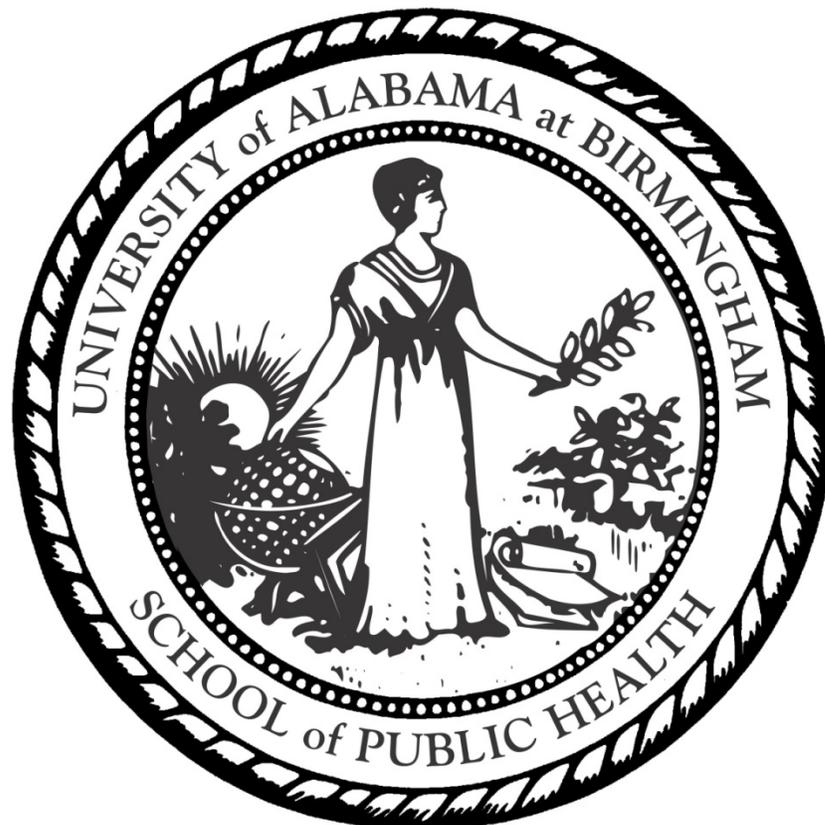


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**UAB School of Public Health**  
**Department of Epidemiology**  
**Master Degree Programs**  
**Student Handbook**  
**2017 - 2018**

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Updated: August 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 <sup>1</sup>.

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."<sup>2</sup>

"Epidemiology is the study of the distribution and determinants of disease frequency in man."<sup>3</sup>

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.

References:

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.

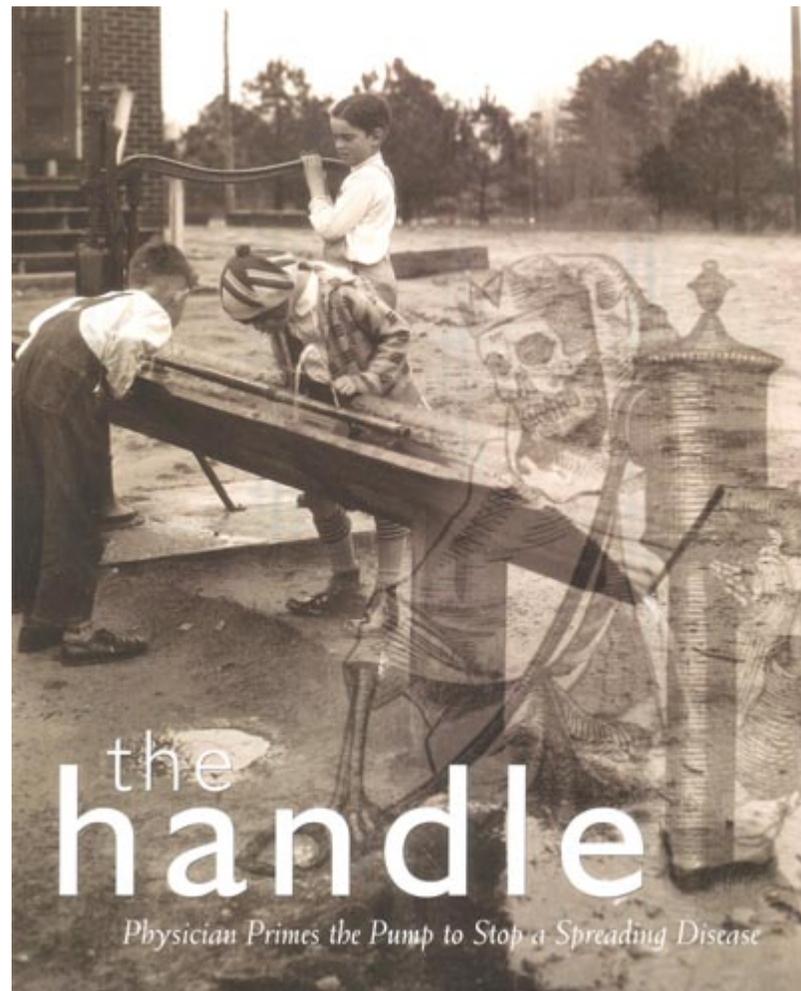
*Pressure on public officials was intense, at times hysterical. The clock was ticking, and people were dying by the dozens.*

*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 2017 NEW MPH AND MPH ONLINE STUDENT REMINDERS**

### **EPI 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. 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 within the Department of Epidemiology.**

Part-time students are required to register for Epidemiology core classes in consultation with their advisor and the student program coordinator. Most part-time students register for one or two classes per term depending on the availability of courses. Part-time students will need to register for the core quantitative methods sequence of classes (EPI 610, EPI 625, EPI 626, and EPI 627) beginning in the Fall terms or according to their admission term or first term of enrollment.

**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 on the Epidemiology website or you may contact your student program coordinator for current planning sheets.**

## *Masters Programs (2017 - 2018)*

### *MPH-Epidemiology (MSPH-EPID) and MPH-Epidemiology Online (MPH-EPIQ)*

The MPH in-class and MPH Online degrees both consists of a 42 credit hour minimums. The curriculum includes the MPH Core (21 credit hours), Epidemiology Methods Track Requirements (5 credit hours), Internship requirement (3 credit hours), required Chronic Diseases or Infectious Diseases elective (4 credit hours) and at least 9 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. Part-time students generally will take between 7 to 8 semesters to complete the 42 credit hour program.

**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. This approval may be based on a face-to-face meeting with the advisor or students may email their advisor the courses that he/she will register for during the upcoming semester for approval. 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 (MPH-FTEP)*

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)*

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 to five semesters, or in 16-20 months of full-time coursework.

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.

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)*

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.

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 four to five semesters, or in 16-20 months of full-time coursework.

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

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.

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**  
**For ALL MSPH Degree Programs in Epidemiology**

**MSPH Thesis Project Timeline**

**Updated: August 9, 2017**

**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).

**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. To reserve a conference room with a computer for your final thesis defense, please go to <http://www.uab.edu/students/home/reserve-event-space>. Most EPI students use RPHB room 209 or 234 for their presentation. If these two rooms are not available, please schedule another conference room in the Ryals Public Health Building that has computer and phone access.

*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 Program Manager *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*

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Please visit the SOPH Field Placement or Internship website prior to beginning your search for an approved internship course. For all information regarding the completion of the course EPI 697. This site is located at: <http://www.soph.uab.edu/fieldplacements/>.

All MPH students in the SOPH are required to complete a minimum of three (3) credit hours in an internship experience (PUH/HB/**EPI**/HCO/ENH 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** 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 and poster should be submitted via the SOPH InternTrack online system. Students should contact the EPI Internship Coordinator Ms. Meena Nabavi, [mnabavi@uab.edu](mailto:mnabavi@uab.edu) in the SOPH Office of Student Services (RPHB 130) for additional

questions and information regarding the completion of the internship. Students may also contact the EPI program coordinator Mrs. Kimberly Hawkins King, [hawkinsk@uab.edu](mailto:hawkinsk@uab.edu) for additional information.

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. The Epidemiology course number is EPI 697.

**NOTE TO INTERNATIONAL STUDENTS: INTERNATIONAL STUDENTS (F-1 AND J-1 VISA HOLDERS):** According to university policy, international students must complete additional requirements for the **International Student and Scholar Services** office before beginning their internship. Students must apply for Curricular Practical Training ("CPT") by completing the steps listed in the F-1 curricular practical training document [here](#). The Office of Public Health Practice will complete the academic letter.

### **FOR STUDENTS TRAVELING OR COMPLETING THEIR INTERNSHIP ABROAD**

For students completing an international internship, you must register with **Education Abroad** for the UAB Faculty-Led Program: PUH/ENH/EPI/HB/HCO 697 in Various Locations Program. When you reach the program description, click "Apply Now". When selecting UAB faculty member responsible, select your faculty advisor at UAB SOPH

### **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**

Please carefully review the Internship Poster Requirements and Instructions at: <http://www.soph.uab.edu/fieldplacements/students/poster>.

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. Students should follow the instructions on

the [Poster Requirements](#) page when creating their poster. You will receive additional instructions and details regarding the poster session 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 a request in InternTrack. This link will be available in your course timeline on the front page of InternTrack. This form should be submitted at least 2 weeks prior to the internship poster session. EPI students may also contact the Internship Coordinator Ms. Meena Nabavi for additional information. Her email address is [mnabavi@uab.edu](mailto:mnabavi@uab.edu).

**Alternative Poster Option:** Eligible students may submit a request for an alternative poster option through the [Alternative Internship Poster Presentation Request](#) form in InternTrack. Students eligible for this opportunity include those that are still completing internships internationally/out of state, unable to attend due to medical reasons, and/or completing their residency program at the time of the poster session. Completion of the form does not guarantee permission to complete the alternative option. If approved, students will create a poster using the template provided on the [Poster Requirements](#) page. This poster should be uploaded to InternTrack (exact date to be announced by the internship coordinator). Students will then be responsible for arranging a time and method of presenting their poster with their faculty advisor (i.e. verbal presentation through Skype, narrated slide, phone call, Go-to-Meeting, etc.).

### **FINAL PAPER**

All students must complete a written assignment and poster at the end of the practicum. The purpose of the assignment is to have the student reflect on the practice experience. This is an opportunity for the student to describe what was done, what was learned, and to place the experiences within the context of the organization, the community and the MPH program. The student should think creatively about his/her contribution to the profession and the professional value of the placement. The final paper must be submitted through InternTrack during the last week of class (the internship coordinator will give you the actual date). **HOWEVER**, a student's internship faculty advisor may request an earlier deadline to review the paper before final submission. Please consult with your internship faculty advisor for specific deadlines. See the [Paper Requirements](#) page for more details

### **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 internship site

Apply for the internship opportunity through Hire A Blazer or on your own

Complete and submit "UAB School of Public Health Internship Agreement" via InternTrack

Obtain electronic approval of your agreement from your internship faculty advisor and site supervisor  
If necessary, complete and submit IRB Approval Form  
If international student, complete and submit appropriate form to the International Scholar and Student Services Office  
If traveling abroad, register with Education Abroad  
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 products (paper and poster) last week of semester to your program coordinator  
Attend poster session  
Complete any additional final product(s) requested by the internship site

### ***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 (EPI 697). 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.

International Student and Scholar Services

**CURRICULAR PRACTICAL TRAINING (“CPT”)**

USCIS defines CPT as employment which is an integral or required part of your curriculum, including “alternate work/study, internship, cooperative education, or any other type of required internship or practicum which is offered by sponsoring employers through cooperative agreements with the school.” 8 CFR § 214.2 (f)(10)(i). According to USCIS, the word “required” does not always limit CPT to work experience required by your curriculum. This clarification is discussed below in more detail.

**Job Eligibility Requirements**

You have two options for participating in CPT.

Internship. Enroll in an internship class available within your course curriculum that grants credit hours to your transcript. The internship can be for either full-time or part-time employment for one academic semester, however full-time CPT employment can only be approved during a vacation semester or you are participating a UAB sponsored co-op program (see below).

For ISSS to authorize internship CPT, you will need to bring proof of registration in the internship course, a letter from your academic advisor, and a letter from the internship employer (see sample below). ISSS will review these documents and determine if they are sufficient to authorize internship CPT.

Co-op. Participate in an institutionally-sponsored cooperative education experience (co-op). Credit hours are not typically granted for a cooperative experience, but you still must enroll in the cooperative course. Co-op CPT must be integral to your program of study and be offered by an employer UAB has formally authorized via a cooperative agreement. Co-op CPT can be granted for only one academic term per year. Additional co-op terms can be granted for the summer semester on a case-by-case basis.

**Eligibility**

- ❖ You are maintaining lawful F-1 status and are in good academic standing.
- ❖ If an undergraduate, you must have completed 9 months of full-time study.

**Part-Time vs. Full-Time CPT**

Part-Time Training. USCIS considers off-campus employment of 20 hours or fewer per week to be part-time. Your Form I-20 should therefore specify permission to engage in *part-time* training, and you must be careful to limit your work to **no more than 20 hours per week**. There is no limitation on the length of time you may participate in part-time CPT, but you **must be simultaneously enrolled (12 hours for undergraduates, 9 hours for graduates) in order to maintain your lawful F-1 status**.

Full-Time Training. USCIS considers on-campus or off-campus employment of more than 20 hours per week to be full-time. Your Form I-20 should specify permission to participate in *full-time* training,

but full-time CPT will only be approved during your vacation semester or if you are participating in a UAB sponsored co-op program. Keep in mind, if you participate in more than 12 months of CPT, you **will not be eligible** for post-completion Optional Practical Training (“OPT”) (see below).

## Application and Authorization Procedures

Contact ISSS for evaluation of both your academic situation and the proposed CPT employment opportunity to make certain that both you and the job meet the eligibility requirements. Your Form I-20 must be endorsed for CPT.

To apply for CPT, bring the following documents to ISSS:

### ➤ Internship

- Offer letter from potential employer (see attached example letter)
- Letter from academic advisor verifying enrollment in internship course and justification as an integral or required part of the curriculum
- Proof of enrollment in internship course

### ➤ Co-op

- Offer letter from potential employer outlining the terms of the co-op agreement with UAB and the student
- Letter from academic advisor confirming the co-op is an integral part of the student’s curriculum, listing the specific terms, timelines, and expectations
- Proof of enrollment in co-op course

ISSS will assess your eligibility and endorse your Form I-20 for either part-time or full-time CPT. Please note: **you must not begin the employment until your CPT is granted. Violation of this condition will result in the immediate revocation of your authorization and termination of your I-20.** You must also be careful not to continue employment beyond the date stated on the third page of your I-20 unless you apply for and are granted an extension of your work authorization.

## Employment Eligibility Verification

You and your employer must complete the Form I-9, “Employment Eligibility Verification,” which your employer must retain. The I-9 must be updated each time your work authorization is renewed.

### Caution!

While immigration regulations provide a variety of opportunities for you to be employed during your time in F-1 status, **working improperly or without authorization is a serious violation of your status.** Consult ISSS before accepting any employment. It is your responsibility to comply with all immigration regulations applicable to F-1 students. ISSS is responsible for advising and counseling you regarding your responsibilities. If you fail to comply with your responsibilities, you may not be eligible for benefits normally available to F-1 students.

**CPT (Internship)**  
**SAMPLE EMPLOYER LETTER – print on UAB letterhead**

Date

International Student and Scholar Services  
ATTN: Associate Director for Student Services  
1600 10<sup>th</sup> Avenue South, SIH  
Birmingham, AL 35294

To Whom It May Concern:

It is essential that the following information be included in the student's offer letter:

- Beginning date
- Position in which student is employed (job description)
- Whether job is full-time (21 hours or more) or part-time (20 hours or fewer)

Thank you for your assistance in this matter.

**CPT (Internship)**  
**SAMPLE ACADEMIC ADVISOR LETTER – print on UAB letterhead**

Date

International Student and Scholar Services  
ATTN: Associate Director for Student Services  
1600 10<sup>th</sup> Avenue South, SIH  
Birmingham, AL 35294

To Whom It May Concern:

I recommend that (student) be allowed to participate in Curricular Practical Training as a (position name, e.g., Intern) for (company). The student is enrolled in (Course # Internship), which is part of the degree curriculum. His/her responsibilities will include (job description). (Company) would like him/her to begin on (date) and continue the internship until (date) as a (part-time or full-time) employee.

As (student)'s academic advisor, I certify that this internship is an integral or required part of his/her (major/degree) curriculum. This employment experience is required to fulfill internship requirements for (course code) to complete his/her major.

Sincerely,

Advisor's Signature  
& Name

## **CPT (Co-op)**

### **SAMPLE EMPLOYER LETTER – print on company letterhead**

Date

University of Alabama at Birmingham  
International Student and Scholar  
Services ATTN: Associate Director  
for Student Services  
1600 10<sup>th</sup> Avenue  
South, SIH  
Birmingham, AL  
35294

To Whom It May Concern:

List the terms and conditions of the cooperative experience:  
Beginning date and terms of employment (work a semester/off a semester, or work part-time subsequent semesters). Reference agreement made between UAB and employer to provide the student the fullest benefit under the cooperative agreement.

Job Title

Duties

Whether job is full-time (21 hours or more) or part-time (20 hours

or fewer) Thank you for your assistance in this matter.

### **SAMPLE ACADEMIC ADVISOR LETTER – print on department letterhead**

Date

International Student and Scholar Services  
ATTN: Associate Director for Student Services  
1600 10<sup>th</sup> Avenue  
South, SIH  
Birmingham, AL  
35294

Dear Sir or Madam:

I recommend that (student) be allowed to work as (position) for (company). His/her responsibilities will include (job description). (Company) would like him/her to begin on (date) and continue working until (date) as a (part- time/full-time) employee. It is expected that (student) will work (terms of the agreement, dates/duration of employment and specific duties).

As (student)'s academic advisor, I certify that this cooperative experience with (company) is an integral part of the student's curriculum and a coordinated cooperative agreement with (company). Employment with (company) will provide the experiential learning opportunity that UAB strives to provide our students through our integrative curriculum with businesses and organizations.

Sincerely,

Advisor's Signature

**(\*) 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-Rowe)

**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 (Yun)

**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 (Waterbor)

**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. 3 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 (McGwin)

**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 (Martin-Rowe)

**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. (Wright)

**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. Fall (Wright)

**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 (Henostroza)

**\*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. Fall and 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

**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 (Muntner) Spring (Ojesina)

**\*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. Fall and 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.

**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-Rowe, 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.

**Padilla, Luz Aly**, Assistant Professor, MD (Universidad de Guadalajara Mexico), MSPH (UAB); Special interests: Infectious and chronic diseases , nutritional and maternal and child health studies.

**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

**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.

# APPENDIX A

**NOTE:** The Department of Epidemiology is in the process of completing new concentration-specific competencies as required by our accrediting body the Council on Education in Public Health (CEPH) which will soon be updated and published by the end of the Fall 2017 term.

## **Current Department of Epidemiology Competencies For Degree Programs (MPH, MSPH, and 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

## MPH FOUNDATIONAL COMPETENCIES

COMPETENCY	COURSE NUMBER(S) OR OTHER EDUCATIONAL REQUIREMENTS
<b>Evidence-based Approaches to Public Health</b>	
1. Apply epidemiological methods to the breadth of settings and situations in public health practice.	BST 601 / BST 601Q EPI 600 / EPI 600Q EPI 610 / EPI 610Q
2. Select quantitative and qualitative data collection methods appropriate for a given public health context.	BST 601 / BST 601Q EPI 600 / EPI 600Q EPI 610 / EPI 610Q
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.	BST 601 / BST 601Q EPI 610 / EPI 610Q
4. Interpret results of data analysis for public health research, policy or practice.	BST 601 / BST 601Q EPI 600 / EPI 600Q EPI 610 / EPI 610Q
<b>Public Health &amp; Health Care Systems</b>	
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings.	HCO 600 / HCO 600Q
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels.	HCO 600 / HCO 600Q
<b>Planning &amp; Management to Promote Health</b>	
7. Assess population needs, assets, and capacities that affect communities' health.	HB 600 / HB 600Q
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs.	HB 600 / HB 600Q
9. Design a population-based policy, program, project or intervention.	HB 600 / HB 600Q HCO 600 / HCO 600Q
10. Explain basic principles and tools of budget and resource management.	HCO 600 / HB 600Q

11. Select methods to evaluate public health programs.	HCO 600 / HCO 600Q HB 600 / HB 600Q
<b>Policy in Public Health</b>	
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence.	ENH 611 / ENH 611Q ENH600 / ENH 600Q HCO 600 / HCO 600Q
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.	HCO 600 / HCO 600Q HB 600 / HB 600Q
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations.	HCO 600 / HCO 600Q
15. Evaluate policies for their impact on public health and health equity	HCO 600 / HCO 600Q
<b>Leadership</b>	
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.	HCO 600 / HCO 600Q
17. Apply negotiation and mediation skills to address organizational or community challenges.	HCO 600 / HCO 600Q
<b>Communication</b>	
18. Select communication strategies for different audiences and sectors.	ENH 611 / ENH 611Q ENH600 / ENH 600Q HB 600 / HB 600Q HCO 600 / HCO 600Q
19. Communicate audience-appropriate public health content, both in writing and through oral presentation.	PUH 697
20. Describe the importance of cultural competence in communicating public health content.	HB 600 / HB 600Q
<b>Interprofessional Practice</b>	
21. Perform effectively on interprofessional teams	PUH 695 / PUH 695Q
<b>Systems Thinking</b>	
22. Apply systems thinking tools to a public health issue.	ENH 611 HCO 600 / HCO 600Q

# 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. Online students may contact their advisor via email or phone. 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, and HB 600, with an optional elective. 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. Also, for students considering attending medical school, or a residency training program, please schedule coursework using the accelerated graduation plan to graduate within a 4 semester of enrollment plan. Failure to enroll in the required full-time and part-time courses, 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 as confirmation that he/she approves the student's course load for the upcoming term.

## 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](http://www.soph.uab.edu) or UAB's main webpage for updated links 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/>

International Scholar and Student Services: <http://www.uab.edu/global/international-students-and-scholars>

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](https://www.soph.uab.edu/files/osas/SOPH_Handbook.pdf)

SOPH Student Resources: <http://www.soph.uab.edu/resources#StudentResources>

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

Epidemiology Departmental Competencies (Note this page will be revised soon to reflect the newly updated EPI departmental competencies for Fall 2017:

[http://www.soph.uab.edu/epi\\_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 adherence to and staying up to date with the Graduate School's most recent 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 or 934-4470; fax: 934-8180; careercenter@uab.edu Website: <http://www.uab.edu/students/cpd/>

### UAB CAREER GUIDE

Website: <http://www.uab.edu/students/health/health-services>

### 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/students/counseling/>

### STUDENT HEALTH SERVICES

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

### 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

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

### STUDENT HOUSING & RESIDENCE LIFE

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

# APPENDIX F

## Epidemiology Fall 2017-Summer 2018 Curriculum Planning Sheets

CURRICULUM PLANNING SHEET

**MPH in Epidemiology: Accelerated Graduation Plan Fall 2017**

**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: Management and Policy in Public Health Systems and Services	C	O	CO	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	

**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	
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**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 (9 hours)- (with advisor's approval and in some cases, also approval of instructor) - to complete total hours required for the degree.** 9

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		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						
*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		
<b>Minimum Total Credit Hours for Degree</b>				<b>42</b>		<b>42</b>

**Course Availability Key:**

**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 2017**

**Minimum Total Credit Hours Required for Degree 42**

**Student Name:** \_\_\_\_\_ **Advisor:** \_\_\_\_\_

**Student Number:** \_\_\_\_\_

**PUH 695Q: Integrative Experience is required to 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. Core classes are required to be completed prior to registering for the EPI 697Q: Internship course.**

Course Name	Offered			Credit Hours	Term /Year Taken	Grade
	Fall	Spr	Sum			

**MPH Core Requirements (21 Hours)** **21**

HCO 600Q: Management and Policy in Public Health Systems	C	O	CO	3		
BST 601Q: Biostatistics	C	O	O	4		
ENH 600Q: Fundamentals of Environmental Health	O	C	O	3		
EPI 610Q: Principles of Epidemiologic Research	CO			4		
EPI 625Q: Quantitative Methods in Epidemiology		CO		3		
HB 600Q: Social & Behavioral Sciences Core	O	CO	O	3		
PUH 695Q: Integrative Experience	CO	CO		1	LAST	

**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 697Q: Internship	I	I	I	3	LATE	
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**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 (9 hours)- (with advisor's approval and in some cases, also approval of instructor) - to complete total hours required for the degree.** **9**

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**

**Student Signature/Date** \_\_\_\_\_ **Advisor Signature/Date** \_\_\_\_\_

CURRICULUM PLANNING SHEET

**5th Yr. Fast Track MPH in Epidemiology: Accelerated Graduation Plan Fall 2017**

**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)** 21

HCO 600: Introduction to PH Systems Population Based	C	O	O	3	Sr. Year	
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	

**Epidemiology Methods Track Requirements (5 Hours)** 5

EPI 626: Introduction to Data Analysis with SAS	CO			2	Jr. Year	
EPI 627: Data Analysis & Pres. of Epidemiologic Studies	CO			3	Sr. Year	

**Internship Requirement (3 Hours)** 3

EPI 697: Internship	I	I	I	3	5th Year SU	
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**Required EPI Elective (4 hours) Choose from the following 2 courses.** 4

EPI 602: Epidemiology of Chronic Disease	CO			4		
EPI 605: Epidemiology of Infectious Diseases		CO		4		

**Electives (9 hours) - with advisors approval and in some cases also approval of instructor. Other courses may be substituted with the advisor's approval.** 9

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						
MSPH in Applied Epidemiology Fall 2017						
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			
<b>MSPH Core Requirement (22 hrs)</b>						
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		
<b>Masters Level Research Requirement - Minimum of 9 hours</b>						
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		
<b>Applied EPI Track Requirements (11 hours)</b>						
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		
<b>Required EPI Elective (4 hours): Choose from the following 2 courses.</b>						
EPI 602: Epidemiology of Chronic Diseases	CO			4		
EPI 605: Epidemiology of Infectious Diseases		CO		4		
<b>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.</b>						
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		
<b>Total Credit Hours Required</b>				<b>42</b>		<b>42</b>
<b>Course Availability Key:</b>						
O = Online; C = In Class; CO = Both In Class and Online; I = On site						
† Indicates course taught <b>every even calendar year</b>						
‡ Indicates course taught <b>every odd calendar year</b>						
± 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 2017						
Minimum Total Credit Hours Required for Degree - 43						
Student Name:			Advisor:			
Student Number:						
<p>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.</p>						
Course Name	Term Course Available			Credit Hours	Term /Year Taken	Grade
	Fall	Spr	Sum			
<b>MSPH Core Requirement (22 hrs)</b>						
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		
<b>Masters Level Research Requirements - Minimum of 9 hours</b>						
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		
<b>PCER Track Requirements (13 hours)</b>						
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		3		
GRD 717: Principles of Scientific Integrity	C	C		3		
<b>Required EPI Elective (4 hours): Choose from the following 2 courses.</b>						
EPI 602: Epidemiology of Chronic Diseases	CO			4		
EPI 605: Epidemiology of Infectious Diseases		CO		4		
<b>Track-Specific Relevant Electives (4 hours): Students should consult their advisor to identify courses relevant to their needs and interests.</b>						
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		
<b>Total Credit Hours Required</b>				<b>43</b>		
						<b>43</b>
<b>Course Availability Key:</b>						
O = Online; C = In Class; CO = Both In Class and Online; I = On site						
† Indicates course taught <b>every even calendar year</b>						
‡ Indicates course taught <b>every odd calendar year</b>						
± 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 2017						
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			
<b>MSPH-CR Core Requirements (22 hours)</b>						<b>22</b>
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		
<b>Masters Level Research - minimum 9 hours</b>						
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		
<b>Clinical Research Track Requirements (13 hours)</b>						<b>13</b>
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 ( <b>Note:</b> 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		
<b>Required EPI Elective (4 hours): Choose from the following 2 courses.</b>						<b>4</b>
EPI 602: Epidemiology of Chronic Diseases	CO			4		
EPI 605: Epidemiology of Infectious Diseases		CO		4		
<b>Track-Specific Relevant Electives (3 hours): Students should consult their advisor to identify courses relevant to their needs and interests.</b>						<b>3</b>
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		
<b>Minimum Credit Hours Required for Degree</b>				<b>42</b>		
						<b>42</b>
<b>MSPH Final Thesis Project:</b> The MSPH in Clinical and Translational Science consists of 42 semester hours. The MSPH requires a research project; students must complete a minimum of 9 hours of masters research credits and present their research paper and thesis defense in their final term of enrollment or graduation term.						
<b>EPI 680: Topics in Clinical Research</b> is a 2 credit hour class in which students attend and participate in lectures provided through the the UAB Center for Clinical and Translational Science at the UAB School of Medicine beginning each spring term (January) following fall admission and extending into the summer term (June). However, do not register for EPI 680 until the summer semester. The grading is on a Pass/No Pass basis. To earn a grade of Pass, students must attend a minimum of 80% of the lectures over two semesters and participate in all discussions during which they are present. Please contact the EPI Program Manager for the course syllabus and course schedule.						