

# The Medical University of South Carolina, Department of Public Health Sciences Master of Public Health Handbook 2017-2018

## MPH Program at MUSC

### Mission

The mission of the MPH program is to address the critical need for highly trained public health professionals by providing an academic and practice environment in which students of public health are trained through coursework and field learning experiences. The 16 Month program is designed for health professionals who wish to build a career in public health. The Master of Public Health (MPH) degree is administered through the Department of Public Health Sciences and the College of Medicine at MUSC.

### MPH Faculty and Staff

#### Founding Chair

Dr. John Vena is Professor of Epidemiology and Founding Chair of the Department of Public Health Sciences at the Medical University of South Carolina. Email: [vena@musc.edu](mailto:vena@musc.edu)

#### Vice Chair for Academic Programs

Dr. Mulugeta Gebregziabher is a Professor of Biostatistics and Vice Chair for Academic Programs in DPHS. He provides programmatic oversight of DPHS' existing degrees, and coordinates the development of new graduate training initiatives. Email: [gebregz@musc.edu](mailto:gebregz@musc.edu)

#### Graduate Training Directors

**Biostatistics MPH:** Dr. Mulugeta Gebregziabher, Email: [gebregz@musc.edu](mailto:gebregz@musc.edu)

**Epidemiology MPH:** Dr. Kelly Hunt, Email: [huntke@musc.edu](mailto:huntke@musc.edu)

**Health Behavior and Health Promotion MPH:** Dr. Katie Sterba, Email: [sterba@musc.edu](mailto:sterba@musc.edu)

#### MPH Coordinator

Ms. Joan Graesch, MSM, MA-HRDV, is the MPH Program Coordinator. She performs daily functions of administering the program including maintaining student files and clearing students for registration. She is also responsible for recruitment and retention. Program admission inquiries, general questions about the program, clarification of class schedules, and other 'housekeeping' concerns should be directed to Ms. Graesch.

Ms. Joan Graesch  
135 Cannon St, Rm 305L  
Email: [graesch@musc.edu](mailto:graesch@musc.edu)

## Introduction

The demand for evidence-based approaches to address biomedical questions and public health issues has grown dramatically over the past decade. The Department of Public Health Sciences (DPHS) strives to meet this demand by providing innovative interdisciplinary and community-based learning opportunities for MPH graduate students. Collaboration with researchers from various clinical departments and engagement with community stakeholders offers a wealth of opportunities for students to acquire experience and expertise in the application of analytic methodology and theory to public health concerns. This Student Handbook

provides information about the program requirements and policies related to graduate training in the Department of Public Health Sciences' Master of Public Health degree programs in: Biostatistics; Epidemiology; and Health Behavior and Health Promotion.

**Biostatistics** is concerned with applications of statistical methods in biomedical and health-related fields. Biostatisticians are expected to provide expertise in data management and study design, and are trained in the appropriate analytic techniques and interpretation of all data types. **Epidemiology** deals with the systematic study of the distribution and determinants of health-related states or events in specified populations, and the application of knowledge for developing rational measures of prevention and control of deleterious outcomes. **Health Behavior and Health Promotion** completes the equation by taking interventions into the communities that need them, and developing effective communication and education strategies to empower individuals in their own health care.

## General Information

### Master of Public Health Admissions Requirements

To begin the application process, you must first create an account by clicking on the program of interest at the following page, which will provide you with an "Applyweb ID":

<https://education.musc.edu/admissions/ready-to-apply/apply-now/master-of-public-health>

Please review the following requirements:

- 1) The MUSC supplemental application (available after creating your account via the link above).
- 2) Three letters of recommendation from instructors or supervisors who have had close contact with you during your undergraduate, graduate, clinical, or research training. Letters should be sent by fax, email or mail to the contact information below for the Office of Enrollment Management.
- 3) Official transcripts from *all* post-secondary schools attended. These should be sent to the Office of Enrollment Management (see address below). The applicant is expected to have an undergraduate degree from an accredited university with a cumulative GPA of at least 3.0.
- 4) We are no longer requiring the general GRE test for MPH applicants to our programs. Students interested in the Master of Public Health degrees in Biostatistics, Epidemiology, and Health Behavior & Health Promotion are still **strongly encouraged** to submit GRE scores. GRE scores taken within the past 5 years will be reviewed by the MPH Admissions Committee. The sum of the verbal percentile and the quantitative percentile GRE scores should exceed 150. The GRE analytical writing score will also be considered as part of the application review process. Applicants with an advanced graduate degree from an accredited U.S. university may petition to have the GRE requirement waived by contacting the MPH Coordinator.
- 5) A 1,000-word personal statement addressing several of the following topics:
  - Describe your motivation for pursuing an MPH degree and, in particular, your motivation for pursuing your chosen MPH concentration (i.e., Biostatistics, Epidemiology, Health Behavior and Health Promotion).
  - Describe your background and how your interests and experiences make you ideally suited for participation in the MPH degree program within your chosen concentration.

- Outline your main achievements or successes in your professional or academic development and highlight any special experience or training in your chosen MPH concentration.
  - Describe your career plans and long-term goals in the field of public health and how obtaining an MPH degree within your chosen concentration will help you meet your long-term plans and goals. Why do you feel that MUSC is a good fit for you personally and academically?
- 6) A strong math background is required for all three concentrations, including completion of a college level mathematics or statistics course. For the Biostatistics concentration, successful applicants should have demonstrated competence in single and multivariable calculus. Successful completion of Probability and Statistics is considered favorably for the Biostatistics concentration but not required.
- 7) In addition to all of the general application requirements, the TOEFL is required for all applicants who have attended institutions where the primary language of instruction is not English. Our minimal TOEFL requirements are 600 for the paper-based test, 250 for the computer-based test, and 100 for the internet-based test. An IELTS score may be substituted for the TOEFL. A score of 7.5 or greater should be achieved on the IELTS.

Official transcripts and letters of recommendation should be sent to:

**Office of Enrollment Management**

Medical University of South Carolina  
Harper Student Center  
45 Courtenay Drive  
MSC 203  
Charleston, SC 29425-2030

Admissions

Phone: (843) 792-3281    FAX: (843) 792-6615    Email: [oesadmis@musc.edu](mailto:oesadmis@musc.edu)

Accreditation Statement:

The Master of Public Health program at the Medical University of South Carolina is regionally accredited by the Commission for Higher Education (CHE) of South Carolina and the Southern Association of Colleges and Schools (SACS) and is currently preparing to apply for accreditation with the Council on Education for Public Health (CEPH). According to CEPH (<https://ceph.org/constituents/students/faqs/>), once the programs becomes accredited, the accreditation is retroactive starting from the date the accreditation application was submitted.

# Laptop Standards

## Department of Public Health Sciences Student Laptop Requirements 2017-2018

### Overview

The Department of Public Health Sciences (DPHS) requires that all incoming students purchase a portable or laptop computer. Our buildings are all wireless-enabled, and you will be able to access your campus email, student-related information, course materials, and other important web-based resources at any time using your laptop. To ensure compatibility with the existing campus technology infrastructure, DPHS has identified hardware and software standards for student laptops (see below). Students must bring to campus a laptop that meets or exceeds these standards. Students with laptops that do not meet the minimum standards will receive limited software support by DPHS. IT will not be able to offer hardware support or repair for any student-owned laptops.

Please note that the Department of Public Health Sciences laptop hardware and software standards are different from university standards.

**It is imperative that you adhere to the Department of Public Health Sciences standards, as you will be required to complete complex statistical modeling in the MPH program.**

### STUDENT LAPTOP MINIMUM HARDWARE AND SOFTWARE REQUIREMENTS

Students who need to purchase software may be able to do so through Compusult (<http://www.compusult.com/> or 1-800-992-6058). Compusult is a local software retail company located two blocks from the college that offers students discounted prices.

**DELL ONLY:** MUSC has a Premier Partnership with Dell, Inc. The Department of Public Health Sciences is a DELL SHOP.

Laptop: Latitude Only, no XPS.

Processor: Minimum of **iCore 5**

Memory: Minimum of **8 GB RAM**

Hard Drive: Minimum of **250 GB**

Operating System: **Windows 7 PROFESSIONAL** (Home Edition is not sufficient), or **Windows 8.1 Professional** (NO Home Editions), or **Windows 10 Professional** (NO Home Editions)

Antivirus: The Department of Public Health Sciences will provide Antivirus software.

Warranty: Due to the critical nature of system availability, the Department recommends the **Dell 3 year GOLD W**

### MUSC Student Policies Link:

<https://education.musc.edu/students/enrollment/bulletin/policies-and-guidelines>

## Financial Information

### Tuition and Fees

The tuition and fee schedule for full and part-time students is published annually and is available in June. The schedule is posted on the University website. It is also available from the Office of Enrollment Services. Part-time students (including unclassified students) and visiting students also pay any applicable university, health, or student activity fees. Fulltime and part-time students are eligible to apply for student loans through the MUSC Office of Financial Aid. The Financial Aid contact for MPH students is Ms. Nora Siwarski at (843) 792-3669 or [siwarski@musc.edu](mailto:siwarski@musc.edu).

## General Requirements

### Orientation and Advising of Students

#### 1. Orientation

In addition to the University and the College of Medicine orientation at the beginning of fall semester, a departmental orientation for new students is held during Orientation Week. At the meeting, students are introduced to members of the faculty and staff. They are also given current information about the Department, degree requirements, and research projects. MPH students will also be required to participate in computer software uploading on personal laptops prior to starting the program.

#### 2. Academic Advisor

Upon entrance to the program, each student is appointed an Academic Advisor by the program-specific Graduate Training Director, selected from the student's chosen area of emphasis. Selections are made with consideration of: student and faculty interests; specialized fellowship support, and faculty commitments. Any request for change of the initially assigned advisor should be directed to the program-specific Graduate Training Director.

The primary responsibilities of the Academic Advisor are to provide guidance in the academic program, especially with respect to course work, and to carry out selected academic functions related to completion of academic program requirements. Students must confer with their advisors when selecting courses (after automatic enrollment in the first semester) and should meet with their advisors for approval of the course plans before online registration in subsequent semesters. Additionally, students are required to consult with their advisors and

obtain necessary signatures prior to adding or dropping courses once the semester has started.

### **Program of Study**

The Program of Study is a list of courses and other requirements that the student must complete in order to satisfy requirements for the MPH degree. It lists transfer courses (as appropriate) as well as courses that are to be taken at MUSC. Decisions to remove, substitute, or add courses to the Program of Study must be approved by the student's Academic Advisor with concurrence from the program-specific Graduate Training Director.

### **Criteria for Changing MPH Degree Program**

Students may request a change in MPH degree program (any time prior to commencing the Capstone Planning course) by formal written petition to the Graduate Training Director of the program to which the change is requested. Students must be in good academic standing at the time of the request. The written petition must be prepared as an updated Personal Statement that includes a strong rationale for changing disciplines and a statement of how the program change will match the student's short- and long-term career objectives and interests. In addition to the student's written petition, the student must submit letters of support from both the Vice Chair of Academic Programs as well as the Graduate Training Director of the program in which the student currently resides. The Graduate Training Director to whom the petition is directed will forward all materials to the appropriate MPH Program Committee for review and final decision. Students will not be charged an additional fee for applying to a different MPH program. Students who change to a new degree program may take longer to complete the program to complete all required courses.

## MPH COURSEWORK

The MPH degree requires completion of **at least 45 credit hours**, of which **36 credit hours are didactic coursework**. The degree completion plan will include the field placement internship and the culminating 'capstone' experience (with poster presentation) as detailed below.

- Five core courses (16ch total) in: biostatistics (4ch), epidemiology (3ch), social and behavioral sciences (3ch), environmental health (3ch), and health systems and policy(3ch)
- Additional program required courses (15 – 16ch)
- Internship (6ch)
- Public Health Seminar (1ch total – 1ch each fall of first year)
- Capstone Project (3ch)
- Electives to complete the minimum 45 credit hours

Unless stated otherwise, courses are merit-based and grades are assigned based on the university grading scale, available at the following link:

### MPH Competencies and Curriculum

The curriculum for the MPH program is competency-based. The core competencies for public health professionals are the knowledge, skills and abilities that prepare students for work in the public health sector. Students master the 'core competencies' by taking the five core MPH courses, by completing coursework in their program of study, and through their internship and capstone experiences. The competencies are derived from professional organizations that guide the field of public health. Examples of these organizations include: the Council on Education for Public Health; the Association of Schools and Programs of Public Health (ASPPH); the National Commission for Health Education Credentialing; the National Environmental Health Association; and the Association for Prevention Teaching and Research. ASPPH's MPH core-competency model is described in the following link:

<http://www.aspph.org/educate/models/mph-competency-model/>

The courses comprising the MPH Core for all degree programs are:

- BMTRY 700 Introduction to Clinical Biostatistics
- BMTRY 736 Foundations of Epidemiology I
- PHGEN 708 Principles in Environmental Health Sciences
- PHHBP 700 Social and Behavioral Sciences
- PHGEN 710 Introduction to Health Systems and Policy

When selecting courses, the following guidelines apply:

- Only up to 6 credit hours of independent studies can count as elective courses for completing the required 45 credits; the student's academic advisor must approve this course. Most importantly, independent studies should only be used when regular courses are not available.
- Only 6 credits of internship can count towards the 45 credits of the MPH Program of Study.
- The program of study, all electives and the internship site must be approved by the student's academic advisor.
- The internship site and paperwork must be completed before any student is permitted to enter into field placement. All documents must be approved by the program and internship coordinators.
- Capstone project requires proposal and registration prior to the semester taken.

Carefully review the *checklist for graduation requirements* section of this handbook. For specific questions about the courses, contact the MPH program coordinator at [graesch@musc.edu](mailto:graesch@musc.edu).

### **Transfer of Credit**

MPH students may transfer up to fifteen (15) credit hours from other institutions. Core courses taken at CEPH accredited schools or programs are automatically accepted. If a student wishes to transfer in a course from a non-CEPH accredited school or program, he/she must submit the syllabus of that course to the appropriate division within DPHS for approval. No grade below "C" will be accepted.

If a student has taken more than fifteen (15) hours at another institution and feels as though he/she has sufficient knowledge in a particular course required for their core or concentration, he/she may petition to waive that course and substitute it for an upper level course in that same area.

Please remember that it is generally advisable to limit transfer credits. Any questions should be directed to your academic advisor first, and then to the MPH coordinator.

## **Applied Practice Experience (APE) in Public Health (Internship)**

MPH students complete a field placement in an appropriate public health setting (6 credit hours of PHGEN 780), grades S/U. Sites include, but are not limited to, hospitals, not for profit organizations, governmental agencies, and worksite/ for profit companies. The site is chosen based on student interest and competencies that the student needs to achieve. Each site must have a mentor who is credentialed in their area of interest (BIOS, EPI, HBHP) or who has experience in these areas. The site must have a major project or projects that address the educational needs of the student, and the amount of work available for the student to fill a minimum of 180 contact hours.

Each site must enter into a Memorandum of Understanding (MOU) with the Medical University of South Carolina before any field placement work is approved. After meeting with their academic advisor and the internship coordinator to discuss possible sites and availability of an MOU, students will submit the required paperwork for the field placement site and identify learning objectives to be achieved during the 180 hour internship.

Evaluation of the APE experience will be in the form of a written report in which students will detail how they have accomplished each learning objective by the duties, experiences, and tasks they have performed at the site. For details, read the ***Student Field Placement Manual***. If a conflict arises regarding the selection of the field placement site among the student, the academic advisor and the internship coordinator, the parties in conflict should send a one page letter to the MPH Curriculum Committee explaining the situation. This committee will make the final decision.

Students must have at least 18 credits of coursework in the MPH program before beginning the field placement; within those 18 credits must be the five MPH core courses. Students must have approval from the academic advisor to apply for the field placement. Please read the complete ***Student Field Placement Manual*** included in the handbook.

## **Applied Practice Experience- APE (Internship)**

1. Internship experience for an individual student must be planned in terms of his/her abilities and needs and interests as an integral part of the total training experiences in which he/she is participating.
2. The student must be an active participant in planning his/her field placement training experience –making sure that their projects and activities are a quality contribution to the agency.
3. The experiences offered the student should meet real needs of the agency in their particular missions, goals and objectives. If at all possible, the student should be given the opportunity to function as a full-fledged staff member of the agency.
4. The field placement experience should be so designed that the student has an opportunity for responsible participation in a significant project common to the activities of public health professionals. The resources available must be adequate for this purpose.

5. Field placement training must be under the guidance and supervision of an individual who is able to make a learning experience out of a work situation and who is professionally competent in the student's area of specialization.
6. The agency provides experiential learning to improve student competencies.
7. Evaluation of the field placement experience must be in terms of:
  - a. The student's growth in understandings and abilities needed in situations faced by public health professionals.
  - b. The student's contributions to the agency's program.

During the APE Internship the student should be able to:

1. Develop an understanding of the structure and functions of the participating public health agency.
2. Learn to function effectively in a work environment with existing staff members and administrators.
3. Develop a field placement experience project which is consistent with the goals and objectives of the host agency and with the learning objectives set forth by the student
4. Gain an understanding of the process of multi-program coordination.
5. Utilize basic related applied research and data gathering techniques as they apply to public health.

### **Integrative Learning Experience –ILE (Capstone) Project in Public Health**

All MPH students will participate in a culminating experience which is required for graduation from the program. It is completed in the final semester in the MPH program and is graded P/F. The capstone project will reflect the student's assimilation of theories and skills from didactic and experiential learning courses. Under the supervision of a faculty Capstone Advisor, the student executes a research plan and produces a final document for the capstone project, and also participates in the MPH Capstone Symposium- presenting their capstone project research in a public poster session.

### **Registration**

First year students are pre-registered for their first fall term via the MPH Coordinator. All students who are enrolled beyond the first semester, full and part-time, are required to register online using WebAdvisor. At the time of registration, a schedule of courses for the upcoming semester will be given to each student. Courses may be chosen from this list, and students should discuss their course choices with their academic advisor. Only officially registered students may obtain credit for courses and/or research. In order to maintain an 'active' status, one must be registered each semester or be on an approved leave of absence. Any student who is not registered for coursework in a given semester is considered to be 'inactive'. Any student

who is not on an approved leave of absence and who does not register for any coursework for three consecutive semesters will be notified that they have been dropped from the rolls of the College of Medicine for the Master of Public Health degree program and will have to reapply through the Admissions Committee for readmission to complete their degree.

## Academic Standing

### Academic Probation and Dismissal Policy

**To maintain good academic standing, at the end of each semester students must:**

- Maintain a minimum 3.0 cumulative grade point average (GPA) based on the combined performance in all merit-graded courses.
- Maintain a minimum 3.0 GPA based on the combined performance in the four core concentration specific courses (see list below).
- Earn a minimum merit grade of 2.5 in each of the four key concentration essential courses (see list below).
- Earn a minimum merit grade of 2.0 or higher in all non-core but concentration essential required courses
- Earn a passing grade in all required pass/fail graded courses.

For **part-time MPH students**, academic standing will be evaluated after completion of a minimum of 9 credit hours. Failure to adhere to these standards will result in the student being placed on academic probation. Students who unsuccessfully transition off of probationary status (as described below) will be dismissed from the program. Students may request review of a dismissal decision by appealing in writing to the concentration-specific MPH Program Committee and, if desired, to the Chair of the Department of Public Health Sciences. The following items describe required actions by which students can transition off of academic probation:

- Any full-time MPH student with a deficient overall GPA (<3.0) has one semester from the date of academic probation to raise the overall GPA to a 3.0 or higher.
- Any Part-time student with a deficient overall GPA (<3.0) must raise the overall GPA to a **minimum GPA of 3.0** or higher after 9 credit hours of coursework are completed from the date of academic probation.
- An MPH student (full or part-time) with a deficient concentration essential core course GPA (<3.0) is required to retake core courses as needed (and in consultation with their program advisor) at the first available opportunity to raise the concentration-essential core course GPA to a 3.0 or higher. Courses may only be retaken once, with the higher grade replacing the lower grade.

- An MPH student (full or part-time) who earns a deficient merit grade in any of the four concentration essential core courses (<2.5) is required to retake the course (in consultation with their program advisor) at the first available opportunity and achieve a merit grade of 2.5 or higher. Courses may only be retaken once, with the higher grade replacing the lower grade.
- An MPH student (full or part-time) who earns a deficient merit grade in any of the non-core concentration essential courses (<2.0) is required to retake the course (in consultation with their program advisor) at the first available opportunity and achieve a merit grade of 2.0 or higher. Courses may only be retaken once, with the higher grade replacing the lower grade.
- An MPH student (full or part-time) who earns a failing grade in any pass/fail graded course is required to retake the course (in consultation with their program advisor) at the first available opportunity and achieve a passing grade. All courses, except those dropped during the drop/add period, are recorded on the student's permanent record. Variable course credit must be established prior to registration and approved by the dean of the student's college. When a student is required to repeat a course, the computation of his/her overall grade point average includes each grade earned. However, credit hours will be counted only once to determine eligibility for the degree. Rank in class is calculated according to the overall grade point average within the college of the student's enrollment.

Link to the University Grading System:

<https://education.musc.edu/students/enrollment/bulletin/policies-and-guidelines/grading-system>

### **Concentration Essential Courses Identified By Each Discipline:**

#### **Biostatistics:**

1. BMTRY 700: Biostatistics Methods I: Introduction to Clinical Biostatistics
2. BMTRY 701: Biostatistics Methods II: Regression Methods in Biology and Medicine
3. BMTRY 784: Biostatistics Methods III
4. BMTRY 785: Probability and Statistical Inference

#### **Epidemiology**

1. BMTRY 736: Foundations of Epidemiology I
2. BMTRY 747: Foundations of Epidemiology II
3. BMTRY 738: Design and Conduct of Epidemiologic Studies
4. BMTRY 701 Biostatistics Methods II: Regression Methods in Biology and Medicine

#### **Health Behavior and Health Promotion**

1. PHHBP 700: Social and Behavioral Sciences
2. PHHBP 704: Application of Health Behavior Theory
3. PHHBP 712: Health Promotion Intervention Planning

#### **4. BMTRY 714: Health Promotion Research Methods**

##### **Incomplete Coursework**

The incomplete grade should be finalized by the end of the following semester. The instructor can choose to defer beyond that date if agreeable under special circumstances.

Students may appeal dismissal to the MPH Program Committee, and if necessary to the Chair of the Department of Public Health Sciences.

##### **Non-Departmental Courses**

All MPH students may take course work outside the Department with the approval of their Academic Advisor. Non-Departmental courses must be at a graduate level that corresponds to the MUSC courses at or above the 600 level.

##### **Departmental Seminars**

The Departmental Seminar is an essential component of MPH graduate education. Attendance and participation in a scheduled departmental seminar series of at least 60% of the sessions is encouraged of all students during each fall and spring semester. A student who does not meet minimum attendance as determined by the Progress Committee following the spring semester of an academic year will be required to register for and attend PHGEN 750 MPH Seminar during the next academic year.

##### **Progress Evaluation**

Students are evaluated on the basis of performance in course work and internship activities. However, evidence of the development of professional responsibility, such as initiative, professional commitment, peer relationships, and attendance at seminars and professional meetings, will also be sought by faculty observation. If, in the opinion of the Student Progress Review Committee or the student's Research Committee, a student is not making normal progress toward his or her degree, the student may be dismissed from the program or face a reduction or loss of financial support. See above for academic standing metrics.

## **MPH Degree Requirements: Biostatistics Concentration**

### **MPH Core Curriculum**

Biostatistics Methods I

(4) Biostatistics Methods

II (4)

Probability and Statistical Inference

(3) Principles of Epidemiology I (3)

Principles of Epidemiology II (3)

Design and Conduct of Field Epidemiology (3)

Principles in Environmental Health Sciences

(3)

Social and Behavioral Health Sciences: Principles of Health Behavior and Health Promotion

(3) Introduction to Health Systems and Policy (3)

MPH Seminar (1)

IP Foundations and Team STEPPS (1)

ILE Planning (1)

Total Core Hours                      32

### **MPH Elective Courses**

*Must complete four (4) semester hours*

Biostatistics Methods III: Advanced Anova & Regression (4)

Theoretical Foundations of Statistics II (3)

Analysis of Categorical Data (3)

Linear Models in Biology and Medicine (3)

Statistical Methods for Clinical Trials (2)

Bayesian Biostatistics (3)

Design and Conduct of Clinical Trials (3)

Design and Analysis of Survey Data (3)

Introduction to Public Health (2)

Introduction to Biomedical Informatics (3)

Special Topics in categorical and correlated data analysis (3)

### **PHGEN 780- Applied Practice Experience APE (Internship) (6)**

Students enrolled in the MPH program are required to complete a field placement in an appropriate public health setting as part of the degree requirements. Sites include, but are not limited to, hospitals, not for profit organizations, governmental agencies, and worksite/for-profit companies. Students must have completed at least 18 credit hours of coursework in the MPH program before beginning the field placement, including the five MPH core courses. A minimum of 180 contact hours will be required for the field placement.

**PHGEN 970- Integrative Learning Experience –ILE (Capstone) Project (3)**

All students enrolled in the MPH program are required to complete a capstone project prior to graduation. The capstone project will reflect the student's assimilation of theories and skills from didactic and experiential learning courses.

## **MPH Degree Requirements: Epidemiology Concentration**

### **MPH Core Curriculum** Biostatistics

Methods I (4) Biostatistics Methods II  
(4) Principles of Epidemiology I (3)  
Principles of Epidemiology II (3)  
Design and Conduct of Field Epidemiology (3)  
Introduction to Public Health (2)  
Principles of Environmental Health Sciences (3)  
Social and Behavioral Health Sciences: Principles of Health Behavior and Health Promotion (3)  
Introduction to Health Systems and Policy (3)  
MPH Seminar (1)  
IP Foundations and Team STEPPS (1) ILE  
Planning (1)

Total Core Hours                      31

### **MPH Elective Courses**

*Must complete five (5) semester hours*

Foundations of Epidemiology III (3) Global  
Health Epidemiology (3) Infectious Disease  
Epidemiology (3) Cancer Epidemiology (3)  
Epidemiology of Cardiovascular Diseases (3)  
Theoretical Foundations of Statistics I (3) Analysis  
of Survival Data (3)  
Design and Conduct of Clinical Trials (3)  
Spatial Epidemiology – Statistical Methods and Applications (3) Health  
Disparities (3)

### **PHGEN 780- Applied Practice Experience –APE (Internship) (6)**

Students enrolled in the MPH program are required to complete a field placement in an appropriate public health setting as part of the degree requirements. Sites include, but are not limited to, hospitals, not for profit organizations, governmental agencies, and worksite/for-profit companies. Students must have completed at least 18 credit hours of coursework in the MPH program before beginning the field placement, including the five MPH core courses. A minimum of 180 contact hours will be required for the field placement.

### **PHGEN 970- Integrative Learning Experience – ILE (Capstone) Project (3)**

All students enrolled in the MPH program are required to complete a capstone project prior to graduation. The capstone project will reflect the student's assimilation of theories and skills from didactic and experiential learning courses.

## **MPH Degree Requirements: Health Behavior and Health Promotion Concentration**

### **MPH Core Curriculum**

Biostatistics Methods I (4)  
Principles of Epidemiology I (3)  
Health Promotion Research Methods (3)  
Health Promotion Intervention Planning (3)  
Introduction to Public Health (2)  
Principles of Environmental Health Sciences (3)  
Social and Behavioral Health Sciences (3)  
Introduction to Health Systems and Policy (3)  
Introduction to Health Behavior Theory (3)  
MPH Seminar (1)  
IP Foundations and Team STEPPS (1)  
ILE Planning (1)

Total Core Hours                      30

### **MPH Elective Courses**

*Must complete six (6) semester hours*

Principles of Epidemiology II (3)  
Biostatistics Methods II (4)  
Design and Conduct of Clinical Trials (3)  
Infectious Disease Epidemiology (3)  
Cancer Epidemiology (3)  
Epidemiology of Cardiovascular Diseases (3)  
Health Psychology (3)  
Health Disparities (3)

Total Credits Needed to Earn Degree    45

**PHGEN 780- Applied Practice Experience –APE (Internship) (6)**

Students enrolled in the MPH program are required to complete a field placement in an appropriate public health setting as part of the degree requirements. Sites include, but are not limited to, hospitals, not for profit organizations, governmental agencies, and worksite/for-profit companies. Students must have completed at least 18 credit hours of coursework in the MPH program before beginning the field placement, including the five MPH core courses. A minimum of 180 contact hours will be required for the field placement.

**PHGEN 970- Integrative Learning Experience –ILE (Capstone) Project (3)**

All students enrolled in the MPH program are required to complete a capstone project prior to graduation. The capstone project will reflect the student’s assimilation of theories and skills from didactic and experiential learning courses.

**Information for New Students****A. Housing**

The University does not provide on-campus dormitory housing. However, the University is located in downtown Charleston and private housing facilities are readily available, with cost varying according to individual needs. The Off-Campus Housing Office at MUSC assists students in finding suitable housing in the Charleston area.

Further information is available from the website or by contacting the Student Programs office at 843-792-2693.

<https://education.musc.edu/students/spsd>

**B. Problems and Solutions****1. Personal Problems**

Various offices on campus are available to assist students with personal problems that may arise during their stay at MUSC. The Interschool Council publishes a Student Guide which can be helpful in areas of housing, financial assistance, personal counseling, and student activities. A copy is mailed to each entering student. More information is available from the Student Activities Office located in the MUSC Wellness Center. The CAPS (Counseling and Psychological Services) Office is available to support current students at their location next to student health. Their number is 843-792-4930.

**2. Academic Problems**

Students may consult their Academic Advisor, the Graduate Training Director, or any member of the faculty for advice concerning academic problems. The Departmental Student Grievances Committee (see Section VII.G) can be called into session by contacting the Graduate Training Director in writing, stating the nature, circumstances, and principals involved in the problem. All efforts will be made to resolve the grievance within the Department. The formal academic review process for graduate students in the Department comes under the purview of guidelines stated in

the Bulletin of the Medical University of South Carolina at the following site:

<https://education.musc.edu/students/enrollment/bulletin/policies-and-guidelines>

### **MUSC Student Honor Code**

**All MUSC students are expected to abide by the Student Honor Code and are required to complete the MyQuest module on the Honor Code each year. The full document can be viewed at: <https://education.musc.edu/students/enrollment/bulletin/honor-code>**

Violations of the Honor Code include, but are not limited to, the following acts that violate academic integrity:

1. Lying: Lying is the statement of an untruth with the intent to mislead fellow students, faculty, patients, hospital staff, or administrative officials. Lying includes "lies of omission" or failure to divulge voluntarily the whole and complete truth. Fabrication or falsification of information (verbal or written) in any academic or clinical exercise is in violation of the Honor Code. Lying also includes any false testimony presented during Preliminary or Formal Hearings.
2. Cheating: All tests, quizzes, written work, laboratory work, research, and examinations at the Medical University of South Carolina are conducted under the Honor Code. Cheating is defined as using or attempting to use unauthorized assistance, devices, material, or study aids in or prior to examinations or any other academic work; or cheating or attempting to prevent others from using authorized assistance, material or study aids.
  - a. Plagiarism: using the ideas, information, work, or writings of another person and accepting credit for the work as one's own without proper acknowledgment on any paper, test, essay, lab work, research, or similar course activity.
  - b. Altering records: misrepresenting or tampering with transcripts, academic records, research data, or computer programs; obtaining or using another's ID code, social security number, or electronic password.
  - c. Knowingly using, buying, selling, transporting, or soliciting, any or all of or in part of the contents of an examination or other assignment not authorized for release, including the use of previously administered exams without the permission of the instructor.
3. Stealing: Possession of MUSC property or another individual's private property without permission or knowledge.
4. Any of the following also constitute a violation of the Honor Code, but this list should not be interpreted as all-inclusive.
  - a. Facilitating academic dishonesty: colluding with another in the violation of any provision of this code.
  - b. Breach of appropriate standards of behavior in the presence of patients.
  - c. Breach of confidentiality with respect to information about patients.
  - d. The use of pressure, threat, abuse, bribery, or other practices that results in harassment.
  - e. The failure to report any violation of this Honor Code or the withholding of evidence pertinent to any case under investigation.
5. Unauthorized entry or presence in any office, laboratory, clinic, or other location is a violation of the Honor Code. Likewise, the abuse or destruction of any instruments,

equipment, supplies, property, or books constitutes an offense of the Honor Code.

### **Computing Facilities**

Research and teaching activities in the Department of Public Health Sciences are supported by an array of computer systems including high-end PC's, Unix-based workstations, and departmental file/application server. Further computational facilities are provided through a cluster of computers (high-end Silicon Graphics workstations) maintained at the University's Data Center by the Office of the Chief Information Officer (OCIO). Various application software packages and a comprehensive program development environment offer users easy access and means to analyze large scientific databases. The Department is fully networked through its own LAN and the university communication backbone. Future and current innovations include advanced virtualization of servers and desktops for rapid deployment. These technologies will allow the user universal access to resources; single user login to systems managed by the Department and centralized administration of all hardware, software and peripherals.

Students are required to have a laptop that meets the specifications of the Department for use during their course of study. For current specifications, please contact the Information Technology staff of the Department of Public Health Sciences. Students may purchase systems at a discounted rate through the Medical University of South Carolina recommended list of vendors.

### **Copying Facilities**

Students will have access to a printer in the department for reasonable use, as determined by the Department IT staff. A four-digit copy code is assigned upon matriculation for copying and scanning purposes.

### **Admissions Expectations**

Candidates **must** be able to:

- Establish appropriate relationships with a wide range of faculty members, professional colleagues, and patients
- Demonstrate the personal qualities of integrity, empathy, concern for the welfare of others, interest, and motivation
- Work as an effective member of a health care and research team, if relevant
- Speak, hear (with help of hearing device), read, and write

- Communicate effectively and efficiently in the English language in both oral and written form

Candidates **must** be able to:

- Demonstrate the emotional health required for the full use of their intellectual abilities
- Exercise good judgment
- Complete all responsibilities associated with the diagnosis and care of patients
- Develop mature, sensitive, and effective relationships with patients, patients' families, and professional colleagues (as relevant)
- Tolerate physically taxing workloads and to function effectively under stress
- Adapt to changing environments, be flexible, and function in the face of ambiguities inherent in the clinical situation
- Demonstrate their willingness to interact with a diverse set of colleagues (and patients, if relevant) with a wide range of backgrounds and characteristics

## Professionalism

**Students must demonstrate a commitment to professional and personal excellence in all settings, including adherence to ethical principles and sensitivity to a diverse population. Just as it is expected that faculty, staff and other program stakeholders (e.g., preceptors) will interact with students in a professional and respectful manner, it is expected that all students interact with others in a professional manners.**

- PR 1 Demonstrate **honesty, integrity, respect, and compassion** in all interactions with community participants, peers, faculty, staff, and other health care professionals in all settings.
- PR 2 Demonstrate **ethical, patient-centered decision-making, informed consent, and respect for autonomy and confidentiality** of community participant information in all settings (i.e., clinical, academic, electronic or web-based.)
- PR 3 Demonstrate sensitivity and responsiveness to the **personhood of the public health participant** inclusive of culture, race, ethnicity, spirituality, gender, sexual orientation, age, physical characteristics, medical condition, disabilities, socioeconomic status, family-context and other aspects of personal and health beliefs, practices and decisions.
- PR 4 Demonstrate **accountability** for academic, community involvement and professional responsibilities including concern for societal needs.

PR 5 Demonstrate responsiveness to public health needs that **supersedes self-interest**.

Just as it is expected that faculty, staff and **other program stakeholders (e.g., preceptors)** will interact with students in a professional and respectful manner, it is expected that all students interact with others in a professional manner.

Professional values include:

- Maintaining a commitment to scholarship
- Assuming responsibility and being dutiful
- Interacting with peers, faculty, residents, staff and community based preceptors with courtesy and respect
- Helping colleagues meet their responsibilities
- Exhibiting a high standard of moral and ethical behavior

An incident that raises significant concerns about a Master of Public Health student's behavior should be documented using:

- E\*Value Concern card
- Email notification to Dr. Mulugeta Gebregziabher at [gebregz@musc.edu](mailto:gebregz@musc.edu)

E\*Value concern cards may be submitted anonymously by College of Medicine faculty, residents, staff or students. It is expected that forms will be submitted in good faith and will not be utilized to resolve personal disputes.

The Vice Chair for Academic Programs and the MPH Coordinator in the Department of Public Health Sciences will monitor the system, review all submissions and take the appropriate steps to address any concerns.

In cases of professionalism infractions, and E\*Value Concern card, or an email notification will be issued to the DPHS Vice Chair of Academic Programs.

### **Responding to Concerns of Mistreatment**

- Every effort is made to respond to concerns of mistreatment in a timely and professional manner to minimize the risk of harm including retaliation.
- All complaints will be fully investigated and measures will be taken to reach an appropriate resolution.
- Except in cases of an anonymous complaint, students will be provided with clear and timely feedback concerning the status and resolution of their complaint.

- Notification should be directed to Dr. Mulugeta Gebregziabher at [gebregz@musc.edu](mailto:gebregz@musc.edu) or Ms. Joan Graesch at [graesch@musc.edu](mailto:graesch@musc.edu) as soon as possible after the event of mistreatment.
- The student will be notified when a report of unprofessional conduct is filed.
- If an incident is determined to be egregious, the Chair of the Department of Public Health Sciences should be informed immediately; at which point the Vice Chair for Academic Programs will meet with the student and/or conduct a review of the incident. The severity of the infraction will be determined by the Chair and Vice Chair and may result in a referral to the MPH Graduate Training Committee.
- The Graduate Training Committee will discuss the issue and will determine the most appropriate course of action. Potential consequences include, but are not limited to, no action, supportive intervention, or adverse actions (i.e., professionalism probation, suspension, or dismissal).
- Alcohol and drug misuse and abuse can be detrimental to one's overall physical and emotional health, as well as academic and/or professional performance.
- The College of Medicine complies with and upholds all federal, state, and local laws that regulate or prohibit the possession, use or distribution of alcoholic beverages or illicit drugs.
- College of Medicine students are expected to act as professionals at all times (both on and off campus). Students are seen by the public as not only representatives of themselves but MUSC as well.

### **Substance Abuse**

The Department of Public Health Sciences uses the following standard process for dealing with issues related to substance use, abuse, or dependence.

- The student will meet with the MPH Graduate Training Committee.
- A Behavioral Monitoring plan will be established during the meeting.
- Behavioral Monitoring plans may include, but are not limited to:
  - Mandated treatment at Counseling and Psychological Services
  - Required random drug and alcohol screening
  - Other required treatments as stipulated by clinicians caring for the student
  - The student will not be able to participate in the Applied Practice Experience (internship) coursework until his/her drug and alcohol screens are negative.

### **Reporting of Criminal Charges and Arrest:**

Upon matriculation and thereafter, any student who is charged with a crime, arrested or convicted must report the occurrence to the DPHS Vice Chair for Academic Programs within 72 hours. Such matters may have implications for placement in internship sites and or professional licensure. Failure to report the criminal charge, arrest or conviction may result in a referral to the MPH Graduate Training Committee regardless if the process is ongoing or finalized in the legal system.

### **Photo/Video/Audio Consent:**

When a signed consent form is **not** necessary:

- Consent is implied for faculty and employees of the Medical University. If faculty and staff wish not to appear in photos/videos/audio, it is that person's responsibility to inform the appropriate faculty or staff member at the time of the recording or photography that they wish not to appear.
- Any event to which the public is welcome (i.e. graduation, most fund raisers).
  - Anyone appearing in any outdoor spaces on campus or places in which permission is not needed to enter.
  - Non-subjects appearing unintentionally in the background or any person whose identity is unclear or obscured.

When a signed consent form **is** necessary:

- In general, signed consent forms are required if a student can be identified in publicly accessible photos/videos/audio, including photos/videos/audio shown or displayed in educational settings in which the student did not participate.
- During college orientation, all COM students are given the opportunity to sign the "Photograph/Video consent/Waiver form". It is explained to students during this time the purposes for which COM requests their permission to produce photos/videos/audio (e.g., educational purposes, promotion of program, recruitment, annual report, college newsletters). Students may choose at this time to opt out of signing the form.
- Students are informed that, if he/she opts out of signing a photos/videos/audio consent form, it is the student's responsibility to inform faculty or staff at the time of video-recordings or photography that they do not consent to be recorded or photographed.
- If a student has signed a consent form and later opts to withhold the public release of directory information as defined by FERPA, it is the student's responsibility to inform the appropriate faculty or staff member at the time of the recording or photography that they wish not to appear.
- Hard-copies of signed consent forms or a record of the student's opting out of signing the consent form are held in the student's file and retained according to program needs/processes.

**I attest that I have read, understand, and will abide by the following College of Medicine Educational Policies:**

- University Honor Code
- Grading Policies
- Professionalism
- Substance Abuse
- Reporting of Criminal Charges and Arrest
- Photography, Video, and Audio Consent

**Students are responsible for asking the administration any questions they need answered in order to fully comply with the policies.**

**Any questions related to policies in this module can be directed to:**

**Ms. Joan Graesch, MPH Coordinator, [graesch@musc.edu](mailto:graesch@musc.edu) or 843-876-1891**

## Course Descriptions for MPH Degree Program with Concentration in Biostatistics (BIOS), Epidemiology (EPID) or Health Behavior and Health Promotion (HBHP)

### **BIostatistics (BIOS)**

#### **BMTRY 700 Biostatistics Methods I: Introduction to Clinical Biostatistics (4ch)**

This course introduces basic applied descriptive and inferential statistics. Topics include elementary probability concepts, an introduction to statistical distributions, point and interval estimation, hypothesis testing, and simple linear regression and correlation. Basic data management and analysis techniques will be introduced using the SAS system for personal computers (includes 1 semester hour laboratory session). Prerequisites: College Algebra. (*MPH core course*)

#### **BMTRY 701 Biostatistics Methods II: Regression Methods in Biology and Medicine (4ch)**

The objective of this course is to provide basic and intermediate skills necessary to apply regression methods to clinical and basic science research data. Topics include regression issues such as least squares estimation, hypothesis testing, diagnostics, model building and variable selection, and indicator variables. Simple and multiple linear regression, logistic regression, Poisson regression, and modeling of time-to-event (survival) data will be covered. The course uses a problem-based approach and applications to clinical and basic science problems are provided. Prerequisites: BMTRY 700. (*Required BIOS, EPID; Elective HBHP*)

#### **BMTRY 784 Biostatistics Methods III (3ch)**

This course is intended for biostatistics MPH and Epidemiology PhD and MS students interested in applied statistical methods for analysis of categorical and correlated data. The categorical data analysis sessions include methods for stratified 2x2 and r x c contingency table data, ordinal data, matched pair dichotomous data, and count data. The correlated data analysis section covers random and mixed effects models and generalized linear mixed models. The didactic classes are augmented by SAS and R sessions led by the TA's. At the completion of this course, students will have the tools to analyze these data using SAS and R, and make appropriate inferences from the analyses. Prerequisites: BMTRY 700, BMTRY 701 and Probability and Statistical Inference. (*Required BIOS; Elective EPID, HBHP*)

#### **BMTRY 785 Probability and Statistical Inference (3ch)**

This one-semester course provides an introduction to fundamental principles of probability and inference including: laws of probability, discrete and continuous random variables and their probability distributions, select multivariate probability distributions, sampling distributions and the central limit theorem, point and interval estimation including maximum likelihood, an overview of the hypothesis testing framework, and common hypothesis tests including the likelihood ratio, Wald, and score tests. Prerequisites: At least one semester of Calculus. (*Required BIOS; Elective EPID, HBHP*)

#### **BMTRY 722 Analysis of Survival Data (2ch)**

This is an introductory course in theory and application of analytic methods for time-to-event data. The methods covered include nonparametric, parametric, and semi-parametric (Cox model) approaches. The topics covered will also include types of censoring and truncation, sample size and power estimation, and a brief introduction to counting process method. Extensive use of SAS procedures for survival analysis is incorporated into the course. Prerequisites: BMTRY 700, BMTRY 701, and Probability and Statistical Inference. (*Elective BIOS, EPID, HBHP*)

#### **BMTRY 724 Design and Conduct of Clinical Trials (3ch)**

This is a comprehensive course providing an overview in the design and conduct of clinical trials. The course covers the types of clinical trials; study design (including sample size estimation); randomization methods and implementation; project and data management; ethics; and issues in data analysis (e.g., intent-to-treat;

handling of missing data; interim analyses). The course is designed primarily for the students in the Department of Biostatistics, Bioinformatics, and Epidemiology; however, both clinical and basic science investigators can benefit from this course provided they have the required background in basic statistics. Prerequisites: BMTRY 700. (*Elective BIOS, EPID, HBHP*)

**BMTRY 781 Methods in Clinical Cancer Research (3ch)**

Didactic lectures will cover the following areas in oncology research: (1) clinical and statistical design of phase I, II and III trials; (2) incorporation of correlative and biomarkers in clinical trials, (3) considerations in chemotherapy, surgery, radiation and multimodality trials, (4) quality of life and other patient reported outcomes in cancer research, (5) the protocol review and IRB process, (6) informed consent, (7) data collection, trial monitoring and investigator responsibilities, (8) the grants process and mentoring. In addition to the didactic portions of the training, each trainee will have a clinical research proposal which will be developed into a "letter of intent" (LOI) for a clinical trial. Other contact hours will take the form of a journal club where clinical research papers from journals such as Clinical Cancer Research or Journal of Clinical Oncology are discussed, and protocols that are being undertaken at HCC are reviewed and discussed. Students will be required to attend and take part in the HCC Protocol Review Committee's monthly meetings. (*Elective BIOS, EPID, HBHP*)

## **EPIDEMIOLOGY (EPID)**

### **BMTRY 736 Foundations of Epidemiology (Epidemiology I) (3ch)**

This course provides an introduction to basic epidemiologic principles including measurements of disease occurrence, study designs (cohort, case-control, randomized clinical trials) and calculation of risk. Lecture material is supplemented with exercises and discussion of examples from the epidemiologic literature and presentations of epidemiologic studies by guest speakers. Prerequisites: None. (*MPH core course*)

### **BMTRY 713 Infectious Disease Epidemiology (3ch)**

This course provides an overview of the salient methods of infectious disease epidemiology with an emphasis on the application of epidemiologic techniques to various diseases caused by a microbial agent. Specifically the course emphasizes the contributions of individual, environmental, and sociodemographic factors in the occurrence of infectious disease in a population. Lectures will describe the role of biological, environmental, social, and behavioral factors in determining the transmission of infectious diseases and their prevention. The course employs common statistical tests and epidemiological techniques to assess the transmission index of infectious agents. (*Elective BIOS, EPID, HBHP*)

### **BMTRY 734 Cancer Epidemiology (3ch)**

This survey course will introduce students to the major cancer risk factors. For the major cancers the most important epidemiological studies will be reviewed. The issue of genetic susceptibility and the use of biomarkers in cancer epidemiology will be studied as well as cancer screening. Prerequisites: BMTRY 736 or permission of the instructor. (*Elective BIOS, EPID, HBHP*)

### **BMTRY 737 Epidemiology of Cardiovascular Diseases (3ch)**

This is an advanced course designed to acquaint students with the use of epidemiology in the study and investigation of cardiovascular diseases. Prerequisites: BMTRY 736 or permission of instructor. (*Elective BIOS, EPID, HBHP*)

### **PHGEN 708 Principles in Environmental Health Sciences (3ch)**

This course is designed for public health students interested in studying the relationships between people and their environment and how it affects their wellbeing. This course offers a general introduction to environmental health, addressing fundamental topics and current debates. The first part of the course covers core topics intended to prepare students to more fully understand and address environmental health issues: environmental epidemiology; toxicology; and, environmental policy and regulation. The second part of the course presents agents of environmental disease and applications of environmental health. Emphasis will be placed on air quality and environmental exposure assessment. (*MPH core course*)

### **BMTRY 738 Design and Conduct of Epidemiologic Studies (3ch)**

An emphasis will be placed on procedures used in the implementation of epidemiological research studies. Prerequisites: BMTRY 736 or permission of instructor. (*Required EPID; Elective BIOS, HBHP*)

### **BMTRY 745 Environmental Epidemiology (3ch)**

The field of Environmental Epidemiology encompasses the investigation of environmental factors and how they affect human health. Environmental epidemiologists study health effects in populations resulting from exposure to physical, chemical, and biological agents. This includes the contribution of social, economic, and cultural factors that are related to these exposures. Occupational Epidemiology provides an introduction to clinical and epidemiologic aspects of occupational health and recognition and prevention of occupational diseases and injury. Case study approaches are used to learn about epidemiologic applications to occupational health. This course helps to address some of the 15 learning competencies of the doctoral program in Epidemiology and is intended for advanced epidemiology students to become familiar with

applications of epidemiology to environmental and occupational problems. Prerequisites: BMTRY 736 or concurrent registration in 736, or permission of instructor. (*Elective BIOS, EPID, HBHP*)

**BMTRY 747 Foundations of Epidemiology II (3ch)**

This course will provide a comprehensive and quantitative view of the design, conduct, analysis, and interpretation of epidemiological studies and use of EGRET software. There is a more in-depth coverage of topics than in Epi I. Prerequisites: BMTRY 700, concurrent registration with BMTRY 701, and BMTRY 736. (*Required EPID; Elective BIOS, HBHP*)

**BMTRY 748 Foundations of Epidemiology III (3ch)**

This course will provide an in-depth quantitative view of advanced statistical analysis of epidemiological studies. The use of epidemiological analysis software (Epicure) will be taught. Builds on techniques developed in Epi II. Prerequisites: BMTRY 700, 701, 747. (*Elective BIOS, EPID, HBHP*)

## **HEALTH BEHAVIOR AND HEALTH PROMOTION (HBHP)**

### **PHHBP 700 Social and Behavioral Health Sciences (3)**

This course introduces MPH students to the principles and practices of the social and behavioral sciences in public health. The overall goal of the course is to provide a broad overview of social and behavioral science principles that can be used to guide the process of identifying, characterizing and resolving public health problems to improve the health of individuals and populations. Students will examine the role of behavioral and social factors as determinants of health outcomes and introduce key individual, organizational and community factors to consider when planning social and behavioral science interventions. This course provides a broad introduction to the basic theories, concepts and models from the social and behavioral sciences that are used in public health research and practice. Prerequisites: None. (*MPH core course*)

### **PHGEN 710 Introduction to Health Systems and Policy (3)**

This course aims to identify the main components and issues of the organization, financing and delivery of health services within the various domains of public health in the US, describe the legal and ethical bases for public health and health services, identify the main components and issues of the organization, financing and delivery of health services and public health systems in the US, discuss the policy processes for improving the health of populations as well as how to evaluate and describe the performance of the U.S. health systems in terms of cost, quality, effectiveness, and access. The course includes evaluation of several case studies of public health policy decisions and their implications. Prerequisites: None. (*MPH core course*)

### **PHHBP 704 Application of Health Behavior Theory (3)**

Successful completion of this course will enable the student to describe the role of social and community factors in both the onset and solution of public health problems; identify the causes of social and behavioral factors that affect health of individuals and populations; identify basic theories, concepts and models; apply ethical principles to public health program planning, implementation and evaluation; specify multiple targets and levels of intervention; identify individual, organizational and community concerns, assets, resources and deficits; apply evidence-based approaches in the development and evaluation of interventions; describe the merits of social and behavioral science interventions and policies; describe steps and procedures for the planning, implementation and evaluation of public health programs; and identify critical stakeholders for the planning, implementation and evaluation of public health programs, policies and interventions. Prerequisites: PHHBP 700 (*Required for HBHP; Elective for BIO and EPI*)

### **PHHBP 712 Health Promotion Intervention Planning (3)**

In this course, students will critically examine models and processes for the systematic planning of public health interventions in a variety of settings (e.g., medical, community). Students will gain skills in needs assessment, the identification of behavioral and environmental determinants of public health problems, and using theory to guide the selection of public health intervention strategies. Students will apply evidence-based approaches in the development of social and behavioral science interventions and become familiar with practical and ethical principles underlying public health program planning, implementation and evaluation. Prerequisites: PHHBP 700, 704 and 714 required. (*Required for HBHP; Elective for BIO and EPI with permission of instructor*)

**PHHBP 714 Health Promotion Research Methods (3)**

This course introduces students to research methods in health promotion and allows them to understand and evaluate common research methods used in health promotion research. Students learn techniques related to data collection by observation, interview and questionnaire, and adapt research techniques to vulnerable and medically underserved populations. Prerequisites: PHHBP 700 (*Required for HBHP, Elective for BIO and EPI*)

**PHHBP 718 Health Psychology (3)**

This course introduces MPH students to the principles and practices of Health Psychology. The first half of the class is focused on learning theories of behavior change, discussing the case formulation process in single unrelated cases, and an introduction to the fundamental aspects of health psychology treatments. The second half of the class will center on related and increasingly complicated cases and students will be urged to see connections between symptom classes and complementary treatment models and techniques. By the end of this class students will be able to have a health psychology patient case presented and be able to describe the case in terms of a theory of health behavior or psychological intervention model and to describe how to intervene with an appropriate psychological treatment. Prerequisites: None. (*Elective for BIOS, EPID, and HBHP*)

## **ADDITIONAL MPH COURSES**

### **PHGEN 706 Introduction to Public Health (2ch)**

The overall purpose of this course is to introduce students to the principles and core functions of public health in keeping with the 2002 recommendation of the Institute of Medicine. Materials presented in the course will enable students to understand the role of public health and its core functions to better understand patterns of diseases, global threats to health, and factors contributing to disparate health outcomes in population groups. (*Required EPID, HBHP; Elective BIOS*)

### **PHGEN 750 MPH Seminar (1ch)**

MPH Seminar is a 1 credit hour course for Master of Public Health students in the Department of Public Health Sciences (DPHS) offered in the fall and spring semesters. Students are required to complete both the fall and spring semesters of the course (total of 2 credit hours). Students attend DPHS-sponsored seminars every other Monday throughout the semester to gain exposure to contemporary topics in public health research. Seminar speakers are invited guests to the department and represent a diversity of research topics that are complementary to the research interests of DPHS faculty. On alternating Mondays, the department sponsors a professional Public Health seminar series featuring guest speakers from local public health agencies, MUSC departments, and local non-profits. This valuable exposure helps first-year students identify potential mentors and projects for internship and volunteer hours, provides an overview of potential career paths for graduates, and introduces the pressing public health concerns that impact our region, nation and global communities. (*Required BIOS, EPID, HBHP fall and spring semesters*)

### **PHGEN 770 ILE Planning (1ch)**

This course is designed to help students and faculty jointly prepare for the Integrative Learning Experience (ILE) in their final semester of their MPH Program. The ILE or Capstone, as the culminating experience of the MPH program, requires students to synthesize and integrate knowledge acquired in coursework and other learning experiences and apply it to analyzing and addressing a public health practice and/or research challenge. This is a required 1-hour course available to all MPH students. It is designed to help students understand ILE requirements, gain skills necessary for successful completion of the ILE, and develop a proposal for their ILE experience with faculty and other mentors. At the end of the course, students will have developed a finalized ILE plan and gained skills to assure its completion. The Applied Practice Experience or Internship course is a 180 hour practicum which requires students to gain professional work experience in the public health workforce. This course will allow students to garner professional skills prior to starting their internship including resume building, interviewing tips, and workforce performance standards, along with internship and career exploration. (*Required BIOS, EPID, HBHP*)

### **BMTRY 789-24 Applied Learning Experience (Internship) (6ch)**

MPH students complete a field placement in an appropriate public health setting, graded P/F. Sites include, but are not limited to, hospitals, not for profit organizations, governmental agencies, and worksite/for profit companies. The site is chosen based on student interest and competencies that students need to achieve. Each site must have a mentor who is credentialed in biostatistics or who has experience in these areas. The site must have a major project that addresses the educational needs of the student, and the amount of work available for the student must fill at least 180 contact hours.

Each site must have an affiliation agreement with the College of Medicine at MUSC before any field placement work is approved. After meeting with the academic advisor, Practice Coordinator, and site

supervisor to discuss possible sites and availability of an affiliation agreement, students will submit the required paperwork for the field placement site and identify competencies and learning objectives to be achieved during the 180 hours. Students must have at least 18 credits of coursework in the MPH program before beginning the field placement; within those 18 credits must be the five MPH core courses. Students must have approval from the academic advisor to apply for the field placement. (*Required BIOS, EPID, HBHP*)

**PHGEN 970 Integrative Learning Experience (Capstone Project) (3ch)**

All MPH students will participate in a culminating experience which is required for graduation from the program. It is completed in the final semester in the MPH program and is graded P/F. The capstone project will reflect the student's assimilation of theories and skills from didactic and experiential learning courses. Under the supervision of a faculty Capstone Advisor, the student executes a research plan and produces a final document for the capstone project, and also participates in the MPH Capstone Symposium-presenting their capstone project research in a public poster session. (*Required BIOS, EPID, HBHP*)