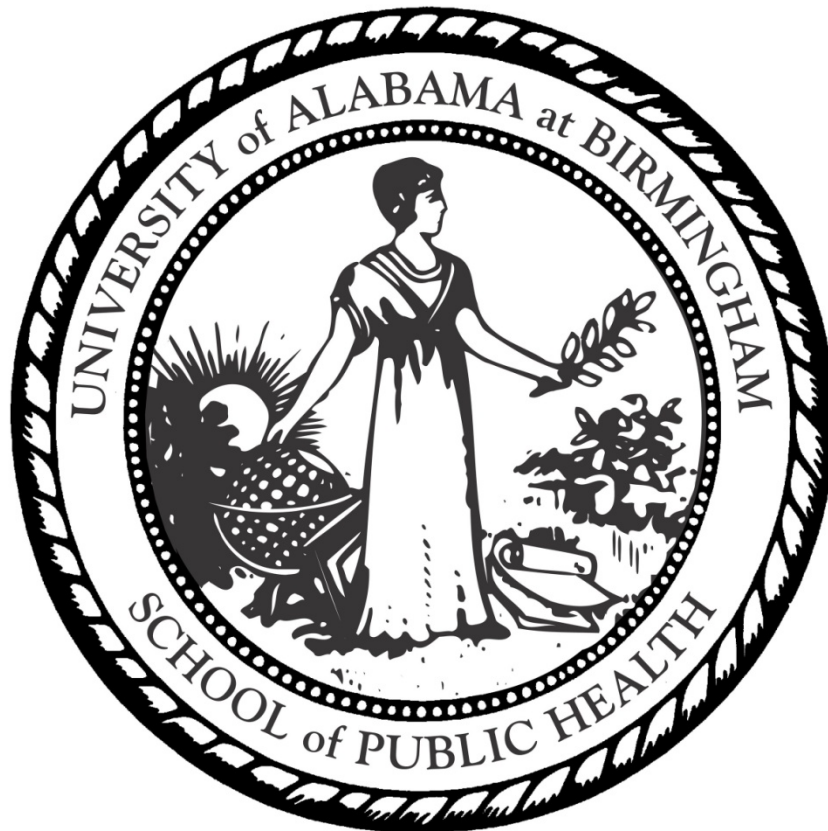

UAB School of Public Health
Department of Epidemiology
Master Degree Programs
Student Handbook
2016 - 2017



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INTRODUCTION

What is Public Health?

The American Heritage Dictionary defines public health as the science and practice of protecting and improving the health of a community, as by preventative medicine, health education, control of communicable diseases, application of sanitary measures, and monitoring of environmental hazards.

Public Health is a blend of sciences, skills and convictions that is focused on the preservation and improvement of the health of all people through preventive (rather than curative) measures.

What is Epidemiology?

Epidemiology is considered the basic science of public health. Epidemiology is: a) a quantitative discipline built on a working knowledge of probability, statistics, and sound research methods; b) a method of causal reasoning based on developing and testing hypotheses pertaining to occurrence and prevention of morbidity and mortality; and c) a tool for public health action to promote and protect the public's health based on science, causal reasoning, and a dose of practical common sense ¹.

The word epidemiology comes from the Greek words epi, meaning "on or upon," demos, meaning "people," and logos, meaning "the study of." Many definitions have been proposed; here are two that capture the underlying principles and the public health spirit of epidemiology:

"Epidemiology is the study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to the control of health problems."²

"Epidemiology is the study of the distribution and determinants of disease frequency in man."³

These definitions of epidemiology include several terms which reflect some of the important principles of the discipline:

Study. Epidemiology is a scientific discipline and has at its foundation, sound methods of scientific inquiry.

Distribution. Epidemiology is concerned with the frequency and pattern of health events in a population. Frequency includes not only the number of such events in a population, but also the rate or risk of disease in the population.

Pattern refers to the occurrence of health-related events by time, place, and personal characteristics.

- **Time** characteristics include annual occurrence, seasonal occurrence, and daily or

even hourly occurrence.

- **Place** characteristics include geographic variation, urban-rural differences, and location of work sites or schools, for example.
- **Personal** characteristics include demographic factors such as age, race, sex, marital status, and socioeconomic status, as well as behaviors (such as occupation or risk-taking activity) resulting in environmental exposures.

This characterization of the distribution of health-related states or events is one broad aspect of epidemiology called **descriptive epidemiology**. Descriptive epidemiology provides the *What, Who, When* and *Where* of health-related events.

Determinants. Epidemiology is often used to search for causes and other factors that influence the occurrence of health-related events such as diseases, syndromes, and injuries. **Analytic epidemiology** attempts to provide the *Why* and *How* of such events by comparing groups with different rates of disease occurrence and with differences in demographic characteristics, genetic or immunologic make-up, behaviors, environmental exposures, and other so-called potential risk factors. Under ideal circumstances, epidemiologic findings provide sufficient evidence to direct swift and effective public health control and prevention measures.

Health-related states or events. Originally, epidemiology was concerned with epidemics of communicable diseases. The discipline was extended to endemic communicable diseases and non-communicable infectious diseases. Modern epidemiology has been applied to chronic diseases, injuries, birth defects, maternal-child health, occupational health, and environmental health. Now, even behaviors related to health and well-being (amount of exercise, seat-belt use, etc.) are recognized as valid subjects for applying epidemiologic methods. The term "disease" refers to the range of health-related states or events.

Specified populations. Although epidemiologists and physicians in clinical practice are both concerned with disease and the control of disease, they differ greatly in how they view "the patient." **Clinicians are concerned with the health of an individual; epidemiologists are concerned with the collective health of the people in a community or other area.** When faced with a patient with diarrheal disease, for example, the clinician and the epidemiologist have different responsibilities. Although both are interested in establishing the correct diagnosis, the clinician usually focuses on treating and caring for the individual. The epidemiologist focuses on the exposure (action or source that caused the illness), the number of other persons who may have been similarly exposed, the potential for further spread in the community, and interventions to prevent additional cases or recurrences.

Application. Epidemiology is more than "the study of." As a discipline within public health, epidemiology provides data for directing public health action. To treat a patient, a clinician must call upon experience and creativity as well as scientific knowledge. Similarly, an epidemiologist uses the scientific methods of descriptive and analytic epidemiology in "diagnosing" the health of a community.

As a public health discipline, epidemiology is instilled with the spirit that epidemiologic information should be used to promote and protect the public's health. Hence, epidemiology involves both science and public health practice. The term *applied epidemiology* is sometimes

used to describe the application or practice of epidemiology to address public health issues.

Examples of applied epidemiology include the following:

- the monitoring of reports of communicable diseases in the community
- the study of whether a particular dietary component influences your risk of developing cancer
- evaluation of the effectiveness and impact of a cholesterol awareness program through quasi-experimental study design
- analysis of historical trends and current data to project future public health resource needs
- clinical trial randomizing communities into different strategies for risk reduction

Epidemiology and the information generated by epidemiologic methods have many uses which include:

Population or community health assessment. To set policy and plan programs, public health officials must assess the health of the population or community they serve and must determine whether health services are available, accessible, effective, and efficient. To do this, they must find answers to many questions: What are the actual and potential health problems in the community? Where are they? Who is at risk? Which problems are declining over time? Which ones are increasing or have the potential to increase? How do these patterns relate to the level and distribution of services available? The methods of descriptive and analytic epidemiology provide ways to answer these and other questions. With answers provided through the application of epidemiology, communities and officials can make informed decisions that will lead to improved health for the population.

Individual decisions. People may not realize that they use epidemiologic information in their daily decisions. When they decide to stop smoking, take the stairs instead of the elevator, order a salad instead of a cheeseburger, or choose one method of contraception instead of another, they may be influenced, consciously or unconsciously, by epidemiologists' assessments of risk. Since World War II, epidemiologists have provided information related to all these decisions. In the 1950's, epidemiologists documented the increased risk of lung cancer among smokers; in the 1960's and 1970's, epidemiologists noted a variety of benefits and risks associated with different methods of birth control; in the mid-1980's, epidemiologists identified the increased risk of human immunodeficiency virus (HIV) infection associated with certain sexual and drug-related behaviors; and epidemiologists continue to document the role of exercise and proper diet in reducing the risk of heart disease. Hundreds of epidemiologic findings are directly relevant to the choices that people make every day, choices that affect their health over a lifetime.

Completing the clinical picture. When studying a disease outbreak, epidemiologists depend on clinical physicians and laboratory scientists for the proper diagnosis of individual patients. But epidemiologists also contribute to physicians' understanding of the clinical picture and natural history of disease. For example, in late 1989 three patients in New Mexico were diagnosed as having myalgia (severe muscle pains in chest or abdomen) and unexplained eosinophilia (an increase in the number of one type of white blood cell). Their physician could not identify the cause of their symptoms, or put a name to the disorder.

With considerable success, epidemiologists found other cases of eosinophilia-myalgia syndrome, more fully describing the illness, its complications, and its rate of mortality. Similarly, epidemiologists have documented the course of HIV infection, from the initial exposure to the development of a wide variety of clinical syndromes that include the originally described acquired immunodeficiency syndrome (AIDS). They have also documented the numerous conditions that are associated with cigarette smoking - from pulmonary and heart disease to lung and cervical cancer.

Search for causes. Much of epidemiologic research is devoted to a search for causes, factors that influence one's risk of disease. Often the goal is to identify a cause so that appropriate public health action might be taken. While epidemiology can not necessarily *prove* a causal relationship between an exposure and a disease, it often provides enough information to support effective action. Examples include John Snow's removal of the pump handle and the withdrawal of a specific brand of tampon that was linked by epidemiologists to toxic shock syndrome in the 1970s-1980s. Just as often, epidemiology and laboratory science converge to provide the evidence needed to establish causation. For example, a team of epidemiologists was able to identify a variety of risk factors during an outbreak of pneumonia among persons attending the American Legion Convention in Philadelphia in 1976. However, the outbreak was not "solved" until the Legionnaires' bacillus was identified in the laboratory almost 6 months later.

The faculty in the Department of Epidemiology will work with you to build your knowledge base and technical skills in the field of epidemiology. While the topic areas that we work in are diverse (e.g., cancer, occupational, infectious, heart, genetic, environmental, dental, injury, children and women's health), we share a common methodology in the field of epidemiology.

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1. Cates WJ. Epidemiology: Applying principles to clinical practice. *Contemp Ob/Gyn* 1982; 20:147-161.
2. Last JM, ed. *Dictionary of Epidemiology*, Third edition. New York: Oxford U. Press, 1995:55.
3. MacMahon B., Pugh TF. *Epidemiology: principles and methods*. Boston: Little Brown and Company, 1970:1.

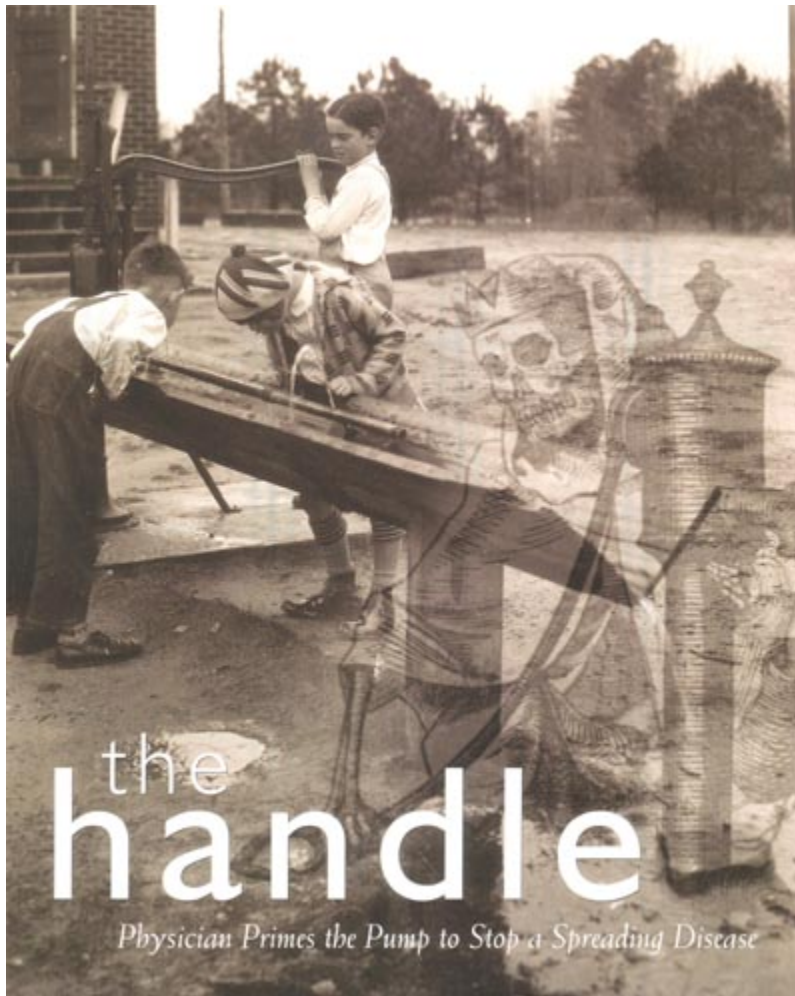
NOTE: This section has been abstracted and modified from *Principles of Epidemiology*, Second edition the Centers for Disease Control and Prevention Self-Study Course 3030-G.

Source: The Handle (the magazine of the University of Alabama School of Public Health), Fall 2002, pp. 4-5.

THE PUZZLE WAS A MADDENING ONE.

Pressure on public officials was intense, at times hysterical. The clock was ticking, and people were dying by the dozens.

The year was 1854; the scene was the Soho District of west London. During the stifling heat of August, there had been a handful of deaths from the dreaded disease cholera. Not unusual, in itself. But on August 31, the situation exploded: In a single evening, within a radius of only blocks, doctors reported 56 new cholera cases. By the next evening there were 143, and the death toll had reached 70 and was climbing. Residents started fleeing the district in panic. Medical authorities debated around the clock but couldn't settle on a plan of action.



STUDYING THE SPREAD OF A SCOURGE

Among those not consulted on the subject was a 41-year-old physician named John Snow. Though well-regarded as an anesthesiologist, Snow was something of a maverick because of his unconventional ideas. At medical conferences in 1849, and again in 1853, Snow—balding, with an unassuming manner and an Abe Lincoln-style beard—had delivered impassioned papers arguing that several diseases (cholera among them) that were thought to be spread via the air were in fact transmitted through drinking water. His presentations were politely ignored by the establishment.

But the 1854 cholera emergency seemed to bear out his waterborne theory: The initial deaths were all

within walking distance of a popular water hand-pump at the intersection of Cambridge and Broad. On his own, Snow inspected the pump but found the contamination to be negligible—unconvincing evidence for such a virulent epidemic.

Next, he went to the Register of Deaths and made a detailed list of the past two days' cholera fatalities. But his heart sank as the specifics of the deaths seemed to shoot more holes in his theory. None of the workers at a large brewery adjacent to the pump had contracted cholera, and a nearby workhouse with more than 500 inmates had reported only five deaths. What's

more, fatalities had now been reported several miles away, in the rural villages of Hampstead and Islington.

The death toll reached 127. New cases leveled off but only, officials realized, because the area was by now nearly deserted-except for victims and their families.

DISEASE DETECTIVE DELIVERS ANSWER

Snow redoubled his efforts, going from building to building, house to house, asking questions of the people who remained. Finally, one piece of the puzzle fit: He discovered that the workhouse that had largely escaped the epidemic had its own private well. Then, another piece fell into place-at the unaffected brewery, the workers told Snow that they were afraid of the public water supply, so they drank only beer.

With a growing sense of excitement and purpose, Snow rode to the outlying homes where the two most recent cholera deaths had occurred. At the house in Hampstead, a surviving relative told him that the lady who died there had a large bottle of water carted to her house every day from the Broad Street pump, because she preferred its taste above all others. Her visiting niece, Snow was told, also drank the Broad Street water and later died at her own home.

The writing pen in Snow's hand poises over his notebook. And her niece lived ... where?

"Islington," came the reply.

Snow methodically sketched his findings into a rough statistical map of the area. He presented the map-which today resides in a British museum-and his report to the Board of Guardians of St. James Parish. They were finally convinced, and they disabled the infamous pump by removing its handle. Immediately, new cases of cholera started to dwindle, and then disappeared.

A detailed investigation of the pump determined that, more than 20 feet underground, a sewer pipe passed within a few feet of the well. The raw sewage was gradually seeping through the dirt barrier into the drinking water.

Scattered witnesses came forward to report a "bad smell" near the pump just before the outbreak began.

FATHER OF A NEW FRONTIER

Snow, the establishment outsider, had, as one historian writes, "used meticulously gathered data and the power of statistics to bring about the beginning of the end for cholera in Britain." Today, while John Snow is a hero among modern epidemiologists, his name is little known to those outside the field.

For additional information regarding John Snow please view the website maintained by the UCLA School of Public Health Department of Epidemiology <http://www.ph.ucla.edu/epi/snow.html> .

GOALS OF THE EPIDEMIOLOGY PROGRAM

A major goal of the Epidemiology Program is to provide all students in the School of Public Health with an educational experience in epidemiology that is suited to their career objectives. A second major goal is to carry out research that contributes to the understanding of the causes of major diseases and the methods for their control. A third goal is to provide service to the state and region in joint efforts to study, prevent, and control disease and injury.

EPIDEMIOLOGY PROGRAM OBJECTIVES

Graduates with a Masters degree (MPH or MSPH) in epidemiology are expected:

1. To be able to describe the epidemiology of the most important diseases, injuries and causes of death in the U.S.
2. To understand the principles of epidemiological study design and analysis.
3. To recognize the circumstances in which specific designs are appropriate for an investigation, and to identify strategies to minimize and prevent bias in studies.
4. To design data collection, entry and management procedures for epidemiological studies.
5. To compute common epidemiological measures of disease occurrence and association, and to perform hypothesis testing and interval estimation on those measures.
6. To understand published reports of epidemiological studies and to critically evaluate the data presented.
7. To propose a methodologically sound study design for the evaluation of a new hypothesis. (MSPH program)
8. To manage one or more components of a research project, including form design, database design and management, statistical analysis and report writing. (MSPH program)

FALL 2016 NEW MPH STUDENT NOTICE

Core Sequence Requirement

All full-time students enrolled in the MPH degree program will be required to complete the Core Classes during the first Fall and Spring terms. These classes consist of Fall Term 2016: HCO 600, BST 601, EPI 626, and EPI 610; Spring Term 2017: ENH 600, HB 600, and EPI 625. Students must also complete a graduate level Writing and Reviewing Research course (PUH 627 or GRD 727) during the first year of enrollment (Fall 2016, Spring 2017, or Summer 2017). EPI 627 is required to be completed during the Fall 2016 term. **Please be reminded that once enrolled, full-time students are required to complete this sequence of courses to be allowed to remain active in the MPH academic program within the Department of Epidemiology.**

As you complete the necessary coursework, please update your curriculum planning sheet in order to keep track of your progress and graduate in a timely manner. Curriculum Planning Sheets may also be found online at:

<http://www.soph.uab.edu/academic-programs-1>.

Masters Programs (2016 - 2017)

MPH-Epidemiology Program

The MPH in-class and MPH Online degrees both consists of a 42 credit hour minimum. The curriculum includes the MPH Core (21 credit hours), School of Public Health Requirements (3-6 credit hours), EPI Methods Track Requirements (5 credit hours), Internship requirement (3 credit hours), required Chronic Diseases or Infectious Diseases elective (4 credit hours) and at least 6 or more credit hours of approved electives.

Students who have professional degrees, usually assume faculty or research positions in academia or management positions in government or industry. For students without a prior doctoral degree (i.e., students with a general undergraduate degree) or relevant health-related work experience, they usually assume mid-level positions in academia, industry, government, or practice based public health organizations. The typical length of time required for full-time students to complete the 42 hour program is 4 to 5 semesters, or 16 to 20 months.

Each student is required to meet with his/her Epidemiology academic advisor at least once each semester regarding enrollment in appropriate courses. Students must receive approval by their faculty advisor prior to registration each semester. After the advisor has approved the student's courses, the Graduate Student Coordinator will issue the student a "**Registration Access Code or RAC#**" so that he/she may register for classes during the current semester. A new RAC# is issued to the student for each registration term. This process will facilitate timely completion of the degree programs and ensure the educational goals of the student are fully met. Course selection is ultimately the responsibility of the student.

MPH Fast Track Epidemiology Program

The MPH-EPI Fast Track degree consists of a 42 credit hour minimum. Students in this program are current undergraduate students here at UAB, that begin taking our graduate level MPH programs during their Junior year of enrollment, or after registration for a minimum of 60 hours and a maximum of 90 hours. The curriculum includes Departmental Core Classes that are generally taken during the first few semesters of enrollment. Students enrolled in the MPH-EPI Fast Track program should meet with the Student Coordinator and his/her advisor at least once per semester to determine the best courses to take prior to each term of enrollment.

MSPH in Applied Epidemiology (MSPH-EPAP)

Overview: The *MSPH* in Applied Epidemiology is an academic degree designed for students who wish to receive education and training in epidemiologic applied research methods. Completion of the required core classes (22 credit hours, including 9 hours of independent research), Applied Epidemiology Track requirements (11 hours), required Chronic Diseases or Infectious Diseases elective course (4 hours), and Track-Specific Relevant Electives (5 hours).

Completion of didactic course work, a research project and final thesis defense are required. This degree can be completed in four semesters (from Fall to Fall), or in 16-20 months of full-time coursework.

Degree Requirement: Students enrolled in our MSPH degree program are required to complete the “Overview of Public Health” course by the end of their second semester of enrollment. This is a 37 hour self-paced online course that will provide students with broad knowledge of the different disciplines of public health and how they are related. The Overview of Public Health course should be completed by accessing your Canvas online account. Students who fail to complete this requirement by the end of their second term of enrollment, will have a hold placed on their account and may not be allowed to register for classes.

Course Requirements: A total of 42 credit hours must be earned to receive the MSPH in Applied Epidemiology degree. At least 9 credit hours must be research credits. Prior to, or at the time of matriculation, the student and advisor must agree on the courses the student will take to fulfill these requirements.

MSPH in Pharmacoepidemiology and Comparative Effectiveness Research (MSPH-PCER)

Overview: The MSPH in Pharmacoepidemiology and Comparative Effectiveness Research degree is designed for students who wish to receive education and training in Epidemiology methods important to the fields of Pharmacoepidemiology and Comparative Effectiveness Research.

Course Requirements: Completion of the required core classes (22 credit hours including 9 hours of independent research), Pharmacoepidemiology Track Requirements (13 hours), required Chronic Diseases or Infectious Diseases elective course (4 hours), and Track-Specific Relevant electives (4 hours). A total of 43 credit hours must be earned for the MSPH in Pharmacoepidemiology degree.

Completion of didactic course work, a research project and final thesis defense (i.e., a publishable thesis paper and final presentation) are also required. The degree can be completed in as little as 4 semesters (from Fall to Fall), or in 16-20 months of full-time coursework.

Degree Requirement: Students enrolled in our MSPH degree program are required to complete the “Overview of Public Health” course by the end of their second semester of enrollment. This is a 37 hour self-paced online course that will provide students with broad knowledge of the different disciplines of public health and how they are related. Students who fail to complete this requirement by the end of their second term of enrollment, will have a hold placed on their account and may not be allowed to register for classes.

MSPH in Clinical and Translational Science (MSPH-CTE)

There is a growing interest in medical schools in developing the clinical research skills of faculty members and fellows. This interest has been fueled by increased support from the NIH to prepare such individuals to meet the demand for clinical investigators in the field. The UAB Schools of Medicine and Public Health have combined efforts to create a training program for young faculty members and fellows from a variety of disciplines.

This program is a post-medical degree training program, aimed primarily at fellows and faculty members interested in developing skills required for clinical research. It is anticipated that this academic training will supplement extensive training in the content area in which the student is trained, and senior mentoring in the politics and policies of project development and management. A graduate of this program will have the academic training to develop and lead independent research programs and projects.

The program consists of a core set of courses common to all students, plus selective and elective courses that reflect the academic focus of the student. Graduates will be able to do the following upon completion of the program:

- design, conduct, and evaluate clinical research studies;
- understand issues of data collection and study management;
- follow appropriate policies and procedures relating to the utilization of human subjects in clinical research;
- demonstrate an understanding of the ethics of research on human subjects;
- prepare competitive applications for extramural research funding;
- prepare manuscripts for publication in the scientific literature; and
- critically evaluate published research

Curriculum: The MSPH in Clinical Research consists of 42 semester hours. Of these, 22 hours consist of the Core Requirements, including 9 hours of Directed Research. Students also complete 13 hours of requirements within the Clinical Research Track. Students then select from either the Chronic Diseases or Infectious Diseases required elective (4 hours), and finally complete 3 hours of track specific relevant electives. These electives are based on course relevance and specific interest of the student. **Note: The student should consult their advisor for approval of these electives credits.** The MSPH requires a research project, thesis and final defense during the graduation term.

Degree Requirement: Students enrolled in our MSPH degree program are required to complete the “Overview of Public Health” course by the end of their second semester of enrollment. This is a 37 hour self-paced online course that will provide students with broad knowledge of the different disciplines of public health and how they are related.

NOTE: MSPH-CR Core Class Requirement - Irregular Course EPI 680

EPI 680 is a two credit hour class in which students attend and participate in lectures provided through the K30 Clinical Studies program at the School of Medicine beginning each January. You will begin attendance in January (following your Fall admission), and continue attending lecture sessions through June; however, **do not register for EPI 680 until the Summer semester. Grades will be issued at the end of the Summer semester.**

MSPH Thesis Project Instructions Timeline/Outline
For ALL MSPH Degree Programs in Epidemiology

Step 1: By the end of the first Fall term of enrollment the student should have identified a specific thesis project in consultation with their academic advisor. This project may be originated by the student or by the advisor.

Step 2: By the end of the first Spring term the student should have a short (approximately 5-page) document describing the background, objectives and methodology of the proposed research topic. This document should be developed and refined with input and guidance from the student's academic advisor during the first Spring semester.

Step 3: Prior to the beginning of the second Fall term of enrollment, the student should have identified his/her Thesis Project Committee Members. The research committee should be made up of at least **three members**. The primary advisor and another faculty member from the Department will be the first two members. The third member may be any member of UAB's academic community who has agreed to advise and help mentor the student. Additional members having special expertise may serve at the student's and advisor's discretion. Once the committee members have been selected, the student should submit the **Masters Project Committee Form** to the Student Coordinator (this form should be typed or written in clear legible print). The Student Coordinator will process the request form on to the SOPH Academic Affairs Office.

Step 4: The short document prepared during the Spring term will be shared with the committee members who may provide input such that refinements and revisions of the study design are required. It may be necessary to convene a meeting of the committee in order to come to a mutual agreement regarding the objectives and methodology of the proposed project.

Step 5: Graduation and Final Project Presentation: In the last term of enrollment (graduation term), the student should formally present his/her Final Thesis Project and Presentation by the deadline date set by the UAB Graduate School. For specific deadline dates regarding the final presentation, please contact the Student Coordinator. The student is responsible for contacting ALL committee members to schedule the date, time, and conference room location for his/her final presentation. Please contact the SOPH Dean's office via email at soph@uab.edu or 934-4993 to reserve a conference room with a computer for your final project. At least 10 days before the Final Thesis presentation is scheduled, the student will need to email his/her thesis project title, day, time, and room location of the final presentation to the Student Coordinator to be sent out as a public announcement. On the day of the Final Thesis Project, the student should make a formal presentation of his/her research findings to the committee (with at least two members present). There is no formal oral examination, but those in attendance are free to engage the student in a question-and-answer session following the presentation. At the conclusion of the final presentation, the student is required to submit the **EPI Masters Project Thesis Approval Form** to his/her Committee Members for signature. Please request this form from the Student Coordinator at least five days before your scheduled Final Research Project and Presentation. The student must also submit to the advisor an advanced or final draft of a publishable scientific manuscript for which the student is to be first or second author; or a scientific or technical report (as for industry) of high quality, for which the student deserves substantial credit.

Step 6: After the committee members have signed the Masters Thesis Project Approval Form, the student should forward the original signed copy of the Thesis Approval Form to the Student Coordinator along with an electronic copy of the final thesis paper and presentation to be kept on file.

What is IRB?

IRB is an acronym for Institutional Review Board for Human Use. UAB has two IRBs. Together, they review all research conducted at UAB or by UAB faculty, staff and students research procedures that involves human subjects.

The IRB also has jurisdiction over research involving UAB data on human subjects. The IRB can approve, require modifications in, or disapprove all research activities that fall within its jurisdiction.

The aim of the IRB review is to ensure that research involving human participants is conducted in an ethical manner. This includes ensuring that risks to participants are minimized, the selection of participants is equitable, and participants are informed fully of what their participation will entail and of the potential risks and benefits

Who must obtain advance approval if humans are proposed as subjects of research?

Faculty, staff, postdoctoral fellows, and students (undergraduate or graduate) must obtain IRB approval before involving humans (or data collected about or from humans) as subjects of research. If you are unsure whether your research needs approval, contact the IRB for clarification. If you are a student, your advisor may have obtained IRB approval for the study that you are conducting. If you think that this is the case, it is important to verify it before you start.

What is a human subject?

Human subject means a living individual about whom an investigator (whether professional or student) conducting research obtains (1) Data through intervention or interaction with the individual, or (2) Identifiable private information.

UAB has defined a human subject as not only a living human being, but also human tissue, blood samples, pathology or diagnostic specimens, study of medical records, observation of public behavior, and all questionnaires.

Do I need IRB approval to interview people or observe their behavior?

Yes. There's a good chance such research may qualify for "exempt" or "expedited" review, but only the IRB can make that decision. Detailed information about these categories of review can be found in the application forms for the Exemption Review and Expedited Review as well as the Investigator's Guidebook. All IRB forms and the Investigator's Guidebook can be found at the following UAB Research link:

<http://www.uab.edu/research/administration/offices/IRB/guidebook/Pages/default.aspx>.

Internship Policies and Procedures

All MPH students in the SOPH are required to complete a minimum of three (3) credit hours in an internship experience (PUH 697). The Council on Education for Public Health (CEPH), our accrediting body, requires that the internship provides an opportunity for each public health student to develop skills in basic health concepts and demonstrate the application of these concepts through a practice experience that is relevant to the students' areas of specialization. The internship is a practice-based (rather than administrative or research) experience; therefore, the student experience is required to include opportunities to engage with other professionals and to participate in activities that will advance their public health career potential. Each internship placement is different, but all depend upon the ability of the student to work with minimal supervision.

The internship experience must be appropriately planned, supervised, and evaluated. Each student undertaking an internship must acquire permission of the student's SOPH advisor and the on-site preceptor/supervisor. Students are only allowed to complete internships for academic credit. You must be registered for PUH 697 during the time the internship is being completed. A minimum of 180 contact hours is required for the MPH internships. MPH students should have completed all public health core courses before registering for an internship. Usually this means that students must wait until their third semester to complete the internship. To be sure about when you are eligible to register for your internship, check with your department's program coordinator.

GRADING POLICY

A final grade will be awarded by the faculty internship advisor and based upon the internship supervisor's evaluation and the student's final products. All internships are graded on a Pass/No Pass basis.

REQUIRED DOCUMENTS

The student is responsible for the completion and submission of the "UAB School of Public Health Internship Description and Agreement Form." This is a signed agreement between the student, preceptor, and faculty advisor and is to be submitted via the SOPH InternTrack online system.

This form documents each person's responsibilities and expectations, including a description of the learning objectives and MPH competencies of the placement, the activities to be performed by the student, and the anticipated final products. The following final products are required for all MPH students completing their internship: Evaluations (Student and Site Supervisor), 5-page minimum paper on the internship experience and a poster presentation. More information on the final products can be found in the syllabus for the internship course. The final paper should be submitted via the SOPH InternTrack online system. Students should contact the Internship Coordinator in the Office of Student Services for deadline regarding all final products.

Given the nature of public health practice, it is possible that the student may be analyzing, interpreting and perhaps even contributing to the collection of data. If there is any question as to whether an internship will require IRB approval, it is the student's responsibility to submit an application to the IRB. Please be advised that the IRB approval process might significantly extend the time needed to prepare for an internship; therefore, discuss the scope of your internship with your advisor so that no IRB infractions occur.

REGISTRATION

Prior to registration, students should consult with their academic advisors to determine optimal times for completing their internships. All 180 hours required by the internship should be completed in one semester. Students register for the internship experience through their designated faculty internship advisor. Each department will have an individual course number for the internship experience. Check with your department program coordinator to get the correct course number.

NOTE TO INTERNATIONAL STUDENTS: According to university policy, international students must complete an additional form for the International Scholar and Student Services office in the Hill University Center before beginning their internship

MIDPOINT THROUGH THE INTERNSHIP

The mid-point meeting is an opportunity for you to reflect on where you are in your internship and evaluate what needs to be done for you to gain the most out of your experience. Approximately halfway through the internship, the student and site supervisor complete the mid-point meeting evaluation via the InternTrack System. The student should set up a time to meet with your site supervisor and faculty advisor to review this information. The both the internship supervisor and faculty advisor will need to confirming the meeting took place.

INTERNSHIP POSTER SESSION

At the end of the internship, prior to the end of exams for that semester, a poster session will be held to showcase the internships completed during that semester. You will receive additional instructions on creating your poster prior to the event. Attendance is mandatory, as it is a required component to the internship experience. Failure to attend without permission from the Internship Coordinator will result in a No Pass grade for the internship course. Limited exceptions will be made for students completed internships out of the state or country, that are completing the MPH program online, or cannot attend due to medical reasons. Students who are unable to present during the poster session must request for an alternate presentation option by completing the request form below. This form should be turned in to the internship coordinator, Kimberly Hunter, kmhunter@uab.edu or RPHB130, no later than 2 weeks prior to the internship poster session.

Alternative Option: Eligible students will complete an audio PowerPoint presentation in lieu of attending the internship poster session, which will be uploaded to UAB Canvas. PowerPoint slides without audio will also be submitted to stream during the regular internship poster session. Students eligible for this opportunity include those that are still

completing internships internationally/out of state, unable to attend due to medical reasons, and online MPH students. Students can request the Alternative option by completing online Alternative Internship Poster Presentation form. Completion of the form does not guarantee permission to complete the alternative option. Please find the Alternative Internship Poster Presentation Instructions at:

<http://www.soph.uab.edu/files/internship/Internshipposter.pdf>.

FINAL PAPER

The final paper will address the objectives, activities and competencies and is at least 5 pages in length. It is due during the last week of the semester (the internship coordinator will give you the actual date). the final paper is uploaded into UAB Canvas.

AT THE CONCLUSION OF THE INTERNSHIP

Both the student and the internship supervisor will complete an evaluation via the InternTrack during the last week of the semester. In addition, the student should also submit the agree-upon final products to the same designee.

INTERNSHIP CHECKLIST

- Check with your department's program coordinator for any special department/program requirements
- Identify, choose, and consult with a faculty internship advisor
- Identify an approved internship site listed on the SOPH website
- Apply for the internship opportunity in Dragon Trail, UAB's Career Management Site
- Complete and submit "UAB School of Public Health Internship Agreement" via InternTrack
- If necessary, complete and submit IRB Approval Form
- If international student, complete and submit appropriate form to the International Scholar and Student Services Office
- Register for the appropriate course and number of hours
- Formally check in with your site supervisor and faculty advisor during a mid-point meeting approximately halfway through the internship
- Submit evaluation forms and final product(s) last week of semester to your program coordinator
- Submit and attend poster session

INTERNSHIP INFORMATION AND SYLLABUS LINK:

<https://www.soph.uab.edu/files/internship/InternshipSyllabus.pdf>

Curricular Practical Training (CPT) for International Students

The Department of Epidemiology may allow International students to participate in CPT in conjunction with the required Internship course hours. Under the circumstances that the student has a second job during the same time he/she has scheduled an internship and he/she would like to receive CPT credits by the International Scholar and Student Services Office (ISSS), the student will be required to register for EPI 698 for academic credits with their advisor to participate in CPT. However, the student will be held responsible for initiating documentation of the objectives, goals, and final product with the supervisor of the second job (if the second job is NOT in the SOPH or EPI Department) before he/she will be given the grade for EPI 698.



Peace Corps' Masters International Program

Overview

The University of Alabama at Birmingham (UAB) School of Public Health offers a Master of Public Health (M.P.H.) degree in cooperation with the Peace Corps' Masters International Program. UAB establishes and monitors academic requirements, and the Peace Corps places MI students overseas as Volunteers. Students apply to both the Peace Corps and UAB School of Public Health and must be accepted by both. MI students complete all coursework before starting a Peace Corps assignment overseas. Assignments are developed by Peace Corps in-country staff at the request of host countries. Upon completion, the in-country assignment will count as your internship. MI students graduate with a unique combination of an advanced degree and two years of substantive professional experience in an international setting.

Volunteer Assignments

Becoming a Master's International (MI) student requires a combination of focus, flexibility, and dedication. As an MI Student, you will spend one to two academic years on campus completing your coursework. Upon receiving your overseas assignment and traveling to your host country, you will serve for twenty-seven months, three of which will be the language, cross-cultural, and technical training period. After completing training you will receive your Peace Corps assignment. Peace Corps assignments are strategically developed by in-country staff based upon the needs and requests of the country.

All Peace Corps volunteers receive approximately three months of in-country training (in language, technical, and cross-cultural skills) before starting their two-year assignments in a developing country. Health-related assignments may include health education (such as training local teachers about nutrition and hygiene), community mobilization (for example, organizing communities to construct latrines), or other activities such as needs assessment or program monitoring and evaluation.

During Peace Corps service, volunteers participating in the MI program work toward a thesis, professional paper, or other culminating project, under the direction of their academic advisor and with the approval of Peace Corps overseas staff. Participating faculty recognize that while overseas, an MI student's primary responsibility is his or her Volunteer duties. Rather than determining a research topic in advance, MI students allow their Volunteer assignment to shape their overseas academic requirement.

MI students understand that the Peace Corps provides a unique opportunity to apply what they learn on campus to benefit a host country community. Like all Volunteers, MI students seek ways to creatively apply their knowledge and skills to the assignment in which they are placed.

The Peace Corps works in countries from Asia to Central America, and from Europe to Africa. In each of these countries, Volunteers work with governments, schools, and entrepreneurs to address changing and complex needs in education, health and HIV/AIDS, business, information technology, agriculture, and the environment.

Volunteers work and live within communities both large and small, and rural and urban. They speak the local language, whether that is French, Spanish, Romanian or Hausa. Most importantly, Peace Corps Volunteers discover the richness of another culture the best way possible: by living it.

One of the most serious worldwide threats to public health and development is the spread of HIV/AIDS. Volunteers in HIV/AIDS education and prevention train youth as peer educators, collaborate with religious leaders to develop appropriate education strategies, provide support to children orphaned by HIV/AIDS, and develop programs that provide support to families and communities affected by the disease.

In addition to HIV/AIDS prevention, Volunteers also work on basic health care issues. By focusing on prevention, human capacity building, and education, Peace Corps Volunteers help improve basic health care at the grass-roots level, where their impact can be the most significant and where health needs are most pressing. In helping communities take more responsibility for their own health care, Volunteers work to ensure the sustainability of their projects.

Admission Requirements

Interested individuals must apply separately for admission to the UAB School of Public Health and the Peace Corps. Applicants to the UAB School of Public Health MI Program should apply first to the department of their choice and indicate an interest in the Peace Corps Master's International program on their application. To be eligible for the Peace Corps, you must be a United States citizen, be in good general health, and be at least 18 years of age.

SOPH Peace Corps and IHGS Internship Contact Information:

Amy Badham, MPH
Instructor, Health Care Organization and Policy
Training Instructor, Sparkman Center for Global Health
517E Ryals Public Health Building
1665 University Boulevard
Phone: 205 975-7694
Fax: 205-975-7685
Email: abadham@uab.edu

EPIDEMIOLOGY COURSE DESCRIPTIONS (EPI) 2016-2017

(*) Indicates the course may be taken more than once for credit.

EPI 600. Introduction to Epidemiology. -Principles of epidemiologic thinking. Measures of disease frequency and association. Determinants of disease and distribution of factors influencing health and disease in populations. Epidemiology of diseases of public health importance today. Core requirement for Non-Epidemiology MPH majors. 3 hours. Fall (Martin)

EPI 600Q (Online). Introduction to Epidemiology. -Principles of epidemiologic thinking. Measures of disease frequency and association. Determinants of disease and distribution of factors influencing health and disease in populations. Epidemiology of diseases of public health importance today. Core requirement for Non-Epidemiology MPH majors. 3 hours. Fall and Summer (King)

EPI 602. Epidemiology of Chronic Diseases. -Application of epidemiologic principles to assess the causes of cancer, cardiovascular diseases, diabetes, rheumatoid arthritis, and other chronic diseases. Emphasis on biological basis, rates, association, etiology, prevention, and control. Pertinent literature critically reviewed. 4 hours. Fall (Sathiakumar)

EPI 602Q (Online). Epidemiology of Chronic Diseases. -This course will explore the breadth and depth of the epidemiology of chronic diseases including classification, surveillance, frequency, distribution, etiology, natural history, risk factors, and control. It will address details of epidemiologic studies in cardiovascular diseases, cancer, and other major chronic diseases and will discuss epidemiologic papers relating to the use of various study designs. Prerequisite: The course requires students to have taken EPI 610 (Principles of Epidemiologic Research) or permission of the instructor. Fall (Affuso)

EPI 603. Injury-Epidemiologic Principles and Prevention Strategies. -Concepts and methods of epidemiology applied to injury; epidemiology of major injury types, utilization of injury data sets; development and evaluation techniques of preventive strategies. Prerequisite: EPI 600 or EPI 610 recommended but not required. 3 hours. Fall (Waterbor)

EPI 605. Epidemiology of Infectious Diseases. -Introduction to basic principles of infectious disease epidemiology, surveillance, and control. This course will also include critical analysis of the magnitude, distribution, risk factors, and public health significance of selected infectious diseases in community and institutional settings. While the primary geographic focus is the U.S., international comparisons and perspectives will be offered. Primary attention is neither on research methods nor on clinical and pathologic aspects of disease. Prerequisites: EPI 600, EPI 610 or an equivalent introductory epidemiology course or permission of instructor. 4 hours. Spring (Jolly/Padilla)

EPI 605Q (Online). Epidemiology of Infectious Diseases. -This class provides an introduction to epidemiological concepts pertaining to various infectious diseases. Students will gain familiarity with general epidemiology with epidemiologic characteristics of various infectious conditions significant in the United States and the world. Practical exercises, discussions will help in approaching "real world" problems. Prerequisites: EPI 600, EPI 610

or an equivalent introductory epidemiology course or permission of instructor. 4 hours. Spring (Tamhane)

EPI 607Q (Online). Fundamentals of Clinical Research. -This course will provide an overview of principles and practices related to the study of determinants and outcomes of medical interventions. Methods for conducting epidemiologic research in the "clinic", assessing the validity of diagnostic and screening tests, measuring therapeutic efficacy and safety, and describing the natural history of disease will be reviewed. Prerequisite: Introductory training in epidemiology (e.g., EPI 600 or EPI 610) is recommended but not required. 3 hours. Spring (Glasser)

EPI 609. Pharmacoepidemiology & Comparative Effectiveness Research. -This course is open to graduate students registered in the masters or doctoral program at the UAB School of Public Health and residents and fellows in the School of Medicine, and it may also be of interest to students from graduate health-related programs outside the UAB School of Public Health. The course provides an overview of epidemiologic methods applied to the study of utilization and safety of drugs in large numbers of individuals and an overview of issues and methods used in comparative effectiveness research on drugs, other medical interventions and medical care delivery. Lecturers will present examples of methodological problems and studies based on ongoing research at UAB. 3 hours. Prerequisites: EPI 610, BST 601 or BST 611 recommended but not required. Fall (Zhang)

EPI 610. Principles of Epidemiologic Research. -Concepts and methods of epidemiology. Measures of disease frequency, association and impact; study design and analysis, indices of disease and health; overview of major categories of acute and chronic disease, analysis of epidemiologic data sets. Track requirement for EPI majors. 4 hours. Fall (Zhang)

EPI 610Q (Online). Principles of Epidemiologic Research. -Concepts and methods of epidemiology. Measures of disease frequency, association and impact; study design and analysis, indices of disease and health; overview of major categories of acute and chronic disease, analysis of epidemiologic data sets. Track requirement for EPI majors. 4 hours. Fall (Aslibekyan)

EPI 614. Epidemiologic Methods Applied to Comparative Effectiveness Research. -This course will focus on methodological issues pertaining to the design, analysis and interpretation of comparative effectiveness research studies. Special focus will be placed on comparative effectiveness research studies using a non-experimental design and large data base analyses. Prerequisite: EPI 610, BST 611 and BST 612; or permission of instructor. 2 hours. Spring (Yun)

EPI 616. Environmental Epidemiology.-Design and conduct of studies examining health effects of environmental exposures. Strengths and limitations of research strategies and interpretation of study results. Areas of interest include air and water pollution, lead, and biological marker outcomes. Prerequisite: EPI 600 or EPI 610. 3 hours. Course offered **even calendar year in Summer** (Sathiakumar)

EPI 618. Fieldwork in Public Health. -Application of public health principles in the communicable disease control and environmental health programs carried out at Jefferson County Department of Health. Prerequisites: EPI 610 and EPI 605 or Permission of instructor. Pass/No Pass. 2 hours. Course offered based on student interest/enrollment during the Summer

EPI 621/721. HIV/AIDS and STDs. -Basic biology and pathogenesis, historical and current trends, domestic and international epidemiology, determinants of spread, immunogenetics and host susceptibility, options for prevention, surveillance and control of sexually transmitted diseases (STD's) and HIV/AIDS. 3 hours. Fall (Jolly/Padilla)

EPI 625. Quantitative Methods in Epidemiology. -An introduction to multivariate techniques and survival analysis as they pertain to epidemiologic data and critical reading of corresponding literature, specifically, logistic regression, log-linear modeling, Poisson regression, life tables, Kaplan-Meier survival curves, and Cox proportional hazards modeling. Track requirement for EPI majors. Prerequisites: EPI 610 and EPI 626; or permission of instructor. 3 hours. Spring (Griffin)

EPI 625Q (Online). Quantitative Methods in Epidemiology. -The objective of this course is to introduce students to commonly-used analytical techniques in modern epidemiological research, and to provide experience in drafting analysis-related portions of a manuscript and present the results to an audience. Prerequisites: The course requires students to have taken EPI 610, EPI 626, BST 601, and/or BST 611; or permission of instructor. 3 hours. Spring (Hidalgo)

EPI 626. Introduction to Data Analysis with SAS. -The general content will be basic SAS programming focused on fundamental statistical procedures. Upon completion of the course, the student should be able to do simple analysis and programming when given a SAS data set, and complete exercises from more advanced classes in epidemiology and biostatistics. 2 hours. Fall (Zhang)

EPI 626Q (Online). Introduction to Data Analysis with SAS. - The purpose of this course is to introduce students to the basics of SAS programming. Topics covered will include creation/importation of datasets, working with SAS variables, manipulation of datasets (e.g., combining and sub-setting datasets), and SAS syntax to produce descriptive statistics (e.g., frequencies, means) and perform basic statistical procedures (e.g., chi-square, t-test). At the end of the course, the student will have an understanding of the SAS programming environment and a basis upon which to build in subsequent courses (e.g., EPI 625 and 627). 2 hours. Fall (Zhang)

EPI 627. Data Analysis and Presentation of Epidemiologic Studies. -The students will analyze data from an epidemiologic study, addressing a specific question, and prepare a manuscript from their analysis. There are 3 possibilities regarding choice of data: 1) from a list of the instructor's datasets, 2) public use data, 3) from the student's research. Students working on an MSPH or another degree project may use data for that degree-project with approval of their advisor and course master. Upon completion of the course, the student should be able to analyze data from an epidemiologic study and prepare a manuscript.

Prerequisites: EPI 625 or EPI 626, BST 601, BST 612, and BST 626; prior experience with epidemiologic study design and statistical analysis. 3 hours. Fall. (McGwin)

EPI 627Q (Online). Data Analysis and Presentation of Epidemiologic Studies. -This course is designed for students to utilize data analysis skills acquire in the interpretation and presentation of epidemiologic data for both scientific and lay audiences. Prior experience with epidemiologic study design and statistical analysis is required. Prerequisites: EPI 610, BST 601 and EPI 625; or permission of instructor. 3 hours. (Wright) Fall

EPI 635. Genetics in Public Health.- This course will provide a topical overview of issues in public health genetics. The purpose of this course is to introduce students to the complex issues involved in applying and integrating genetic technology and information into public health. Through a series of lectures, students will learn about the history of public health genetics, the role that genetics play in public health, and issues involved in applying genetic technology in clinical and research settings. Lectures will also address the ethical, legal, and social implications of genetic testing in populations and research designed to identify susceptibility genes in diverse ethnic and racial groups. Prerequisites: Currently enrolled in a Master's program. Undergraduates will need permission of instructor. 2 hours. Course offered every odd calendar year in Summer. (Shrestha)

EPI 680. Topics in Clinical Research.-Provide health sciences professionals interested in clinical trials, clinical epidemiology, and other forms of population research with both essential principles and specific technical knowledge in a variety of areas relevant to the conduct of biological and behavioral investigation of human subjects. Prerequisite: Limited to health professionals planning clinical research careers who have been accepted into the MSPH in Clinical Research Program. 2 hours. Irregular course that starts in January and ends in June. Register for this course during the Summer term. (McGwin)

EPI 681. Special Topics in Epidemiology.- Discussion of infectious disease research and practice encompassing design, conduct, analysis, and interpretation. Students participate in supervised research and/or in research design. Prerequisite: EPI 605 and permission of instructor for enrolling in EPI 681, and permission of instructor for enrolling in EPI 781. 3 hours

EPI 682. Gorgas Course in Tropical Medicine. Hands-on exposure to tropical diseases and emerging pathogens in various teaching formats: didactic lectures, roundtables, laboratory work, clinical and hospital rounds, case conferences, computer training, field trips and independent study. Course is held in the Spring Term in Lima, Peru. 9 hours (3 or 6 hours are also accepted with evaluation restricted to selected sections of the course). Study Abroad course offered in Spring (Freedman)

***EPI 695/795. Epidemiology Seminar Series.** This lectureship series is a forum for scientific dialogue on current topics in epidemiology, biostatistics and public health. The course will promote the development of knowledge about epidemiology methods, analytic approaches, disease etiology as well as natural history and current issues related to the application of these concepts to conducting epidemiologic research and public health practice. Pass/No Pass. 1 hour. Spring (Shrestha)

EPI 697. Internship.-Field experience under joint direction of appropriate public health faculty member and qualified specialists working in selected aspects of public health. Pass/No Pass. 3 hours (180 contact/working hours required). Fall, Spring, Summer

***EPI 698. Master's Directed Research, Epidemiology.**-Independent study with guidance of appropriate public health faculty. Pass/No Pass. 1 - 9 hours. Fall, Spring, Summer

***EPI 699. Project Research, Epidemiology.** - Research for project under direction of research committee. Pass/No Pass.1 - 9 hours. Fall, Spring, Summer

EPI 703. Grant Proposal Writing.-To provide the student with information about grant proposal writing and practice in preparing a grant proposal for submission. The proposal must relate to an epidemiologic topic. Human subject issues are discussed. Prerequisite: Must be a doctoral student or with permission of instructor. 3 hours. Summer Online (Skibola)

EPI 704. Advanced EPI Methods.-This course provides an advanced introduction to fundamental epidemiologic concepts and methods, including causal inference, bias, and study design. This course is the first course in the sequence of the three required core epidemiology courses for doctoral students in epidemiology. 3 hours. Fall (Carson)

EPI 710. The Analysis of Case-Control Studies.-This course is designed to provide doctoral students in epidemiology with practical experience in the analysis and interpretation of data from case-control studies. Specific aims are: To outline a strategy for data analysis and review relevant methodologic issues and to apply stratified analysis methods and regression models in the study of diseases of multifactorial etiology. Prerequisites: Permission of instructor. 3 hours. Spring (Irvin)

EPI 713. Cancer Epidemiology and Control.- This course will address methodology and substantive issues in cancer epidemiology. Content will include definitions, biological origins and pathological and clinical aspects of cancer; an introduction to information sources and methods in cancer epidemiology; the global burden of cancer; descriptive epidemiology and major risk factors for various forms of cancer; strategies for cancer prevention and the role of epidemiology developing and evaluating those strategies. Prerequisite: Doctoral student status in any Public Health discipline. Permission of instructor for students in other programs and schools. 3 hours. Summer (Waterbor)

EPI 720. The Analysis of Follow-up Studies.-Designed to provide doctoral students in epidemiology with practical experience in the analysis and interpretation of data from follow-up studies. Specific aims are: to outline a strategy for data analysis and review relevant methodologic issues and to apply stratified analysis methods and regression models in the study of diseases of multifactorial etiology. Prerequisites: Permission of instructor. 3 hours. Summer (Levitan)

EPI 721/621. HIV/AIDS and STD's.-Basic biology and pathogenesis, historical and current trends, domestic and international epidemiology, determinants of spread, immunogenetics and host susceptibility, options for prevention, surveillance and control of sexually transmitted diseases (STD's) and HIV/AIDS. Doctoral students will be responsible for writing a critical review paper or a grant application based on a STD/HIV topic of significant public health importance. Prerequisite: Clinical doctoral degree (MD, DDS, DVM, DSN, or

other similar degrees with approval); or be at least a second year masters student, or permission of instructor. 3 hours. Fall (Jolly/Padilla)

EPI 731. Genetic Epidemiology.-This course will cover core concepts of designs, methods and statistical tools in genetic epidemiology studies for determining the contribution of genes to disease risk. Methods for incorporating genetic markers into conventional epidemiologic study designs as risk factors including genetic risk models, familial correlations, migration and admixture, quantitative and qualitative traits, association and linkage analyses in family based designs, allele/haplotype frequency estimation, Hardy Weinberg Equilibrium and linkage disequilibrium and application in both family and population based studies will be discussed. Methods for gene-gene and gene-environment interaction assessment, genome wide association studies are also presented. Prerequisites: College level genetics course; basic biostatistics (BST 601 or BST 611 or BST 621 or equivalent); and basic epidemiology (EPI 600 or EPI 610 or equivalent). Students not meeting these pre-requisites may enroll only with the permission of the instructor. 4 hours. Course offered every even calendar year during the Spring (Shrestha)

EPI 731L. Genetic Epidemiology-Lab.-Genetic EPI lab. Co-requisite: Lab must be taken concurrently with EPI 731. 0 hours. Spring (Shrestha)

EPI 781. Special Topics in Epidemiology. Discussion of infectious disease research and practice encompassing design, conduct, analysis, and interpretation. Students participate in supervised research and/or in research design. Prerequisite: Permission of instructor for enrolling in EPI 781. 3 hours

EPI 788. Principles and Methods in Molecular Epidemiology.- Molecular biology and its relevance to the epidemiology, etiology and natural history of human diseases. The course will develop knowledge and skills in molecular biology, genetics and epidemiology methods, and facilitate the application of this information to evaluate susceptibility, etiology, natural history, treatment, and prevention of diseases. 4 hours. Summer

***EPI 790. Doctoral Seminar in Epidemiology.**-In depth study and discussion of several areas of epidemiologic methodology not covered in other courses. Students are responsible for selecting and presenting topics. Considerable reading and outside preparation required. Prerequisite: Permission of instructor. Pass/No Pass. 2 hours. Fall (Wright) Spring (McGwin)

***EPI 795/695. Epidemiology Seminar Series.** This lectureship series is a forum for scientific dialogue on current topics in epidemiology, biostatistics and public health. The course will promote the development of knowledge about epidemiology methods, analytic approaches, disease etiology as well as natural history and current issues related to the application of these concepts to conducting epidemiologic research and public health practice. Pass/No Pass. 1 hour. Spring 2016

***EPI 798. Doctoral Directed Research, Epidemiology.**-Independent study with guidance of appropriate faculty. Pass/No Pass. Fall, Spring, Summer. 1 - 9 hours

***EPI 799. Dissertation Research, Epidemiology.** - Research for dissertation under direction of dissertation committee. Pass/No Pass. Fall, Spring, Summer. 1 - 9 hours

Affuso, Olivia, Associate Professor, MS (Georgia State University), PhD (University of North Carolina at Chapel Hill); Research Interest – Applied epidemiology for the prevention of obesity and chronic disease through physical activity and nutrition, food security, health disparities, and design of obesity randomized controlled trials.

Akinyemiju, Tomi, Assistant Professor, PhD in Epidemiology (University of Michigan, Ann Arbor). Research and special interests: Health disparities in cancer in the US and Africa. Research focused on investigating upstream determinants of racial disparities in cancer along the prevention continuum.

Aslibekyan, Stella, Assistant Professor; MS (Harvard School of Public Health), PhD (Brown Univ.); Special interests: cardiovascular disease, statistical genetics, nutritional epidemiology.

Carson, April, Assistant Professor, MSPH in Epidemiology (Univ. of North Carolina at Chapel Hill), PhD in Epidemiology (Univ. of North Carolina at Chapel Hill); Research Interests: Health disparities in cardiovascular disease and diabetes

Griffin, Russell, Assistant Professor, MSPH in Epidemiology (Univ. of Alabama at Birmingham), PhD in Epidemiology (Univ. of Alabama at Birmingham); Research and special interests: Injury epidemiology and interests in epidemiological methodology.

Hidalgo, Bertha, Assistant Professor, PhD (University of Alabama at Birmingham), MPH-Biostatistics/Epidemiology (University of Southern California); Research and special interests: Nutrition and obesity.

Howard, Virginia, Professor; MSPH (North Carolina), PhD (Medical Univ. of South Carolina Charleston); Research interests: Stroke symptoms and associated risk factors, life-course exposure to the stroke belt geographic region, and risk factors for outcomes following carotid endarterectomy and carotid stenting.

Irvin, Ryan, Assistant Professor, MS in Biostatistics (Medical Univ. of South Carolina, Charleston), PhD in Epidemiology (University of Alabama at Birmingham); Pharmacogenetics of antihypertensive treatment with a focus on genetic risk for incident diabetes mellitus due to thiazide diuretic treatment and treatment resistant hypertension.

Jolly, Pauline, Professor, PhD in Science Education (Louisiana State University), MPH and PhD in Immunology and Infectious Diseases (Johns Hopkins University); Special interests: HIV immunopathogenesis, STIs and other infectious diseases, Immune and health effects of aflatoxin.

Levitan, Emily, Associate Professor, S.M. and Sc.D. in Epidemiology (Harvard School of Public Health); Research interests: the relationship between diet, lifestyle, and cardiovascular diseases and the application of epidemiologic and statistical methods to address public health questions

Martin, Kimberly, Assistant Professor, PhD in Chronic Disease Epidemiology (Yale University); Postdoctoral Fellowship (Johns Hopkins School of Medicine). Special Interests: Quality of care and healthcare disparities in cardiovascular diseases and stroke.

McGwin, Gerald, Associate Professor, MS (Harvard), PhD (UAB); Special Interest: Injury Epidemiology, Epidemiologic Methods, Ophthalmic epidemiology.

Muntner, Paul, Professor, MHS (Johns Hopkins University), PhD (Johns Hopkins University); Special interests: Renal disease epidemiology, Cardiovascular epidemiology.

Ojesina, Akinyemi, Assistant Professor, MD (University of Ibadan, Nigeria), PhD (Harvard University). Special Interests: Genomics, integrative molecular epidemiology, oncology, infectious diseases, and global health.

Perry, Rodney T., Research Assistant Professor, PhD (Univ. of Alabama at Birmingham); Special interests: Population and molecular genetics, Neuroepidemiology.

Sathiakumar, Nalini, Professor, MD (Madras Medical College, India), MSPH (UAB), DrPH (Univ. of Alabama at Birmingham); Special interests: Environmental and occupational epidemiology, Pediatric epidemiology.

Shrestha, Sadeep, Associate Professor, MHS in Infectious disease/Genetic Epidemiology (Johns Hopkins University), PhD in Genetic Epidemiology (Johns Hopkins University), MS (Biotechnology) from Kreiger School of Arts and Sciences, Johns Hopkins; Research interests: Studying the interplay of human genetics with behavioral and environmental factors in the natural history, pathogenesis and outcomes of HIV/AIDS and other infectious diseases

Skibola, Christine, Professor, PhD and MS (UC Berkeley School of Public Health); Research and special interests: Molecular epidemiology, toxicology, and genomics.

Waterbor, John W., Associate Professor, MS, MD (Pennsylvania), DrPH (Univ. of Alabama at Birmingham); Special interests: Cancer epidemiology and control, Injury epidemiology.

Wilson, Craig M., Professor, MD (University of Wisconsin), Director of the Sparkman Center for Global Health; Special Interests: Malaria, geographic medicines, pediatric infectious disease

Wright, Nicole, Assistant Professor, PhD in Epidemiology (University of Arizona). Research and special interests: Understanding determinants of osteoporosis and fractures.

Yun, Huifeng, Research Assistant Professor, PhD (University of Alabama at Birmingham). Research and special interests: Pharmacoepidemiology.

Zhang, Jie, Assistant Professor, PhD in Epidemiology (University of Alabama at Birmingham), MPH (University of Kentucky). Research and special interests: Pharmacoepidemiology and epidemiologic methodologies used for pharmacoepidemiologic research.

APPENDIX A

Department of Epidemiology Competencies for Degree Programs (MPH, MSPH, PhD)

Epidemiology MPH Competencies

EPI-MPH 1: Describe the historical context of epidemiology.

EPI-MPH 2: Describe public health concerns in terms of magnitude, people affected, time, and location.

EPI-MPH 3: Apply basic terminology and definitions of epidemiology.

EPI-MPH 4: Calculate epidemiology measures and interpret them.

EPI-MPH 5: Identify key sources of data and data collection methodologies for epidemiologic purposes.

EPI-MPH 6: Explain the importance of epidemiology for informing scientific and ethical Principles of public health concerns.

EPI-MPH 7: Explain ethical Principles pertaining to the collection, maintenance, use, and dissemination of epidemiologic data.

EPI-MPH 8: Evaluate the strengths and limitations of epidemiologic reports.

EPI-MPH 9: Describe the Principles and limitations of public health screening programs.

Epidemiology MSPH Applied Competencies

EPI-MSPH 1: Develop a research project that a research committee can review for scientific validity and feasibility.

EPI-MSPH 2: Conduct a research project under the guidance of senior investigators.

EPI-MSPH 3: Write a manuscript reporting research background, methods, results, discussion, and conclusions to be presented to a research committee.

Also EPI MPH 1 - EPI MPH

Epidemiology MSPH Clinical & Translational Science Competencies

EPI-MSPH 1: Develop a research project that a research committee can review for scientific validity and feasibility.

EPI-MSPH 2: Conduct a research project under the guidance of senior investigators.

EPI-MSPH 3: Write a manuscript reporting research background, methods, results, discussion, and conclusions to be presented to a research committee.

EPI-MSPH 4: Explain the principles of designing observational and intervention studies.

EPI-MSPH 5: Describe the principles, goals, and conduct of clinical trials.

Also EPI MPH 1 - EPI MPH 9

Epidemiology MSPH Pharmacoepidemiology & Comparative Effectiveness Research Competencies

EPI-MSPH 1: Develop a research project that a research committee can review for scientific validity and feasibility.

EPI-MSPH 2: Conduct a research project under the guidance of senior investigators.

EPI-MSPH 3: Write a manuscript reporting research background, methods, results, discussion, and conclusions to be presented to a research committee.

EPI-MSPH 6: Describe the principles, goals, and conduct of pharmcoepidemiology and comparative effectiveness research.

Also EPI MPH 1 - EPI MPH 9

Epidemiology PhD Competencies

PhD EPI 1: Critique epidemiologic studies and reports, with regard to design choice, precision, bias, confounding, and ethical issues.

PhD EPI 2: Demonstrate expertise in the statistical basis for the analysis of epidemiologic data.

PhD EPI 3: Write the design, methods, and results of an epidemiologic study.

PhD EPI 4: Demonstrate ability to teach epidemiologic concepts to master's and undergraduate-level students.

PhD EPI 5: Formulate novel and innovative study questions and hypotheses and test them using epidemiological methods.

PhD EPI 6: Develop a dissertation research proposal with detailed background, study design, data collection plan and analyses for carrying out an epidemiologic study.

PhD EPI 7: Conduct a dissertation research project from design through analysis and interpretation, with oral presentation of results and preparation of a\publishable manuscript(s).

APPENDIX B

School of Public Health School -Wide MPH Core Competencies

- **MPH Competency I.** Apply design and analytical methods to describe, implement, evaluate, and interpret research addressing public health concerns.
- **MPH Competency II.** Identify how environmental and occupational hazards impact health.
- **MPH Competency III.** Apply legal and ethical principles in public health research and practice.
- **MPH Competency IV.** Communicate public health issues, research, practice, and intervention strategies effectively.
- **MPH Competency V.** Design public health programs, policies, and interventions, including planning, implementation, and evaluation.
- **MPH Competency VI.** Discuss the history and structure of public health systems.
- **MPH Competency VII.** Assess public health concerns in diverse cultures and communities.

APPENDIX C

Epidemiology Registration Process

Epidemiology students are responsible for registering for coursework each academic term. The current Class Schedules and the Academic Calendar can be found at: <http://www.soph.uab.edu/students/schedule>. Students are expected to meet with their academic advisor prior to registration in order to discuss the classes that he/she will register for in the upcoming semester. You may contact your Epidemiology Academic Advisor via email or you may set up a time to meet with your advisor prior to registration. Approximately three weeks prior to registration you should be able to view the UAB Class Schedule online in Blazernet.

Please note that students who have been admitted into the Epidemiology Department either full-time or part-time are expected to maintain active registration status each term. For full-time students, the Epidemiology Department requires a specific core class sequence policy in which students must enroll in the following classes: First Fall term: EPI 610, EPI 626, BST 601, and HCO 600. First Spring term: EPI 625, ENH 600, HB 600, PUH 627 (option). This sequence of coursework allows full-time students to remain active within the program and also to graduate within 4-5 consecutive semesters. Part-time students should consult the Epidemiology Student Coordinator for their core sequence requirements as the course load each term may differ for part-time students. If full-time students fail to maintain this course sequence, the student is subjected to be administratively withdrawn from the academic program. Also, for students considering attending medical school, or a residency training program, please plan out your schedule using the accelerated graduation plan to graduate within the 4 required semesters of enrollment. Failure to do so, may result in administrative withdrawal from the MPH or MSPH programs in Epidemiology if the student does not meet the required course requirements during the first year of academic enrollment.

Once students have consulted with their EPI advisor and courses have been approved for registration, the student should have the advisor contact the EPI Student Coordinator to release the Registration Access Code (or RAC#) each term to be allowed to add classes to their course schedule. Each term students will receive a NEW random 6-digit RAC# for registration. Registration is scheduled for 2 sessions: Assigned Time Registration and Open Registration. Please find additional registration information at: <http://www.uab.edu/students/academics/register-for-classes>.

Late Registration: Adding/Dropping Classes

Students are expected to register during the normal registration period and only for courses they intend to complete. Registering late and adding or dropping courses is possible, however, only until the date specified in the UAB Class Schedule published each term. Any change in registration including dropping and adding courses, must be approved by the student's advisor.

Students may register, drop and add courses prior to the first day of classes in person or by using BlazerNET. Please check the Academic Calendar for the last day to add/drop courses.

APPENDIX D

Student Resources and Websites

Please see the following links to important UAB webpages. Due to changes in the websites, please refer back to the main SOPH webpage at www.soph.uab.edu or UAB's main webpage for updated weblinks and URLs. Thank You.

Epidemiology Department Website: <http://www.soph.uab.edu/epi>

SOPH Home Webpage: <http://www.soph.uab.edu/>

UAB Graduate School Website: <http://www.uab.edu/graduate/>

Internationals Scholar and Student Services: <https://www.soph.uab.edu/students/iss>

Birmingham App: <http://birminghamal.org/app/>

UAB Mobile App: <https://www.uab.edu/app/>

SOPH Student Handbook: https://www.soph.uab.edu/files/osas/SOPH_Handbook.pdf

SOPH Student Resources: http://www.soph.uab.edu/student_resources.

SOPH Honor Code: <http://www.soph.uab.edu/students/honorcode>

SOPH School-Wide Competencies: http://www.soph.uab.edu/core_competencies

Epidemiology Departmental Competencies: http://www.soph.uab.edu/epi_competencies

UAB Academic Calendar: <https://www.uab.edu/students/academics/academic-calendar>

UAB Tuition and Fees: <http://www.uab.edu/students/paying-for-college/>

NOTICE: The student is responsible for keeping up with the Graduate School's most recent and up-to-date listing of policies and procedures.

APPENDIX E

Student Support Services

CAMPUS DINING

Hill Student Center
1400 University Boulevard
Birmingham, AL 35233
Website: <http://www.uab.edu/students/dining/>

CAREER & PROFESSIONAL DEVELOPMENT

Hill Student Center, Suite 307
1400 University Blvd
Birmingham, AL 35294
(205) 934-4324
Website: <http://www.uab.edu/students/cpd/>

UAB CAREER CENTER

The 936 Building, 1400 936 19th
Street South ;
(205)934-4324 or 934-4470; fax: 934-8180; careercenter@uab.edu
Website: <http://www.uab.edu/careerservices/>

DISABILITY SUPPORT SERVICES

9th Ave. Office Building
1701 9th Ave. South
(205) 934-4205
Website: <http://www.uab.edu/students/disability/>

STUDENT COUNSELING SERVICES

Student Health & Wellness Center
1714 9th Ave South
Birmingham, AL 35294
(205) 934-3581
Website: <http://www.uab.edu/studenthealth/counseling>

STUDENT HEALTH SERVICES

Student Health & Wellness Center
1714 9th Ave S
Birmingham, AL 35233
(205) 934-3581
Website: <http://www.uab.edu/studenthealth/>

STUDENT MULTICULTURAL & DIVERSITY PROGRAMS

Hill Student Center, Suite 311
1400 University Blvd.
Birmingham, AL 35294
(205) 975-8673
Website: <http://www.uab.edu/students/diversity/>

STUDENT INVOLVEMENT & LEADERSHIP

1715 9th Ave S
Birmingham, AL
(205) 934-4175
Website: <http://www.uab.edu/students/involvement/>

STUDENT HOUSING & RESIDENCE LIFE

1604 9th Ave S

Birmingham, AL

(205) 934-2092

Website: <http://www.uab.edu/students/housing/>

APPENDIX F

Epidemiology Curriculum Planning Sheets

CURRICULUM PLANNING SHEET							
MPH in Epidemiology: Accelerated Graduation Plan Fall 2016							
Minimum Total Credit Hours Required for Degree 42							
Student Name:				Advisor:			
Student Number:							
All MPH Core Requirements MUST be taken in the first two semesters of enrollment except for PUH 695: Integrative Experience, which MUST be taken in the final/last semester of enrollment. Students graduating in the Summer must take PUH 695 in the Spring term, prior to their Summer graduation term.							
Course Name	Offered			Credit Hours	Term /Year Taken	Grade	
	Fall	Spr	Sum				
MPH Core Requirements (21 Hours)							21
HCO 600: Introduction to PH Systems Population Based	C	O	O	3			
BST 601: Biostatistics	C	O	O	4			
ENH 600: Fundamentals of Environmental Health	O	C	O	3			
EPI 610: Principles of Epidemiologic Research	CO			4			
EPI 625: Quantitative Methods in Epidemiology		CO		3			
HB 600: Social & Behavioral Sciences Core		CO	O	3			
PUH 695: Integrative Experience	CO	CO		1	LAST		
SOPH Requirements (3-6 Hours)							3-6
PUH 627: Writing and Reviewing Research OR GRD 727: Writing and Reviewing Research (Note: Other GRD courses may be required based on English Writing Assessment Exam)	CO	CO	C	3-6			
Epidemiology Methods Track Requirements (5 Hours)							5
EPI 626: Introduction to Data Analysis with SAS	CO			2			
EPI 627: Data Analysis & Presentation of Epidemiologic Studies	CO			3			
Internship Requirement (3 Hours)							3
EPI 697: Internship	I	I	I	3	LATE		
Required EPI Elective (4 hours) - Choose from the following 2 courses.							4
EPI 602: Epidemiology of Chronic Diseases	CO			4			
EPI 605: Epidemiology of Infectious Diseases		CO		4			
Electives (6 hours)- (with advisor's approval and in some cases, also approval of instructor) - to complete total hours required for the degree.							6
EPI 603: Injury-Epidemiologic Principles	C			3			
EPI 607Q: Fundamentals of Clinical Research		O		3			
EPI 609: Pharmacoepidemiology & Comp. Effec. Research	C			3			
EPI 614: Epidemiologic Methods Applied to Comparative Effectiveness Research		C		2			
EPI 616: Environmental Epidemiology			C	3			
EPI 618: Fieldwork in Public Health±			I	2			
EPI 621: HIV/AIDS and STD'S	C			3			
EPI 635: Genetics in Public Health †			C	2			
EPI 695: Epidemiology Seminar	C	C		1			
EPI 698: Masters Level Directed Research *Independent research credit hours are offered every semester; Please contact your advisor to confirm registration credit hours	X	X	X	1-9			
BST 613: Intermediate Statistical Analysis III	C			3			
BST 619: Data Collection and Management (offered during Spring; even years in-class)		C		3			
BST 626 and 626 Lab: Data Management with SAS	C			3			
Minimum Total Credit Hours for Degree							42

O = Online; C = In Class; CO = Both In Class and Online; I = On site

† Indicates course taught **every even calendar year**

≠ Indicates course taught **every odd calendar year**

± Indicates course may or may not be taught (check with the student coordinator for course availability)

CURRICULUM PLANNING SHEET						
MPH in Epidemiology ONLINE: Accelerated Graduation Plan Fall 2016						
Minimum Total Credit Hours Required for Degree 42						
Student Name: Talha Malik				Advisor: Paul Muntner		
Student Number: B01029479						
All MPH Core Requirements MUST be taken in the first two semesters of enrollment except for PUH 695: Integrative Experience, which MUST be taken in the last semester of enrollment. Students graduating in the Summer must take PUH 695 in the Spring term, prior to their Summer graduation term.						
Course Name	Offered			Credit Hours	Term /Year Taken	Grade
	Fall	Spr	Sum			
MPH Core Requirements (21 Hours)						21
HCO 600: Introduction to PH Systems Population Based	C	O	O	3		
BST 601: Biostatistics	C	O	O	6		
ENH 600: Fundamentals of Environmental Health	O	C	O	3		
EPI 610: Principles of Epidemiologic Research	CO			3		
EPI 625: Quantitative Methods in Epidemiology		CO		3		
HB 600: Social & Behavioral Sciences Core		CO	O	3		
PUH 695: Integrative Experience	CO	CO		1		
SOPH Requirements (3-6 Hours)						3-6
PUH 627Q: Writing and Reviewing Research OR GRD 727Q Online: Writing and Reviewing Research (Note: Other GRD courses may be required based on Writing Assessment Exam)	CO	O	CO	3-6		
Epidemiology Methods Track Requirements (5 Hours)						5
EPI 626Q: Introduction to Data Analysis with SAS	CO			2		
EPI 627Q: Data Analysis & Presentation of Epidemiologic Studies	CO			3		
Internship Requirement (3 Hours)						3
EPI 697: Internship	I	I	I	3	LATE	
Required EPI Elective (4 hours) - Choose one from the following 2 courses.						4
EPI 602Q: Epidemiology of Chronic Diseases	CO			4		
EPI 605Q: Epidemiology of Infectious Diseases		CO		4		
Electives (6 hours)- (with advisor's approval and in some cases, also approval of instructor) - to complete total hours required for the degree.						6
EPI 607Q: Fundamentals of Clinical Research		O		3		
EPI 698: Masters Level Directed Research (independent research study course credits)	X	X	X	1-9		
HCO 601Q: Health Economics	CO	C		3		
HCO 607Q: Public Health Law	O	C		3		
HCO 608Q: Reproductive Health	CO			3		
HCO 612Q: Strategic Management			O	3		
HCO 670Q: Social & Ethical Issues in Public Health	CO	O		3		
ENH 610Q: Environmental Disasters	O			3		
ENH 650Q: Essentials of Environmental & Occupational Toxicology & Diseases		C	O	3		
Minimum Total Credit Hours for Degree				42		
						42
Course Key: O = Online; C = In Class; I = On site						

CURRICULUM PLANNING SHEET						
5th Yr. Fast Track MPH in Epidemiology: Accelerated Graduation Plan Fall 2016						
Minimum Total Credit Hours Required for Degree 42						
Student Name:			Advisor:			
Student Number:						
All MPH Core Requirements MUST be taken in the first two semesters of enrollment except for PUH 695: Integrative Experience, which MUST be taken in the last semester of enrollment. Students graduating in the Summer must take PUH 695 in the Spring term, prior to their Summer graduation term.						
Course Name	Offered			Credit Hours	Term /Year Taken	Grade
	Fall	Spr	Sum			
MPH Core Requirements (21 Hours)						
HCO 600: Introduction to PH Systems Population Based	C	O	O	3	Sr. Year	21
BST 601: Biostatistics	C	O	O	4	Jr. Year	
ENH 600: Fundamentals of Environmental Health	O	C	O	3	Sr. Year	
EPI 610: Principles of Epidemiologic Research	CO			4	Jr. Year	
EPI 625: Quantitative Methods in Epidemiology		CO		3	Jr. Year	
HB 600: Social & Behavioral Sciences Core		CO	O	3	Sr. Year	
PUH 695: Integrative Experience	CO	CO		1	5th Year	
SOPH Requirements (3 Hours)						
PUH 627: Writing and Reviewing Research (other GRD courses may be required based on Writing Assessment Exam)	CO	CO	C	3	Jr. Year SU	3
Epidemiology Methods Track Requirements (5 Hours)						
EPI 626: Introduction to Data Analysis with SAS	CO			2	Jr. Year	5
EPI 627: Data Analysis & Presentation of Epidemiologic Studies	CO			3	Sr. Year	
Internship Requirement (3 Hours)						
EPI 697: Internship	I	I	I	3	Sr. Year SU	3
Required EPI Elective (4 hours) Choose from the following 2 courses.						
EPI 602: Epidemiology of Chronic Disease	CO			4		4
EPI 605: Epidemiology of Infectious Diseases		CO		4		
Electives (6 hours) - with advisors approval and in some cases also approval of instructor. Other courses may be substituted with the advisor's approval.						
EPI 603: Injury-Epidemiologic Principles	C			3		6
EPI 607Q: Fundamentals of Clinical Research		O		3		
EPI 609: Pharmacoepidemiology & Comp. Effec. Research	C			3		
EPI 614: Epidemiologic Methods Applied to Comparative Effectiveness Research		C		2		
EPI 616: Environmental Epidemiology			C	3		
EPI 618: Fieldwork in Public Health ±			I	2		
EPI 621: HIV/AIDS and STD'S	C			3		
EPI 635: Genetics in Public Health †			C	2		
EPI 695: Epidemiology Seminar	C	C		1		
EPI 698: Masters Level Directed Research						
*Independent research credit hours are offered every semester; Please contact your advisor to confirm registration credit hours	X	X	X	1-9		
BST 613: Intermediate Statistical Analysis III	C			3		
BST 619: Data Collection and Management (offered during Spring; even years in-class)		C		3		
BST 626 and 626 Lab: Data Management with SAS	C			3		
Minimum Total Credit Hours for Degree				42		42

O = Online; C = In Class; CO = Both In Class and Online; I = On site

† Indicates course taught every even calendar year

≠ Indicates course taught every odd calendar year

± Indicates course may or may not be taught (check with the student coordinator for course availability)

CURRICULUM PLANNING SHEET						
MSPH in Applied Epidemiology Fall 2016						
Minimum Total Credit Hours Required for Degree - 42						
Student Name:			Advisor:			
Student Number:						
Students receiving a MSPH are required to complete a 37 hour, self-paced online course entitled "Overview of Public Health" by the end of their second semester. Students with prior public health education (coursework in each of the public health core disciplines) or experience (5 years in public health) may be waived from this requirement by permission of the Associate Dean.						
Course Name	Term Course Available			Credit Hours	Term /Year Taken	Grade
	Fall	Spr	Sum			
MSPH Core Requirement (22 hrs)						
BST 611: Intermediate Statistical Analysis I	C	O		3		
BST 612: Intermediate Statistical Analysis II		C	O	3		
EPI 610: Principles of Epidemiologic Research	CO			4		
EPI 625: Quantitative Methods in Epidemiology		CO		3		
Masters Level Research Requirement - Minimum of 9 hours						
EPI 699: Masters Level Project Research	X	X	X	3		
EPI 699: Masters Level Project Research	X	X	X	3		
EPI 699: Masters Level Project Research	X	X	X	3		
Applied EPI Track Requirements (11 hours)						
EPI 626: Introduction to Data Analysis with SAS	CO			2		
EPI 627: Data Analysis and Presentation of Epidemiologic Studies	CO			3		
BST 625: Design and Conduct of Clinical Trials			C	3		
GRD 717: Principles of Scientific Integrity	C	C		3		
Required EPI Elective (4 hours): Choose from the following 2 courses.						
EPI 602: Epidemiology of Chronic Diseases	CO			4		
EPI 605: Epidemiology of Infectious Diseases		CO		4		
Track-Specific Relevant Electives (5 hours): Specific, desirable courses have been identified for each track. Students should consult their advisor and select from among these courses those most relevant to their needs and interests.						
EPI 603: Injury-Epidemiologic Principles	C			3		
EPI 607Q: Fundamentals of Clinical Research		O		3		
EPI 609: Pharmacoepidemiology & Comp. Effec. Research	C			3		
EPI 614: Epidemiologic Methods Applied to Comparative Effectiveness Research		C		2		
EPI 616: Environmental Epidemiology			C	3		
EPI 618: Fieldwork in Public Health ±			I	2		
EPI 621: HIV/AIDS and STD'S	C			3		
EPI 635: Genetics in Public Health †		C		2		
EPI 695: Epidemiology Seminar	C	C		1		
EPI 698: Masters Level Directed Research	X	X	X	1-9		
BST 613: Intermediate Statistical Analysis III	C			3		
BST 619: Data Collection and Management (offered during Spring; even years in-class) †		C		3		
Total Credit Hours Required				42		42

O = Online; C = In Class; CO = Both In Class and Online; I = On site

† Indicates course taught **every even calendar year**

‡ Indicates course taught **every odd calendar year**

± Indicates course may or may not be taught (check with the student coordinator for course availability)

CURRICULUM PLANNING SHEET						
MSPH in Pharmacoepidemiology & Comparative Effectiveness Research Fall 2016						
Minimum Total Credit Hours Required for Degree - 43						
Student Name:			Advisor:			
Student Number:						
Students receiving a MSPH are required to complete a 37 hour, self-paced online course entitled "Overview of Public Health" by the end of their second semester. Students with prior public health education (coursework in each of the public health core disciplines) or experience (5 years in public health) may be waived from this requirement by permission of the Associate Dean.						
Course Name	Term Course Available			Credit Hours	Term /Year Taken	Grade
	Fall	Spr	Sum			
MSPH Core Requirement (22 hrs)						
BST 611: Intermediate Statistical Analysis I	C	O		3		
BST 612: Intermediate Statistical Analysis II		C	O	3		
EPI 610: Principles of Epidemiologic Research	CO			4		
EPI 625: Quantitative Methods in Epidemiology		CO		3		
Masters Level Research Requirements - Minimum of 9 hours						
EPI 699: Masters Level Project Research	X	X	X	3		
EPI 699: Masters Level Project Research	X	X	X	3		
EPI 699: Masters Level Project Research	X	X	X	3		
PCER Track Requirements (13 hours)						
EPI 626: Introduction to Data Analysis with SAS	CO			2		
EPI 627: Data Analysis and Presentation of Epidemiologic Studies	CO			3		
EPI 609: Pharmacoepidemiology & Comparative Effectiveness Research	C			3		
EPI 614: Epidemiologic Methods Applied to Comparative Effectiveness Research		C		2		
GRD 717: Principles of Scientific Integrity	C	C		3		
Required EPI Elective (4 hours): Choose from the following 2 courses.						
EPI 602: Epidemiology of Chronic Diseases	CO			4		
EPI 605: Epidemiology of Infectious Diseases		CO		4		
Track-Specific Relevant Electives (4 hours): Students should consult their advisor to identify courses relevant to their needs and interests.						
EPI 603: Injury-Epidemiologic Principles	C			3		
EPI 607Q: Fundamentals of Clinical Research		O		3		
EPI 616: Environmental Epidemiology			C	3		
EPI 618: Fieldwork in Public Health ±			I	2		
EPI 621: HIV/AIDS and STD'S	C			3		
EPI 635: Genetics in Public Health †		C		2		
EPI 695: Epidemiology Seminar	C	C		1		
EPI 698: Masters Level Directed Research	X	X	X	1-9		
BST 613: Intermediate Statistical Analysis III	C			3		
BST 619: Data Collection and Management (offered during Spring; even years in-class) †		C		3		
BST 625: Design and Conduct of Clinical Trials			C	3		
BST 626 and 626 Lab: Data Management with SAS	C			3		
Total Credit Hours Required				43		
						43

O = Online; C = In Class; CO = Both In Class and Online; I = On site

† Indicates course taught **every even calendar year**

± Indicates course taught **every odd calendar year**

± Indicates course may or may not be taught (check with the student coordinator for course availability)

CURRICULUM PLANNING SHEET						
MSPH in Clinical & Translational Science Fall 2016						
Minimum Credit Hours Required for Degree - 42						
STUDENT NAME:			ADVISOR:			
STUDENT NUMBER:						
Students pursuing a MSPH degree are required to complete a 37 hour, self-paced Canvas online course entitled "Overview of Public Health" by the end of their second semester. This course includes time spent reading, watching videos, attending seminars, completing assignments, and taking quizzes. Individual course times may vary. Students with prior public health education (coursework in each of the public health core disciplines) or experience (5 years in public health) may be waived from this requirement by permission of the Associate Dean.						
Course Name	Term Course			Credit Hours	Term/Year	Grade
	Fall	Spr	Sum			
MSPH-CR Core Requirements (22 hours)						22
BST 611: Intermediate Statistical Analysis I	C	O		3		
BST 612: Intermediate Statistical Analysis II		C	O	3		
EPI 610: Principles of Epidemiologic Research	CO			4		
EPI 625: Quantitative Methods in Epidemiology		CO		3		
Masters Level Research - minimum 9 hours						
EPI 698: Masters Directed Research	X	X	X	3		
EPI 698: Masters Directed Research	X	X	X	3		
EPI 698: Masters Directed Research	X	X	X	3		
Clinical Research Track Requirements (13 hours)						13
EPI 607: Fundamentals of Clinical Research		O		3		
BST 625: Design and Conduct of Clinical Trials			C	3		
EPI 626: Introduction to Data Analysis with SAS	CO			2		
EPI 627: Data Analysis & Presentation of EPI Studies	CO			3		
EPI 680: Topics in Clinical Research (Note: Lecture attendance begins in January each year and ends in June; register for this course in the Summer term to receive credit)			C	2		
GRD 717: Principles of Scientific Integrity	C	C		3		
Required EPI Elective (4 hours): Choose from the following 2 courses.						4
EPI 602: Epidemiology of Chronic Diseases	CO			4		
EPI 605: Epidemiology of Infectious Diseases		CO		4		
Track-Specific Relevant Electives (3 hours): Students should consult their advisor to identify courses relevant to their needs and interests.						3
EPI 603: Injury-Epidemiologic Principles	C			3		
EPI 609: Pharmacoepidemiology & Comp. Effic. Research	C			3		
EPI 614: Epidemiologic Methods Applied to Comparative Effectiveness Research		C		2		
EPI 616: Environmental Epidemiology			C	3		
EPI 618: Fieldwork in Public Health			I	2		
EPI 621: HIV/AIDS and STD'S	C			3		
EPI 635: Genetics in Public Health (offered during even years)		C		2		
EPI 698: Masters Level Directed Research	X	X	X	1-9		
BST 613: Intermediate Statistical Analysis III	C			3		
BST 619: Data Collection and Management (offered even years during Spring)		C		3		
BST 626 and 626 Lab: Data Management with SAS	C			3		
Minimum Credit Hours Required for Degree				42		
						42

O = Online; C = In Class; CO = Both In Class and Online; I = On site

† Indicates course taught **every even calendar year**

≠ Indicates course taught **every odd calendar year**

± Indicates course may or may not be taught (check with the student coordinator for course availability)