu.edu
Lecture: M 3:30 PM - 4:50 PM
Enrollment: Minimum 5, Maximum 15, Waitlist Enabled: Yes
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
Departmental Faculty
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

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 0-22 - Course offered this year - East Baltimore
Provides students with the opportunity to receive academic or practicum experience 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 Identify areas of interest for current and future research

Method of Assessment
1. Participation 50
2. Assignments 50

Enrollment: Minimum 10, No maximum enrollment required, Waitlist Enabled: No
Grading Options: Pass/Fail
Consent required for all students; Must be approved by the faculty preceptor.

380.880.01 Lessons in Leadership: Applications for Population, Family and Reproductive Health I
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

Method of Assessment
1. Participation 50
2. Assignments 50

Email: rblum@jhu.edu
Lecture: M 5:00 PM - 7:30 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
Prerequisite:
Multi-term with 380.881
Final grade applies to all terms
Credit is only earned by completing 380.880 through 380.883; Grades are issued after completion of the series. Students must enroll consecutively. Failure to enroll consecutively will result in a grade of W.

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Enrollment: Minimum 15, Maximum 50, Waitlist Enabled: Yes
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Grading Options: Letter Grade or Pass/Fail
Prerequisite:
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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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
Prerequisite:
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