Catalog 2013-2014

Welcome to the UAB School of Public Health

Message from Dr. Max Michael

In 1964 President Lyndon Johnson said, "We have the power to shape the civilization that we want. But we need your will, your labor, your hearts, if we are to build that kind of society." He was, of course, speaking about the "Great Society" initiative that sought to eliminate the oppression of poverty for millions who wanted to share in the American dream. We have learned much in the intervening forty years - that good intentions and money don't often solve complex social and cultural dilemmas; that the technology genie will not go back into the bottle; that we are milliseconds from every nation, every person on the globe.

More than any other discipline, public health has the power to help shape civilization in the 21st century. The UAB School of Public Health offers you the opportunity to join a vibrant community of professionals and scholars whose global-class research and scholarship is exploring complex problems like HIV/AIDS, obesity, and drugs in creative and unusual ways. A graduate degree in public health gives you the ability to tackle head-on the most complicated and thorny issues of our times, the tools to create solutions for those issues, and a uniquely global perspective.

The challenges for the future of public health find an ideal home at UAB. The interests of our faculty and staff extend from community organization in the Black Belt regions of rural Alabama to understanding the dynamics of the HIV epidemic in Sub-Saharan Africa. Few universities offer the almost limitless interdisciplinary collaborative atmosphere available to students at the UAB School of Public Health.

The potential for our students to develop practical and meaningful internship experiences grows daily through partnerships with state and local government agencies, local businesses and industry, and a global network of governmental and non-governmental organizations. The faculty and staff at the School are dedicated and deeply committed to educating and preparing the most well-educated and qualified public health graduates imaginable for the 21st century. We look forward to welcoming you as a student in the School of Public Health. Our dynamic, robust, and exciting programs are a great beginning for launching a truly satisfying career.

Max Michael, MD
Dean, School of Public Health

Overview and Historical Perspective

History of the School

Until 1976, UAB’s graduate program in public health and epidemiology was located within the School of Medicine. The chairman of that department also served as chairman of the public health division in the School of Community and Allied Health Resources. In 1976, the joint Department of Public Health was formed between the Schools of Medicine and Community and Allied Health Resources. In 1977, the department notified the Council on Education for Public Health of its intention to qualify for status as an accredited School of Public Health. By 1978, the Department of Public Health had achieved full accreditation as the nation’s 20th School of Public Health.

The school remained a joint department of the Schools of Medicine and Community and Allied Health until 1981. In that year, the board of trustees approved the creation of the School of Public Health as the sixth and youngest health professional school at UAB.

Mission of the School

The mission of the School of Public Health is to lead in developing, disseminating and applying knowledge to prevent disease and promote health in the human population. Because of its inherent breadth, public health is comprised of many disciplines. Thus the school achieves its mission by bringing the various disciplines together to educate individuals who will be working to prevent disease and improve the health of the school's constituent populations. These individuals include experienced public health and other health professionals, undergraduates with education backgrounds in the sciences, and persons from developing countries with health-related backgrounds. An implicit part of this mission is a commitment to increase and validate, through research and practice, the body of
Organization of the School

To carry out its mission and goals, the School of Public Health is organized by academic departments, centers, and functional units that report administratively to the dean. Five academic departments and five centers are based in the school. The basic academic unit in the school is the department, with each one responsible for its academic, research and service programs. The five departments offer training in more than 20 major specialty areas. In addition, the centers and departments engage in numerous interdisciplinary training programs with the Graduate School and various health-professional and other schools at UAB, as well as with other colleges and universities.

UAB is accredited by the Southern Association of Colleges and Schools (SACS) and the School of Public Health is accredited by the Council on Education for Public Health (CEPH), an independent agency recognized by the U.S. Department of Education to accredit schools of public health and certain graduate programs offered in educational settings other than schools of public health. The CEPH is located at 1015 Fifteenth Street, NW, Washington, D.C. 20005. (202) 789-1050.

Governance of the School

The faculty charter of the School of Public Health describes the faculty governance structure of the school. The Faculty Council, the Educational Policy Committee (EPC), and the Admissions and Graduation Committee (A&G) are standing committees of the faculty. In addition, three standing committees advise the dean on academic and administrative matters: the Executive Committee, the Faculty Affairs Committee, and the Financial Aid Committee.

Resources and Facilities

The Frank and Kathleen Ellis Ryals School of Public Health Building opened its doors in the Fall of 1996. The six floor, 120,000 square foot building located in the heart of the campus houses the administrative offices, classrooms, wet and dry laboratories, student support services, and faculty from all departments. The modern classrooms, computer labs, and student lounge in the Ryals Building are in close proximity to the Lister Hill Library of the Health Sciences.

Centers

Deep South Center for Occupational Health and Safety

This Deep South Center was established in 1981. Its mission is to develop professionals who protect and promote the health and safety of workers through multidisciplinary education, research, and outreach. It consists of academic programs in industrial hygiene in the Department of Environmental Health Sciences of the UAB School of Public Health, occupational health nursing in the UAB School of Nursing, and occupational safety and ergonomics in the College of Engineering at Auburn University. The Center also includes a continuing education program in the UAB School of Public Health. The Deep South Center is one of 16 education and research centers throughout the nation partially supported by the National Institute of Occupational Safety and Health of the U.S. Department of Health and Human Services.

For additional information, visit the DSC website at www.uab.edu/dsc.

Claudiu T. Lungu, PhD, Associate Professor
Director, Deep South Center
(205) 934-2072
Email: clungu@uab.edu

John J. Sparkman Center for Global Health

The UAB Sparkman Center for Global Health was established in 1979 by a congressional appropriation through the United States Agency for International Development (USAID) as the John J. Sparkman Sparkman Center for International Public Health Education.

Vision

The vision was, and continues to be, alleviation of health problems in less developed countries by increasing public health capacity. This vision reflects the global nature of population-level health issues, the impact of health on human development, and the need for collaboration in resolving major health issues of our time.

Mission

The mission of the Sparkman Center is to contribute to solutions of health problems in developing countries through graduate-level public health education, research, and training programs. These programs are organized collaboratively with academic institutions, international agencies and health ministries within the host country. Additionally, the Center works to enhance the capacity of the UAB community to engage, prepare and support current and future professionals in a global agenda.

For more information, visit the Sparkman Center's website at www.sparkmancenter.org

Craig Wilson, MD
Director, UAB Sparkman Center for Global Health
UAB Professor of Pediatrics, Epidemiology, Medicine, and Microbiology
Email: cwilson@uab.edu

Lister Hill Center for Health Policy

Lister Hill Center for Health Policy was federally endowed in 1987, the Lister Hill Center has a university-wide mission to facilitate the conduct of health policy research, to disseminate the findings of that research beyond the usual channels of academic publication, and to sponsor the Lister Hill Health Policy Fellows program. The center draws on scholars from throughout the university to address issues of health care access, financing, organization, delivery, and outcomes, with particular emphasis on prevention strategies. The center publishes UAB Health Policy Research, a précis of policy research for regional and national policy makers. It sponsors an intramural grants program in health policy/health services research. Current areas of research include health care markets and managed care, maternal and child health, aging policy, application of management strategies to public health organizations, and health care outcomes.

For more information, visit the Lister Hill Center's website www.soph.uab.edu/listerhill

Michael A. Morrissey, Ph.D., Professor
Director, Lister Hill Center for Health Policy
Email: morrissey@uab.edu

UAB Center for the Study of Community Health (CSCH)

Founded in 1993, the UAB Center for the Study of Community Health is one of the 37 Prevention Research Centers across the US funded by the Centers for Disease Control and Prevention. The Center focuses on reducing health risks among undeserved populations throughout the state of Alabama and plays a leading role in the development of community-based participatory research at the University of Alabama at Birmingham (UAB).

As a designated UAB University-wide Institutional Research center, the Center for the Study of Community Health offers a unique prevention research environment that includes Center Scholars from a cross section of disciplines including clinicians, researchers, health-related professionals, social and behavioral scientists, and community leaders, who are setting new standards in the state of Alabama and around the world.

The CSCH has a defined rural region (Black Belt) and urban setting (Birmingham) as its geographic focus. Two primary community partnerships have developed as a result of the Center's educational, research and service activities in communities that make up these regions. With support from the Center, both the West Central Alabama Community Health Improvement League and Congregations for Public Health formed infrastructures that enabled them to become designated 501(c)3 organizations.

For more information, visit the Center for the Study of Community Health at www.soph.uab.edu/cscht
Max Michael, M.D.
Dean - UAB School of Public Health
Director - UAB Center for the Study of Community Health
(205) 975-7742
maxm@uab.edu

South Central Center for Public Health Preparedness

South Central Preparedness & Emergency Response Learning Center (SCPERLC) was launched in 2010 to strengthen and improve the nation’s public health, preparedness and response capabilities. This initiative focuses on providing training and training technical assistance to the public health workforce and other responder communities in Alabama, Louisiana and Mississippi.

The SCPERLC at the University of Alabama at Birmingham School of Public Health, located in Birmingham, Alabama, in collaboration with Tulane University School of Public Health and Tropical Medicine, located in New Orleans, Louisiana, will provide a coherent framework for preparedness and emergency response core competency-based and partner-requested training that will: 1) improve knowledge, skills and abilities; 2) improve preparedness and response performance; and 3) result in improved training-related outcomes for the preparedness and emergency response workforce.

Funded by the CDC, the SCPERLC is part of a network of academic preparedness centers across the country. The Association of Schools of Public Health works closely with the CDC to support and manage the project nationwide.

For more information, visit the preparedness and Emergency Response Learning Center’s website at www.soph.uab.edu/scph.

Principal Investigator

Peter Ginter M.B.A., Ph.D., Professor
Director, Preparedness and Emergency Response Learning Center
Email pginter@uab.edu

Student and Alumni Organizations

Public Health Student Association

Since its creation in 1978, PHSA has supported the growth of the student experience. With its roots in the foundation of encouraging student involvement, advocacy, and leadership, PHSA has made many powerful strides in promoting the student voice and facilitating interactions between students, faculty, staff, and administrators. Through connecting students, faculty, staff and administrators, PHSA works to promote the School of Public Health, achievements of those in our community, and work that is being done in the field of public health.

PHSA Responsibilities

- Fostering an academic, professional, and social environment for students of the School.
- Facilitating an interactive relationship between faculty, staff, alumni, and students of the School.
- Promoting student involvement in the School, university, and community through service, programming, and special events.
- Presenting the suggestions and concerns of the student body to School officials.
- Contributing to the education and welfare of public health students in cooperation with public health organizations on a local, state, and national level.

For more information visit PHSA website at www.soph.uab.edu/phsa. To get involved contact Richard Bennett at RBennett@uab.edu or at (205) 934-4993.

School of Public Health Alumni Association

As a graduate of the UAB School of Public Health, you are a valued member of our School family. You join over 2700 caring professionals around the world who are proud to be alumni of the UAB School of Public Health.

Whether you are close to UAB or far away, we encourage your involvement in the life of the School. You can be involved in student
recruiting and retention. You can participate in career and internship activities, and whether you live here, or are just passing through town, you can share your expertise and experience by speaking to a group of our students. We also invite you to support our scholarships and projects by supporting the School of Public Health Annual Fund.

On our part, we will strive to keep you informed of School activities and news through our website. Let us know how you'd like to be involved by contacting us at mmccarty@uab.edu.

Alumni Director

Mona L McCarty
Office Of VP Development, Alumni & External Relations
Email: mmccarty@uab.edu

Delta Omega National Honorary Society

Delta Omega
Honorary Society in Public Health

Upsilon Chapter

Founded in 1924, Delta Omega is the honorary society for graduate studies in public health. The society was established to celebrate excellent academic achievement, devotion to public health principles and outstanding service in public health.

The Upsilon Chapter, established at UAB in 1989, has inducted 301 members (students, alumni and faculty) who promote scholarly pursuits in public health at the UAB School of Public Health and in the community at large.

Members are inducted annually based upon outstanding performance in scholarship, teaching, and community service in the public health arena.

Candidates are selected from each of the following groups: (1) students who are candidates for a graduate degree in public health; (2) faculty members at the School of Public Health; and (3) alumni actively engaged in public health work.

For further information, visit the Delta Omega Upsilon Chapter website at www.soph.uab.edu/studentresources/delta

UAB National Alumni Society

The mission of the UAB National Alumni Society is to support the University in its pursuit of excellence in teaching, research, and public service and to create, foster, and nurture a mutually beneficial relationship between the University, its students and alumni.

Membership in the UAB National Alumni Society (NAS) School of Public Health Chapter will afford you the opportunities to be aware of and involved with activities at the university level. For more information on joining the UAB National Alumni Society, visit their website at: www.uab.edu/alumni/

Academic Programs

Add new comment

Minor in Public Health

Add new comment

Major Related to Minor

• This minor is for undergraduate students. This minor would be appropriate for most undergraduate degrees
Number of hours required: 18 hours

- 12 hours offered by the School of Public Health
- 6 Selectives - The selectives may be from any school within the University (i.e biology, business, education, sociology, communications, engineering, education, journalism and African American Studies, etc.)

Required Grade

- A grade of C or better is required in all undergraduate Public Health courses attempted.

Requirements for a Minor in Public Health

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Hours</th>
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<tbody>
<tr>
<td><strong>Required Public Health Courses</strong></td>
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<tr>
<td>PUH 201 (cross listed with PUH 301) Origins of</td>
<td></td>
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<tr>
<td>Epidemics: How Public Health Defines Population</td>
<td>3</td>
</tr>
<tr>
<td>and Nations</td>
<td></td>
</tr>
<tr>
<td>PUH 202 (cross listed with PUH 303) Intro Global</td>
<td>3</td>
</tr>
<tr>
<td>Health</td>
<td></td>
</tr>
<tr>
<td>PUH 302 Epid: Beyond the Outbreak</td>
<td>3</td>
</tr>
<tr>
<td><strong>Select one of the following courses:</strong></td>
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<tr>
<td>PUH 300 (cross listed with ENH 400) Environment</td>
<td>3</td>
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<tr>
<td>Factors in Public Health</td>
<td></td>
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<tr>
<td>ENH 405 Nature vs. Nurture: Genes, Environment</td>
<td>3</td>
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<tr>
<td>and Health</td>
<td></td>
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<tr>
<td>PUH 602 Narrative in Public Health</td>
<td>3</td>
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<tr>
<td><strong>Elective Courses</strong></td>
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<tr>
<td>Select two courses from any college or school</td>
<td>6</td>
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<tr>
<td>within the University</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>18</td>
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</tbody>
</table>

Required Courses for Minor:

*PUH 201 - Origins of Epidemics - The intellectual tools of public health describe diseases from cholera and pandemic avian influenza to obesity and diabetes that threaten the integrity of organized societies. This course explores the richness of public health through its disciplines and its stories to demonstrate how the understanding of the origins of epidemics determines the progress of civilizations. (cross listed with PUH 301)*

*PUH 202 - Introduction to Global Health - This course is designed to provide students with an appreciation of the interdisciplinary nature of global health, its history, successes to date, and current challenges. Students will be introduced to basic concepts of health disparities, major causes of morbidity and mortality worldwide and determinants of health. Students will be introduced to challenges of health care organization and delivery and will discuss health as a human right. Finally students will discuss key 'players' in global health and how partnerships are essential for addressing health needs worldwide. Lectures, discussion, and case studies will be integral teaching elements of the course. (cross listed with PUH 303)*

*PUH 302 - Epidemiology: Beyond the Outbreak - The course will provide students with a basic understanding of epidemiology history, methods, and practice. The history of epidemiology will focus on major historical events such as John Snow and the 1854 Broad Street cholera outbreak. The course will also cover basic epidemiologic methods such measures of disease occurrence (e.g., prevalence and incidence) as well as basic study designs such as case-control and cohort studies. Later in the term, students will utilize actual epidemiologic investigations in order to learn how these methods are put into practice. The coursework will focus mostly on discussion for the first part of the course focused on the history of epidemiology. The section on methods will primarily be problem-based, performing basic analysis of epidemiologic data through calculation of prevalence/incidence and measures of association (e.g., prevalence ratio, incidence rate ratio). This work will lead to students to prepare a document on how they would respond to an outbreak in a situation described by the course master. The entire coursework will take place in a lecture format, with the class meeting twice a week.*

Other Public Health (PUH) Undergraduate Courses

*To add program as a minor, please contact your undergraduate advisor.*
Bachelor of Science in Public Health

Add new comment

Public Health is an exciting and growing field of study. The field challenges its professionals to confront complex health issues, such as improving access to health care, controlling infectious disease, and reducing environmental hazards, violence, substance abuse, and injury. A Bachelor in Public Health is an undergraduate degree, which trains students in the essential skills needed to plan, initiate and manage healthcare programs. Research has shown the impact of healthy lifestyles on the rate of incidence of illnesses and on increasing longevity; hence, public health is now considered a very significant area of study.

To apply to UAB, you'll need to submit all of these things:

- a completed UAB application and the appropriate application fee
- your official high school transcript (which should be mailed directly to UAB from your high school)
- your official ACT or SAT score report

For more Admissions information visit Prospective Students

Degree Concentration

The bachelor's degree is designed to give students a foundational understanding of public health issues and methods. The UAB School of Public Health will offer a Bachelor of Science in Public Health in the following three concentrations:

Environmental Health Concentration

A degree in Environmental Health Sciences will prepare you to protect both the environment and workers by identifying and eliminating health hazards. The environmental health sciences concentration will teach you to identify toxins and their effects on human and natural populations. Environmental scientists work in public and private sector careers to address problems such as pollution, water safety, and ecosystem protection.

Environmental Health 2013-2014 Curriculum Planning Sheet

- Please visit the Environmental Health Sciences website for more information: http://www.soph.uab.edu/ehs

Global Health Concentration

As a student in the Global Health concentration you will learn about health conditions that affect people around the world and associated challenges that make these issues difficult to address such as poverty, cultural beliefs, and population dynamics. This program will prepare you to work both locally and globally in public health by studying the effects of disease and learning how to plan and implement public health programs.

Global Health 2013-2014 Curriculum Planning Sheet

- Please visit the Sparkman Center website for more information: http://www.sparkmancenter.org/undergraduate

Public Health Preparedness Concentration

Public Health Preparedness Concentration - With the increase in prevalence and magnitude of natural disasters, it is important for organizations and communities to be prepared for emergencies. In the preparedness concentration, you will learn about disasters from an economic, historical, and policy perspective. You will also learn to develop and evaluate emergency preparedness plans.

Preparedness 2013-2014 Curriculum Planning Sheet

Degree Curriculum

Print Degree Curriculum

Curriculum Planning Sheet - Fall 2013

Bachelor of Science in Public Health
Minimum Total Credit Hours Required for B.S. degree is 120

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course Available</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td></td>
<td>Fall</td>
<td>Spr</td>
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<tr>
<td><strong>First Year Experience (for students entering UAB w/ less than 24 credit hours earned)</strong></td>
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<tr>
<td>PUH 101 (or approved FYE course)</td>
<td>X</td>
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<tr>
<td>Core Curriculum (41 hours from approved list)</td>
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<tr>
<td>AREA I: Written Composition (6 hours)</td>
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<tr>
<td>EH 101: English Composition I</td>
<td>X</td>
<td>X</td>
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<tr>
<td>EH 102: English Composition II</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Students must earn a &quot;C&quot; or better in both EH 101 and EH 102</td>
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<tr>
<td>AREA II: Fine Arts &amp; Humanities (12 hours)</td>
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<tr>
<td>EH 2xx (literature)</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Fine Art (ARH 101, 203, 204, 206; MU 120; THR 100, 105, 200)</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Area II elective</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Area II elective</td>
<td>X</td>
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<tr>
<td>Students must have EITHER a literature sequence with one history OR a history sequence with one literature to complete the core curriculum.</td>
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<tr>
<td>AREA III: Natural Sciences and Mathematics (11 hours)</td>
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<tr>
<td>MA 105 (or higher)</td>
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<tr>
<td>Natural Science with lab (CH 105/106 or CH 115/116)*</td>
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<tr>
<td>Natural Science with lab (BY 101/102 or BY 123)</td>
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<tr>
<td>AREA IV: History, Social &amp; Behavioral Sciences (12 hours)</td>
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<tr>
<td>HY (101, 102, 104, 105, 120, or 121)</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Area IV elective</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Area IV elective (non-history)</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Area IV elective (non-history)</td>
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<td>X</td>
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<tr>
<td>Students must have EITHER a literature sequence with one history OR a history sequence with one literature to complete the core curriculum.</td>
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<tr>
<td>Public Health Core Classes (30 hours)</td>
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<tr>
<td>PUH 201-Origins of Epidemics</td>
<td>X</td>
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<td>PUH 202-Intro to Global Health</td>
<td>X</td>
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<tr>
<td>PUH 204-Health Meets Life: Sex, Drugs, Weight and other Health Behaviors</td>
<td>X</td>
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<td>PUH 210-Biological Basis of Public Health</td>
<td>X</td>
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<td>PUH 250-Biostatistics</td>
<td>X</td>
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<td>PUH 300-Environmental Factors in Public Health</td>
<td>X</td>
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<tr>
<td>PUH 302-Epidemiology: Beyond the Outbreak</td>
<td>X</td>
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<td>PUH 306-Information Literacy and Communication in Public Health</td>
<td>X</td>
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<td>PUH 307-Public Health Systems</td>
<td>X</td>
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<td>PUH 309-Health Disparities in Diverse Populations</td>
<td>X</td>
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<tr>
<td>PUH 405-Managing PH Programs</td>
<td>(X)</td>
<td>X</td>
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<tr>
<td>PUH 493-Public Health Service Learning</td>
<td>(X)</td>
<td>X</td>
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<tr>
<td>PUH 495-Public Health Capstone Experience</td>
<td>(X)</td>
<td>X</td>
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Public Health Concentration Area Courses (21 hours) ENH, HCO or GHS (21 hours)

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General Electives (remaining hours needed to complete the TOTAL degree hours of 120)

Fast Track Master of Public Health (5th Year Program)

The Fast Track Master of Public Health (5th Year Program) provides an exceptional educational experience to undergraduate students. It is our goal to educate high quality graduates who will excel not only in traditional didactic training but also in skills that are gained through problem solving, hypothesis testing, technical skills development, data analysis, data interpretation, and professional writing. This University-wide program will allow students to receive exceptional training in Public Health from our trained faculty.

Course of Study

Undergraduate students will complete the core requirements prior to their undergraduate degree. Upon graduation, students will complete their departmental requirements, electives, internship, and PUH 695.

<table>
<thead>
<tr>
<th>Junior Year:</th>
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<tbody>
<tr>
<td>Fall:</td>
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<td>Spring:</td>
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<td>Summer:</td>
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<table>
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<tr>
<th>Senior Year:</th>
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<tr>
<td>Fall:</td>
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<td>Spring:</td>
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<td>Summer:</td>
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5th Year Graduate School
Admissions

The Process

- Students will be eligible for provisional admission as sophomores and for full admission to the Graduate School as juniors. Students must have a minimum of 60 hours and a maximum of 90 hours. (For complete admissions requirements, please see "Admissions Requirements" below).
- Applications are completed through the Graduate School's Apply Yourself application portal.
- Individual departments will review the completed application and interview the applicant.
- Admission decisions are determined by the departments.

Please note: We do not offer the Fast Track MPH program in the Department of Biostatistics.

Admission Requirements

To be considered for the Fast Track Program, a student must have:

- A 3.25 GPA.
- Between 60 and 90 hours of undergraduate coursework.
- GRE scores:
  - Verbal: 35th percentile
  - Quantitative: 40th percentile
  - Analytical Writing: 3.5
- Completed admission application through the UAB Graduate School website.
- An official copy of current UAB undergraduate transcript.
- Three letters of recommendation: one from the current academic advisor and the remaining two from current or previous college course instructors. Electronic submission is preferred; however, referees can mail a letter in a sealed envelope.
- An interview with the Departmental Program Director (at the discretion of the department).
- A career statement describing their interests and goals and a one-page academic resume of academic activities including awards and community service.

If you receive financial aid assistance or scholarships, please speak with the UAB Financial Aid Office at 934-8223 prior to submitting an application to discuss financial coverage of graduate coursework.

How To Apply:

Fall 2015 applications are due by July 1, 2015 (ENH, HB, EPI, and HCOP only).

Interested students can apply by going to the UAB Graduate School website and clicking on the Apply to Graduate School Online link. The Program that you are applying to is Public Health Fast Track (MPH). Please include your department of interest in the application essay section.

If you have any questions please contact the Office of Student and Academic Services at (205) 934-4993 or email the Coordinator, Student Admissions and Records, Angela Sullivan via amsull@uab.edu.

MPH Degree Programs

Master of Public Health

Students pursuing the MPH degree acquire competency in the fundamental public health disciplines; the basic public health sciences; data analysis and policy analysis; communications; program planning and administration; public health systems and the organization of health services in the United States and abroad; recognition and analysis of ethical or legal issues in public health and professional practice; cultural, behavioral, genetic, environmental, political, geographic, and socioeconomic factors in health; the global nature of health and the needs of special populations, such as mothers and children, ethnic minorities, and vulnerable populations; and in the integration of core public health disciplines in public health problem decision-making processes.

Degree requirements common to all MPH specialty areas include:
• competency in the Biological Basis of Public Health,
• completion of the 19 to 20 credit hour MPH core curriculum which includes an integrative Experience
• an internship Experience

---

**Biological Basis of Public Health Competency**

All students in the MPH degree programs are required to meet The Biological Basis of Public Health Competency Requirement.

There are several ways in which this requirement can be met:

1. A previously earned Medical, Dental, Nursing, or Dietetics degree (registered or registration eligible dieticians only)
2. Extensive and substantial education (earning grades of "B" or better in biological/biomedical courses)
3. Take the Biological Basis of Public Health Exam, earning a grade of 70 or better.

All MPH degree admits were reviewed during the admissions process to determine if the Biological Basis of Public Health Competency Requirement was met due to previous education. The letter of admission from the School of Public Health indicates whether or not you have met the competency requirement. If a waiver was not indicated, students must plan to take one of the Competency Exams offered during Orientation week.

Students will receive access to the Biological Basis Study Guide in the Blackboard Online Orientation Course.

---

**The MPH Core Curriculum (19-21 credit hours) including the Integrative Experience**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BST 611 and 612</td>
<td>Intermediate Statistical Analysis I &amp; II</td>
</tr>
<tr>
<td>ENH 600</td>
<td>Fundamentals of Environmental Health Sciences</td>
</tr>
<tr>
<td>EPI 600</td>
<td>Introduction to Epidemiology **</td>
</tr>
<tr>
<td>HB 600</td>
<td>Social and Behavioral Science Core</td>
</tr>
<tr>
<td>HCO 600</td>
<td>Introduction to Public Health</td>
</tr>
<tr>
<td>PUH 695</td>
<td>Public Health Integrative Experience</td>
</tr>
</tbody>
</table>

** Some departments may allow a choice of EPI 600 or EPI 610 (Principles of Epidemiologic Research - 4 credit hours) to meet this course requirement. The Department of Epidemiology requires EPI 610 to meet this course requirement.**

*** PUH 695- Public Health Integrative Experience.*** This course is designed to synthesize and integrate knowledge acquired in course work and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice. Through the analysis of actual cases from the annals of public health practice, participation in a strategic planning exercise, and the development of a new case from current and emerging areas of critical interest to public health, students working in multi-disciplinary groups will demonstrate their ability to apply the general and specific public health knowledge they have learned through their courses of study and effectively apply that knowledge across disciplines to the effective resolution of a public health problem.

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**The Internship Experience (Minimum of 3 credit hours)**

All MPH students in the School of Public Health are required to complete a minimum of 3 credit hours in an internship experience, although individual departments may require more than the school minimum. The internship is a field experience which bridges professional academic preparation and public health practice. Knowledge and skills learned in the core and discipline-specific courses are applied in an agency setting under the supervision and guidance of an experienced preceptor. Faculty internship advisors, departmental program coordinators or the internship program coordinator may assist the student in locating a position. At the completion of the internship, the student will provide a final product to document the experience and will be graded based upon the agency preceptor’s evaluation and the student’s final product. All internships are graded on a Pass/No Pass basis.

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**MSPH Degree Programs**

**Master of Science in Public Health**
The Master of Science in Public Health (MSPH) is an academic research degree designed for those students seeking specialization in one area of public health. The MSPH is offered in:

- Clinical and Translational Science (BST, EPI, HB)
- Outcome Research
- Environmental Health and Toxicology and Industrial Hygiene
- Applied Epidemiology and Pharmacoeconomics

These programs combine didactic research instruction and applied research experience in the chosen discipline in order to prepare students for further study toward the PhD or for research or specialized technical positions in government, industry, academia or private institutions. All MSPH students complete a research project/thesis. All MSPH students take core courses in biostatistics and epidemiology and complete a minimum of 15 hours of methodologic and specialty area courses. Students are strongly encouraged to enroll in other core public health courses. Individual MSPH programs require additional courses specific to the area of study. Please refer to the individual program's curriculum information for further details.

**MSPH Minimum Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BST 611</td>
<td>Biostatistics I *</td>
<td>3</td>
</tr>
<tr>
<td>BST 612</td>
<td>Biostatistics II *</td>
<td>3</td>
</tr>
<tr>
<td>EPI 610</td>
<td>Principles of Epidemiologic Research</td>
<td>4</td>
</tr>
<tr>
<td>EPI 610L</td>
<td>Principles of Epidemiologic Research-Lab</td>
<td>0</td>
</tr>
</tbody>
</table>

* Some departments require BST 611 and BST 612 as the MSPH Biostatistics Core requirement.

**Additional requirements:**
- A minimum of nine credit hours of research methodologic instruction.
- A minimum of six credit hours in the area of specialization.
- A minimum of nine credit hours of research project/thesis work.

**Minimum Total Credit Hours Required - vary by department and degree program.**

**Coordinated Veterinary Medicine and Public Health**

Add new comment

**Admissions**

Students must be admitted into the [Auburn University's Veterinary Medicine program](http://www.vetmed.auburn.edu) before being considered for the Coordinated DVM/MPH Program. For more information about the DVM Program please contact the College of Veterinary Medicine at Auburn University, vetmed.auburn.edu, phone (334)844-2685, or e-mail admis@vetmed.auburn.edu.

To apply to the UAB School of Public Health MPH program, interested students should submit their application using University of Alabama at Birmingham is Web-based system [ApplyYourself](http://www.soph.uab.edu/prospective/degreerequirement/masters).

**Entry Into Program**

Students may enter the MPH at any time during enrollment in the DVM program, but there must be evidence that the MPH coursework will be completed prior to completion of the DVM. A student who is already enrolled in a UAB’s MPH program who is subsequently accepted to Auburn University's DVM program may apply to transfer to the DVM/MPH program track. Alternatives to this arrangement will be considered by the student and his or her advisor. It is expected that both programs will be completed within five years, at which time both degrees will be awarded. The Associate Dean will review the application and make an admission decision. The Associate Dean will serve as the advisor for all DVM/MPH students.

**MPH Program**

[Curriculum Planning Sheet](http://www.soph.uab.edu/print/book/export/html/14295)
The MPH is a minimum of 42 hours, with a minimum of 34 hours of SOPH coursework and 8 hours of scholarly work required by the DVM. This coordinated degree is considered a general MPH track which allows the student to customize their curriculum.

<table>
<thead>
<tr>
<th>Core Requirement Hours - ALL COURSES ARE ONLINE</th>
<th>20 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BST 611/612: Intermediate Statistical Analysis I &amp; II</td>
<td>6 hours</td>
</tr>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
<td>3 hours</td>
</tr>
<tr>
<td>EPI 610 and Lab: Epidemiology</td>
<td>4 hours</td>
</tr>
<tr>
<td>EPI 623 Intro to SAS Software - Online</td>
<td>0 hour</td>
</tr>
<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
<td>3 hours</td>
</tr>
<tr>
<td>HCOP 600: Introduction to Public Health Systems and Population</td>
<td>3 hours</td>
</tr>
<tr>
<td>PUH 695: Public Health Integrative Experience</td>
<td>1 hour</td>
</tr>
<tr>
<td>PUH 697 Internship DVM/ MPH Focus</td>
<td>0 hours</td>
</tr>
<tr>
<td><strong>Elective courses (14 from any department)</strong></td>
<td>14 hours</td>
</tr>
<tr>
<td><strong>Credits from DVM at Auburn University</strong></td>
<td>8 Hours</td>
</tr>
<tr>
<td>VMED 5030/ Public Health and VMED 5250/Principles of Infectious Diseases.</td>
<td>8 hours</td>
</tr>
<tr>
<td><strong>Total SOPH Coursework</strong></td>
<td>34 hours</td>
</tr>
<tr>
<td><strong>Credit from MD Curriculum</strong></td>
<td>8 or more hours</td>
</tr>
<tr>
<td><strong>Total for MPH</strong></td>
<td>42 or more hours</td>
</tr>
</tbody>
</table>

There would be no specific timeframe or schedule set for students to complete the degree. Students could complete it on any schedule they desire, but would need to complete all requirements prior to or concurrent with meeting the requirements for the DVM. Students would be permitted to take SOPH courses at the same time they are taking DVM coursework with permission from their DVM advisor.

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**Dropping Out of the Program Prior to Completion**

Students MUST complete both degrees to successfully complete the program. Students must meet with the DVM/MPH committee to request a leave of absence program.

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**Coordinated Doctor of Medicine and Master of Public Health**

**Admissions**

Students must be admitted to the UAB School of Medicine (SOM) MD program before being considered for the Coordinated MD/MPH Program. Interested students will have the School of Medicine forward their application materials to the School of Public Health (SOPH), submit to the Graduate School a SOPH application, and career goals statement. Students may elect to apply to both programs at the same time, to the MPH program after they have matriculated to medical school or, if accepted to the SOM after enrolling in the MPH, the student may transfer to the coordinated degree. The Associate Dean will review the application, make an admission decision, and serve as the advisor for all MD/MPH students.

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**Program Options**

Students may choose between two program formats: a four-year program or a five-year program.

- The four-year program requires students to complete MPH coursework while also completing medical school coursework. Additionally, students in the four-year program begin taking courses the summer before they begin medical school.
• The five-year program requires students to take a one-year leave of absence from medical school to concentrate on MPH coursework.

More Information

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**MPH / MD Program - Fall 2014**

**Curriculum Planning Sheet**

The MPH is a minimum of 42 hours, with a minimum of 34 hours of SOPH coursework and 8 hours of scholarly work required by the SOM. This coordinated degree is considered a general MPH track which allows the student to customize their curriculum.

<table>
<thead>
<tr>
<th>Core Requirement</th>
<th>23 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BST 611/612: Intermediate Statistical Analysis I &amp; II</td>
<td>6 hours</td>
</tr>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
<td>3 hours</td>
</tr>
<tr>
<td>EPI 610 and Lab: Epidemiology</td>
<td>4 hours</td>
</tr>
<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
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</tr>
<tr>
<td>HCOP 600: Introduction to Public Health Systems and Population</td>
<td>3 hours</td>
</tr>
<tr>
<td>PUH 695: Public Health Integrative Experience</td>
<td>1 hour</td>
</tr>
<tr>
<td>PUH 697 Internship</td>
<td>3 hours</td>
</tr>
<tr>
<td>Electives (from any department)</td>
<td>7 hours</td>
</tr>
<tr>
<td><strong>Total SOPH Coursework</strong></td>
<td>30 hours</td>
</tr>
<tr>
<td><strong>Credit from MD Curriculum</strong></td>
<td>12 hours</td>
</tr>
</tbody>
</table>

Each medical student will complete a scholarly project for a minimum of 8 hours. This project will have a public health focus and the student will be advised by a School of Public Health mentor.

- Public Health Scholarly Project                         | 8 hours  |
- Special Topics - Public Health                           | 4 hours  |

**Total Hours**                                           | 42 or more hours |

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**Dropping Out of the Program Prior to Completion**

Students MUST complete both degrees to successfully complete the program. Students must meet with the MD/MPH committee to request a leave or to drop out of the program.

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**DrPH Degree Programs**

**Doctor of Public Health**

The purpose of the DrPH program is to provide education and training at an advanced level that allows graduates to pursue careers as practicing public health professionals in public health agencies, the private sector, and other types of settings. As a result, such individuals have a broader educational preparation than those in more research-oriented programs. DrPH programs are offered in:

• Public Health Management
• Maternal Child Health Policy
• Outcomes Research
Degree requirements include successful completion of program-specific courses, a written qualifying examination, written and oral proposal of original research protocol, admission to candidacy and a final defense/presentation of the dissertation research.

The DrPH Program in Health Care Organization and Policy develops leaders and research faculty who have proficiency in data analysis, management, critical thinking, teaching, and translating research into policy and practice. Students will be exposed to complex practical problems facing public health practitioners and policy-makers. This program, housed within the Department of HCOP has three concentrations (1) Public Health Management, (2) Maternal and Child Health Policy, and (3) Outcomes Research. Please refer to the appropriate departmental section of the catalog for details.

DrPH Program in Health Care Organization and Policy

PhD Degree Programs

Doctor of Philosophy

The PhD degree is offered in four areas: Environmental Health Sciences, Epidemiology, Health Behavior and Biostatistics.

The PhD in Biostatistics provides a balance between theory and application, the perspective being the role of statistics and modeling in scientific research. The objective is to produce research-oriented scientists who can advance statistical and modeling theory and can interact effectively with scientists in other disciplines to advance knowledge in those fields.

PhD in Biostatistics

The PhD in Environmental Health Sciences prepares scientists for careers in research, environmental program management, and policy analysis. Education and research in the identification, evaluation, and control of hazards to human health are emphasized in this program. Students may concentrate on a wide variety of areas including exposure assessment, environmental chemistry, non-point source water pollution, risk assessment and management, environmental toxicology, and industrial hygiene. Graduates are qualified to assume upper-level positions in the public or private sector in management, teaching, research, or consulting. Graduates are particularly qualified for teaching or research positions in academic institutions that require sound research training.

PhD in Environmental Health Sciences

The PhD in Epidemiology emphasizes epidemiologic study design and data analysis. The program is designed to prepare exceptionally qualified individuals for a career of research and teaching. Admission is competitive. Applicants should have earned a Master of Public Health (MPH), Master of Science in Public Health (MSPH), Master of Science (MS) degree or equivalent, with a strong background in epidemiology and statistics. Students who complete the degree will master the skills required for conducting independent research in epidemiology, with a firm background in epidemiology, biostatistics, and information management.

PhD in Epidemiology

The PhD program in Health Education/Promotion provides students with instruction and research experience to become practitioners and scientists in health education and health promotion. The program combines the resources of academic units from the University of Alabama at Birmingham (UAB School of Public Health, Department of Health Behavior, UAB School of Education, Department of Human Studies), and the University of Alabama (UA) College of Human Environmental Sciences, Department of Health Science.

PhD in Health Education/Promotion

Common requirements can be found by accessing the Graduate School web site at www.uab.edu/graduate

UAB - Peace Corps Master's International Program

The UAB School of Public Health offers a Master of Public Health degree in cooperation with the Peace Corps Master's International Program. MI students graduate with a unique combination of an advanced degree and two years of substantive professional experience in an international setting.

The benefits of the MI program at UAB include in-state tuition rates for all MI students and a one time $1,500 scholarship. MI students can also compete for the School of Public Health funds when they apply for UAB financial aid. Additionally, the Peace Corps service
fulfills the MPH internship requirement and MI students may earn three credit hours while in the Peace Corps.

**Peace Corps Master's International Program**

**Certificates at the School of Public Health**

**The Certificate in Public Health**

The Certificate in Public Health is a 18-credit hour program of study. The content is the same as the core content taught in UAB's masters of public health program. All courses are offered via distance education. Students are able to register, receive materials, interact with faculty, order books and successfully complete this program without traveling to the UAB campus. Only students who have enrolled and completed the certificate program are eligible to receive a certificate. Students enrolled in an MPH degree seeking program are not eligible to receive a Certificate of Public Health.

**Certificate in Public Health**

**UAB Graduate Certificate Program in Global Health Studies**

This 15-hour certificate program is offered to any UAB graduate student who wishes to gain knowledge and skills in the field of global health. Students may choose from several online or classroom-based courses to meet the requirements for this program. Upon successful completion of program requirements, students will receive a certificate of completion awarded by the University of Alabama at Birmingham.

**Graduate Certificate Program in Global Health Studies (GHS)**

**UAB Professional Certificate in Global Health Studies (GHS)**

The UAB Sparkman Center for Global Health (GHS) offers a professional certificate program in Global Health Studies (GHS). This program was developed at UAB through funds received from the National Institutes of Health and has been approved by the UAB Board of Trustees as a professional certificate program.

**Graduate Certificate Program in Global Health Studies**

**Certificate in Statistical Genetics**

The Certificate in Statistical Genetics (CSG) is offered by the Section on Statistical Genetics (SSG) within the Department of Biostatistics in UAB’s SOPH. The purpose of the CSG is to offer recognition that certain graduate students have completed specific requirements above and beyond those ordinarily completed by graduate students.

**Certificate in Statistical Genetics**

**Coordinated Degrees with Other Graduate Programs**

Add new comment

**Coordinated Programs in the Department of Health Behavior**

**Coordinated Masters of Public Health and Master of Science in Nursing**

The coordinated MPH in Health Behavior/MSN degree is designed to address health behavior content and methods needed by advanced practice nurses. This program of study prepares graduates to participate in the development, implementation, and evaluation of innovative health promotion and disease prevention programs and policies. Graduates may assume a variety of positions in nursing or health behavior including health behavior program directors and project coordinators. This dual degree program builds on the synergy generated through two complementary curriculum tracks.

**MPH/MSN**
Coordinated Programs in the Department of Health Care Organization and Policy

Coordinated Master of Public Health / Juris Doctor Program

The department offers a coordinated Master of Public Health and Juris doctor degree program in cooperation with the Cumberland School of Law at Samford University, also located in Birmingham. The purpose of the program is to offer future attorneys exposure to the broad areas of public health.

MPH/JD

Coordinated Master of Public Health / Master of Business Administration Program

This program's purpose is to provide students without relevant advanced degrees and/or without previous public health experience with those skills necessary for advanced positions in health management. Also, students with experience and/or a relevant advanced degree who wish to pursue a health management credential with broad applicability should seriously consider this coordinated program.

MPH/MBA

Coordinated Master of Public Health / Doctor of Optometry Program

Vision disorders and eye diseases are major public health problems, both nationally and internationally. Optometrists with training and experience in public health are needed to assess community needs for vision care services, to determine which factors contribute to treatment and prevention of visual system anomalies, to develop and apply quality assurance systems, to participate and provide leadership in health-related agencies, and to foster public awareness of the need for vision care. An individual qualified both in optometry and public health is expected to have the capability to develop, administer, and evaluate eye and vision health programs in research projects; design and conduct epidemiological field studies; use statistical methods in data analysis of case-control and cohort studies; develop and implement vision health education programs; and develop occupational health and eye safety programs.

MPH/OE

Coordinated Master of Public Health / Master of Public Administration Program

The MPH/MPA degree program provides students with the knowledge base of public health and the skills required to work effectively in a responsible, administrative position in the public sector. Through this coordinated degree program, students in the MPH program can satisfy some of their requirements through courses in the MPA program and vice versa.

MPH/MPA

Coordinated Master's of Science in Public Health / Doctor of Philosophy (Psychology)

The department offers coordinated Master of Science in Public Health and PhD degrees in cooperation with the Department of Psychology at the University of Alabama at Birmingham or at the University of Alabama (Tuscaloosa).

MPH/PhD

Coordinated Master of Public Health in Maternal and Child Health Policy and Leadership / Master of Science in Nursing

The coordinated MPH/MSN degree is designed to address the dynamic health care needs of women and children. This program prepares nurse practitioners to participate in the development, implementation, and evaluation of innovative maternal and child health (MCH) programs and policies. This dual degree builds on the synergy generated through two complementary curriculum tracks. In this educational experience, advanced clinical skill is combined with expertise in program planning and evaluation.

MPH/MSN

Coordinated Master of Public Health in Maternal and Child Health Policy and Leadership / Master of Social Work

The MPH/MSW degree program is coordinated between the School of Social Work at the University of Alabama (MSW) and the Department of Health Care Organization and Policy (HCOP). The coordinated program prepares social workers for interdisciplinary practice in public health programs concerned with the promotion and improvement of the health of diverse populations, including women, children, and families. Students who have been admitted to the MSW program in the School of Social Work and wish to pursue the coordinated degree option should contact the Department of Health Care Organization and Policy. Students will attend classes in Tuscaloosa and Birmingham.
Summary of Degree Programs By Department

UAB SCHOOL OF PUBLIC HEALTH
DIRECTORY OF DEGREE PROGRAMS OFFERED

**Biostatistics**

MPH | Biostatistics
MSPH | Clinical and Translational Science Biostatistics
MS | Biostatistics
PhD | Biostatistics

**Environmental Health**

MPH | Environmental Health - also available online
Industrial Hygiene
Accelerated Industrial Hygiene
Occupational Health & Safety (OHSM) - also available online
Fast Track MPH (5th Year Program)
MSPH | Environmental Health & Toxicology
Industrial Hygiene
PhD | Environmental Health Sciences

**Epidemiology**

MPH | Epidemiology
Fast Track MPH - (5th Year Program)
MSPH | Applied Epidemiology
Pharmacoepidemiology & Comparative Effectiveness Rsrch
Clinical and Translational Science Epidemiology
PhD | Epidemiology

**Health Behavior**

MPH | Health Behavior
Fast Track MPH (5th Year Program)
Health Behavior/Nursing
Psychology PhD
Sociology PhD
MSPH | Clinical and Translational Science Health Behavior
PhD | Health Education and Health Promotion
Health Care Organization and Policy

MPH
Health Care Organization - also available online
General Theory & Practice
Public Health Preparedness Management
Health Policy
MCH Policy and Leadership - also available online
Fast Track MPH (5th Year Program)
Juris Doctorate
Business Administration
Doctor of Optometry
Public Administration
Maternal & Child Health/Nursing
Maternal & Child Health/Social Work - also available online

MSPH
Psychology PhD
Outcomes Research

DrPH
Public Health Management
Maternal Child Health Policy
Outcomes Research

Public Health School Wide Degree

MPH
MPH/MD General Track
MPH/DVM General Track

Undergraduate Programs
BS in Public Health
Minor in Public Health

Tuition, Financial Assistance and Registration

Add new comment

School of Public Health Campus Tours

Our Open House provides a wonderful opportunity to tour our campus, speak with faculty and learn more about what UAB School of Public Health has to offer you. On the dates below, you can:

- Meet faculty to learn more about our degrees, which represent more than 100 different career areas.
- Tour our labs and classrooms.
- Attend a session to find out what career areas are a match to your interests and abilities.

Please visit our Open House webpage for opportunities to learn more about our programs.

Open House

Departmental Program Coordinators:
Tuition and Fees

Graduate Tuition and Fees 2013–2014

*Full-time students, 9 credits per term (9 hours is considered full time)*

<table>
<thead>
<tr>
<th></th>
<th>Alabama Resident</th>
<th>Out of State Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Credit Hour(1)</td>
<td>$574.00</td>
<td>$1068.00</td>
</tr>
<tr>
<td>All Additional Credit Hours (8)</td>
<td>$367.00</td>
<td>$861.00</td>
</tr>
<tr>
<td>Total Cost Per Term (9 credit hours)</td>
<td>$3510.00</td>
<td>$7956.00</td>
</tr>
</tbody>
</table>

*ONLINE STUDENTS-Online tuition will be the same, but a $250.00 online fee will be added to each class.

** Tuition and fees for any student may vary depending upon course selection, hours, or program of study.

<table>
<thead>
<tr>
<th>Billing Timeline</th>
<th>Amount Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, August 15, 2013</td>
<td>50 percent of account balance due</td>
</tr>
<tr>
<td>Monday, October 7, 2013</td>
<td>Remainder of balance due</td>
</tr>
</tbody>
</table>

A student's balance due will be 50 percent of charges plus any outstanding balance less financial aid, educational assistance, or third-party payments.

Students who do not make the initial payment of 50 percent of their account balance 10 days before the first class day of the term will be dropped from their courses for non-payment.

Students who initially register on or after August 16, 2013, or who re-register after having their classes dropped for non-payment, will be assessed a $75 late registration fee.
Financial Assistance

Financial Assistance

Student support funds at the School of Public Health are provided to graduate students in the form of grants, fellowships, scholarships, traineeships, teaching assistantships and graduate student researcher appointments. Scholarships are awarded based on academic merit and financial need. Some have specific requirements or conditions that must be met. You are strongly urged to apply in all categories for which you may qualify. Further details about scholarships and their criteria are available at http://www.sophs.uab.edu/prospective/assistance. You may also apply for extramural support by contacting national, international and private foundations directly.

UAB Office of Financial Aid

The university's Financial Aid Office is responsible for administering financial support loans based on need and non-need options. To apply for financial aid, through the University Financial Aid Office, submit the Free Application for Federal Student Aid (FAFSA) or the FAFSA Renewal Application to the processor. Completion of the FAFSA or the FAFSA Renewal Application is required for all university financial aid programs. For more information on applying for loans at UAB, please refer to the website maintained by the University Financial Aid Office at https://www.uab.edu/students/paying-for-college.

International Students:

Since federal financial assistance programs are limited to U.S. citizens and permanent residents, most international students pay for college using personal or family funds. However, other sources of funding may be available. To learn more go to International Scholar and Student Services

or contact the International Scholar and Student Services Office at (205) 934-3328 or at ISSS@uab.edu.

Veterans Affairs

Any veteran who plans to enter UAB and who wishes to apply for financial assistance through the Department of Veterans Affairs should file an application with the UAB Office of Veterans Affairs. From six to eight weeks are required to secure proper processing of an application by the Department of Veterans Affairs.

For information, contact the UAB Department of Veterans Affairs, Room 516H, Hill University Center, 1400 University Boulevard, Birmingham, Alabama 35294-1150, telephone (205) 934-8115.

In-State Residency Reclassification

In-State and Out-Of-State Residency Classification

All students registering at the University of Alabama at Birmingham, who do not establish that they are "resident students" shall pay non-resident student tuition.

For tuition purposes, U.S. citizens or permanent residents who are not residents of Alabama may be able to establish Alabama residency to be effective in one year. This process is not automatic.

Three Methods of Requesting Residency Reclassification

- Academic Common Market/Southern Regional Educational Board (SREB)

Residents of every SREB state may participate in the SREB Academic Common Market, an agreement that enables students to pursue unique majors offered at public institutions in the other SREB states while paying in-state tuition. If the public institutions in your home state do not offer degree programs in your field of study, it may be possible to arrange a waiver of out-of-state tuition to attend a cooperating public institution of higher education in another participating state. For detailed information and contact information about your state Academic Common Market representative go to the SREB website at www.sreb.org.

- Reclassification of Residency for Tuition Purposes for Students Not Receiving Institutional Support

In determining residency classification for tuition purposes, the primary issue is one of intent. If a person is in Alabama primarily for the purpose of obtaining an education, that person shall be considered a non-resident student.

A student seeking residency reclassification has the burden of overcoming the presumption of non-resident student status. To
overcome this presumption, the student must submit satisfactory evidence that the students residency status has changed by demonstrating a more substantial non-school related connections to the state than with any other state and the intent to remain here indefinitely.

You must begin to establish Alabama residency as soon as you arrive. Documents supporting a recategorization of residency application should be, but are not required to be, dated, issued, or filed twelve months prior to enrollment at UAB. Evidence of connections with the State of Alabama which have been effect for more than one year prior to application are more supportive of residency than those which have been in effect for less than one year prior to application.

Students who wish to be considered for residency recategorization, have the required documentation of intent and can provide the necessary evidentiary support, should submit a completed “Application for Recategorization of Residency for Tuition Purposes” along with all supporting documentation to the Office of Student and Academic Services at the School of Public Health. Once residency has been established in this manner, students are considered a resident for the duration of their studies at UAB.

Such documentation includes (but is not limited to):

- Copy of Alabama Driver’s License
- Proof of Auto Registration in Alabama
- Proof of Bank Accounts in Alabama
- Copy of Voter Registration for Alabama
- Copy of residential/lease agreement

- Reclassification of Residency for Tuition Purposes for Students Receiving Institution Support

In-state tuition will be considered for School of Public Health students who meet one of the following criteria:

- School-based tuition assistance that includes some funding for tuition, or
- Externally funded traineeship that includes some funding for tuition, or
- Externally funded traineeship of at least $1500 per year, even if that traineeship does not include explicit funding for tuition, or
- Working as a “graduate assistant”, “teaching assistant”, or “research assistant” (meaning students who work in School of Public Health departmentally funded positions assisting with teaching and/or research activities that must be directly related to their education in the School of Public Health. This will be verified each semester.), or
- Fellowship recipients who are enrolled in the School of Public Health as part of their advanced training (e.g., medical residents).

Students who would like to be considered for Alabama Residency Recategorization based on the criteria outlined above should complete the Application for Recategorization of Alabama Residency for Students Receiving Institutional Support Form. Once Alabama residency has been established using this method of recategorization, it must be reviewed for renewal each year. If upon re-evaluation, recategorization is not renewed and residency cannot be met using either of the other two methods of residency recategorization, students will be considered to be a “non-resident student”.

Registration

Registration

Students in the School of Public Health must be continuously enrolled until the completion of their degree unless approved for a leave of absence. Failure to remain continuously enrolled may result in dismissal from the program, requiring a re-admission application. If re-admitted, the student will be subjected to the catalog requirements existing at the time of re-admission.

All registration is conducted on-line through BlazerNet, the University’s official portal which provides centralized access to information and services that students, faculty and staff need on a daily basis. BlazerNet will provide you with up-to-date information about UAB news and events to access to class registration, financial aid, grading and much more. To register, go to www.blazernet.uab.edu. For details on how to use Banner Registration, please refer to the BlazerNet Registration Quick Guide located in the Student Resources tab in BlazerNet. If you experience technical problems, please contact the AskIT UAB Support Services at AskIT@uab.edu. If you experience registration holds, please contact your department program coordinator. The class schedules are available on-line only and can be viewed by logging into the UAB BlazerNet Portal at www.blazernet.uab.edu. The following course prefixes are assigned to courses offered by the School of Public Health:

- BST - Biostatistics
- ENH - Environmental Health Sciences
- EPI - Epidemiology
- HB - Health Behavior
- HCO - Health Care Organization and Policy
- PUH – General Public Health

Withdrawal from Courses

Graduate students are expected to complete courses for which they have registered, unless unusual circumstances require withdrawal. The procedures for withdrawal are specified in the UAB Class Schedule.

- Mere cessation of class attendance does not constitute withdrawal, either academically or for tuition charges. If a withdrawal form is received after the "Last Day to Withdraw without Paying Full Tuition and Fees", full tuition and fees will be due
for the courses from which the student withdraws.
- A grade of \textit{F} will be assigned to any student who has not officially withdrawn from a course.
- Withdrawal from a graduate course will show as a grade of \textit{“W”} on the transcript. Withdrawal is not possible after the last day of classes. A processing fee is charged for schedule changes.

**Request for Academic Appeal**
There is a process by which a student can request an exception to the policy for Registration/Add Course(s), Deadline to Drop, Withdrawal, and Payment Deadline. These requests should have extreme extenuating circumstances and should be the exception rather than the rule. Completion of an Academic Appeal Form is necessary to begin this process. This process is a request not an absolute.

**Department of Biostatistics**

Add new comment

Revised July, 2012

**Departmental Overview**

Department of Biostatistics (PhD, MS, MSPH, MPH)
The Department of Biostatistics at the University of Alabama at Birmingham (UAB) offers programs leading to the Doctor of Philosophy (PhD), Master of Science (MS), Master of Public Health (MPH), Master of Science in Public Health (MSPH), and a Certificate in Statistical Genetics (CSG).

The MS and PhD degrees are offered through the Graduate School. Students entering these programs are expected to have a strong foundation in mathematics. At the very minimum, they should have had a 3-semester sequence of Calculus or equivalent and a semester of Advanced Matrix Algebra, and they should be proficient in computer programming skills.

The MPH and MSPH degrees are offered through the School of Public Health. These are school-wide degrees allowing a concentration in biostatistics rather than being degrees in biostatistics per se.

Naomi Fineberg, Ph.D., Research Professor and Chair

Faculty: Professors: Cutter, Fineberg, Howard, Redden, Tiwari; Associate Professors: Aban, Beasley, Cofield, Cui, Liu, Lou, McClure, Yi, Zhang; Assistant Professors: de los Campos, Judd, Morgan, Szachowski, Vaughan, Vazquez, Zhi; Emeritus Professors: Bartolucci, Katholi

The department has over 23 faculty members and 56 staff. Research includes investigations in diverse areas such as latent variable models to adjust for unobserved confounders in statistical analysis, statistical methods for genetic admixture mapping, micro array data analysis, QTL analysis in experimental crosses, understanding the cause of the excess stroke mortality in the southeastern US, and advancing techniques to determine the number of patients needed in randomized clinical trials using data from nested pilot studies.

**Degree Programs: Department of Biostatistics**

**PhD (in Biostatistics) (BYSP)**

School of Public Health’s Biostatistics Student Handbook

School of Public Health Admissions

The Department of Biostatistics offers a PhD degree in biostatistics. This program provides a balance between theory and application, the perspective being the role of statistics and modeling in scientific research. The objective is to produce research-oriented scientists who can advance statistical and modeling theory and can interact effectively with scientists in other disciplines to advance knowledge in those fields. For admission to the program, a student's undergraduate curriculum must include a 3-semester sequence of calculus or equivalent, linear matrix algebra, and proficiency in computing. It is preferred that students have additional advanced mathematics courses, e.g., differential equations, advanced calculus including special functions, and complex analysis. Advanced calculus and a prior MS in statistics or biostatistics are required for admission to the PhD program. Some background in the natural sciences would be helpful. Interested students should contact the department of Biostatistics.

Doctor of Philosophy (in Biostatistics)
All students entering the PhD program are required to complete the coursework required for the MS degree. In addition to this MS coursework, PhD students are required to take the following courses:

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Biostatistics Courses:</td>
<td></td>
</tr>
<tr>
<td>BST 621 Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>BST 622 Statistical Methods II</td>
<td>3</td>
</tr>
<tr>
<td>BST 623 General Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>BST 626 Data Management and Reporting with SAS</td>
<td>3</td>
</tr>
<tr>
<td>BST 631 Statistical Theory I</td>
<td>4</td>
</tr>
<tr>
<td>BST 632 Statistical Theory II</td>
<td>4</td>
</tr>
<tr>
<td>BST 655 Categorical Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BST 665 Survival Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BST 691 Pre-Doctoral Seminar Series 6 credit hours required</td>
<td>1</td>
</tr>
<tr>
<td>BST 723 Theory of Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>BST 735 Advanced Inference</td>
<td>3</td>
</tr>
<tr>
<td>BST 760 Generalized Linear and Mixed Models</td>
<td>3</td>
</tr>
<tr>
<td>BST 765 Advanced Computational Methods</td>
<td>3</td>
</tr>
<tr>
<td>Biostatistics electives</td>
<td>9</td>
</tr>
<tr>
<td>EPI 610 Prin of Epidemiologic Research (Outside Requirement)</td>
<td>4</td>
</tr>
<tr>
<td>Outside electives</td>
<td>3</td>
</tr>
<tr>
<td>Readings &amp; Research</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>75-84</td>
</tr>
</tbody>
</table>

*Courses should be numbered 624 or higher, including at least 9 hours of 700 level courses.

The departmental handbook and/or the Graduate School Catalog should be consulted for information regarding research advisor, comprehensive examinations, thesis and dissertation proposal and defense.

**MS (in Biostatistics) (BYSM)**

The Department of Biostatistics offers an MS degree in biostatistics. This program provides a balance between theory and application, the perspective being the role of statistics and modeling in scientific research. The objective is to produce research-oriented scientists who can advance statistical and modeling theory and can interact effectively with scientists in other disciplines to advance knowledge in those fields. For admission to the MS program, a student's undergraduate curriculum must include a 3-semester sequence of calculus or equivalent, linear matrix algebra, and proficiency in computing. It is preferred that students have additional advanced mathematics courses, e.g., differential equations, advanced calculus including special functions, and complex analysis. Some background in the natural sciences would be helpful. Interested students should contact the department of Biostatistics.

**School of Public Health Admissions**

**Biostatistics Student Handbook**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td>27</td>
</tr>
<tr>
<td>BST 621 Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>BST 622 Statistical Methods II</td>
<td>3</td>
</tr>
<tr>
<td>BST 623 General Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>BST 626 Data Management and Reporting with SAS</td>
<td>3</td>
</tr>
<tr>
<td>BST 626L Data Management and Reporting with SAS Laboratory</td>
<td>0</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>BST 631</td>
<td>Statistical Theory I</td>
</tr>
<tr>
<td>BST 632</td>
<td>Statistical Theory II</td>
</tr>
<tr>
<td>BST 655</td>
<td>Categorical Data Analysis</td>
</tr>
<tr>
<td>BST 691</td>
<td>Pre-Doctoral Seminar Series</td>
</tr>
</tbody>
</table>

4 hours required for BST 691: Biostatistics Pre-doctoral Seminar Series

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biostatistics Electives *</td>
<td>6</td>
</tr>
<tr>
<td>Required Outside Electives</td>
<td>7</td>
</tr>
<tr>
<td>Other Related Courses including Non-Thesis (BST 698)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 43-46

SOPH Requirement: 3 Hours (All international students must demonstrate proficiency in spoken and written English through the Graduate School's ESL Assessment.)

Biostatistics Electives: Minimum 6 credit hours of regular courses of 624 or higher-level. (See Student Handbook for suggested BST electives.)

Required Outside Electives: Minimum 7 graduate credit hours of electives must be taken from a non-quantitative field (i.e. Biology, Public Health or Medicine) with advisor’s approval and in some case, also approval of instructor.

Master of Science in Public Health in Clinical and Translational Science (CTSB)

School of Public Health's Biostatistics Student Handbook

School of Public Health Admissions

Master of Science in Public Health in Clinical and Translational Science (CTSB) is a post-medical or other health science 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 research elective and focus elective courses that reflect the academic interest of the student. At this time, the program can accommodate students with specific interest in Biostatistics, Environmental Health, Epidemiology, and Health Behavior. As a result, there will be some variation in the specific knowledge and skills acquired by each graduate. However, the primary learning objectives will apply to all students, irrespective of departmental affiliation. As such, 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

Admission: Applicants should possess a medical or other health science professional degree. They may be in their final years of training as residents or fellows or hold positions as junior faculty members. The Graduate Record Examination (GRE) is required for applications to all MSPH programs in the School of Public Health. The required minimum scores are 35th percentile in the Verbal category and 40th percentile in the Quantitative. The GRE may be waived at the discretion of the committee, for applicants who have been pre-screened by the clinical investigator training grant committee of the School of Medicine. The applicant must produce three letters of reference and a letter stating that he/she will be guaranteed sufficient release time from clinical duties to be able to attend classes regularly and fulfill course requirements in a timely manner. A medical/health sciences mentor should be identified and a setting where the student can gain experience in conducting clinical research. A faculty member within the School of Public Health will be assigned as an advisor based on the stated interests of the applicant.
Curriculum: The MSPH in Clinical and Translational Science consists of a minimum of 41 credit hours. Of these, 14 hours are required, including 9 hours of specific Biostatistics courses and 5 hours of specific Epidemiology courses. Students then select at least 9 credit hours from a list of approved Masters Research Electives, complete 9 hours of focus specific electives in Biostatistics, Epidemiology, Environmental Health, or Health Behavior, and take at least 9 hours of (698 level) Masters research to fulfill the MSPH requirement for conducting a research project.

All students 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.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSPH Core Requirement: 14 hours</td>
<td>14</td>
</tr>
<tr>
<td>BST 621 Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>BST 622 Statistical Methods II</td>
<td>3</td>
</tr>
<tr>
<td>BST 625 Design/Conduct Clinical Trials</td>
<td>3</td>
</tr>
<tr>
<td>EPI 607 Fundamentals of Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>EPI 680 Topics in Clinical Research</td>
<td>2</td>
</tr>
<tr>
<td>Masters Project Research</td>
<td>9</td>
</tr>
<tr>
<td>BST 619 Data Collection and Management</td>
<td>3</td>
</tr>
<tr>
<td>BST 626 Data Management and Reporting with SAS</td>
<td>3</td>
</tr>
<tr>
<td>BST 626L Data Management and Reporting with SAS Laboratory</td>
<td>0</td>
</tr>
<tr>
<td>EPI 625 Quant Methods in Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>EPI 703 Special Topics in the Epidemiology of Chronic Disease</td>
<td>3</td>
</tr>
<tr>
<td>EPI 709 Theoretical Basis of Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HB 624 Adv Theory Behav Sci</td>
<td>3</td>
</tr>
<tr>
<td>HCO 677 Patient-Based Outcomes Measurement</td>
<td>3</td>
</tr>
<tr>
<td>Biostatistics Selective</td>
<td>9</td>
</tr>
<tr>
<td>Masters Project Research</td>
<td>9</td>
</tr>
<tr>
<td>Total Credit Hours</td>
<td>41-44</td>
</tr>
</tbody>
</table>

**Note that care must be exercised when selecting some of these courses since some have prerequisites that must be taken earlier in the sequence of classes or taken concurrently.

MPH (in Biostatistics) (BYS)

The MPH degree in Biostatistics is intended primarily for those who wish to acquire an MPH degree with an emphasis on statistical methodology. This can include individuals from decision-making positions in health care settings as well as those interested in data management, statistical analyses and interpretation, and presentation of analytical results. This degree can be completed in approximately 2 years. Note that the MPH does not require some of the theoretical courses required for the MS, and as such, it is not a direct route to prepare a student for a PhD. Students anticipating that they will wish to continue for a PhD in biostatistics are advised to pursue the MS rather than the MPH.

School of Public Health’s Biostatistics Student Handbook

School of Public Health Admissions
Certificate in Statistical Genetics

The purpose of the Certificate in Statistical Genetics (CSG) is to offer recognition that certain graduate students have completed specific requirements above and beyond those ordinarily completed by graduate students receiving degrees in biostatistics and to recognize that completion of those requirements offers them particular expertise in statistical genetics. By virtue of offering a CSG, we are able to offer students an incentive to complete additional demanding work in statistical genetics as well as to offer graduates from our program an additional benefit that will make them more competitive in the market place.

Program Content and Relation to Other UAB Programs

CSG enrollees must either: (a) Be enrolled as a matriculated student in the Department of Biostatistics PhD Program; or (b) Already have a doctoral degree in statistics or biostatistics; or (c) Have a doctoral degree in another discipline and be judged by a committee appointed by the Head of the Section on Statistical Genetics (SSG) and consisting of 3 faculty members in the SSG to be capable of performing as a statistician at the level of a doctoral level academic statistician. By this we mean a competent faculty-level research scientist with the ability to utilize and interpret cutting edge statistical methods.

Candidates for the CSG will be required to successfully complete (i.e., achieve a grade of "B" or better) the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BST 675</td>
<td>Introduction to Statistical Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BST 676</td>
<td>Genomic Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BST 775</td>
<td>Statistical Methods for Genetic Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>BST 776</td>
<td>Statistical Methods for Genetic Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>EPI 730</td>
<td>Introduction to Human Population Genetics Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

Regarding the sequence in which the courses are taken, the optimal sequence will be determined by the candidate’s academic or research advisor within the Department of Biostatistics from within the range of options that are allowable by University, School and Department policies. For any CSG candidates that do not have an advisor assigned within the Biostatistics Department, the Head of the SSG will take responsibility for assigning a CSG mentor to that person from among the SSG faculty.

In addition to the courses above, CSG recipients who are enrolled as a matriculated student in the Department of Biostatistics PhD program must also successfully complete all requirements for the PhD in Biostatistics at UAB. Those seeking the CSG who already have a doctoral degree but do not have the necessary pre-requisites for the required courses, must either take the prerequisites or must get permission from the course instructor. Up to 6 credit hours (2 courses) from among the 5 CSG-required courses may be waived if the CSG candidate has demonstrated expertise in those areas. The waiver of courses must be approved by the committee overseeing the CSG Program, appointed by the Head of the SSG. Note that none of the CSG-required courses are courses that are required for completion of a PhD in the Biostatistics Department.

Post-doctoral fellows in the SSG have the option (but not the mandate) to obtain the certificate by completing the above requirements.

Biostatistics Courses (BST)
BST 603. Introductory Biostatistics for Graduate Biomedical Sciences. This course will provide non-biostatistics students seeking a Graduate Biomedical Sciences (GBS) degree with the ability to understand introductory biostatistics concepts. 3 hours. As needed.

BST 611. Intermediate Statistical Analysis I. - Students will gain a thorough understanding of basic analysis methods, elementary concepts, statistical models and applications of probability, commonly used sampling distributions, parametric and non-parametric one and two sample tests, confidence intervals, applications of analysis of two-way contingency table data, simple linear regression, and simple analysis of variance. Students are taught to conduct the relevant analysis using current software such as the Statistical Analysis System (SAS). 3 hours. Fall/Spring.

BST 612. Intermediate Statistical Analysis II. - This course will introduce students to the basic principle of tools of simple and multiple regression. A major goal is to establish a firm foundation in the discipline upon which the applications of statistical and epidemiologic inference will be built. Prerequisite: BST 611 or Permission of Instructor. 3 hours. Spring/Summer.

BST 613. Intermediate Statistical Analysis III. - Continuation of concepts in BST 611/612, intended to introduce students to additional general concepts in biostatistics beyond an introductory level. The course will include a broad overview of three areas: 1) categorical, ordinal, and count methods with proportional odds model and Poisson regression; 2) survival analysis and event outcome data with Kaplan-Meier, proportional hazards, and repeated events; 3) repeated measures, mixed models, hierarchical modeling for longitudinal and missing data. Study design, analysis, interpretation of results, power an sample size estimation, and non-parametric alternatives will be presented for all topic areas. Prerequisite: BST 612. 3 hours. Fall.

BST 619. Data Collection and Management. - Basic concepts of study design, forms design, quality control, data entry, data management and data analysis. Hands-on experience with data entry systems, e.g., DBASE, and data analysis software, e.g., PC-SAS. Exposure to other software packages as time permits. Prerequisites: BST 611; Previous computer experience or workshop on microcomputers highly recommended. 3 hours. Spring (even years).

BST 620. Applied Matrix Analysis. - Vector and matrix definitions and fundamental concepts; matrix factorization and application. Eigenvalues and eigenvectors, functions of matrices, singular and ill-conditioned problems. Prerequisite: BST 622. 3 hours. As needed.

BST 621 - Statistical Methods I. - Mathematically rigorous coverage of applications of statistical techniques designed for biostatistics majors and others with sufficient mathematical background. Statistical models and applications of probability, commonly used sampling distributions; parametric and nonparametric one and two sample tests and confidence intervals; analysis of contingency tables; simple linear regression and analysis of variance. Prerequisites: A year of calculus and linear algebra. 3 hours. Fall.

BST 622 - Statistical Methods II. - Continuation of concepts in BST 621, extended to multiple linear regression; analysis of variance, analysis of covariance, multiple analysis of variance; use of contrasts and multiple comparisons procedures; simple and multiple logistic regression, and an introduction to survival analysis. Prerequisites: BST 621. 3 hours. Spring.

BST 623. General Linear Models. - Simple and multiple regression using matrix approach; weighted and nonlinear regression; variable selection methods; modeling techniques; regression diagnostics and model validation; systems of linear equations; factorial designs; blocking; an introduction to repeated measures designs; coding schemes. Prerequisite: BST 622. 3 hours. Fall.

BST 624. Experimental Designs. - Intermediate experimental design and analysis of variance models using matrix approach. Factorial and nested (hierarchical) designs; blocking, repeated measures designs; Latin squares; incomplete block designs; fractional factorials; confounding. Prerequisites: Matrix algebra and BST 623. 3 hours. As needed.

BST 625. Design and Conduct of Clinical Trials. - Concepts of clinical trials; purpose, design, implementation and evaluation. Examples and controversies presented. Prerequisite: BST 611 and 612 or permission of instructor. Pass/No Pass. 3 hours. Summer.

BST 626/626L. Data Management/Reporting with SAS. - A hands-on exposure to data management and report generation with one of the most popular statistical software packages. Concurrent registration in BST 626 and BST 626L is required. 3 hours. Fall.

BST 631 – Statistical Theory I. - Fundamentals of probability; conditional probability and independence; distribution, density, and mass functions; random variables; moments and moment generating functions; discrete and continuous distributions; exponential families, joint, marginal, and conditional distributions; transformation and change of variables; convergence concepts; sampling distributions; order statistics; random number generation. Prerequisite: Advanced calculus. 4 hours. Fall.

BST 632 - Statistical Theory II. - Point interval estimation; sufficiency and completeness; ancillary statistics; maximum likelihood and moment estimators; best unbiased estimator; hypothesis and significance testing; likelihood ratio tests and uniformly most powerful tests; confidence interval estimation; asymptotic properties of estimators and tests; introduction to Bayesian inference. Prerequisite: BST 631. 4 hours. Spring.

BST 640. Nonparametric Methods. - Properties of statistical tests; order statistics and theory of extremes; median tests; goodness of fit; tests based on ranks; location and scale parameter estimation; confidence intervals; association analysis; power and efficiency. Prerequisite: BST 622, BST 632. 3 hours. As needed.

BST 655. Categorical Data Analysis. - Intermediate level course with emphasis on understanding the discrete probability distributions and the correct application of methods to analyze data generated by discrete probability distributions. The course covers contingency tables, Mantel-Haenszel tests, measures of association and of agreement, logistic regression models, regression diagnostics, proportional odds, ordinal and polynominal logistic regression, Poisson regression, log linear models, analysis of matched pairs and repeated categorical data. Prerequisite: BST 622 or equivalent recommended. 3 hours. Fall.

BST 660. Applied Multivariate Analysis. - Analysis and interpretation of multivariate general linear models including multivariate regression, multivariate analysis of variance/covariance, discriminant analysis, multivariate analysis of repeated measures, canonical
correlation, and longitudinal data analysis for general and generalized linear models. Extensive use of SAS, SPSS, and other statistical software. Prerequisite: BST 623. 3 hours. As needed.

BST 661. Structural Equation Modeling. - Basic principles of measurements; factor analysis and latent variable models; multivariate predictive models including mediation mechanisms and moderator effects; path analysis; integrative multivariate covariance models, methods of longitudinal analysis. Prerequisite: BST 623. 3 hours. As needed.

BST 665. Survival Analysis. - Kaplan-Meier estimation; Parametric survival models; Cox proportional hazards regression models; sample size calculation for survival models; competing risks models; multiple events models. Prerequisite: BST 622, 3 hours. Spring (odd years).

BST 670. Sampling Methods. - Simple random, stratified, cluster, ratio regression and systematic sampling; sampling with equal or unequal probabilities of selection; optimization; properties of estimators; non-sampling errors; sampling schemes used in population research; methods of implementation and analyses associated with various schemes. Prerequisite: BST 631, 3 hours. As needed.

BST 671. Meta Analysis. - Statistical methods and inference through meta analysis. Prerequisites: BST 623, BST 632. 3 hours. As needed.

BST 675. Introduction to Statistical Genetics. - This class will introduce students to population genetics, genetic epidemiology, microarray and proteomics analysis, Mendelian laws, inheritance, heritability, test cross linkage analysis, QTL analysis, human linkage and human association methods for discrete and quantitative traits. Prerequisite: BST 611 or BST 621. 1.5 hours. Spring (odd years).

BST 676. Genomic Data Analysis. - The purpose of this class will be to teach graduate students statistical methods that underlie the analysis of data generated by high throughput genomic technologies, as well as issues in the experimental design and implementation of these technologies. High throughput technologies that will be covered include microarrays, proteomics, and second generation sequencing. Prerequisites: BST 611 or BST 621. BST 675 recommended. 3 hours. Spring (even years).

BST 680 - Statistical Computing with R. This course is mainly focused on R and how to use R to conduct basic statistical computing. The course contains three themes: R programming, introduction to high performance computing, and basics of statistical computing. Prerequisites: BST 621, BST 622, BST 626, BST 631 and BST 632 (Introductory Probability and Inference) or equivalent. 2 hours. (Every other year).

BST 691. Biostatistics Pre-doctoral Seminar Series. This course provides an opportunity for students to learn about ongoing research in the field of biostatistics, clinical trials, and statistical genetics. Pass/No Pass. 1 hour. Fall/Spring.

BST 695. Special Topics. - This course is designed to cover special topics in Biostatistics that are not covered in regular 600 level courses, but suited for Masters students in Biostatistics and doctoral students in other related disciplines. 1-3 hours.

BST 697. Internship in Biostatistics. - Pass/No Pass. 1-6 hours.


BST 699. Master's Thesis Research. - Prerequisite: Admission to candidacy for MS degree. Pass/No Pass. 1-12 hours.

BST 723. Theory of Linear Models. - Multivariate normal distributions and quadratic forms; least square estimation; nested models; weighted least squares, testing contrasts; multiple comparisons; polynomial regression; maximum likelihood theory of log linear models. Prerequisite: BST 632, 3 hours, Fall (odd years).

BST 725. Advanced Clinical Trials I. - This course will provide students with a basic understanding of the fundamental statistical principles involved in the design and conduct of clinical trials. Important topics of discussion will include data management, quality assurance, endpoints, power analysis, interim analysis, adaptive designs, and genetic issues in clinical trials. Prerequisites: BST 611, 612, and 625. 3 hours. Fall (even years).

BST 726. Advanced Clinical Trials II. - This course builds on the knowledge gained in BST 725 in order to develop a more thorough understanding of the basic methodology behind power analysis, interim data monitoring, analysis of missing data, and adaptive designs. The course involves discussions of recent publications dealing with current topics of interest in clinical trials. Each student must conduct, summarize, and present a course project based on a more in-depth exploration of one of the topics introduced in the BST 725 course. Prerequisites: BST 621, 622, 625, 631, 632 and 725. 3 hours. Spring (odd years).

BST 735. Advanced Inference. - Stochastic convergence and fundamental inequalities; weak convergence and the central limit theorems; large sample behavior of the empirical distribution and other statistics; asymptotic behavior of estimators and tests with particular attention to LR, score and Wald tests. Prerequisites: BST 631 and 632. 3 hours. Spring (odd years).

BST 740. Bayesian Analysis. - To introduce the student to the basic principles and tools of Bayesian Statistics and most importantly to Bayesian data analysis techniques. A major goal is to establish a firm foundation in the discipline upon which the applications of statistical and epidemiologic inference will be built. The practical part of the course will be based on Bugs (either WinBugs or OpenBugs), possibly accessed through R with the existing tools for the interface (R packages: R2WinBugs or Rbugs, codab. This will enable participants to take the practical examples all the way to the reporting stage in terms of tabulations and graphics. Prerequisites: BST 632. 3 hours. Fall (even years).

BST 741. Advanced Bayesian Analysis II. To illustrate advanced approaches to Bayesian modeling and computation in statistics. We begin with a brief description of the basic principle and concepts of Bayesian statistics. We then study advanced tools in Bayesian modeling and computation. A variety of models are covered, including multilevel/hierarchical linear and generalized linear models, models for robust inference, mixture models, multivariate models, nonlinear models, missing data, and Bayesian model selection. We
also introduce some applied areas of modern Bayesian methods, such as genetics/genomics and clinical trials. The practical part of the course will be based on Bugs (e.g., WinBUGS or OpenBUGS), possibly accessed through R with the existing tools for the interface (R packages: R2WinBUGS or BRugs, coda). This will enable participants to take the practical examples all the way to the reporting stage in terms of tabulations, graphics etc. Prerequisites: BST 631 and 632. BST 740 would be helpful but not absolutely required. 3 hours. Fall (odd years).

BST 750. Stochastic Modeling. - Poisson processes; random walks; simple diffusion and branching processes; recurrent events; Markov chains in discrete and continuous time; birth and death process; queuing systems; applications to survival and other biomedical models. Prerequisite: BST 632. 3 hours. As needed.

BST 760. Generalized Linear and Mixed Models. - Generalized linear models; mixed models; and generalized estimating equations. Prerequisite: BST 723. 3 hours. Spring (even years).

BST 765. Advanced Computational Methods. - Numerical algorithms useful in biostatistics including likelihood maximization using the Newton-Raphson method, EM algorithm, numerical integration using quadratic and Monte-Carlo methods, interpolation using splines, random variate generation methods, data augmentation algorithm, and MCMC and Metropolis-Hastings algorithm; randomization tests; resampling plans including bootstrap and jackknife. Prerequisites: BST 632. 3 hours. Fall (even years).

BST 775. Statistical Methods for Genetic Analysis I. - This course will provide a statistical basis for describing variation in qualitative (disease) and quantitative traits. This will include decomposition of trait variation into components representing genes, environment and gene-environment interaction. Resemblance between relatives and heritability will be described. Important topics of discussion will include oligogenic and polygenic traits, complex segregations analysis, methods of mapping and characterizing simple and complex trait loci. Prerequisites: BST 623, BST 632, and BST 675. It is assumed that students are comfortable with regression theory, covariance, correlation, and likelihood theory. Interested students are urged to contact the instructors with concerns regarding assumed knowledge. Fall (odd years).

BST 776. Statistical Methods for Genetic Analysis II. - This course builds on the knowledge gained in BST 775 with rigorous mathematical and statistical treatment of methods for localizing genes and environmental effects involved in the etiology of complex traits using case-control and linkage data. Prerequisites: BST 775; Knowledge of SAS and programming languages such as C++; and basic knowledge of multivariate methods and Markov chain theory is highly recommended. 3 hours. Spring (even years).

BST 793. Bioinformatics Post-doctoral Seminar Series. This course provides an opportunity for post-doctoral students to learn about ongoing research in the field of bioinformatics, clinical trials, and statistical genetics. Reserved for BST Postdoctoral students. Pass/No Pass. 3 hours. Fall/Spring.

BST 795. Advanced Special Topics. - This course is designed to cover advanced special topics in Biostatistics that are not covered in regular 700 level courses, but suited for doctoral students in Biostatistics. Prerequisites: BST 622 and 632. Pass/No Pass. 1-3 hours.


BST 799. Doctoral Dissertation Research. - Prerequisite: Admission to candidacy for PhD. Pass/No Pass. 1-12 hours.

Department of Environmental Health Sciences

Departmental Overview

The Department of Environmental Health Sciences focuses on understanding the causes, mechanisms and consequences of environmental and occupational hazards, as well as the prevention and management of these hazards. Principal research areas include environmental toxicology, free radical biology, cell signaling, exposure assessment, environmental management and environmental disasters.

Michelle Fanucchi, Associate Professor and Chair

Faculty: Professors: Postlethwait; Associate Professors: Fannucchi, Liu, Lungu, Squadrito; Assistant Professors: Dickinson, Gohlke, Maples

Career Opportunities

Graduate degree programs in Environmental Health Sciences prepare students for basic and applied scientific careers in academic, industry, government, and non-governmental organizations. In recent years, graduates from the department have been employed by federal agencies (e.g., the U.S. Environmental Protection Agency, the Centers for Disease Control and Prevention, NIOSH, the U.S. Public Health Service, ATSDR, department of Veterans Affairs), the armed forces, local and state health departments (e.g., Alabama Department of Public Health, Florida State Department of Health, Jefferson County Department of Health, Kentucky State Health Department), hospitals (e.g., Children's Hospital), major research laboratories (e.g., Oak Ridge National Lab, Southern Research Institute), business and industry (e.g., Alcoa, Arco, Bayer, Booz Allen, Eli Lilly, GE, Honda, Honeywell, Lockheed Martin, Mercedes Benz, Proctor and Gamble, Roy F. Weston, and a variety of well-recognized academic institutions (e.g., Vanderbilt, University of California).

Degree Options

The Department offers training in three broad areas: (1) Basic Science of Environmental Toxicology, (2) Industrial
Hygiene/Occupational Safety, and (3) Environmental Management and Policy. A combination of didactic, laboratory, and/or field-based training are provided to achieve the specific goals for each student.

At the doctoral level, two foci are offered:

- Environmental Health Sciences Research (ENH)
- Industrial Hygiene (IHY)

At the master's level, six programs of study are offered:

- MPH in Environmental Health/Toxicology (ETOX) - also offered fully online
- MPH in Occupational Health and Safety (OHSM) - also offered fully online
- MPH in Industrial Hygiene (IHY)
- MPH in the Accelerated Program in Industrial Hygiene (AlHY)
- MSPH in Environmental Health Toxicology (ETOX)
- MSPH in Industrial Hygiene (IHY)

More detailed descriptions of these degree programs may be found in the sections that follow.

Degree Programs: Department of Environmental Health Sciences

MPH in Environmental Health & Toxicology (ENH)

The MPH in Environmental Health / Toxicology studies the links between the environment and public health, studying all aspects of this process from initial exposure to toxicant action to science-based policy development. We train students to recognize and assess exposures, determine the toxicity risk to the public, and design and properly communicate strategies to reduce risk and help set appropriate policy.

Environmental Health Curriculum: Students pursuing the Environmental Health & Toxicology degree track must complete a total of 42 credit hours including the MPH core courses listed below.

<table>
<thead>
<tr>
<th>Degree Requirements</th>
<th>Credit Hours</th>
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<tr>
<td>MPH Core</td>
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<td>EPI 600 Introduction to Epidemiology</td>
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<tr>
<td>HB 600 Social and Behavioral Science Core</td>
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<td>HCO 600 Introduction to Public Health Systems and Population-Based Health Programs</td>
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<tr>
<td>ENH 612 Environmental Management</td>
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<tr>
<td>ENH 650 Essentials of Environmental and Occupational Toxicology and Diseases</td>
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<td>ENH 660 Fundamentals of Air and Water Pollution</td>
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<th>Departmental Electives</th>
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**Internship**

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</table>

**Total 42**

* The department highly recommends ENH 661 (2 credit hours)

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**MPH in Occupational Health and Safety (OHSM)**

Health related careers are in high demand. We are searching for occupational health and safety professionals of tomorrow – bright, inquisitive students – with a desire to make a difference in the lives of others! You can make a difference in the lives of workers in your community. Our graduates are at the forefront to protect workers from injuries and illnesses. A safer, healthier workforce is a good thing for everyone. Graduates of our academic programs find rewarding and challenging careers in various employment sectors - working as team members to protect our nation’s most valuable asset, PEOPLE!

**Occupational Health and Safety Curriculum:** Students pursuing the Occupational Health and Safety degree track must complete a total of 44-45 credit hours including the MPH core courses listed below.

<table>
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<th>Coursework</th>
<th>Credit Hours</th>
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<td>PUH 695 The Public Health Integrative Experience</td>
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**Departmental Track Requirements**

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<tr>
<td>ENH 612 Assessing &amp; Managing Environmental Risks</td>
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<td>ENH 621 Fundamentals of Industrial Hygiene</td>
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<td>ENH 650 Essentials of Environmental and Occupational Toxicology and Disease</td>
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<td>ENH 670 Fundamentals of Occupational Safety</td>
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<tr>
<td>ENH 680 Field Interdisciplinary Studies</td>
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<td>ENH 681 Interdisciplinary Worksite Evaluations</td>
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**Departmental Electives**

2-3*

**School Wide Requirements**

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**Internship**

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<th>Course</th>
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</thead>
<tbody>
<tr>
<td>ENH 697</td>
<td>Internship</td>
</tr>
</tbody>
</table>

* The department highly recommends ENH 661 (2 credit hours)
Online MPH in Environmental Health & Toxicology (ENHQ)

This degree was developed for the working professional who may not have time to attend a bricks-and-mortar classroom. Covering the same content as the standard degree, this MPH in Environmental Health/Toxicology will allow students to rigorously study the links between the environment and public health, considering all aspects of this process from initial exposure to toxicant action to science-based policy development. We train students to recognize and assess exposures, determine the toxicity risk to the public, and design and properly communicate strategies to reduce risk and help set appropriate policy.

Environmental Health Curriculum: Students pursuing the Environmental Health & Toxicology degree track must complete a total of 42 credit hours including the MPH core courses listed below.

<table>
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<tr>
<th>Coursework</th>
<th>Credit Hours</th>
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<td>EPI 600Q</td>
<td>Introduction to Epidemiology</td>
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<td>Social and Behavioral Science Core</td>
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<td>HCO 600Q</td>
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Departmental Track Requirements 11

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<td>ENH 650Q</td>
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Departmental Electives 6*

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Internship

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<th>Coursework</th>
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<tbody>
<tr>
<td>ENH 697</td>
<td>Internship</td>
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</tbody>
</table>

Total 42

* The department highly recommends ENH 661Q (2 credit hours)
Online MPH in Occupational Health and Safety (OHSQ)

Designed for working professionals who have a passion for making a difference, our on-line degree program lets you earn your degree while you continue in your career. Your learning experience will be enriched by your experiences in the real world as you and your classmates focus on the identification and assessment of human health threats and the prevention of injury and disease related to occupational and environmental agents.

Occupational Health and Safety Curriculum: Students pursuing the Occupational Health and Safety degree track must complete a total of 44-45 credit hours including the MPH core courses listed below.

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credit Hours</th>
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<tr>
<td><strong>MPH Core</strong></td>
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**Departmental Track Requirements**

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<td>ENH 621Q Fundamentals of Industrial Hygiene</td>
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<td>ENH 650Q Essentials of Environmental and Occupational Toxicology and Disease</td>
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**Departmental Electives**

2-3

**School Wide Requirements**

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**Internship**

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<tbody>
<tr>
<td>ENH 697</td>
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</table>

**Total 44-45**

* The department highly recommends ENH 661Q (2 credit hours)

MPH in Industrial Hygiene (IHY)
This track is designed to provide an intensive educational experience for students without previous experience but who have a strong commitment to occupational health and safety and hazardous substances. Calculus, although not required, is highly recommended. In addition to didactic coursework, these tracks require a three-month internship which is arranged by the program.

The MPH in industrial hygiene combines didactic research instruction and applied research experience for students with or without previous work experience. The industrial hygiene program is designed to develop the students' understanding of the interrelationships between the basic sciences and the causes and prevention of occupational related diseases. Graduates of the program will be capable of developing systematic approaches to identifying and controlling problems in industrial hygiene, designing and implementing research programs to measure the level of work exposure to hazardous agents, and instituting necessary control measures.

The industrial hygiene program is a component of the Deep South Center for Occupational Health and Safety, one of 16 Education and Research Centers partially supported by the National Institute for Occupational Safety and Health (NIOSH).

**Curriculum for Industrial Hygiene:** Students must complete the basic MPH core (19 credit hours) and an additional 40 credit hours of course work. Included in the curriculum is a three-month internship in which principles learned in the classroom are put into practice. These are generally paid positions in industry. More than 60 industries nationwide have participated in this program.

<table>
<thead>
<tr>
<th>Coursework</th>
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<tbody>
<tr>
<td><strong>MPH Core</strong></td>
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<tr>
<td>School Wide Requirements</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>GRD 727 Writing (or course determined by Graduate School)</td>
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**Internship**

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Internship</td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>
MPH in Accelerated Program in Industrial Hygiene (AIHY)

This track is designed specifically for and limited to graduates of undergraduate Industrial Hygiene programs financially supported by the National Institute for Occupational Safety and Health (NIOSH). Graduates of these programs have received basic courses from NIOSH, peer-reviewed and approved Industrial Hygiene curricula, and are qualified to practice Industrial Hygiene. The Accelerated Program in Industrial Hygiene will broaden the student's public health knowledge and skills while also preparing students to take leadership roles in Industrial Hygiene.

Admission: Students who have graduated from a NIOSH funded and ABET accredited undergraduate Industrial Hygiene program and who meet the minimum requirements for admission to the School of Public Health. ABET is the Applied Science Accreditation Commission of the Accreditation Board of Engineering and Technology. Students without previous experience, but who have a strong commitment to occupational health and safety, may be admitted. In addition to the general admissions requirements for the School of Public Health enrollees shall hold a baccalaureate degree based on a minimum of 120 semester hours or the equivalent that shall include 63 or more semester-hour credits in undergraduate or graduate-level courses in science, mathematics, engineering, and technology, with at least 15 of those at the upper (junior, senior, or graduate) level and a minimum of 21 semester-hour credits, or the equivalent, in communications, humanities and social sciences. Remedial courses, designed to remove deficiencies in the background of entering students, are inherently at a level lower than expected in college credit work. Such courses, particularly in the areas of mathematics, basic science, and communications, cannot be used to meet the minimums in curricular content requirements.

Curriculum: Students must complete the MPH Core (19 credit hours) and an additional 28 credit hours for a total of 47 credit hours. Included in the curriculum is a 3 credit hour (three-month, summer semester) internship and a 3 credit hour thesis/project requirement. The internships are generally paid positions in industry or government. Flexibility is offered in the research experience to allow highly motivated students to graduate after 12 months of study.

<table>
<thead>
<tr>
<th>MPH Core</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BST 611 Intermediate Statistical Analysis I</td>
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<tr>
<td>BST 612 Intermediate Statistical Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>ENH 611 Environmental &amp; Occupational Exposure Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EPI 600 Introduction to Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HB 600 Social and Behavioral Science Core</td>
<td>3</td>
</tr>
<tr>
<td>HCO 600 Introduction to Public Health Systems and Population-Based Health Programs</td>
<td>3</td>
</tr>
<tr>
<td>PUH 695 The Public Health Integrative Experience</td>
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<table>
<thead>
<tr>
<th>Departmental Track Requirements</th>
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<tbody>
<tr>
<td>ENH 612 Assessing &amp; Managing Environmental Risks</td>
<td>3</td>
</tr>
<tr>
<td>ENH 625 Industrial Hygiene Case Studies</td>
<td>2</td>
</tr>
<tr>
<td>ENH 650 Environmental and Occupational Toxicology and Diseases</td>
<td>3</td>
</tr>
<tr>
<td>ENH 680 Field Interdisciplinary Studies</td>
<td>1</td>
</tr>
<tr>
<td>ENH 681 Interdisciplinary Worksite Evaluations</td>
<td>2</td>
</tr>
<tr>
<td>ENH 691 Current Topics in ENH Occupational Health &amp; Safety</td>
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<tr>
<td>ENH 691 Current Topics in ENH Occupational Health &amp; Safety</td>
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<tr>
<th>Departmental Research</th>
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<tbody>
<tr>
<td>ENH 699 Masters Level Project Research</td>
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</table>
**Departmental Electives**

**School Wide Requirements**
- GRD 727: GRD writing (or course determined by Grad School) 3

**Internship**
- ENH 697: Internship 3

Total 47

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**MSPH in Environmental Health Toxicology (ETOX)**

The MSPH program in Environmental Health Sciences/Toxicology is designed to provide an intensive educational experience for those with or without previous experience. Environmental health professionals must be able to recognize, evaluate, and control environmental situations that may lead to disease. They may also require knowledge in designing and conducting studies of environmental chemicals to assess the probability that environmental toxic agents present a risk to humans and/or the environment and to define safe limits of human exposure to them.

**MSPH Degree Program Learning Objectives**

The objectives of the MSPH program are to assure that students will:

- describe the distribution of chemical, physical, and biological agents in the environment and in the occupational environment;
- apply quantitative methods to measure the concentration or intensity of these agents;
- identify and describe the diseases or other adverse health effects that may result from exposure to these agents and the risk of those outcomes;
- explain and control interventions to reduce or eliminate exposures to these agents;
- recognize regulatory and management considerations relative to these agents;
- critically evaluate published scientific reports; and
- design a sound methodological study to test a new hypothesis, conduct the study, analyze the resulting data and prepare a report of the study.

**Admission:** Students without previous experience, but who have a strong commitment to environmental health science may be admitted.

**Curriculum:** Students must complete a total of 40 credit hours. Electives are chosen in consultation with the student's advisor and should be selected to fit the student's interests, career goals, and academic needs. The degree can be obtained in 21 months of full-time study.

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>MSPH Core</strong></td>
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<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
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</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
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<tr>
<td>ENH 611: Environmental &amp; Occupational Exposure Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EPI 610: Principles of Epidemiologic Research (EPI 610L concurrent lab required)</td>
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<td><strong>Departmental Track Requirements</strong></td>
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<tr>
<td>ENH 612: Assessing &amp; Managing Environmental Risks</td>
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<td>ENH 650: Environmental &amp; Occupational Toxicology &amp; Diseases</td>
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<td><strong>Departmental Elective</strong></td>
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<tr>
<td><strong>Masters Level Research</strong></td>
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</table>
MSPH in Industrial Hygiene (IHY)

The Master of Science in Public Health (MSPH) curriculum with a concentration in Industrial Hygiene will provide students with an option for a more concentrated focus on industrial hygiene topics and a more intensive research experience.

**MSPH Degree Program Learning Objectives**

The objectives of this degree option are to:

- describe the distribution of chemical, physical, and biological agents in the occupational environment;
- apply quantitative methods to measure the concentration or intensity of these agents;
- identify and describe the diseases or other adverse health effects that may result from exposure to these agents and the risk of those outcomes;
- explain and control interventions to reduce or eliminate exposures to these agents;
- recognize regulatory and management considerations relative to these agents;
- critically evaluate published scientific reports; and
- design and conduct a sound methodological study to test a new hypothesis, conduct the study, analyze the resulting data and prepare a report of the study.

The research aspect of this curriculum is conducted under the requirements of the UAB Graduate School, and includes: formation of a research committee, defense of a research proposal, conduct of the research, preparation of a formal thesis, and presentation and defense of the thesis.

**Admission:** Students without previous experience, but who have a strong commitment to Industrial Hygiene, may be admitted. In addition to the general admissions requirements for the School of Public Health enrollees should have a strong background in math and science and a strong commitment to conduct research (laboratory or field based) as the MS level.

**Curriculum:** Students must complete a total of 56 credit hours. Electives are chosen in consultation with the student's advisor and should be selected to fit the student's interests, career goals, and academic needs. The degree can be obtained in 21 months of full-time study.

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<tr>
<th>Coursework</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>MSPH Core</strong></td>
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<td>BST 611 Intermediate Statistical Analysis I</td>
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<tr>
<td>BST 612 Intermediate Statistical Analysis II</td>
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<tr>
<td>ENH 611 Environmental &amp; Occupational Exposure Assesessment</td>
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<tr>
<td>EPI 610 Principles of Epidemiologic Research (EPI 610L concurrent lab required)</td>
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<td><strong>Departmental Track Requirements</strong></td>
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<td>ENH 612 Assessing &amp; Managing Environmental Risks</td>
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<tr>
<td>ENH 621 Fundamentals of Industrial Hygiene</td>
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<td>Course Code</td>
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<tr>
<td>ENH 624</td>
<td>Control of Occupational Hazards</td>
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<td>ENH 625</td>
<td>Industrial Hygiene Case Studies</td>
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<tr>
<td>ENH 626</td>
<td>Physical Agents</td>
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<tr>
<td>ENH 650</td>
<td>Environmental &amp; Occupational Toxicology &amp; Diseases</td>
</tr>
<tr>
<td>ENH 661</td>
<td>Environmental Sampling and Analysis</td>
</tr>
<tr>
<td>ENH 670</td>
<td>Fundamentals of Occupational Safety &amp; Ergonomics</td>
</tr>
<tr>
<td>ENH 680</td>
<td>Field Interdisciplinary Studies</td>
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<td>ENH 680</td>
<td>Field Interdisciplinary Studies</td>
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<tr>
<td>ENH 681</td>
<td>Interdisciplinary Worksite Evaluations</td>
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<td>ENH 681</td>
<td>Interdisciplinary Worksite Evaluations</td>
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<tr>
<td>ENH 699</td>
<td>Masters Level Project Research</td>
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<td>ENH 699</td>
<td>Masters Level Project Research</td>
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<tr>
<td>ENH 691</td>
<td>Current Topics in Environmental &amp; Occupational Health &amp; Safety</td>
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<td>ENH 691</td>
<td>Current Topics in Environmental &amp; Occupational Health &amp; Safety</td>
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<td>ENH 691</td>
<td>Current Topics in Environmental &amp; Occupational Health &amp; Safety</td>
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<tr>
<td>ENH 790</td>
<td>Current Topics in Environmental Health Sciences Research</td>
</tr>
<tr>
<td>ENH 697</td>
<td>Internship</td>
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</tbody>
</table>

**Masters Level Research**
**Seminar/Journal Club**

**PhD in Environmental Health Sciences (ENH)**

The PhD program in Environmental Health Sciences prepares scientists for careers in research, environmental program management, and policy analysis. Education and research in the identification, evaluation, and control of hazards to human health are emphasized in this program. Students may concentrate on a wide variety of areas including exposure assessment, environmental chemistry, non-point source water pollution, risk assessment and management, environmental toxicology, and industrial hygiene. Graduates are qualified to assume upper-level positions in the public or private sector in management, teaching, research, or consulting. Graduates are particularly qualified for teaching or research positions in academic institutions that require sound research training.

**PhD Learning Objectives**

The PhD in the Department of Environmental Health Sciences is an academic research degree. In addition to understanding the advanced concepts of environmental health sciences, as they are related to environmental health, industrial hygiene, or environmental toxicology, graduates of this program are expected to develop skills that will enable them to identify and define questions of environmental health importance, design research studies to address these questions, and to complete a program of research that demonstrates abilities as an independent investigator.

The general learning objectives of the PhD will allow students to:

- critically analyze the environmental health literature, identify environmental health problems, and formulate research hypotheses to address these problems;
- design original research for the evaluation of hypotheses;
- conduct all aspects of the proposed research in a manner that will provide accurate data and prepare a comprehensive report of the research;
- successfully defend the methods, results, and conclusions drawn from the research in a public forum; and
- communicate new knowledge through the published literature.

In addition to the general learning objectives, students must demonstrate an understanding of the advanced concepts of environmental health sciences as they are related to environmental health, industrial hygiene, and environmental toxicology as evidenced by:
• knowledge of the essentials of pathophysiology and toxicology and ability to apply these principles to the occurrence of diseases among human populations;
• understanding of the dispersion of contaminants in the air, water, and land phases of the environment and how these contaminants affect human health;
• understanding of the appropriate techniques necessary to collect and analyze environmental, medical and biological samples;
• the ability to use chemical, biological, physical and biostatistical tools for evaluating exposure to environmental or occupational toxins;
• the ability to quantitatively assess the probability that environmental agents or processes present a significant risk to human health or the environment; and
• the ability to implement or use environmental policies, processes, and technology, to minimize the impact of human activities on the environment and on human health.

The PhD degree in the Department of Environmental Health Sciences has two foci:

- Environmental Health Sciences Research
- Industrial Hygiene

**Admission:** Particular emphasis is placed upon students' interest and their commitment to research. The PhD degree requires an original and carefully thought out research dissertation. Students with previous experience and therefore specific ideas for research are particularly encouraged to apply. The general departmental admission requirements apply to the PhD applicants; however, a previous master's degree in an appropriate area of environmental health must meet the department's course requirements for the MSPH in environmental health and toxicology or industrial hygiene, depending upon the focus of the PhD dissertation research.

**Curriculum:** PhD students are expected to complete the department core course requirements, as well as those courses required for their foci and are necessary to prepare them to conduct their dissertation research. Other courses preparatory to dissertation research will be determined by the student in consultation with his/her academic advisor.

Note that although GRD 717 is required, this course will not be considered in the total credit hours required for the degree.

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>PhD Departmental Core</strong></td>
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<tr>
<td>BST 611  Intermediate Statistical Analysis I</td>
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<tr>
<td>ENH 710  Biomedical Sciences Grant Writing</td>
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<tr>
<td>ENH 790  Current Topics in Environmental Health Sciences Research</td>
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<tr>
<td>ENH 791  Advanced Environmental Health and Toxicology Seminar</td>
<td>7</td>
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<tr>
<td>ENH 796  Environmental Toxicology Lab</td>
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<tr>
<td>GRD 717  Principles of Scientific Integrity</td>
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<tr>
<td><strong>Environmental Health Sciences Research Focus</strong></td>
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</tr>
<tr>
<td>ENH 720/IBS 700 Integrated Biomedical Science for Environmental Health I</td>
<td>2</td>
</tr>
<tr>
<td>ENH 721/IBS 701 Integrated Biomedical Science for Environmental Health II</td>
<td>8</td>
</tr>
<tr>
<td>ENH 722/IBS 702 Integrated Biomedical Sciences for Environmental Health III: Genetics and Genomics</td>
<td>3</td>
</tr>
<tr>
<td>TOX 711  Principles of Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>TOX 712  Actions and Assessments of Toxicants</td>
<td>3</td>
</tr>
<tr>
<td>TOX 713  Advanced Topics in Toxicology</td>
<td>3</td>
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<tr>
<td><strong>Elective</strong></td>
<td>At least one elective at discretion of the student and the research advisor</td>
</tr>
<tr>
<td><strong>Research Hours</strong></td>
<td>Variable</td>
</tr>
<tr>
<td>ENH 798 ** Doctoral Directed Research</td>
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<tr>
<td>ENH 799 *** Dissertation Research</td>
<td>Variable</td>
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<tr>
<td><strong>Industrial Hygiene Focus</strong></td>
<td>15</td>
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<tr>
<td>BST 612  Intermediate Statistical Analysis</td>
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</tr>
<tr>
<td>ENH 700  Scientific Basis of Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>ENH 701  Environmental Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENH 770  Advanced Topics in Environmental Disasters</td>
<td>3</td>
</tr>
<tr>
<td>TOX 711  Principles of Toxicology</td>
<td>3</td>
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<tr>
<td><strong>Electives</strong></td>
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<tr>
<td><strong>Research Hours</strong></td>
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<tr>
<td>ENH 798 ** Doctoral Directed Research</td>
<td>Variable</td>
</tr>
<tr>
<td>ENH 799 *** Dissertation Research</td>
<td>Variable</td>
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Suggested electives: *
EPI 616 Environmental Epidemiology
BST 626/627 Data Management/Reporting with SAS and the associated lab or another upper-level computer based BST course
ENH 752 Genetic Toxicology of Environmental Agents

** Students must register for this course until the comprehensive/qualifying exam and the dissertation proposal is approved leading to admission to candidacy.

*** Students may enroll for this course after admission to candidacy and must enroll for a minimum of two semesters but must continue to enroll in this course each term until graduation.

Environmental Health Courses (ENH)

ENH 300 – Toxicology. Poisons, People and the Environment. Basic principles in toxicology will be covered including dose-response relationships; absorption, distribution, storage, biotransformation and elimination of toxicants; target organ toxicity; mutagenesis and carcinogenesis; and an overview of fate and transport of contaminants in the environment. The course will focus on contaminants of environmental and public health interest, and will include the fascinating roles toxins have played in human history. Prerequisite: 1st year biology and chemistry. Credit hours: 3. (Dickinson)

ENH 301 - The Workplace Environment and Worker Health. In this course you will learn the key elements in occupational health and safety from looking back at our nations' past abuses at the worksite, to the physical, chemical, biological and emotional stressors that exist in today's diverse worksites. We will examine current leading indicators to recognize and evaluate possible solutions for preventing work-related incidents. Credit hours: 3. (Maples)

ENH 400. Our Global Environment: Issues and Challenges. This course will consider how biological, chemical, and physical agents in the environment impact human health. Sources, routes of exposure, human health impacts, and risk reduction will be discussed for each topic. Topics include indoor air pollution, medical radiation, noise, food and water contaminants, pests and pesticides, hazardous and solid waste treatment, natural disasters, biological and chemical terrorism, regulatory agencies and legislation, risk awareness and reduction. Undergraduate Course. 3 hours (Dickinson). Now offered as PUH 300 Environmental Factors in Public Health.

ENH 401 - Environmental Chemistry. In this course you will study Atmospheric Chemistry and Air Pollution, Energy and Climate Change, Water Chemistry and Water Pollution, Toxic Organic Compounds, and Environment and the Solid State. Weaved into this course are the concepts of social responsibility towards the environment, sustainability, and green chemistry. 3 hours (Squadrito)

ENH 405. Nature via. Nurture: Genes, Environment and Health. Using contemporary examples we will study how the environment and a person's genetic background interact to determine disease susceptibility. Topics include violence and aggression, cancer, alcoholism and addiction, asthma and allergies, intelligence, diabetes, obesity, neurodegenerative disorders, vaccines and autism, and sexually transmitted infections. Undergraduate Course. 3 hours (Dickinson)

ENH 491 - Special Topics in Environmental Health Sciences. This course will consider various topics related to environmental health sciences, and the topic will differ each term. Course requirements may include lecture, laboratory, fieldwork, readings, discussion, reporting, and internships, which may be conducted on- or off-campus. May be taken more than once for credit. Prerequisite: Permission of instructor. Credit hours: 1-6.

ENH 498 - Undergraduate Research. Research project conducted under supervision of a faculty mentor. Two semesters are recommended for an accumulation of 6 semester hours. A comprehensive written report is required. GPA 2.5 or greater overall; GPA 3.0 or greater in ENH concentration courses. Students must have senior standing. Prerequisite: Permission of instructor. Credit hours: 3 or 6.

ENH 600. Fundamentals of Environmental Health Sciences. This introductory course is designed to teach public health graduate students the fundamental concepts of environmental health science, the scientific research methods used to study the interaction between human health and the environment, and basic issues in the management of occupational and environmental health problems. Prerequisites: Admission into the MPH program or permission of instructor. College level biology and/or chemistry strongly recommended. This course is also available online with permission of the instructor. 3 hours (Dickinson)

ENH 601. Environmental Chemistry. Chemical concepts applied to pollutant behavior in biosphere; absorption, leaching, evaporation. Mechanisms of chemical modification in environmental, photochemical processes, redox systems, hydrolysis; metabolic transformation of selected pesticides, air contaminants, and hazardous chemical wastes are also discussed. Prerequisite: General Chemistry and Calculus recommended. 3 hours (Squadrito)

ENH 603. Management of Occupational Health and Safety Programs. Provides an overview of management principles as they relate to occupational safety and industrial hygiene, emphasizing the development of the "soft" skills. It provides management training as well as communication techniques for illustrating and justifying changes that are technically sound. The course will review theoretical and practical principles of managing safety and industrial hygiene programs. Real world examples are used to support management theories. 3 hours

ENH 605. Remote Sensing and Public Health (Also ANTH 462). Observing global patterns via satellites can help with research endeavors, this course will focus on the applications of remote sensing to both health and the social sciences. Hands on experience using satellite remote sensing will enrich the experience. 3 hours (Paracak)

ENH 608. Real World Remote Sensing-Public Health Topics (also ANTH 437). The course will give students the chance to learn about a wide range of advanced remote sensing applications in both classroom and lab settings. The course will start out with an
overview of article publication preparation and the importance of combining GIS and remote sensing data. The course will progress to
students learning GIS applications and analytical techniques, and how to input their remote sensing data into their own GIS for
additional analysis. 3 hours (Parcak)

**ENH 610. Environmental Disasters.** Examines the worldwide problem of toxic disasters, particularly those involving invisible agents
(chemicals, infectious disease agents, radiation). Theory, case studies, field experience, and current scientific research are reviewed,
and the public health, environmental, human services and public policy implications of toxic disasters are discussed. This course is
also available online with permission of the instructor. 3 hours (Panucci)

**ENH 611. Environmental & Occupational Exposure Assessment.** This lecture course is intended to develop an understanding and
appreciation of environmental exposure assessment and its role in providing the tools and information for toxicology, epidemiology,
and risk management. The course material introduces the general concepts of first recognizing environmental exposures to chemicals
in human populations, and then using sampling techniques to assess exposures. This course is available online. 3 hours (Dickinson)

**ENH 612. Assessing & Managing Environmental & Risks.** Examination of the methods used in developing environmental policy,
with a focus on how toxicology and exposure measurements are used in environmental risk assessment and management. Students
will learn the risk assessment process from identifying hazards, assessing exposure, and characterizing the risks, as well as identifying
means to evaluate the effectiveness of environmental policies from social and economic perspectives. This course is available online.
3 hours (Gohike)

**ENH 621Q. Fundamentals of Industrial Hygiene.** Chemical, physical and other hazards and stresses found in the work
environment. Recognizing potential hazards by understanding industrial processes, toxicity of environmental contaminants, and
occupational disease processes. Study design and preparation for field evaluation, conduct of industrial hygiene surveys, and
interpretation of survey results. This course is only offered online. 3 hours (Crawford)

**ENH 622. Industrial Hygiene Application for Hazardous Substances.** This course covers industrial hygiene aspects of hazardous
waste operations, and the regulatory aspects of those operations. Students will gain knowledge of the OSHA and EPA regulations
related to health and safety issues and will learn about personal safety equipment and techniques, administrative controls, and
hazardous waste sampling. Prerequisite: ENH 621 or equivalent. 3 hours

**ENH 624. Control of Occupational Hazards.** Importance of engineering controls in reducing occupational health hazards.
Substitution of less toxic substances, modification of work processes, and design of local exhaust ventilation systems; proper
selections and use of personal protective equipment, especially respirators, also considered. 2 hours

**ENH 625. Industrial Hygiene Case Studies.** Integrates students' basic knowledge through consideration of real work-place
situations. Step-by-Step analysis of case reports covering occupational health problems in representative industrial situations.
Sequential presentation of overview of working conditions, survey strategies, interpretation of results, and recommendations. 2 hours

**ENH 626. Physical Agents.** Sources, effects, and control of occupational and environmental noise, ionizing and non-ionizing
radiation, and temperature extremes. Review of exposure standards and introduction of measurement equipment and techniques. 2 hours (Maples)

**ENH 636. Evolutionary Medicine (also BY 426 and 626).** This course explores the relatively recent and rapidly expanding field of
evolutionary or Darwinian medicine, which takes an evolutionary approach to issues related to human health and disease, (i.e., a
synthesis of evolution and health sciences). The course is designed as a broad overview of a number of topics, including infectious
diseases and the arms race between pathogen and host, genetic diseases, aging, nutrition, cancer, reproductions and development,
and behavioral and mental disorders. Prerequisite: Permission of Instructor. 3 hours

**ENH 650. Essentials of Environmental and Occupational Toxicology and Diseases.** Serves as introductory graduate level
course that focuses on multiple aspects of toxicology and disease processes associated with environmental and occupational
exposures. Students learn basic terminology and concepts of environmental and occupational toxicology as well as occupational and
environmental disease recognition, management and prevention. Emphasis is on scientific foundations rather than on addressing
topical issues. The general course orientation is towards basic principles, organ system physiology, diseases and prevention. This
course is also available online. 3 hours (Liu)

**ENH 651. Risk Assessment of Environmental Hazards.** Examination of the methods used in regulatory decision-making based on
risks, benefits and costs of a particular action or chemical. Students will learn the risk assessment process from identifying hazards,
assessing exposure, and characterizing the risks, as well as identifying factors that contribute to variability in response in human
populations and identifying means to control risk. Prerequisite: ENH 650. 3 hours (Gohike)

**ENH 660. Fundamentals of Air & Water Pollution.** An integrated introduction to air and water pollution, including its sources,
transport, and effects. Focus will be on measurement and characterization of air pollution and the bio-assessment of water quality.
Regulatory control of pollutants and the technical aspects of engineering controls will also be given emphasis. 3 hours (Liu/Lungu)

**ENH 661. Environmental Sampling and Analysis Lab.** This course is designed to provide the students with a thorough
understanding of the principles and practice of air and water sampling. The course will focus on contaminant gases, vapors,
suspended particulate material and dissolved chemicals in water. A basic understanding of chemistry and physics is prerequisite.
Working professionals taking the online version of the MPH in Occupational Health & Safety track will not be required to participate in
the lectures and laboratory exercises described in the syllabus of the course. However, slides with lecture commentary will be provided
to the students and they will have to submit responses to the quizzes and homework assignments. This course is available online. 2 hours (Crawford/Lungu)
ENH 670Q. Fundamentals of Occupational Safety. Basic principles of safety and loss control; emphasis on prevention of losses of people, property, and products in work place. Developing competence in human-factors engineering, fire prevention, physical and behavioral science, product safety, and science of accident prevention. This course is only offered online. 3 hours

ENH 680. Field Interdisciplinary Studies. Field trips to industries throughout Alabama to observe processes and interact with other occupational health personnel. Seminars held with occupational health nursing, industrial hygiene, and safety and ergonomics students to exchange information on latest developments in each field. Prerequisite: ENH 621 or Permission of Instructor. This course is available online. 1 hour (Maples)

ENH 681. Interdisciplinary Worksite Evaluations. To assist students in developing critical thinking and analytical skills, provide them with experience in applying discipline-specific knowledge in a broad occupational health and safety context, and provide experience in working in interdisciplinary teams. The course consists of an overview of survey methodology and information sources, with emphasis on job safety analysis, a review of the occupational site or process to be evaluated and a report of the identified hazards and recommended controls. This course is available online. 2 hours (Maples)

ENH 691. Current Topics in Environmental & Occupational Health & Safety Seminar. Development of communication skills through objectively reviewing scientific literature; presentations and summaries of research or professional activities. This course is available online. 1 hour (Maples)

ENH 695. Environmental Health Sciences Seminar. Weekly seminar series of Environmental Health Sciences faculty, postdoctoral fellows, and invited guest lecturers. All PhD candidates in Environmental Health Sciences are required to attend all of the seminars. 1 hour

ENH 697. Internship. Field experience under joint direction of a public health faculty member and qualified specialist working in selected aspects of public health. Pass/No Pass. 3 hours


ENH 699. Project Research, Environmental Health. Research for project under direction of research project committee. Pass/No Pass. 1 - 9 hours

ENH 700. Scientific Basis of Environmental Health. This is an overview course that is intended to provide doctoral students with a broad understanding of the scientific principles on which environmental health is based within the context of the interaction of human activities and ecosystems, and the reciprocal impact of those interactions on human health and global ecology. Course will be graded by letter. 3 hours (Dickinson)

ENH 701. Environmental Chemistry. This advanced course covers physical and chemical processes that determine the dynamic nature of the atmosphere and interrelations with water and soil. It also covers measurement methods and data analysis regarding observed concentrations of many key compounds. The course also covers chemical aspects of current environmental change issues, as well as reviews risk assessment as applied to tropospheric air quality. Course will be graded by letter. Prerequisites: ENH 601 is preferred. Other courses emphasizing thermodynamics, kinetics and transport phenomena can be used with permission of instructor. 3 hours (Squadrito)

ENH 702. Advanced Topics in Environmental Management. Building on ENH 612, this advanced course examines emerging issues and challenges in environmental management and policy. Topics include global environmental threats, ecosystem management, ecological risk assessments, and frameworks for integrating science and public policy. Course will be graded by letter. Prerequisite: ENH 602 or 612 or permission of instructor. 3 hours

ENH 705. Special Topics (Readings) in Environmental and Occupational Health. Following topics taught on request on individual basis. 1 - 9 hours each

- Radiological Health
- Air Pollution
- Systems Safety
- Advanced Toxicology
- Environmental Monitoring
- Noise Control
- Free Radical Biology & Medicine
- Techniques of Biochemical and Molecular Toxicology

ENH 710. Grant Proposal Writing in Biomedical Sciences. This course will train second-year graduate students in the intricacies of writing research proposals in the biomedical sciences. Pass/No Pass. 1 hour (Postlethwait)


ENH 770. Advanced Topics in Environmental Disasters and Public Health. Examines emerging public health challenges posed by incidents involving chemicals, radiation and biological agents. Students are provided with the opportunity to undertake guided
research on current topics in the field and discuss their findings with graduate students and faculty members. Course will be graded by letter. Prerequisites: ENH 610. 3 hours

**ENH 780. Seminars in Free Radical Biology and Medicine.** This course will consist of research seminars presented primarily by leading national and international scientists working in free radical biology and medicine. These seminars are interactive with questions being asked throughout the presentation. Prerequisite: Permission of Instructor. 1 hour (Dickinson)

**ENH 781. Journal Club: Mechanisms of Redox Cell Signaling and Disease.** This course will consist primarily of student presentations of peer-reviewed journal articles, and of their research projects. The overall objective of this course is for the student to develop critical thinking skills in the analysis of published research in an area related to their own dissertation research. Course will be graded as Pass/Fail. Prerequisite: Permission of Instructor. 1 hour (Dickinson)

**ENH 782. Free Radical Chemistry and Biochemistry.** This course is for students to gain expertise in the chemical and biochemical reactions of free radicals as they occur in biological systems. Students should be able to critically evaluate the literature with respect to free radical chemistry in biology and medicine and will be able to correctly employ these basic chemical principles in the experimental design for their own dissertation research. Course will be graded by letter and offered in odd numbered years. Prerequisite: Completion of first year GBS or Permission of instructor. 2 hours (Lancaster)

**ENH 783. Free Radicals in Health and Disease.** This course is for students to understand the roles that free radicals play in biological systems, both in the maintenance of normal physiology via regulated cell signaling and in contributing to pathology through loss of this regulation. Students should be able to critically evaluate the literature with respect to the roles of free radicals in health and understanding into their own dissertation research. Course will be graded by letter and offered in odd numbered years. Prerequisite: Completion of first year GBS or Permission of Instructor. Co-registration in ENH 782 required. 2 hours (Dickinson)

**ENH 790. Seminar: Current Topics in Environmental Health Sciences Research.** Interactive forum in which graduate students and faculty discuss dissertation research projects and topics related to the field of Environmental Health Sciences research through the presentation of journal articles. Course is designed to develop oral communication skills for presenting scientific material to peer groups. Presentations by graduate students are followed by discussion and questions. Prerequisite: Permission of Instructor. Pass/No Pass. 1 hour (Maples)

**ENH 791. Advanced Environmental Health and Toxicology Seminar.** Facilitates critical review of recent referred publications in toxicology and presentations of research data. Students are exposed to advanced knowledge and diversified subjects. Prerequisite: ENH 650, ENH 651 or Permission of Instructor. 1 hour (Fanucchi)

**ENH 796. Environmental Health Sciences Research.** Lab Rotations. Prerequisites: Required for First and Second Year PhD students in the Industrial Hygiene and Environmental Management and Policy foci. Course will be graded by letter. Permission of instructor required to register. 3 hours

**ENH 798. Doctoral Directed Research, Environmental Health.** Independent study with guidance of appropriate faculty. Pass/No Pass. 1 - 9 hours

**ENH 799. Dissertation Research, Environmental Health.** Research for dissertation under the direction of the dissertation committee. Pass/No Pass. 1 - 9 hours

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**Department of Epidemiology**

**Departmental Overview**

This department encompasses research and educational foci in epidemiology, the distribution and determinants of disease in humans, with particular emphasis on cancer, occupational and environmental epidemiology, infectious diseases, population genetics, injury and chronic diseases; and in international health, a multidisciplinary approach to tropical infectious diseases, public health nutrition, environmental hygiene, reproductive health and program management in developing countries and under-resourced areas of the United States.

**Donna Arnett, MSPH, PhD, Professor and Chair**

**Faculty:** Professors: Arnett, Delzell, Garrison, Go, Jolly, Kaslow. Associate Professors: McGwain, Sathiaukar, Waterbor; Assistant Professors: Brown, Chamot, V. Howard, Kabagambwe, Kristensen, Shrestha, Thomas; Research Assistant Professors: Aissani, Baier, Kempf, Perry, Voeks; Emeritus Professors: Cole, Maetz, Mason, Roseman.

The principal mission of the programs in epidemiology is to provide all students in the School of Public Health with epidemiology training that is suited to their career objectives. A second major instructional goal is to carry out research that contributes to the understanding of the causes of major diseases and the methods for their control.

**Career Opportunities**

The continued importance of diseases such as HIV/AIDS, other infectious and chronic diseases, injuries, and the threat of bioterrorism have highlighted the nationwide shortage of qualified epidemiologists. Graduates find employment in public health agencies, research organizations and foundations, industry, public and private health services delivery organizations, academe, and international
Master's Programs' Learning Objectives
Graduates with a Master's degree in epidemiology are expected to:

- describe the epidemiology of important diseases, injuries, and causes of death in a population;
- understand and apply the principles of epidemiologic study design and analysis;
- recognize the circumstances in which specific designs are appropriate for an investigation and to identify strategies to minimize and prevent bias in studies;
- design data collection, entry, and management procedures for epidemiological studies;
- compute and interpret the most common epidemiological measures of disease occurrence and association and to perform hypothesis testing and interval estimation on those measures;
- understand and analyze published reports of epidemiologic studies and critically evaluate the data and conclusions presented.

In addition, graduates of the MSPH degree program are also expected to:

- propose a methodologically sound study design for the evaluation of a new hypothesis; and
- manage one or more components of a research project, including instrument design, database design and management, statistical analysis and report writing.

Degree Programs: Department of Epidemiology

MPH in Epidemiology - (EPID)

This program is intended for persons who anticipate careers in public health practice. In addition, students who wish to enter doctoral-level training should consider majoring in epidemiology at the master's level. Graduates of the MPH in Epidemiology may assume faculty or research positions in academia or management positions in government or industry if they have other professional degrees (e.g., MD, DDS) as well. Graduates of the program without professional credentials generally assume mid-level positions in academia, industry or government. The MPH in Epidemiology typically takes 12 to 18 months to complete.

Admission: Applicants must meet the requirements for admission to the UAB School of Public Health and must demonstrate their aptitude for biological sciences and mathematics by virtue of their college transcripts and GRE scores. The Department of Epidemiology admits MPH students for the Fall term each year. Interested applicants should apply at: www.sophas.org. International students should also submit a World Education Services (WES/ECE, or similar) transcript evaluation along with your application materials. The deadline to apply through SOPHAS for the MPH program is April 1st each year.

Curriculum:

MPH Core Sequence Requirement: All MPH core courses 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 or graduation term, BST 611, EPI 610, and HCO 600 are required to be taken in the first Fall term of enrollment, BST 612, EPI 625, ENH 600, and HB 600 are required to be taken in the first Spring term of enrollment, BST 613 MUST be taken in the second Fall term of enrollment. MPH students can take the Internship course (EPI 697) as early as their first Summer term of enrollment.

SOPH Course Requirement: The GRD Writing course is offered every semester and MUST be taken within the first year of enrollment (first Fall, Spring, or Summer term).

MPH – Epidemiology (EPI)

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPH Core Requirement (including the Integrative Experience)</td>
<td>23</td>
</tr>
<tr>
<td>BST 611</td>
<td>Intermediate Statistical Analysis I</td>
</tr>
<tr>
<td>BST 612</td>
<td>Intermediate Statistical Analysis II</td>
</tr>
<tr>
<td>ENH 600</td>
<td>Fundamentals of Environmental Health Sciences</td>
</tr>
<tr>
<td>EPI 610 and 610L</td>
<td>Principles of Epidemiologic Research and Lab</td>
</tr>
<tr>
<td>EPI 625</td>
<td>Quantitative Methods in Epidemiology</td>
</tr>
<tr>
<td>HB 600</td>
<td>Social and Behavioral Science Core</td>
</tr>
<tr>
<td>HCO 600</td>
<td>Introduction to Public Health Systems and Population-Based Health Programs</td>
</tr>
<tr>
<td>PUH 695</td>
<td>Public Health Integrative Experience</td>
</tr>
<tr>
<td>SOPH Requirements</td>
<td></td>
</tr>
<tr>
<td>GRD 727</td>
<td>Writing &amp; Reviewing Research (other GRD courses may be required based on Writing Assessment Exam)</td>
</tr>
</tbody>
</table>

Epidemiology Methods Track Requirements 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPI 627</td>
<td>Data Analysis and Presentation of Epidemiologic Studies</td>
</tr>
<tr>
<td>BST 613</td>
<td>Intermediate Statistical Analysis III</td>
</tr>
</tbody>
</table>

At least 6 credit hours of the following. Other courses may be substituted with the advisor's approval. 6
EPI 601 Vaccinology 3
EPI 602 Epidemiology of Chronic Disease 3
EPI 603 Injury Epidemiologic Principles 3
EPI 604 Infectious Disease Surveillance & Control-Jamaica 3
EPI 605 Epidemiology of Infectious Disease 3
EPI 606 Epidemiology of Cardiovascular Diseases 2
EPI 607 Fundamentals of Clinical Research 3
EPI 608 Tropical Infectious Diseases 3
EPI 609 Pharmacoepidemiology & Comparative Effectiveness Research 3
EPI 613 Cancer Epidemiology & Control 2
EPI 614 Epidemiologic Methods as Applied to Comparative Effectiveness Research 2
EPI 615 Ecology & EPI of Arthropod-Borne Diseases 3
EPI 616 Environmental Epidemiology 3
EPI 617 Occupational Epidemiology 3
EPI 618 Fieldwork in Public Health 2
EPI 621 AIDS/HIV and STDs 3
EPI 624 Grant Applications in an International Setting 3
EPI 630 Data Analysis Using EPI Info 3
EPI 632 Molecular and Genetics Basis of 3
Obesity
EPI 635 Genetics in Public Health 2
BST 619 Data Collection and Management 3
BST 626 Data Management with SAS 3

Internship Requirement 3
EPI 697 Internship 3

Seminar Requirement 1
EPI 695 Epidemiology Seminar 1

Electives (with advisor's approval & in some cases, also approval of instructor) - to complete total hours required for the degree.
EPI 698 Masters Level Directed Research 1-8

Total Credit Hours 42

MSPH in Applied Epidemiology (EPAP)

The MSPH program in Applied Epidemiology is an academic research degree designed for students who wish to receive education and training in epidemiologic research methods. Completion of didactic course work and a thesis research project are required. This degree can be completed in 12-18 months or 4-5 semesters.

Admission: The online application to the MSPH-Applied EPI program can be submitted at www.sophas.org. International students should also submit a World Education Services (WES/ECES, or similar) transcript evaluation along with your application materials. The deadline date to apply for admission is April 1st each year. The Department of Epidemiology admits students in the Fall term each year.

Curriculum: A total of 42 credit hours must be earned to receive the MSPH in Applied Epidemiology degree. Of these 42 total hours, 25 hours are taken to complete the Core requirement (9 semester hours of masters level project research EPI 699 is included in the 25 core credit hours). Students then complete 12 hours of Applied EPI Track courses and 5 hours of track-specific relevant elective credits. Students must consult their academic advisor for approval of track-specific relevant elective credits. During the last term of enrollment or final term of graduation, the student is required to complete his/her final thesis project and presentation.

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MSPH Core Requirements</strong></td>
<td>25</td>
</tr>
<tr>
<td>BST 611 Intermediate Statistical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>BST 612 Intermediate Statistical Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>BST 613 Intermediate Statistical Analysis III</td>
<td>3</td>
</tr>
<tr>
<td>EPI 610 and 610L Principles of Epidemiologic Research &amp; Lab</td>
<td>4</td>
</tr>
<tr>
<td>EPI 625 Quantitative Methods in Epidemiology</td>
<td>3</td>
</tr>
</tbody>
</table>

Masters Level Research Requirements (minimum of 9 hours)

EPI 699 Masters Level Project Research

MSPH in Clinical and Translational Science (CTE)

There is a growing interest in medical and other health science 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. Locally, the 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 or other health science 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 research elective and focus elective courses that reflect the academic interest of the student. At this time, the program can accommodate students with specific interest in Biostatistics (CRBS), Epidemiology (CTE), and Health Behavior (CRHB). As a result, there will be some variation in the specific knowledge an skills acquired by each graduate. However, the primary learning objectives will apply to all students, irrespective of departmental affiliation. As such, 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
- critically evaluate published research

Admission: Applicants should possess a medical or other health science professional degree. They may be in their final years of training as residents or fellows or hold positions as junior faculty members. The Graduate Record Examination (GRE) is required for applications to all MSPH programs in the School of Public Health. The GRE may be waived at the discretion of the committee, for applicants who have been pre-screened by the clinical investigator training grant committee of the School of Medicine. The applicant must produce three letters of reference. A medical/health sciences mentor should be identified and a setting where the student can gain experience in conducting clinical research. A faculty member within the School of Public Health will be assigned as an advisor based on the stated interests of the applicant. Please submit your application online using the UAB Graduate School's Apply Yourself electronic application system at: https://app.applyyourself.com/?id=uab-grad. The application deadline for the MSPH degree program is April 1st each year.
Curriculum: The MSPH in Clinical and Translational Science consists of a minimum of 42 semester hours. Of these, 25 hours are required, including 9 hours of specific Biostatistics courses and 7 hours of specific Epidemiology credits. Students then complete 8 hours of Clinical Research Track courses and 9 hours of approved Track-Specific relevant elective credits. Students are also required to complete a minimum of 9 semester hours of Masters Level Directed Research (EPI 699). The MSPH program requires a thesis research project. The final thesis research project is completed during the last enrollment term or graduation term.

### MSPH-CTE Coursework

<table>
<thead>
<tr>
<th>Required Core Courses (25 hours)</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BST 611 Intermediate Statistical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>BST 612 Intermediate Statistical Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>BST 613 Intermediate Statistical Analysis III</td>
<td>3</td>
</tr>
<tr>
<td>EPI 610 and 610L Principles of Epidemiologic Research and Lab</td>
<td>4</td>
</tr>
<tr>
<td>EPI 625 Quantitative Methods in Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>Masters Level Research (minimum 9 hours)</td>
<td>9</td>
</tr>
<tr>
<td>EPI 698 Masters Level Directed Research</td>
<td>3</td>
</tr>
<tr>
<td>EPI 698 Masters Level Directed Research</td>
<td>3</td>
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<tr>
<td>EPI 698 Masters Level Directed Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**Clinical Research Track Requirements (8 hours): Choose One - EPI 607 or BST 625**

<table>
<thead>
<tr>
<th>Clinical Research Track Requirements (8 hours)</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPI 607 Fundamentals of Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>BST 625 Design and Conduct of Clinical Trials</td>
<td>3</td>
</tr>
<tr>
<td>EPI 680 Topics in Clinical Research *</td>
<td>2</td>
</tr>
<tr>
<td>GRD 717 Principles of Scientific Integrity</td>
<td>3</td>
</tr>
</tbody>
</table>

Track-Specific Relevant Electives: Students should consult their advisor to identify courses relevant to their needs and interests. 9

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

Note that care must be exercised when selecting some of these courses since some have prerequisites that must be taken earlier in the sequence of classes or taken concurrently.

*EPI 680: Topics in Clinical Research* is a 2 credit hour class in which students attend and participate in lectures provided through the UAB Center for Clinical and Translational Science 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 Pass grade, 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 Coordinator for the course syllabus and course schedule.

### PhD in Epidemiology

The PhD program emphasizes epidemiologic study design and data analysis. The program is designed to prepare exceptionally qualified individuals for a career of research and teaching. Admission is competitive. Applicants should have earned a Master of Public Health (MPH), Master of Science in Public Health (MSPH), Master of Science (MS) degree or equivalent, with a strong background in epidemiology and statistics. Students who complete the degree will master the skills required for conducting independent research in epidemiology, with a firm background in epidemiology, biostatistics, and information management. Specific
areas of concentration include chronic disease, infectious disease, molecular epidemiology, and injury epidemiologic methods. Further details of the program may be obtained by contacting the Program Director, Dr. Paul Muntner at pmuntner@uab.edu. You may also contact the Program Coordinator, Kimberly Hawkins at hawkinsk@uab.edu, or (205) 975-9749.

**Admission:** Interested students should apply on-line at [ApplyYourself](https://www.scph.uab.edu/print/book/export/html/14295). Please submit all academic transcripts, 3 letters of recommendation, GRE scores, your personal goals/career goals statement, a current copy of your CV/resume, etc... along with your application for admission. International students should also submit a World Education Services (WES/ECE, or similar) transcript evaluation along with your application materials. The Department of Epidemiology admits PhD students in the Spring for matriculation in the Fall semester only. The application deadline is April 1st each year (Feb. 1st to be considered for financial assistance).

**Curriculum:** To earn the PhD degree in Epidemiology students must complete a minimum of 60 total credit hours of academic course work. Of this 60 credit hour minimum, 18 semester hours are required and include Biostatistics and Epidemiology courses. 24 semester hours must be earned in doctoral level didactic Epidemiology courses and/or advanced Biostatistics courses. Students must also complete at least 12 semester hours of directed research (EPI 798) and 12 semester hours of dissertation research (EPI 799). Additionally, students must complete at least two semesters in candidacy (of EPI 799) before being allowed to graduate.

<table>
<thead>
<tr>
<th>PhD Coursework</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses (18 Hours)</strong></td>
<td></td>
</tr>
<tr>
<td>BST 621</td>
<td>Statistical Methods I</td>
</tr>
<tr>
<td>BST 622</td>
<td>Statistical Methods II</td>
</tr>
<tr>
<td>BST 665</td>
<td>Survival Analysis</td>
</tr>
<tr>
<td>EPI 709</td>
<td>Theoretical Basis of Epidemiology</td>
</tr>
<tr>
<td>EPI 710</td>
<td>Analysis of Case-Control Studies</td>
</tr>
<tr>
<td>EPI 720</td>
<td>Analysis of Follow-Up Studies</td>
</tr>
</tbody>
</table>

**At least two additional doctoral level Epidemiology courses - Select from the following:**

| EPI 703 | Grant Proposal Writing | 3 |
| EPI 708 | Tropical Infectious Diseases | 3 |
| EPI 712 | Nutritional Epidemiology | 3 |
| EPI 713 | Cancer Epidemiology and Control | 2 |
| EPI 721 | HIV/AIDS and STDs | 3 |
| EPI 730 | Intro to Human Population Genetics | 3 |
| EPI 731 and 731L | Genetic Epidemiology and Lab | 4 |
| EPI 781 | Special Topics in Epidemiology | 3 |
| EPI 788 | Principles & Methods in Molecular Epidemiology | 4 |

**At least one advanced level Biostatistics course**

| BST 623 | General Linear Models | 3 |
| BST 625 | Design and Conduct of Clinical Trials | 3 |
| BST 640 | Nonparametric Methods | 3 |
| BST 670 | Sampling Methods (offered on demand ≥5 students) | 3 |
| BST 671 | Meta Analysis | 3 |

**At least one doctoral level course in an area of medicine or in one of the major areas of Public Health other than EPI and BST. Please consult your advisor for additional courses.**

| ENH 722 | Integrated Biomedical Science III | 3 |
| HB 714 | Survey Research Methods | 3 |
| HCO 711 | Child Health and Development | 3 |
| PAT 700 | Biology of Disease | 3 |
| PAT 703 | Intro to Pathology Research | 3 |

**Required Doctoral Seminars (EPI 790 must be taken at least 3 times and EPI 797 must be taken at least 1 time)**

| EPI 790 | Doctoral Seminar in Epidemiology | 2 |
| EPI 790 | Doctoral Seminar in Epidemiology | 2 |
| EPI 790 | Doctoral Seminar in Epidemiology | 2 |
| EPI 797 | Analysis and Presentation of Epidemiologic Data | 2 |

**Doctoral Level Research (at least 24 hours)**

| EPI 798 | Doctoral Level Directed Research (register prior to admission to candidacy) | 12 |
| EPI 799 | Dissertation Research (register after admission to candidacy; must accumulate at least 12 hours and register for at least 2 semesters of EPI 799 prior to graduation) | 12 |

**At least one course related to Research Ethics and Scientific Integrity (does not count toward the required 24 credit hours of didactic course work)**

| HCO 670 | Social and Ethical Issues in Public Health | 3 |
Masters of Science in Pharmacoepidemiology and Comparative Effectiveness Research (MSPH-PCER)

The MSPH-PCER program is an academic research degree that is designed to provide students with special training in Epidemiology research methods as applied to Pharmacoepidemiology and Comparative Effectiveness Research. This MSPH track will present introductory and advanced topics relevant to the field of Pharmacoepidemiology and will include material on information sources used for research in these fields, sources of bias, study designs, analytical approaches, issues of interpretation of research results, and relevant policy and regulatory activities. All trainees will complete a final thesis during their last term of enrollment or graduation term, that typically will be in the form of one or more papers suitable for publication and addressing a topic in Pharmacoepidemiology and Comparative Effectiveness Research. A number of databases are available for trainee projects.

Admission: The online application to the MSPH-PCER program can be submitted at www.sophas.org. International students should also submit a World Education Services (WES/ECE, or similar) transcript evaluation along with your application materials. The deadline date to apply for admission is April 1st each year. The Department of Epidemiology admits students in the Fall term each year.

Curriculum: A total of 43 credit hours must be earned to receive the MSPH in Pharmacoepidemiology and Comparative Effectiveness Research. Of these 43 total hours, 25 hours are taken to complete the Core requirement (9 semester hours of required masters level project research EPI 699 is included in the 25 core credit hours). Students then complete 8 hours of PCER Track courses and 10 hours of PCER Track-Specific relevant electives (with the advisor's approval). During the last term of enrollment or final term of graduation, the student is required to complete his/her final thesis project and presentation.

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>MSPH Core Requirements (25 hours)</strong></td>
<td></td>
</tr>
<tr>
<td>BST 611 Intermediate Statistical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>BST 612 Intermediate Statistical Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>BST 613 Intermediate Statistical Analysis III</td>
<td>3</td>
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<tr>
<td>EPI 610 and 610L Principles of Epidemiologic Research &amp; Lab</td>
<td>4</td>
</tr>
<tr>
<td>EPI 625 Quantitative Methods in Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Masters Level Research Requirements (minimum of 9 hours)</strong></td>
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</tr>
<tr>
<td>EPI 699 Masters Level Project Research</td>
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<tr>
<td>EPI 699 Masters Level Project Research</td>
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<td>EPI 699 Masters Level Project Research</td>
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<tr>
<td><strong>PCER Track Requirements (8 hours)</strong></td>
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</tr>
<tr>
<td>EPI 609 Pharmacoepidemiology &amp; Comp. Effectiveness Research</td>
<td>3</td>
</tr>
<tr>
<td>EPI 614 Epidemiologic Methods Applied to Comparative Effectiveness Research</td>
<td>2</td>
</tr>
<tr>
<td>GRD 717 Principles of Scientific Integrity</td>
<td>3</td>
</tr>
</tbody>
</table>

Track-Specific Relevant Electives (10 hours): Students should consult their advisor
and select from among the courses most relevant to their needs and interests.

BST 625 Design and Conduct of Clinical Trials 3

Total Credit Hours Required for Degree 43

Epidemiology Courses (EPI)

2014 – 2015 Epidemiology Courses (EPI)

(*) 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 (MacLennan)

EPI 600QL/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 (Astlebekyan)

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 (Waterbor)

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. Summer (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 (Chamot)

EPI 607. 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. Fall (Zhang)

EPI 610. Principles of Epidemiologic Research.-Concepts and methods of epidemiology. Measures of disease frequency, association and impact; study design and analysis, indices of disease and health; overview of major categories of acute and chronic disease, analysis of epidemiologic data sets. Track requirement for EPI majors. Co- requisite: EPI 610L (computer laboratory course) must be taken with EPI 610. 4 hours. Fall (Muntner)

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. 2 hours. Spring (Yun)

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

EPI 618. Fieldwork in Public Health.- Application of public health principles in the communicable disease control and environmental health programs carried out at Jefferson County Department of Health. Prerequisites: EPI 610, EPI610L, and EPI 605 or Permission of instructor. Pass/No Pass. 2 hours. Course offered based on student interest/enrollment during the Summer (Amet)

EPI 621/721. 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. 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)

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: BST 612 and EPI 611. 3 hours. Spring (Griffin)

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 (Griffin)

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: BST 612, EPI 611, EPI 625 and BST 626 or EPI 626. 3 hours. Fall. (McGwin)

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 606 and permission of instructor for enrollment in EPI 681, and permission of instructor for enrollment in EPI 781. 3 hours

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

*EPI 695/795. Epidemiology Seminar Series. This lecture 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 (Arnett)

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 (240 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. Course offered every even calendar year. Fall (Arnett)

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.
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)

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 600 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 (Brown)

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

EPI 793. DrPH Practicum.-Field experience practicum which bridges professional academic preparation and advanced public health practice. Pass/No Pass. Fall, Spring. Summer. 6 hours (480 contact/working hours required).

*EPI 795/695. Epidemiology Seminar Series. This lecture 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 (Arnett)

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


Department of Health Behavior

Departmental Overview

Chair

Jalie Tucker, Ph.D., M.P.H.

Faculty

Professors: Fontaine, Galvin, Kohler, Tucker; Associate Professors: Davies, Larzi, Schroder, Simpson; Assistant Professors: Cheong, Hendricks, Norton, Pekmezzi, Perkins; Professor Emeritus: Franklin; Associate Professor Emeritus: Coombs

The Department of Health Behavior aims to train health promotion specialists/behavioral scientists to conduct research, develop and evaluate programs, implement and disseminate programs and integrate ethical, cultural and social justice topics as they address the public's health.

Health Behavior MPH and PhD students learn to use theories and methods from the social and behavioral sciences to develop programs that encourage - healthy

behaviors. They learn state-of-the-art techniques and methods for research and program evaluation. Doctoral students study these topics in depth as they apply their knowledge and skills to conducting research and writing funding proposals and manuscripts. Students have opportunities to become involved in faculty research projects on a broad range of health issues including infectious diseases (HIV/AIDS and other sexually transmitted diseases), tobacco, alcohol, and other substance use, and behaviors related to obesity, aging, cardiovascular disease, cancer, and intentional or unintentional injuries.

Career Opportunities

Demand for qualified behavioral scientists and health education specialists continues to increase with the current national focus on preventive care. Graduates of our master's degree programs are typically employed in public and private agencies at the local, state, and national levels such as health departments, health care institutions, and health-related non-profit agencies. Graduates of our doctoral program go on to research and service careers in academic settings or public agencies such as the Centers for Disease Control and Prevention.

Health Behavior MPH Learning Objectives

The objectives of the MPH in Health Behavior are for students to:

- Understand and apply social and behavioral science theories as they relate to public health;
- Review and critically evaluate the existing health education and behavior literature;
- Develop valid and reliable theory-based assessment tools;
- Develop, implement, evaluate and disseminate health promotion and disease prevention programs; and
- Gain professional experience and expertise through internship experiences.

Degree Programs: Department of Health Behavior

MPH in Health Behavior (HB)

The Master of Public Health program in health behavior is the basic public health professional degree in social and behavioral science. Students in this track take 43-46 credit hours. The number of credit hours is determined before admission based on students' education and professional experience. Full-time students can generally complete the program in four semesters.

Students in the MPH in Health Behavior are taught methods to identify and understand factors that affect behaviors related to personal and community health and to develop and evaluate intervention programs that promote healthy lives. Students are required to complete an internship. The internship is three credit hours and generally takes place following the completion of core course work.

Admission: Applicants should have a strong academic record and meet the minimum requirements for admission to the School of Public Health.

Curriculum: In addition to the MPH core requirements and 3-6 hours of other SOPH required courses, students take 9 hours of health behavior track courses, 9 hours of electives, and a 3 hour internship.

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MPH Core (including the Integrative Experience)</strong></td>
<td></td>
</tr>
<tr>
<td>BST 611 Intermediate Statistical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>BST 612 Intermediate Statistical Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>ENH 600 Fundamentals of Environmental Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>EPI 600 Introduction to Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HB 624 Advanced Theory and Practice in Behavioral Science</td>
<td>3</td>
</tr>
<tr>
<td>HCO 600 Introduction to Public Health Systems and Population-Based Health Programs</td>
<td>3</td>
</tr>
<tr>
<td>PUH 695 The Public Health Integrative Experience</td>
<td>1</td>
</tr>
<tr>
<td><strong>Departmental Track Requirements</strong></td>
<td></td>
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<tr>
<td>HB 636 Intervention Development</td>
<td>3</td>
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</tbody>
</table>


54/96
Coordinated MPH/MSN in Health Behavior (HBNR)

The coordinated MPH in Health Behavior/MSN degree is designed to address health behavior content and methods needed by advanced practice nurses. This program of study prepares graduates to participate in the development, implementation, and evaluation of innovative health promotion and disease prevention programs and policies. Graduates may assume a variety of positions in nursing or health behavior including health behavior program directors and project coordinators. This dual degree program builds on the synergy generated through two complementary curriculum tracks.

Admissions: Students are admitted separately to the MPH and MSN degree programs and must meet admission requirements in both the School of Public Health and the School of Nursing.

Curriculum: Students must complete a minimum of 43-46 semester hours of credit for the MPH degree, which includes six credit hours of required Nursing course work. Nineteen credits in the School of Public Health meet the requirements for core courses in the Master of Public Health program and provide a strong knowledge base in epidemiology, biostatistics, health behavior, environmental health sciences and health care organization and policy. Twenty-four to twenty-seven additional credits (15 Health Behavior credit hours, 3-6 SOPH requirements credit hours and 6 Nursing credit hours) meet the requirements for the Health Behavior track in the School of Public Health. The coordinated MPH/MSN degrees can be completed in two years or six consecutive terms if the student registers for full-time study beginning in the fall term. If a coordinated degree student drops out of the MSN program, he/she must apply for transfer to the MPH Health Behavior track.

### Coursework

#### MPH Core (including the Integrative Experience)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BST 611</td>
<td>Intermediate Statistical Analysis I 3</td>
</tr>
<tr>
<td>BST 612</td>
<td>Intermediate Statistical Analysis II 3</td>
</tr>
<tr>
<td>ENH 600</td>
<td>Fundamentals of Environmental Health Sciences 3</td>
</tr>
<tr>
<td>EPI 600</td>
<td>Introduction to Epidemiology 3</td>
</tr>
<tr>
<td>HB 624</td>
<td>Advanced Theory 3</td>
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<tr>
<td>HCO 600</td>
<td>Introduction to Public Health Systems and Population-Based Programs 3</td>
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<tr>
<td>PUH 695</td>
<td>The Public Health Integrative Experience 1</td>
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#### Health Behavior Track

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<th>Course</th>
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<tbody>
<tr>
<td>HB 636</td>
<td>Intervention Development 3</td>
</tr>
<tr>
<td>HB 641</td>
<td>Research Methods 3</td>
</tr>
<tr>
<td>HB 643</td>
<td>Health Program Evaluation 3</td>
</tr>
<tr>
<td>HB 697</td>
<td>Internship 3</td>
</tr>
<tr>
<td>HB Elective</td>
<td>HB Elective 3</td>
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#### SOPH Requirements

<table>
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<tr>
<th>Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>GRD</td>
<td>Writing Course/s 3-6</td>
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### Required Nursing Courses for Health Behavior Track*

<table>
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<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>NUR 604Q</td>
<td>Leadership in Advanced Nursing Practice Roles 3</td>
</tr>
<tr>
<td>NUR 606Q</td>
<td>Translating Evidence into Practice 3</td>
</tr>
</tbody>
</table>
Coordinated MPH/PhD in Health Behavior and Psychology (HBPY) or Sociology (HSOC)

This dual degree program is offered in cooperation with the UAB Departments of Psychology and Sociology, and the University of Alabama (Tuscaloosa) Department of Psychology. This program enables students to obtain an MPH degree in Health Behavior simultaneously with a PhD in Psychology or Sociology.

Admission: Applicants to this program must first be admitted to the PhD program of interest. Applicants must meet the minimum requirements for admission into the School of Public Health.

Curriculum: The MPH degree requires a minimum of 42-45 credit hours depending on the PhD concentration. Because this is a coordinated dual degree track, graduation from the MPH program is contingent on completion of all requirements for graduation from the PhD program. If a coordinated degree student drops out of the PhD program, he/she must apply for transfer to the MPH Health Behavior track.

### Coursework for Psychology

<table>
<thead>
<tr>
<th>Coursework for Psychology</th>
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<tr>
<td><strong>MPH Core (including the Integrative Experience)</strong></td>
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<tr>
<td>PY 716 Introduction to Statistics (including lab)</td>
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<tr>
<td>PY 717 Applied Statistical Analysis (including lab)</td>
<td>4</td>
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<tr>
<td>ENH 600 Fundamentals of Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>EPI 600 Introduction to Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HB 624 Advanced Theory</td>
<td>3</td>
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<tr>
<td>HCO 600 Introduction to Public Health Systems and Population-Based Health Programs</td>
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<tr>
<td>PUH 695 The Public Health Integrative Experience</td>
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<tr>
<td><strong>Health Behavior Track</strong></td>
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<tr>
<td>HB 636 Intervention Development</td>
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<tr>
<td>HB 641 Research Methods</td>
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<tr>
<td>HB 643 Health Program Evaluation</td>
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<td>HB 697 Internship</td>
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<td><strong>Health Behavior/Psychology Electives</strong></td>
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<td><strong>SOPH Requirements</strong></td>
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<tr>
<td>GRD Writing Course/s</td>
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### Coursework for Sociology

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<tbody>
<tr>
<td><strong>MPH Core (including the Integrative Experience)</strong></td>
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<tr>
<td>SOC 703 Regression Analysis</td>
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<tr>
<td>SOC 704 Categorical Data Analysis</td>
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<tr>
<td>ENH 600 Fundamentals of Environmental Health</td>
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<tr>
<td>EPI 600 Introduction to Epidemiology</td>
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<tr>
<td>HB 624 Advanced Theory</td>
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<td>HCO 600 Introduction to Public Health Systems and Population-Based Health Programs</td>
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<tr>
<td><strong>Health Behavior Track</strong></td>
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<tr>
<td>HB 636 Intervention Development</td>
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<tr>
<td>Coursework</td>
<td>Credit Hours</td>
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<tr>
<td>---------------------------------------------------------------------------</td>
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<tr>
<td><strong>Health Education/Promotion Core Courses</strong></td>
<td></td>
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<tr>
<td>HB 740 Advanced Health Program Evaluation</td>
<td>3</td>
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<tr>
<td>HB 724 Advanced Social &amp; Behavioral Science Theory for Doctoral Candidates (or)</td>
<td>3</td>
</tr>
<tr>
<td>HB 750 Advanced Theoretical &amp; Scientific Basis of Health Education &amp; Promotion</td>
<td>3</td>
</tr>
<tr>
<td>HB 760 Planning &amp; Administration of Health Education &amp; Promotion</td>
<td>3</td>
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<tr>
<td>HB 771 Doctoral Studies Seminar I</td>
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<tr>
<td>HB 772 Doctoral Studies Seminar II</td>
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<tr>
<td><strong>Advanced Research and Statistical Methods Courses</strong></td>
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<tr>
<td>BST 611 * Intermediate Statistical Analysis I (or)</td>
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<tr>
<td>EPR 609 ** Statistical Methods and Research in Education</td>
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<tr>
<td>BST 612 Intermediate Statistical Analysis II (or)</td>
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<tr>
<td>EPR 710 Computer Applications and Advanced Statistical Methods</td>
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<tr>
<td>Qualitative or Mixed Methods Research Course</td>
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<tr>
<td>EPI 610 Principles of Epidemiologic Research</td>
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<tr>
<td>EPI 610L Principles of Epidemiologic Research - Lab</td>
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<tr>
<td>HB 741 Clinical Research Methods in the Behavioral Sciences</td>
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<tr>
<td><strong>Evaluation/ Research Methods/Statistics Electives</strong></td>
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<tr>
<td>Social and Behavioral Sciences Electives</td>
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<tr>
<td><strong>Directed Research</strong></td>
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*One course can be from the doctoral program & must be approved as a behavioral science elective*
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HB 798</td>
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<tr>
<td>Dissertation Research</td>
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<tr>
<td>HB 799</td>
<td>Doctoral Dissertation Research</td>
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</tr>
</tbody>
</table>

* BST 611 is the prerequisite for BST 612
** EPR 609 is the prerequisite for EPR 710

Specific courses needed for completion of the advanced research and statistical methods requirement may vary and require approval by the student's academic advisor. Specific courses for the social science concentration are selected by the student and his/her academic advisor. Students may transfer a minimum of 12 credits from comparable graduate courses completed previously if those courses were not used to complete another degree, are graduate level, and a grade of at least a B.

**Research Internship** A research internship is required. The internship gives students an opportunity to engage in a meaningful research experience by working with ongoing faculty research projects. The internship may be carried out in any one of the three academic units contributing to the PhD program or with approved research projects in other academic units at UA or UAB, or with the CDC, NIH, or other governmental or private agencies. **Comprehensive Exam**

Doctoral students are required to take comprehensive examinations before proposing a dissertation. At a minimum, the exams cover the scientific and theoretical basis of health education and health promotion, the design and evaluation of health promotion programs and research methods in health promotion. Prior to taking the comprehensive exams, the student must have completed the Health Education and Promotion Core Courses.

**Doctoral Dissertation**

The doctoral dissertation requirement provides students with a comprehensive and original research experience. Students conducting dissertation research must complete a minimum of 12 dissertation credit hours. Students complete credits for the dissertation after completing coursework and comprehensive exams, and being admitted to candidacy. Students must be enrolled full time for at least two consecutive semesters before defending the dissertation.

All PhD students must meet the graduation requirements of their department and the Graduate School.

**MSPH Clinical Research (CRHB)**

In response to interest in medical and other health science schools in developing the clinical research skills of faculty members and fellows, the 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 or other health science 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 enrollee 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 research elective and departmental focus courses that reflect the academic interest of the student. The minimum amount of time that the program can be competed is four semesters. 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

**Admission:** Applicants should possess a medical or other health science professional degree. They may be in their final years of training as residents or fellows or hold positions as junior faculty members. The Graduate Record Examination (GRE) is required for applications to all MSPH programs in the School of Public Health. The GRE may be waived at the discretion of the committee, for applicants who have been pre-screened by the clinical investigator training grant committee of the School of Medicine. The applicant must produce three letters of reference and a letter stating that he/she will be guaranteed sufficient release time from clinical duties to be able to attend classes regularly and fulfill course requirements in a timely manner. A medical/health sciences mentor should be identified and a setting where the student can gain experience in conducting clinical research. A faculty member within the School of Public Health will be assigned as an advisor based on the stated interests of the applicant.

**Curriculum:** The MSPH in Clinical Research consists of a minimum of 41 credit hours. Of these, 14 hours are required, including 9 hours of specific Biostatistics courses and 5 hours of specific Epidemiology courses. Students then select at least 6 credit hours from a list of approved Masters Research Electives, complete 12 hours of focus specific electives in Health Behavior, and take at least 9 hours of (688 level) Masters Research to fulfill the MSPH requirement for conducting a research project.
Coursework

Required Core Courses

- BST 611* Intermediate Statistical Analysis I 3
- BST 612* Intermediate Statistical Analysis II 3
- BST 625 Design and Conduct of Clinical Trials 3
- EPI 607 Epidemiology of Clinical Research 3
- EPI 680 Topics in Clinical Research 2

Masters Research Electives: Six credit hours should be selected by faculty advisor and student 6

- BST 619 Data Collection and Management 3
- BST 626/626L Data Management/Reporting with SAS 3
- ENH 650 Essentials of Environmental and Occupational Toxicology & Diseases 3
- EPI 625 Quantitative Methods in Epidemiology 3
- EPI 703 Grant Writing 3
- EPI 704 Advanced Epi Methods 3
- HCO 677 Patient-Based Outcomes Measurement 3

Focus Specific Courses: 12

- HB 624 Advanced Theory 3
- HB 636 Intervention Development 3
- HB 641 Research Methods 3
- HB 643 Health Program Evaluation 3

Masters Directed Research: Nine hours of research in a clinical setting. 9

- HB 698 9

Total Hours 41

* Students who want to focus their degree on Biostatistics should take BST 621/622 rather than BST 611/612 since the former are prerequisites for more advanced Biostatistics focus courses. In addition, other students who wish to receive higher level mathematical training in Biostatistics could substitute BST 621/622 for BST 611/612.

Note that care must be exercised when selecting some of these courses since some have prerequisites that must be taken earlier in the sequence of classes or taken concurrently.

Health Behavior Courses (HB)

HB 600. Social and Behavioral Science Core. This course is structured to provide students with a basic "starting point" for developing the required competencies in this area. The course consists of information delivery (e.g., lectures, readings), practice and application exercises, and knowledge integration and synthesis activities. Successful completion of this course will enable you to describe the role of social and community factors in both the onset and solution of public health problems; identify the causes of social and behavioral factors that affect health of individuals and populations; identify basic theories, concepts and models; apply ethical principles to public health program planning, implementation and evaluation; specify multiple targets and levels of intervention; identify individual, organizational and community concerns, assets, resources and deficits; apply evidence-based approaches in the development and evaluation of interventions; describe the merits of social and behavioral science interventions and policies; describe steps and procedures for the planning, implementation and evaluation of public health programs; and identify critical stakeholders for the planning, implementation and evaluation of public health programs, policies and interventions. Course will be graded by letter. 3 hours. (Lanzl)

HB 600Q. Social and Behavioral Science Core (On-line). This course is structured to provide students with a basic "starting point" for developing the required competencies in this area. The course consists of information delivery (e.g., lectures, readings), practice and application exercises, and knowledge integration and synthesis activities. Successful completion of this course will enable you to describe the role of social and community factors in both the onset and solution of public health problems; identify the causes of social and behavioral factors that affect health of individuals and populations; identify basic theories, concepts and

HB 603. Obesity Prevention & Intervention. The aim of this course is to provide students with theoretical and practical knowledge required to develop, implement, and evaluate obesity intervention and prevention programs. The course covers both pediatric and adult obesity intervention and prevention with a focus on lifestyle (dietary intake, physical activity) and environmental factors. Course will be graded by letter. 3 hours. (Schroder).

HB 605. Physical Activity and Health. This seminar course is an introduction to research and practice related to physical activity promotion from a public health perspective and will describe health benefits, epidemiological data, national recommendations and plans, and global initiatives related to physical activity. Course will be graded by letter. 3 hours. (Pekmezzi).

HB 624. Advanced Theory and Practice in Behavioral Science. Advanced review of selected behavioral science concepts and theories useful for developing health promotion programs; social cognitive theory and the transtheoretical model of change are examined in depth. This course may be required for some MPH students. Course will be graded by letter. 3 hours. (Schroder).

HB 625. Dissemination and Implementation in Health. The course will offer an introduction to dissemination and implementation science, an interdisciplinary field focused on improving the transition of evidence-based health practices, programs, and interventions from research studies into “real-world” settings. Course will be graded by letter. 3 hours. (Norton).

HB 627. GIS for Public Health. This is an introductory course covering the theory and application of geographic information systems (GIS) for public health. Through this course, students will develop basic GIS skills, including GIS operations such as buffering, geocoding, layering, and spatial queries. Students will learn how to use those operations to both describe and propose solutions for public health challenges. The course will address introductory cartography and basic statistical aspects of spatial analysis. Learning will occur through lab exercises, case studies, and homework exercises. The course will consist of one hour-long lecture/discussion and two hours of supervised lab/fieldwork each week. Course will be graded by letter. 3 hours (Creger).

HB 633. Communities, Families and Health. This course is designed for graduate students in public health and related fields interested in working with families and communities to improve health outcomes. It is intended to provide students with a broader understanding of the structural and psychosocial factors related to health and well-being. To do so, the course will focus on theoretical frameworks that draw on an ecological perspective and examine how factors associated with families, peers, schools, neighborhoods, and communities influence health. Emphasis will also be placed on the relevance of individual and community assets for the science of Health Behavior and the broader public health arena. Course will be graded by letter. 3 hours (Davies).

HB 636. Intervention Development. This course is intended to provide students with a comprehensive understanding of the range and diversity of prevention and intervention approaches to behavior change and their application in public health. Emphasis will be placed on developing skills for designing interventions: a) in various public health settings, b) for specific population subgroups, c) based on determinants identified to be most influential and amenable to intervention, and d) within the confines of available resources. Students will also apply previously acquired research methods skills to design targeted interventions that are salient to needs of particular audiences, including formative research, theory selection, process evaluation, implementation tracking and outcome evaluation. This course uses lecture and seminar format. Course will be graded by letter. Pre-requisite HB 624. 3 hours (Davies).

HB 638Q. Public Health Promotion and Aging Seminar (Online). Exploration of current problems of the elderly, introduction to broad principles of health promotion for the elderly and review model health promotion programs. Course will be graded by letter. 3 hours (Galvin).

HB 641. Research Methods in Behavioral Sciences. Review of research methodology in behavioral sciences. Formulation of research questions, causality, experimental and quasi-experimental designs, reliability and validity, reporting findings. Course will be graded by letter. 3 hours (Norton).

HB 643. Health Program Evaluation. Principles and procedures to evaluate health promotion/disease prevention programs: data collection methods, instrument-scale development, measurement, evaluation designs and analysis of case studies of disease prevention literature on evaluation. Course will be graded by letter. Pre-requisite: HB 641. 3 hours.

HB 660. Adolescent Health: A Social and Behavioral Perspective. Designed to provide students with the most current knowledge and analysis of issues influencing the health and well-being of adolescents. Theoretical frameworks that draw on an ecological perspective will provide a better understanding of how families, peers, schools, and neighborhoods influence risk and protective factors in youth. Emphasis will be placed on the relevance of adolescent health issues for the science of Health Behavior and the broader public health arena. Course will be graded by letter. 3 hours (Lanzl).

HB 665. Family Violence & Victimization. This course will focus on multi-disciplinary theoretical frameworks to explain family violence and subsequent effects on childhood/young adult functioning including behavioral, social, and physical and mental health consequences. Course will be graded by letter. 3 hours (Lewis).

HB 680. Health Promotion through Entertainment Education. Alternative methods for delivering health promotion messages to “hard-to-reach” audiences are being explored across the U.S. This course examines the strategy known as “entertainment education”, Course will be graded as Pass/No Pass. 3 hours (Kohler).

HB 692. Principles and Practices of Community Organization. Seminar designed as an integrative experience for persons working with community groups. The focus is on learning to use available resources and advocating change to maximize community involvement. Course will be graded by letter. Prerequisite: Permission of Instructor. 3 hours

HB 695. Seminar on Selected Health Behavior Topics. Seminar covering a variety of health behavior topics. Course will be graded as Pass/No Pass. Prerequisite: Permission of instructor. 3 hours.

HB 697. Internship. Field experience under joint direction of appropriate faculty member and qualified health education specialist. Written report specifying
activities, products, and outcomes of experience submitted upon completion of internship. Course will be graded as Pass/No Pass. 3 hours.

HB 698, Master's Directed Research. Independent study with guidance of appropriate faculty. Includes activities such as literature review and evaluation. Course will be graded as Pass/No Pass. 1 - 9 hours.

HB 699, Master's Project Research. Research for project under direction of research project committee. Course will be graded as Pass/No Pass. 3-6 hours.

HB 701, Theory-Based Measurement Development. The aim of this course is to introduce students to measurement development based on well-specified behavioral theories. This course will review and discuss key issues related to measurement development such as item/scale development, number of factors to retain rotation options and statistical programs. Prerequisite: Requires knowledge of elementary probability and statistics for non-statistics majors and BST 611. Course will be graded by letter. 3 hours (Hendricks).

HB 724, Advanced Social and Behavioral Science Theory for Doctoral Candidates. This course focuses on a thorough examination of theories and models of behavior change and their applications in both research and implementation in various fields of health promotion and public health. Basic knowledge of research methodology and statistics is required. Course will be graded by letter, 3 hours. (Schroder)

HB 730, Health Communication Research. This course is designed to investigate the role of communication theories and research methods in promoting public health and preventing disease. Theoretical background in communication and behavioral science, research methods appropriate for mass media campaigns and practical communication/intervention development methods will be addressed. Course will be graded by letter. 3 hours (Kohler).

HB 740, Advanced Program Evaluation. Advanced review of evaluation theories, approaches, and methods for assessing the plans, implementation, and effectiveness of health promotion programs. Course will be graded by letter. Prerequisite: HB 643 or other master's level evaluation course and a graduate level multiple regression or multivariate statistics course, 3 hours.

HB 741, Clinical Research Methods in the Behavioral Sciences. This course provides an overview of the major research methods and designs used in public health (e.g., survey, prospective cohort, randomized-controlled clinical trial). Emphasis is given to the experimental, quasi-experimental, and correlational designs as well as to methods of collecting, analyzing, and interpreting data. Other topics include evaluating published research, writing research proposals and reports, and ethical considerations, 3 hours (Fontaine).

HB 750, Advanced Theoretical and Scientific Basis of Health Education and Promotion. Provides doctoral students with in-depth examination of history and philosophy of health education; reviews professional competencies and outlines major theories of behavior change. Course will be graded by letter. 3 hours. (Tumer).

HB 760, Planning and Administration of Health Education and Promotion Programs. The purpose of this course is to teach and practice the three basic phases of comprehensive health education and promotion programs (planning, implementation and evaluation). Course will be graded by letter. 3 hours.

HB 771, Doctoral Studies Seminar I. This course is the first of a series of three 1-hour Doctoral Seminar classes. This seminar series is designed to meet the specific needs of graduate students by better preparing them for successful completion of their respective degrees as well as their future as health education professionals. Course will be graded by letter. 1 hour (Birch).

HB 772, Doctoral Studies Seminar II. This course is the second in a series of three 1-hour Doctoral Seminar classes. This seminar series is designed to meet the specific needs of graduate students by better preparing them for successful completion of their respective degrees as well as their future as health education professionals. Course will be graded by letter. Pre-requisite HB 771. 1 hour (Usdan).

HB 773, Doctoral Studies Seminar III. This course is the third of a series of three 1-hour Doctoral Seminar classes. This seminar series is designed to meet the specific needs of graduate students by better preparing them for successful completion of their respective degrees as well as their future as health education professionals. Course will be graded by letter. Pre-requisites HB 771 & 772. 1 hour (Usdan).

HB 798, Doctoral Directed Research. Independent study with guidance of senior public health faculty. Course will be graded as Pass/No Pass. 1 - 9 hours.

HB 799, Dissertation Research. Research for dissertation under direction of dissertation committee. Course will be graded as Pass/No Pass. Prerequisite: Students must be admitted to candidacy in order to register for this class. 1 - 9 hours.

Department of Health Care Organization and Policy

Departmental Overview

DEPARTMENT OF HEALTH CARE ORGANIZATION AND POLICY (MPH, MSPH, DrPH)

Research and instructional foci in this department include health economics, public health administration and planning, health policy, outcomes research, and health services evaluation.

FACULTY

Meredith Kilgore, PhD, Professor and Chair

Professor Emeritus: Jack Duncan

Professors: Janet M. Bronstein, Peter M. Glinter, Meredith Kilgore, Nir Menachemi, Stephen T. Mennemeyer, Max Michael, Michael Morrissey, Mary Ann Pass, Andrew Rucks, Bisaoka (Pia) Sen

ACADEMIC PROGRAMS

Programs in the Department of Health Care Organization and Policy (HCOP) are designed to provide training and education at the master's level for those desiring a professional career in the analysis of health services policy options, outcomes research, maternal and child health policy and leadership, or in the management of public health programs. The didactic programs of the department require that students master the major concepts of:

- health economics,
- public health management and planning,
- health policy,
- outcomes research,
- health services evaluation, and
- policy and leadership in maternal and child health.

The instructional programs of the department address the need for:

- administrators with training in management, law, public health policy, health economics, epidemiology, and biostatistics;
- individuals with specific training in health policy analysis;
- individuals capable of assessing treatment protocols and outcomes;
- professionals with training in both law and public health;
- individuals pursuing other professional degrees desiring an emphasis in health care; and
- enhanced skills of established health workers, clinicians, or other professionals through didactic training in Public Health and Health Care Organization.

The department offers Master of Public Health (MPH) degree options in health care organization, general theory and practice, health policy, maternal and child health policy and leadership, and in public health preparedness and management. Also offered are a coordinated Master of Public Health/Juris Doctorate program, a coordinated Master of Public Health/Master of Business Administration program, a coordinated Master of Public Health/Doctor of Optometry program, a coordinated Master of Public Health/Master of Nursing program, a coordinated Master of Public Health/Master of Social Work program, and a coordinated Master of Public Health/Master of Public Administration program. The department offers the Master of Science in Public Health (MSPH) option in outcomes research and a coordinated MSPH/PhD degree program with the Department of Psychology. A Doctor of Public Health (DrPH) degree is offered in public health management, maternal and child health policy, and outcomes research.

CAREERS

Rapid changes taking place in both the private and public sectors of health care and related industries have created a need for a broad spectrum of qualified professionals to manage complex institutions, organizations, and public health services delivery programs. Additionally, these changes have created an increased demand for professionals with expertise in policy analysis, outcomes research, strategic planning, and health economics. Depending on their educational background, experience, and interests, graduates of our programs typically find positions at all levels of federal, state, and local public health agencies, industry, consulting firms, traditional and non-traditional health services delivery organizations, managed care organizations, voluntary organizations, federal and state legislative offices, research organizations, and law firms.

Degree Programs: Department of Health Care Organization and Policy

Master of Public Health in Health Care Organization (HCOP)

Program Description

This program is designed for individuals who are planning on management-focused careers in public health. Perhaps you aspire to be the Executive Director of a non-profit charitable organization or a senior-level manager in a health department or federal agency. Perhaps you are a physician, nurse, pharmacist, or other clinician who wants to move from direct patient care into a supervisory position with a broad focus on the health of a community. Students in this program are introduced to the public health system and the fundamental skills necessary for practice in the public health sector and managing health care organizations. Required coursework includes basic management disciplines and selected content in economics, finance, marketing, law, and health insurance. This program is also offered online.
Learning Objectives

- Describe the economic, legal, organization, and political underpinnings of the U.S. health system
- Apply principles of management, finance, marketing, accounting and strategic planning in health care organizations
- Apply basic planning and management skills necessary for successful administration of health care organizations

Program Requirements

Students in this program take 43 credit hours. The work can generally be completed in two years or less. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Applicants to this program must meet the general admission requirements for the Master of Public Health degree program. Applicants with a previously earned doctoral degree may be waived from the requirement to submit a GRE score. Students may apply for admission to this program at any time and, once admitted, may begin taking classes the next semester. Click here for additional admissions information.

Master of Public Health in Health Care Organization (HCOP) Curriculum Planning Sheet

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<thead>
<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
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<td>Core Requirements 1 (19 credit hours)</td>
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<tr>
<td>HCO 500: Introduction to Public Health Systems &amp; Population-Based Health Programs</td>
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<td>BST 611: Intermediate Statistical Analysis I</td>
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<td>HEB 600: Social &amp; Behavioral Sciences Core</td>
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<tr>
<td>HCO 601: Health Economics</td>
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<td>HCO 613: Health Information in Technology &amp; Policy</td>
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<td>HCO 615: Finance for Health Professionals</td>
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<td>Total Credit Hours Earned for Degree</td>
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1 All MCH Core & SOPH required courses MUST be taken in the first two semesters of enrollment
2 MUST be taken in the final semester of enrollment
3 Online only (with permission)
## Program Description

This program is designed for individuals who are planning on management-focused careers in public health. Perhaps you aspire to be the Executive Director of a non-profit charitable organization or a senior-level manager in a health department or federal agency. Perhaps you are a physician, nurse, pharmacist, or other clinician who wants to move from direct patient care into a supervisory position with a broad focus on the health of a community. Students in this program are introduced to the public health system and the fundamental skills necessary for practice in the public health sector and managing health care organizations. Required coursework includes basic management disciplines and selected content in economics, finance, marketing, law, and health insurance.

## Learning Objectives

- Describe the economic, legal, organization, and political underpinnings of the US health system
- Apply principles of management, finance, marketing, accounting and strategic planning in health care organizations
- Apply basic planning and management skills necessary for successful administration of health care organizations

## Program Requirements

Students in this track take 43 credit hours. The work can generally be completed in two years or less. [Click here or below for Curriculum Planning Sheet](https://www.soph.uab.edu/print/book/export/html/14295).

## Program Admission Requirements

Applicants to this program must meet the general admission requirements for the Master of Public Health degree program. Applicants with a previously earned doctoral degree may be waived from the requirement to submit a GRE score. Students may apply for admission to this program at any time and, once admitted, may begin taking classes the next semester. [Click here for additional admissions information](https://www.soph.uab.edu/print/book/export/html/14295).

## Master of Public Health in Health Care Organization (HCOP) Online Curriculum Planning Sheet

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<td><strong>Total Credit Hours Earned for Degree</strong></td>
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<td></td>
<td></td>
<td>43</td>
</tr>
</tbody>
</table>

1 All MCH Core & SOPH required courses MUST be taken in the first two semesters of enrollment
2 MUST be taken in the final semester of enrollment
Master of Public Health in General Theory & Practice (GTP)

Program Description

This program is available to students who prefer a generalist background rather than a more specialized track with additional course requirements. The instructional program is formulated by students and their advisors to meet the specific needs of practicing professionals and to provide a broad, interdisciplinary review of public health theory and practice.

Learning Objectives

- Describe the economic, legal, organization, and political underpinnings of the U.S. health system;
- Analyze clinical issues in health care from a public health perspective
- Describe public health principles and programs

Program Requirements

In addition to the MPH core, which includes PUH 695 Integrative Experience, students in this program are required to take public health law and public health policy courses and participate in an Internship. Other electives are chosen to total a minimum of 43 hours. This program can usually be completed within one year. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Applicants to this program must meet the general admission requirements for the Master of Public Health degree program. Only persons with doctoral level professional degrees and/or five years or more of senior level experience in public health or a closely related field may apply to this program. Students who have been admitted to medical school also may apply to this program. Applicants with a previously earned doctoral credential may, upon request, be waived from the requirement to submit a GRE score. Click here for additional admissions information.

Master of Public Health in General Theory & Practice (GTP) Curriculum Planning Sheet

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
<td>Spr</td>
</tr>
<tr>
<td>Core Requirements^1 (19 credit hours)</td>
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<tr>
<td>HCO 600: Intro to Public Health Systems &amp; Population-Based Health Programs</td>
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</tr>
<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>X</td>
<td>X^3</td>
</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
<td>X</td>
<td>X^3</td>
</tr>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
<td>X</td>
<td>X^3</td>
</tr>
<tr>
<td>EPI 600: Introduction to Epidemiology</td>
<td>X</td>
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</tr>
<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
<td>X</td>
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<tr>
<td>PUH 695: Integrative Experience^2</td>
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<tr>
<td>SOPH Requirements (3 credit hours)</td>
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</tr>
<tr>
<td>GRD 727 Writing Reviewing Research</td>
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<tr>
<td>Department Track Requirements (9 credit hours)</td>
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<tr>
<td>HCO 601: Health Economics</td>
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<td>X</td>
</tr>
<tr>
<td>HCO 603: Public Health Policy</td>
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</tr>
<tr>
<td>Electives (9 hours)</td>
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</tbody>
</table>
Master of Public Health in Health Policy (HPOL)

Program Description

The MPH in health policy is designed to train policy analysts at the master's level to work in government agencies; voluntary health organizations; local, state, and federal legislative bodies; managed care organizations; private industry; and consulting firms. The quantitative policy analysis content emphasizes skills appropriate to an active mid-level research career. The program is designed for the individual who wants to contribute to the public discussion of health issues and policy making. The focus of training here is to give you skills in statistical and economic analysis so that you can help senior investigators write reports that recommend changes in our healthcare systems or that evaluate how well the systems work. You would most likely go to work as a mid-level analyst at places such as:

- The Rand Corporation
- Abt Associates Inc
- Research Triangle International
- The Urban Institute
- Mathematica Policy Research
- The Congressional Budget Office
- Congressional Research Service
- American Enterprise Institute
- The Commonwealth Fund

Learning Objectives

- Understanding of the unique economic features of health markets
- Skill in applying empirical methods of health research

Program Requirements

Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

The program is open to students with a bachelor's degree and strong mathematics preparation. An undergraduate grade point average of a 3.0 on a 4.0 scale and a minimum combined score of 1080 on the verbal and quantitative portions or 146 on both portions of the Graduate Record Examination General Test (GRE) are desirable for admission consideration. Click here for additional admissions information.

Master of Public Health in Health Policy (HPOL) Curriculum Planning Sheet

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCO 600: Intro to Public Health Systems &amp; Population-Based Health Programs</td>
<td>X</td>
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<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>X</td>
<td>x^3</td>
</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
<td>X</td>
<td>x^3</td>
</tr>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
<td>X</td>
<td>x^3</td>
</tr>
<tr>
<td>EPI 600: Introduction to Epidemiology</td>
<td>X</td>
<td>3</td>
</tr>
</tbody>
</table>
Master of Public Health in Public Health Preparedness Management & Policy (PHPM)

Program Description

This specialized degree covers all hazards preparedness topics including event typologies, response organization, leadership and management, hazard and risk assessment policy development, and evaluation and risk communication.

Learning Objectives

- Describe the economic, legal, organization, and political underpinnings of the U.S. health system with regard to preparedness
- Apply principles of management, finance, accounting, and strategic planning in health care organizations with regard to preparedness
- Apply basic planning and management skills as well as risk assessment policy development and evaluation and risk communication necessary with regard to preparedness

Program Requirements

Students in this track take 46 credit hours. The work can generally be completed in two years. All of the required courses for this program are offered on weeknights. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Applicants to this program must meet the general admission requirements for the Master of Public Health degree program. Applicants with a previously earned doctoral degree may be waived from the requirement to submit a GRE score. Students may apply for admission to this program at any time and, once admitted, may begin taking classes the next semester. Click here for additional admissions information.

Master of Public Health in Public Health Preparedness Management & Policy (PHPM) Curriculum Planning Sheet

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCO 600: Intro to Public Health Systems &amp; Population-Based Health Programs</td>
<td>X</td>
<td>3</td>
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</table>

1. All MCH Core & SOPH required courses MUST be taken in the first two semesters of enrollment
2. MUST be taken in the final semester of enrollment
3. Online only (with permission)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
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<td>Intermediate Statistical Analysis I</td>
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<tr>
<td>BST 612</td>
<td>Intermediate Statistical Analysis II</td>
<td>X 3</td>
</tr>
<tr>
<td>ENH 600</td>
<td>Fundamentals of Environmental Health</td>
<td>X 3</td>
</tr>
<tr>
<td>EPI 600</td>
<td>Introduction to Epidemiology</td>
<td>X 3</td>
</tr>
<tr>
<td>HB 600</td>
<td>Social &amp; Behavioral Sciences Core</td>
<td>X 3</td>
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<tr>
<td>PUH 695</td>
<td>Integrative Experience</td>
<td>X 1</td>
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<tr>
<td></td>
<td>SOPH Requirements (3 credit hours)</td>
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<tr>
<td>GRD 727</td>
<td>Writing Reviewing Research</td>
<td>X X X 3</td>
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<td></td>
<td>Department Track Requirements (21 credit hours)</td>
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<tr>
<td>HCO 640</td>
<td>Disaster &amp; Emergency Management</td>
<td>X 3</td>
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<tr>
<td>HCO 641</td>
<td>Public Health Preparedness &amp; Response Policy</td>
<td>X 3</td>
</tr>
<tr>
<td>HCO 643</td>
<td>Emergency Preparedness Exercises, Evaluation &amp; Communication</td>
<td>X 3</td>
</tr>
<tr>
<td>HCO 670</td>
<td>Social &amp; Ethical Issues in Public Health</td>
<td>X X 3</td>
</tr>
<tr>
<td>HCO 698</td>
<td>Master's Directed Research</td>
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<tr>
<td>ENH 610</td>
<td>Environmental Disasters</td>
<td>X 3</td>
</tr>
<tr>
<td>EPI 605</td>
<td>Epidemiology of Infectious Diseases</td>
<td>X 3</td>
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<tr>
<td></td>
<td>Internship (3 hours)</td>
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<tr>
<td>HCO 697</td>
<td>Internship</td>
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<td>Total Credit Hours Earned for Degree</td>
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</tbody>
</table>

1. All MPH Core & SOPH required courses MUST be taken in the first two semesters of enrollment
2. MUST be taken in the final semester of enrollment
3. Online only (with permission)

Master of Science in Public Health in Outcomes Research (OR)

Program Description

The health care field is placing increasing emphasis on the identification and measurement of clinical decision-making and cost-effectiveness analysis. Continuing pressure for the development and measurement of both efficient and effective protocols and health care policies is the driving force underlying this emphasis. Increasingly, employers are seeking qualified analysts to study treatment effectiveness. This program is designed for individuals who want to evaluate the effectiveness and cost-effectiveness of specific health care treatments. You may be a physician who plans on a career in clinical research and wants to determine not only that a treatment works but that it is better than some alternatives after taking into account both cost and a patient's own treatment preferences. You may also be a non-clinician who likes solving complicated modeling problems that may involve simulation or clinical process modeling. Graduates of this track will work in clinical settings, government agencies, managed care organizations, insurance companies, health associations, pharmaceutical firms, and consulting firms analyzing cost effectiveness, utilization, and treatment effectiveness. Your future employment would probably be at an academic medical center or possibly the Food and Drug Administration or a pharmaceutical company. In this program you will develop skills with cool tools such as Treeage and AnyLogic.

Learning Objectives

- Understanding of the problems of measurement and decision making in health care
- Skill in applying methods of decision-making, cost-effectiveness analysis, modeling, and simulation

Program Requirements

Students are required to take a total of 43 credit hours which include 9 credit hours of project research, Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

The program is open to students with a bachelor's degree and strong mathematics preparation. An undergraduate grade point average of a 3.0 on a 4.0 scale and a minimum combined score of 1080 on the verbal and quantitative portions of the Graduate Record Examination General Test (GRE) are desirable for admission consideration. Click here for additional admissions information.

Master of Science in Public Health in Outcomes Research (OR) Curriculum Planning Sheet
Master Public Health in Maternal & Child Health Policy & Leadership (MCPL)

Program Description

The MPH programs in the maternal and child health (MCH) concentration are designed to educate individuals who will plan, administer, and evaluate programs in maternal and child health. The programs provide information about the special problems faced by women and children, including children and youth with special health care needs, and their families. The programs develop and integrate skills from maternal and child health policy and leadership and demonstrate their application in problem solving and systems development. The programs are funded, in part, by a federal MCH training grant - The MCH Policy & Leadership Program. This degree is also offered online.

Program Requirements

Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Click here for additional admissions information.

Master Public Health in Maternal & Child Health Policy & Leadership (MCPL) Curriculum Planning Sheet

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCO 699: Master-Level Project Research</td>
<td>X X X</td>
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</tr>
<tr>
<td>Total Credit Hours Earned for Degree</td>
<td></td>
<td>43</td>
</tr>
</tbody>
</table>

1 Students receiving a MPH are required to complete a 12.5 hour WebCT course entitled "Overview of Public Health" by the end of their 2nd semester. Students with prior public health education (coursework in one 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.

2 Online only (with permission).
Master Public Health in Maternal & Child Health Policy & Leadership (MCPL) Online

Program Description

The MPH programs in the maternal and child health (MCH) concentration are designed to educate individuals who will plan, administer, and evaluate programs in maternal and child health. The programs provide information about the special problems faced by women and children, including children and youth with special health care needs, and their families. The programs develop and integrate skills from maternal and child health policy and leadership and demonstrate their application in problem solving and systems development. The programs are funded, in part, by a federal MCH training grant - The MCH Policy & Leadership Program.

Program Requirements

Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Click here for additional admissions information.
## Master Public Health in Maternal & Child Health Policy & Leadership (MCPL) Online Curriculum Planning Sheet

### MASTER OF PUBLIC HEALTH IN MATERNAL & CHILD HEALTH POLICY & LEADERSHIP (MCPL) ONLINE Curriculum Planning Worksheet

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<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>Core Requirements</strong>&lt;sup&gt;1&lt;/sup&gt; (19 credit hours)</td>
<td></td>
<td></td>
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<tr>
<td>HCO 600: Intro to Public Health Systems &amp; Population-Based Health Programs</td>
<td>X</td>
<td>3</td>
</tr>
<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
<td>X X</td>
<td></td>
</tr>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>EPI 600: Introduction to Epidemiology</td>
<td>X X</td>
<td></td>
</tr>
<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>PUH 695: Integrative Experience&lt;sup&gt;2&lt;/sup&gt;</td>
<td>X X</td>
<td></td>
</tr>
<tr>
<td><strong>SOPH Requirements (3 credit hours)</strong></td>
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<tr>
<td>GRD 727: Writing Reviewing Research</td>
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<tr>
<td><strong>Department Track Requirements</strong>&lt;sup&gt;1&lt;/sup&gt; (15 credit hours)</td>
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<tr>
<td>HCO 601: Health Economics</td>
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<tr>
<td>HCO 605: Fundamentals of MCH I: Issues, Programs &amp; Policies</td>
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<tr>
<td>HCO 606: Fundamentals of MCH II: Application of Essential MCH Skills</td>
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<tr>
<td>HCO 618: Management Concepts in Public Health</td>
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<tr>
<td>HCO 625: Advanced Leadership in MCH Part I: Introduction to Leadership</td>
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<td>HCO 626: Adv Leadership in MCH Part II: Collaborative Leadership &amp; Advocacy</td>
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<td>HCO 627: Adv Leadership in MCH Part III: Into the Streets: Leadership Field Exp&lt;sup&gt;2&lt;/sup&gt;</td>
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<tr>
<td><strong>Departmental Electives (6 credit hours)</strong></td>
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<tr>
<td>HCO 603: Public Health Policy</td>
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<tr>
<td>HCO 608/708: Reproductive Health</td>
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<tr>
<td>HCO 613: Health Information Technology &amp; Policy</td>
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<td>HCO 615: Public Health Finance</td>
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<td>HCO 620: Health Insurance</td>
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<td>HCO 624: Health Lifestyles for the MCH Populations</td>
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<td>HCO 631: Public Health Demography</td>
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<td>HCO 670: Social &amp; Ethical Issues</td>
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<td>HCO 672: Perinatal Health: Issues, Data &amp; Policies</td>
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<tr>
<td><strong>Internship (3 hours)</strong></td>
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<td></td>
</tr>
<tr>
<td>HCO 697: Internship</td>
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<td></td>
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<tr>
<td><strong>Total Credit Hours Earned for Degree</strong></td>
<td></td>
<td></td>
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<td></td>
<td>X X X</td>
<td></td>
</tr>
</tbody>
</table>

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### Coordinated Master of Public Health / Juris Doctor Program (PHJD)

**Add new comment**

**Program Description**

The department offers a coordinated Master of Public Health and Juris doctor degree program in cooperation with the Cumberland School of Law at Samford University.

Birmingham, Alabama. The purpose of the program is to offer future attorneys exposure to the broad areas of public health.

Learning Objectives

- Describe the economic, legal, organizational, and political underpinnings of the U.S. health system
- Acquire a health care field concentration for individuals seeking a JD degree

Program Requirements

The JD degree requires 90 semester hours of coursework and the MPH degree requires 47 semester hours. In the coordinated program, 12 hours of public health courses will be credited toward the JD degree. and 13 hours of law courses will be credited toward the MPH degree. A minimum of 32 credit hours must be taken in the UAB School of Public Health. This is a coordinated dual degree program and, as such, graduation from one program is contingent upon completion of all requirements for graduation from the other program. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Students enrolled in this program must also be enrolled at the Cumberland School of Law. In order to be admitted to the coordinated programs, a student must have a GPA of 2.5 at the end of the first year of law school. Click here for additional UAB School of Public Health admissions information. A minimum law school GPA of 2.5 each semester and a minimum 3.0 GPA each semester in public health are required for students to continue in the coordinated program.

### Coordinated Master of Public Health / Juris Doctor Program (PHJD) Curriculum Planning Sheet

#### Add new comment

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term</th>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td>Core Requirements (19 credit hours)</td>
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</tr>
<tr>
<td>HCO 600: Intro to Public Health Systems &amp; Population-Based Health Programs</td>
<td>Fall</td>
<td>X</td>
<td>3</td>
</tr>
<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>Spr</td>
<td>X</td>
<td>3</td>
</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
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<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
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<td>EPI 600: Introduction to Epidemiology</td>
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<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
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<tr>
<td>PUH 695: Integrative Experience</td>
<td>Fall</td>
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<tr>
<td>SOPH Requirements (3 credit hours)</td>
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<tr>
<td>GRD 727: Writing Reviewing Research</td>
<td>Fall</td>
<td>X</td>
<td>3</td>
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<tr>
<td>Department Track Requirements (6 credit hours)</td>
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<tr>
<td>HCO 601: Health Economics</td>
<td>Fall</td>
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<td>Internship (3 credit hours)</td>
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<td>HCO 697: Internship</td>
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<tr>
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<td>Law 507: Contracts II</td>
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<td>Law 526: Business Organizations</td>
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</table>

Total Credit Hours Earned for Degree: 47

1 All MPH Core & SOPH required courses MUST be taken in the first two semesters of enrollment
2 MUST be taken in the final semester of enrollment
3 Online only (with permission)
Coordinated Master of Public Health / Master of Business Administration Program (PHBA)

Program Description
This program's purpose is to provide students without relevant advanced degrees and/or without previous public health experience with those skills necessary for advanced positions in health management. Also, students with experience and/or a relevant advanced degree who wish to pursue a health management credential with broad applicability should seriously consider this coordinated program.

Learning Objectives
- Describe the economic, legal, organizational, and political underpinnings of the U.S. health system
- Apply the principles of management and strategic planning in health care organizations
- Apply skills necessary for advanced positions in health management
- Demonstrate leadership skills necessary for managing a health care organization
- Apply finance, accounting, marketing, planning and management skills necessary for successful administration of health care organizations
- Acquire a health care field concentration for individuals seeking a Master of Business Administration degree

Program Requirements
Students in this program complete the MPH core (17 credit hours), which includes PUH 695 Integrative Experience as well as 4 credit hours of UAB School of Public Health requirements and 15 credit hours of additional Department of Health Care Organization & Policy courses, including a 3 credit hour Internship and 36-39 credit hours of MBA courses, for a total of at least 75 credit hours. The work can be completed in 2-3 academic years. This is a coordinated dual degree program and, as such, graduation from one program is contingent upon completion of all requirements for graduation from the other program. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements
Students admitted to this program will have at least a bachelor's degree. The GRE will be accepted in lieu of the GMAT. An undergraduate calculus course is required for admission. Students are admitted separately to the MPH and MBA programs. Click here for UAB School of Business admissions information. If you do not meet the undergraduate calculus course requirement, additional information can be found there as well. Click here for UAB School of Public Health admissions information.

Coordinated Master of Public Health / Master of Business Administration Program (PHBA) Curriculum Planning Sheet

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term</th>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Fall</td>
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<tr>
<td>Core Requirements (19 credit hours)</td>
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<tr>
<td>HCO 600: Introduction to Public Health Systems &amp; Population-Based Health Programs</td>
<td>X</td>
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<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>X</td>
<td>x³</td>
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<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
<td>X</td>
<td>x³</td>
<td></td>
</tr>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
<td>X</td>
<td></td>
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<tr>
<td>EPI 600: Introduction to Epidemiology</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>PUH 695: Integrative Experience</td>
<td>X</td>
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<td>Sophomore Requirements (3 credit hours)</td>
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<td>GRD 727: Writing &amp; Reviewing Research</td>
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<td>Department Track Requirements (12 credit hours)</td>
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<tr>
<td>HCO 601: Health Economics</td>
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<tr>
<td>HCO 603: Public Health Policy</td>
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<tr>
<td>HCO 613: Health Information in Technology &amp; Policy</td>
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<td></td>
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<td>HCO 620: Health Insurance &amp; Managed Care</td>
<td>X</td>
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<tr>
<td>Electives (3 credit hours)</td>
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<tr>
<td>Internship (3 credit hours)</td>
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<td>HCO 697: Internship</td>
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<tr>
<td>MBA Track Requirements (30 credit hours)</td>
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<tr>
<td>MBA 601: Accounting &amp; Finance for Managers</td>
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</tbody>
</table>
### Coordinated Master of Public Health / Doctor of Optometry Program (PHOD)

**Program Description**

Vision disorders and eye diseases are major public health problems, both nationally and internationally. Optometrists with training and experience in public health are needed to assess community needs for vision care services, to determine which factors contribute to treatment and prevention of visual system anomalies, to develop and apply quality assurance systems, to participate and provide leadership in health-related agencies, and to foster public awareness of the need for vision care. An individual qualified both in optometry and public health is expected to have the capability to develop, administer, and evaluate eye and vision health programs in research projects; design and conduct epidemiological field studies; use statistical methods in data analysis of case-control and cohort studies; develop and implement vision health education programs; and develop occupational health and eye safety programs.

**Learning Objectives**

- Describe the economic, legal organizational and political underpinnings of the U.S. health system
- Acquire a public health field concentration for individuals seeking a doctor of optometry degree
- Apply population-based sciences and methods of public health as they relate to vision and vision disorders

**Program Requirements**

Students in the coordinated MPH/OD program are expected to complete the curriculum of the optometry professional program and a total of 45 credit hours in the MPH program. Work in the MPH program can be completed over a 4-year period, including summers. Students may begin their MPH program in the summer prior to their entering the Optometry professional program. This is a coordinated, dual degree program and, as such, graduation from one program is contingent upon completion of all requirements for graduation from the other program. [Click here or below for Curriculum Planning Sheet](https://www.soph.uab.edu/print/book/export/html/14295).

**Program Admission Requirements**

Applicants to the coordinated MPH/OD program must meet the following requirements: enrollment and good standing in the UAB School of Optometry, interview by the MPH/OD committee in the School of Optometry, approval and recommendation by the Dean of the School of Optometry, and application and acceptance for admission to the UAB School of Public Health. [Click here for UAB School of Optometry admissions information](https://www.soph.uab.edu/print/book/export/html/14295), [Click here for UAB School of Public Health admissions information](https://www.soph.uab.edu/print/book/export/html/14295).

### Coordinated Master of Public Health / Doctor of Optometry Program (PHOD) Curriculum Planning Sheet

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td><strong>Core Requirements</strong> (19 credit hours)</td>
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<td></td>
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<tr>
<td>HCO 600: Intro to Public Health Systems &amp; Population-Based Health Programs</td>
<td>X</td>
<td>3</td>
</tr>
<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
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</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
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</tbody>
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1. All MCH Core & SOPH required courses MUST be taken in the first two semesters of enrollment
2. MUST be taken in the final semester of enrollment
3. Online only (with permission)
<table>
<thead>
<tr>
<th>Course</th>
<th>X</th>
<th>X³</th>
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<tbody>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
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</tr>
<tr>
<td>EPI 600: Introduction to Epidemiology</td>
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<td></td>
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<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
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<tr>
<td>PUH 665: Integrative Experience²</td>
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<tr>
<td>SOPH Requirements (3 credit hours)</td>
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<tr>
<td>GRD 727: Writing Reviewing Research</td>
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<td>X</td>
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</tr>
<tr>
<td>Department Track Requirements (21 credit hours)</td>
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<td></td>
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<tr>
<td>HCO 601: Health Economics</td>
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<td>X</td>
<td>3</td>
</tr>
<tr>
<td>HCO 603: Public Health Policy</td>
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<td></td>
<td>3</td>
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<tr>
<td>HCO 686: Integrative Health Policy Analysis</td>
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<td>X</td>
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<td>3</td>
</tr>
<tr>
<td>Internship (3 hours)</td>
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<td></td>
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</tr>
<tr>
<td>HCO 697: Internship</td>
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<td>X</td>
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<tr>
<td>Total Credit Hours Earned for Degree</td>
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<td>46</td>
</tr>
</tbody>
</table>

1 All MCH Core & SOPH required courses MUST be taken in the first two semesters of enrollment
2 MUST be taken in the final semester of enrollment
3 Online only (with permission)

Coordinated Master of Public Health / Master of Public Administration Program (PHPA)

Program Description
The MPH/MPA degree program provides students with the knowledge base of public health and the skills required to work effectively in a responsible, administrative position in the public sector. Through this coordinated degree program, students in the MPH program can satisfy some of their requirements through courses in the MPA program and vice versa.

Learning Objectives
- Describe the economic, legal, organizational, and political underpinnings of the U.S. health system (both tracks)
- Apply skills required to work effectively in an administrative position in the government sector based on public health principles and programs (both tracks)
- Apply the principles of management and strategic planning in health care organizations (management track)
- Apply basic planning and management skills necessary for administration of health care organizations (management track)
- Critically evaluate health policy research studies and resulting recommendations (health policy analysis track)
- Design and implement health policy studies and draw appropriate conclusions (health policy analysis track)

Program Requirements
The MPH/MPA program requires the satisfactory completion of 56-60 credit hours. Students must complete both MPH and MPA core requirements. Students may choose either of two program options - health policy analysis or management. It is anticipated that a full-time student can complete the dual curriculum in 2 years. Part-time students may take up to 5 years to complete their studies. This is a coordinated dual degree track and, as such, graduation from one program is contingent upon completion of all requirements for graduation from the other program. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements
Students entering this program must meet the minimum requirements for admission into both the UAB School of Public Health and the UAB College of Arts and Sciences. Students must apply to and be admitted to both the MPH and MPA programs. Click here for UAB College of Arts & Sciences admissions information; Click here for UAB School of Public Health admissions information.
## Coordinated Master's of Science in Public Health / Doctor of Philosophy (Psychology) (HCPY)

### Program Description

The department offers coordinated Master of Science in Public Health and PhD degrees in cooperation with the University of Alabama at Birmingham (UAB) Department of Psychology or the University of Alabama (UA) Department of Psychology (in Tuscaloosa). This coordinated degree program prepares PhD students in Psychology to perform research in health outcomes or health policy analysis.

### Learning Objectives

- Describe the economic, legal, organizational, and political underpinnings of the U.S. health system
- Apply theoretical principles of health economics
- Apply analytic skills necessary to assess the outcomes of medical interventions and population-based public health programs
- Critically evaluate health policy research and outcomes research studies and resulting recommendations
- Design and implement health policy and outcomes research studies and draw appropriate conclusions
Program Requirements

The MSPH degree requires a minimum of 43 hours. Students in this coordinated program will be waived from the biostatistics requirement upon documentation of successful completion of Advanced Statistics I and II in the PhD program. Students may emphasize health policy issues or outcomes research issues through 6 hours of approved electives. In addition, all students must complete a 9 credit hour research project. This is a coordinated dual degree track and, as such, graduation from one program is contingent on completion of all requirements for graduation from the other program. [Click here for Curriculum Planning Sheet]

Program Admission Requirements

To be considered for this program, students must first be admitted to the PhD program in medical psychology at UAB or the PhD program in psychology at UA (Tuscaloosa). Students must meet the admission criteria for the UAB School of Public Health and remain in good standing in their PhD program. [Click here for UAB School of Public Health admissions information]

Coordinated Master's of Science in Public Health / Doctor of Philosophy (Psychology) (HCPY) Curriculum Planning Sheet

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>MSPH Core Requirements¹ (10 credit hours)</td>
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<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
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<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
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<td>X²</td>
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<tr>
<td>EPI 610: Principles of Epidemiologic Research/Laboratory</td>
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<tr>
<td>PhD Track (21 credit hours)</td>
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<tr>
<td>HCO 601: Health Economics</td>
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<tr>
<td>HCO 670: Social &amp; Ethical Issues in Public Health</td>
<td>X</td>
<td>X</td>
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<tr>
<td>HCO 677: Patient-Based Outcomes Measurement</td>
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<td></td>
</tr>
<tr>
<td>HCO 687: Empirical Methods for Health Research</td>
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<tr>
<td>HCO 691: Modeling &amp; Simulation</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>HCO 721: Clinical Decision Making &amp; Cost Effectiveness Analysis</td>
<td>X</td>
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<tr>
<td>HCO 722: Cost Effectiveness Research Methods</td>
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<tr>
<td>Electives (3 credit hours) (Selected by faculty advisor &amp; student)</td>
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<tr>
<td>Masters-Level Research (9 credit hours)</td>
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<tr>
<td>HCO 699: Masters Level Project Research</td>
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<td>HCO 699: Masters Level Project Research</td>
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<tr>
<td>Total Credit Hours Earned for Degree</td>
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</tbody>
</table>

¹ Students receiving a MSPH are required to complete a 37 hour online course entitled "Overview of Public Health" by the end of their 2nd 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.
² Online only (with permission)

Coordinated Master of Public Health in Maternal and Child Health Policy and Leadership / Master of Science in Nursing

Program Description

The coordinated MPH/MSN degree is designed to address the dynamic health care needs of women and children. This program prepares nurse practitioners to participate in the development, implementation, and evaluation of innovative maternal and child health (MCH) programs and policies. This dual degree builds on the synergy generated through two complementary curriculum tracks. In this educational experience, advanced clinical skill is combined with expertise in program planning and evaluation. This coordinated program is one of the programs in the maternal and child health (MCH) concentration and is funded, in part, by a federal MCH training grant - [The MCH Policy & Leadership Program].
Learning Objectives

- Describe the health problems faced by children and their families within the context of public health
- Apply current policies and programs directed at children and their families and describe how they are developed
- Demonstrate skill in providing clinical services to children and their families
- Plan, implement, and administer MCH programs
- Demonstrate skill in the provision of primary care that includes health promotion and prevention of specific disorders and injury
- Demonstrate early identification and treatment or referral for treatment of health problems
- Manage chronic conditions to avoid complications and promote optimal physical, psychological, and social functioning

Program Requirements

The coordinated MPH/MSN degree can be completed in 2 years of full-time study. Students may select to focus on 1 of 3 tracks in the nursing curriculum: Nursing and Health Systems Administration, Nurse Practitioner or Clinical Nurse Specialist, or Quality and Outcomes Management in Health Systems. At the completion of the coordinated degree, nurse practitioner graduates are eligible to take the certification examination for pediatric nurse practitioner, family nurse practitioner, or women's health nurse practitioner, depending on the specialty course of study. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Students are admitted separately to the MPH and MSN degree programs and must meet admission requirements in both the UAB School of Public Health and the UAB School of Nursing. Click here for UAB School of Nursing admissions information. Click here for UAB School of Public Health admissions information.

Coordinated Master of Public Health in Maternal and Child Health Policy and Leadership / Master of Science in Nursing Curriculum Planning Sheet

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Term Course</th>
<th>Credit Hours</th>
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<tr>
<td></td>
<td>Fall</td>
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<tr>
<td>Core Requirements(^1) (19 credit hours)</td>
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<tr>
<td>HCO 600: Intro to Public Health Systems &amp; Population-Based Health Programs</td>
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<tr>
<td>BST 611: Intermediate Statistical Analysis I</td>
<td>X(^3)</td>
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</tr>
<tr>
<td>BST 612: Intermediate Statistical Analysis II</td>
<td>X</td>
<td>X(^3)</td>
</tr>
<tr>
<td>ENH 600: Fundamentals of Environmental Health</td>
<td>X</td>
<td>X(^3)</td>
</tr>
<tr>
<td>EPI 600: Introduction to Epidemiology</td>
<td>X</td>
<td></td>
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<tr>
<td>HB 600: Social &amp; Behavioral Sciences Core</td>
<td>X</td>
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<tr>
<td>PUH 695: Integrative Experience(^2)</td>
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<td>SOPH Requirements (3 credit hours)</td>
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<tr>
<td>GRD 727: Writing Reviewing Research</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Department Track Requirements (15 credit hours)</td>
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<tr>
<td>HCO 601: Health Economics</td>
<td>X</td>
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<tr>
<td>HCO 605: Fundamentals of MCH I: Issues, Programs &amp; Policies</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>HCO 608: Fundamentals of MCH II: Application of Essential MCH Skills</td>
<td>X</td>
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<tr>
<td>HCO 618: Management Concepts in Public Health</td>
<td>X</td>
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<tr>
<td>HCO 625: Advanced Leadership in MCH Part I: Introduction to Leadership</td>
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<tr>
<td>HCO 626: Advanced Leadership in MCH Part II: Collaborative Leadership &amp; Advocacy</td>
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<tr>
<td>HCO 627: Adv Leadership in MCH Part II: Into the Streets: Leadership Field Exp(^2)</td>
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<tr>
<td>Electives shared with the School of Nursing - to complete total required hours (6 credit hours)</td>
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<tr>
<td>NUR 602Q: Issues Affecting Advanced Nursing Practice(^3)</td>
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<td>NUR 612: Advanced Pathophysiology</td>
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<td>Internship (3 hours)</td>
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<td>HCO 697: Internship</td>
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<tr>
<td>Total Credit Hours Earned for Degree</td>
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</tbody>
</table>

\(^1\) See School of Nursing Catalog for requirements for the MSN portion of the dual MPH/MSN program
Coordinated Master of Public Health in Maternal and Child Health Policy and Leadership / Master of Social Work

Program Description

The MPH/MSW degree program is coordinated between the UAB School of Public Health, Department of Health Care Organization & Policy and the University of Alabama (UA) School of Social Work (in Tuscaloosa). The coordinated program prepares social workers for interdisciplinary practice in public health programs concerned with the promotion and improvement of the health of diverse populations, including women, children, and families. Students who have been admitted to the MSW program in the UA School of Social Work and wish to pursue the coordinated degree option should contact the Department of Health Care Organization and Policy. Students will attend classes in Tuscaloosa and Birmingham. This coordinated program is one of the programs in the maternal and child health (MCH) concentration and is funded, in part, by a federal MCH training grant - The MCH Policy & Leadership Program. This degree is also offered online.

Learning Objectives

- Describe the health problems faced by children and their families within the context of public health
- Apply the tools of biostatistics and epidemiology to analyze problems faced by children and their families
- Apply current policies and programs directed at children and their families and describe how they are developed
- Plan, implement, and administer MCH programs
- Demonstrate a solid foundation in both social work and public health principles and skills necessary for individuals interested in leadership positions at the community, state and national levels

Program Requirements

The coordinated MPH/MSW degree can be completed in 2 academic years (including 2 summers) of full-time study. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Students who choose the coordinated degree plan will be required to first secure admission to the UA School of Social Work (for the MSW) and, at the end of the first semester, to apply separately to the UA School of Public Health, Department of Health Care Organization & Policy (for the MPH). Acceptance in the MSW program does not automatically ensure acceptance into the MPH program and vice versa.

Coordinated Master of Public Health in Maternal and Child Health Policy and Leadership / Master of Social Work Curriculum Planning Sheet

| COORDINATED MASTER OF PUBLIC HEALTH IN MATERNAL & CHILD HEALTH POLICY & LEADERSHIP / MASTER OF SOCIAL WORK |
| Curriculum Planning Worksheet |
| Course Name | Term Course | Credit Hours |
| Core Requirements (19 credit hours) | | |
| HCO 600: Intro to Public Health Systems & Population-Based Health Programs | X | 3 |
| BST 511: Intermediate Statistical Analysis I | X | x^3 | 3 |
| BST 512: Intermediate Statistical Analysis II | X | x^3 | 3 |
| ENH 600: Fundamentals of Environmental Health | X | x^2 | 3 |
| EPI 600: Introduction to Epidemiology | X | 3 |
| HB 600: Social & Behavioral Sciences Core | X | 3 |
| PUH 695: Integrative Experience^2 | X | 1 |
| SOPH Requirements (3 credit hours) | | |
| GRD 727: Writing Reviewing Research | X | X | X | 3 |
| Department Track Requirements (15 credit hours) | | |
| HCO 601: Health Economics | X | X | 3 |
| HCO 605: Fundamentals of MCH I: Issues, Programs & Policies | X | 3 |
| HCO 606: Fundamentals of MCH II: Application of Essential MCH Skills | X | 3 |
Coordinated Master of Public Health in Maternal and Child Health Policy and Leadership / Master of Social Work Online

Program Description

The MPH/MSW degree program is coordinated between the UAB School of Public Health, Department of Health Care Organization & Policy and the University of Alabama (UA) School of Social Work (in Tuscaloosa). The coordinated program prepares social workers for interdisciplinary practice in public health programs concerned with the promotion and improvement of the health of diverse populations, including women, children, and families. Students who have been admitted to the MSW program in the UA School of Social Work and wish to pursue the coordinated degree option should contact the Department of Health Care Organization and Policy. Students will attend classes in Tuscaloosa and Birmingham. This coordinated program is one of the programs in the maternal and child health (MCH) concentration and is funded, in part, by a federal MCH training grant. The MCH Policy & Leadership Program.

Learning Objectives

- Describe the health problems faced by children and their families within the context of public health
- Apply the tools of biostatistics and epidemiology to analyze problems faced by children and their families
- Apply current policies and programs directed at children and their families and describe how they are developed
- Plan, implement, and administer MCH programs
- Demonstrate a solid foundation in both social work and public health principles and skills necessary for individuals interested in leadership positions at the community, state, and national levels

Program Requirements

The coordinated MPH/MSW degree can be completed in 2 academic years (including 2 summers) of full-time study. Click here or below for Curriculum Planning Sheet.

Program Admission Requirements

Students who choose the coordinated degree plan will be required to first secure admission to the UA School of Social Work (for the MSW) and, at the end of the first semester, to apply separately to the UAB School of Public Health, Department of Health Care Organization & Policy (for the MPH). Acceptance in the MSW program does not automatically ensure acceptance into the MPH program and vice versa.

Coordinated Master of Public Health in Maternal and Child Health Policy and Leadership / Master of Social Work Online Curriculum Planning Sheet
### Doctor of Public Health

**Program Description**

The DrPH degree is the highest professional degree in public health. The DrPH Program develops leaders and research faculty who have proficiency in data analysis, management, critical thinking, teaching, and translating research into policy and practice. Students will be exposed to complex practical problems facing public health practitioners and policy-makers. Three tracks are available within the DrPH program:

- **Outcomes Research** - [Click here or below for Curriculum Planning Sheet](#)
- **Public Health Management** - [Click here or below for Curriculum Planning Sheet](#)
- **Maternal & Child Health (MCH) Policy** - [Click here or below for Curriculum Planning Sheet](#) - Funded, in part, by a federal MCH training grant - The MCH Policy & Leadership Program

**Program Requirements**

The DrPH program must be completed within 7 years. Students who have not successfully completed their comprehensive examinations within 5 years will be subject to dismissal from the program. A minimum of 42 credit hours, exclusive of HCO courses 793 and 796-799, are required to complete the degree. Students will complete at least 15 credit hours of analytical or methodological courses, at least 15 hours of concentration-core courses, and at least 12 hours of any 700-level electives (as approved by advisor). Students must also complete the doctoral seminars (HCO 796), comprehensive examination (HCO 797), practicum (HCO 793), dissertation proposal/protocol development (HCO 798), and dissertation research (HCO 799).

**Program Admission Requirements**

- An MPH or equivalent degree in public health in required.
- Applicants with advanced non-public health degrees can be admitted directly into the DrPH program but must successfully complete the MPH and concentration-specific prerequisite courses.
- Applicants with a MPH or equivalent degree not in their concentration will take the necessary concentration prerequisites only.
- Applicants with only a bachelor's degree but with an exceptional academic record or rich professional experience will be considered. They must be admitted into the MPH program prior to applying to the DrPH program and complete the MPH program before being fully accepted into the DrPH program.
- Experience in public health research is required. Applicants must submit GRE scores taken within 5 years. Both the score and the percentile on each of the verbal, quantitative, and analytical writing sections of the examination will be evaluated. A minimum of 1100 (550 on each of the verbal and quantitative sections) or 155 verbal and 146 quantitative (new GRE score) is expected.
- International applicants whose native language is not English or who did not complete a degree at an English-speaking institution must submit a TOEFL with TWE test score. The minimum acceptable score is (Paper Based) 550, (Computer Based) 213, and (Internet-Based) 79-80.
- Other aspects of an applicant's record, such as educational achievement, professional experience, and clarity of career goals are helpful in determining admissibility.

For more information, please contact [Dr. Nir Menachemi, PhD](#), Director of the Doctoral Program or [Brenda Campbell](#), Program Coordinator.
Doctor of Public Health in Maternal & Child Health Policy Curriculum Planning Sheet

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1 Online only (with permission)

2 To be completed semester prior to comprehensive exam

Doctor of Public Health in Outcomes Research Curriculum Planning Sheet

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<td>HCO 781: Research Methods &amp; Study Design</td>
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¹ Online only (with permission)
² To be completed semester prior to comprehensive exam

Doctor of Public Health in Public Health Management Curriculum Planning Sheet

### DOCTOR OF PUBLIC HEALTH IN PUBLIC HEALTH MANAGEMENT

Curriculum Planning Worksheet

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**Health Care Organization and Policy Courses (HCO)**

**HCO 600. Introduction to Public Health Systems and Population–Based Health Programs** - This course presents selected information, concepts, and methods from the field of public health. Topics concerning the structure, financing and current status of the US health care system, as well as the history, organization, financing, and services of the public health system are discussed. All topics are presented from a population-based perspective. 3 hours (Rucks, Wingate, Mennemeyer)

**HCO 601/701. Health Economics** - Economics as systematic way of thinking about use of resources. Tools of economics applied to issues of organization, delivery, financing, and outcome of health care. Develops economic principles and describes system of health care financing and delivery in the United States, providing basis for analyzing health management and policy options. With didactic coursework provided in HCO 601, doctoral students prepare a major paper under instructor's direction. 3 hours (Sen, Becker, Mennemeyer)

**HCO 603/703. Public Health Policy** - Theoretical framework and concepts used to understand evolution of public health policies and processes of policy formulation, implementation, and change. Significance of policy for public health practical foundation of knowledge and skills useful in analyzing and responding to policy environment. Doctoral students will have an emphasis on independent analysis of health policy issues. 3 hours (Becker)

**HCO 605. Fundamentals of Maternal and Child Health (MCH) Part I: Issues, Programs & Policies** - Provides students with knowledge about current MCH health, social, economic, and environmental issues; programs and policies for women of reproductive age, infants, and children. Required for the MPH degree in the Department of Health Care Organization and Policy’s MCH Policy and Leadership concentration. 4 hours (Wingate)

**HCO 606. Fundamentals of Maternal and Child Health (MCH) Part II: Application of Essential MCH Skills** - The purpose of this course is to introduce students to basic research methods used by public health professional practitioners, with a specific focus on their application in the MCH field; 2) to introduce the needs assessment and program planning, implementation and evaluation processes specifically relate to public health; and 3) to provide practical educational experiences to develop skills in applying research methods and essential skills needed to conduct needs assessments and use the information gathered to plan, and evaluate public health programs and impact public health policies. 3 hours (Preskitt)

**HCO 608/708. Reproductive Health** - Examines key areas of reproductive health including contraception and family planning,
sexual health and sexually transmitted diseases, unwanted pregnancies, health pregnancy and safe motherhood, and adolescent reproductive health. Content addresses measurement, prevalence, determinants and consequences of reproductive health problems; issues of survey design, research methods, and analysis; and development, implementation, and evaluation of reproductive health policies and services to low-to-middle-income. 3 hours (Kulczycki)

HCO 611/711. Child Health and Development: Womb to Young Adulthood- Focuses on the key developmental processes that influence health outcomes from the prenatal period through early childbearing years. Processes and outcomes are linked to MCH programs, policies, resources, and barriers relevant to these populations. 3 hours (Mulvihill)

HCO 612. Strategic Management in Health Programs- Provides a framework for strategic management in health care and public health organizations and provides opportunities to develop strategic plans for health care organization. Objectives are: to relate prior knowledge and experience to specific problem-solving situations; encourage strategic thinking in decision making in health care organizations; provide opportunities to engage in and manage a group decision-making process; gain experience in analyzing the public health environment and prepare a strategic plan for that environment; and develop implementation plans to accomplish strategic plans. 3 hours (Ginter)

HCO 613/713. Health Information Technology and Policy- The overall goal of the course is to familiarize students with current issues associated with health information technology (IT) and their impact on the U.S. healthcare system. Health IT applications (e.g., electronic health records, computerized physician order entry systems, decision support systems, health information exchanges, etc.) are playing an increasingly important role in the efficiency and effectiveness of healthcare delivery and management. 3 hours (Menachemi)

HCO 615/715. Finance for Health Professionals- Financial management of public health care organizations. Emphasis on time value on money, capital raising methods, cost of capital, capital budgeting methods and working capital policy. Problem-solving orientation with applications to public health issues. 3 hours (Rucks)

HCO 618/718. Management Concepts in Public Health Programs- Organization structure, management, finance and budgeting, human resources, contracts, negotiation, and operations research in public health settings. Presentation of general principles combined with study of actual cases from practice. Prerequisite: Permission of Instructor 3 hours (Duncan)

HCO 619. Social Work in Public Health- Introduction and overview of the field of public health and the subspecialty of public health social work. Provides information about practical macro-level skills and increases the knowledge of students regarding the role and functions of advanced-trained social workers within major public health programs. 3 hours (Hitchcock)

HCO 620/720. Health Insurance and Managed Care- Insurance as mechanism for dealing with consequences of an uncertain world. Health insurance and its consequences as significant reasons health care markets differ from others. Workings of insurance markets and current policy issues. Demand for health insurance, underwriting, rate making, moral hazard and adverse selection, HMOs and PPOs, employer health benefits and self insurance, Medicare and Medicaid, long term care insurance and catastrophic coverage. Prerequisite: HCO 601 or equivalent. 3 hours (Morrisey)

HCO 621/721. Clinical Decision Making and Cost-Effectiveness Analysis- The objectives of this course are to acquaint public health and other professionals with techniques of decision making under conditions of uncertainty and the basics of cost-effectiveness analysis. Topics include decision analysis, Markov processes, Monte Carlo simulation, valuing diagnostic tests, and measuring the costs and outcomes of health service programs. Students who successfully complete the course will be able to understand the strengths and limitations of these types of analysis and determine the relevance of research findings to their own areas of expertise. Prerequisite: HCO 601,BST 611, BST 612, or Permission of instructor. 3 hours. (Kilgore)

HCO 622/722. Cost-Effectiveness Research Methods- The objective of this course is to familiarize students with the design and implementation of cost-effectiveness and cost-benefit analysis. Specific topics include cost estimation, effectiveness measurement, time preference, uncertainty, ethical issues, valuing health outcomes, and ethical issues in cost-effectiveness research. At the end of the course students will develop and present analysis plans related to their particular fields of practice. Prerequisite: HCO 621 or Permission of instructor. 3 hours. (Kilgore)

HCO 624. MCH Nutrition and Physical Activity for Healthy Lifestyles- This proposed course will look at nutrition and physical activity from the community nutrition and physical activity viewpoint. It will explore nutrition and physical activity in the MCH population and students will become aware of the different public health venues where current interventions are occurring as well as where intervention can occur. This course will help students design an intervention as well as develop a policy paper to support the intervention. Students will learn strategies for promoting healthy lifestyles through improved eating and physical activity behaviors within communities. Focus on the application of community-based planning based on five cornerstones: access, collaboration, science and research, workforce, and communication will be included in this course throughout the semester. 3 hours (Spear)

HCO 625. Advanced Leadership in Maternal and Child Health (MCH) Part I: Introduction to Leadership- The Advanced Leadership in MCH course series is offered as three one-hour courses. For students in the MPH or DrPH programs in the MCH
concentration in HCOP, all 3 courses are required. Others students may take individual segments for one hour credit with permission of the instructor. HCO 625 provides students with the leadership skills necessary to work effectively at a community, state or regional level in the capacity of designing and advocating for programs and policies necessary to promote the health of women, children and families. 1 hour (Duncan, Ginter, Mulvihill, Pass)

HCO 626. Advanced Leadership in Maternal and Child Health (MCH) Part II: Collaborative Leadership and Advocacy- Equip students with knowledge and skills needed to provide leadership in the development and delivery of needed programs and policies to promote the health and well being of MCH and other populations. Focus on honing leadership skills beneficial to MCH public health practice. Students are encouraged to challenge the status quo through the analysis of policy-based case studies and researching leadership challenges for MCH programs. Prerequisite HCO 625 or permission of instructor. 1 hour. (Mulvihill, Pass, Rucks)

HCO 627. Advanced Leadership in Maternal and Child Health (MCH) Part III: Into the Streets: Leadership Field Experience- Provide students with opportunities to apply the leadership skills necessary to work effectively at a community, state or regional level to design and advocate for programs and policies that promote the health of women, children and families. Includes lectures, small group discussions, exercises, individual project work, and on-line service-learning field-based activities, usually linked to the internship or other field-based experiences. Prerequisite HCO 625 and 626, or permission of instructor. 1 hour (Mulvihill, Wingate)

HCO 628/728. Qualitative and Mixed Methods Research in Public Health- The main purpose of the course is to facilitate the development of knowledge and skills related to conducting qualitative and mixed methods research in public health: with a specific focus on the use of these methods in the maternal and child health, sexual health, and reproductive health fields. This course is designed to familiarize students who have little or no experience in conducting qualitative research with the perspectives, methods, and techniques of a vast tradition of research. The course will cover some of the methods of data collections used in the conduct of qualitative inquiries, the analysis of textual data, the write-up of findings from qualitative studies, and the development of a qualitative research proposals and reports. The main purpose of the bulk of the course is to facilitate the development of knowledge and skills related to conducting qualitative research in public health. A few classes towards the end of the semester will introduce mixed-methods research, in which qualitative and quantitative research methods are combined in a single line of research inquiry. 3 hours (Turan)

HCO 631. Public Health Demography- Focuses on principles of demography (the study of population) as related to public health. Course content covers: the measurement and analysis of fertility, mortality, migration, population size, and composition; sources and evaluation of demographic data, techniques of population projection; and determinants and consequences of population trends and processes, with applications for health and health care. 3 hours (Kulczycki)

HCO 632. Readings in Maternal and Child Health- Critical analysis of literature in focused area of maternal and child health under supervision of faculty member. 1-3 hours Pass/Fail

HCO 640/740. Disaster and Emergency Management- This course will provide a concerted look into the realm of disaster and emergency management. Discussions in the course will concentrate on how disaster and emergency management has changed since 9/11 including new legislation and governmental structures. The course will culminate with a look at the roles and responsibilities of the public health system in preparing for and responding to both natural and man-initiated disasters. This course is intended for advanced MPH or doctoral students with an interest in preparedness policy, emergency management, or public health preparedness. Course graded as letter. 3 hours (McCormick)

HCO 641/741. Preparedness and Response Policy- This course will focus on the development of public policy in the U.S. and the evolution of preparedness policy since September 2001. Students should gain both a capacity for framing issues in order to influence policy makers and public discourse and an understanding of how preparedness policy affects the public health system in the U.S. (McCormick)

HCO 642/742. Preparedness and Agriculture- This course presents the potential effects of an animal disease outbreak, whether natural, accidental or deliberate, on the affected communities. Topics covering the prevention and diagnosis of and the response to an animal disease outbreak will be presented. Examples of the interaction of public health with other disciplines will be provided. This course is designed for MPH students with an interest in preparedness policy, emergency management, or public health preparedness. Note: It is preferred that this course is completed during the final year of enrollment; however, any MPH candidate who has completed the entire core curriculum is eligible to enroll in the course. Course graded by letter. 3 hours (Fields)

HCO 643/743. Emergency Preparedness Exercises, Evaluation, and Communication- This course will provide participants with an understanding of Public Health Emergency Preparedness (PHEP), exercise development, and evaluation. During this course you will learn how to identify threats within your community, determine what capabilities are most needed to prepare for and meet these threats, and how to develop and evaluate exercises to test knowledge, skills and abilities. 3 hours (Hites)

HCO 670. Social and Ethical Issues in Public Health- This class examines situations where public health programs or policies create or become embroiled in social controversies. Topics examined include: the underlying social conflicts involved in these controversies, the nature of the types of groups involved, and the ethical dilemmas that face decision makers in these situations. 3 hours (Bronstein)

HCO 672/772. Perinatal Health: Issues, Data and Policies- This course will focus primarily on perinatal U.S. health problems although examples from international settings will be utilized. Data analyses will focus on U.S. data. Course work includes article critiques; a literature review and presentation; and a final exam. The course will include lectures, discussions, in-class computer
sessions and computer assignments. Students will gain information on maternal morbidity and mortality, birth weight, gestational age, fetal growth, and infant mortalities (injuries, birth defects, etc.). Students also will learn about data sources for perinatal health issues and be guided through hands-on exercises using SAS and a population-based dataset. The course will culminate with a field-based experience that will illustrate the effects of some adverse perinatal outcomes on children and their families. 3 hours (Wingate)

HCO 675. Improving Health Care Quality Outcomes- Examination of current issues in quality of care and outcomes management. The course includes a review of past and current efforts, tools, and theories of quality assessment, assurance, utilization management, and measuring and improving outcomes. 3 hours (Van Matre)

HCO 677. Patient-Based Outcomes Measurement- Detailed examination of patient-based outcomes measurement in the context of health care delivery systems and health care policy. Topics include: Theories and development of outcome evaluation instruments; disease-specific and generic measures of outcome; utility estimation; mediators and moderators of health outcomes; issues in instrument selection and administration; methods for evaluating outcomes data; and uses of outcomes data. Prerequisites: BST 601, BST 602 or Permission of Instructor. 3 hours (Locher)

HCO 680. Aging Policy- Providing for the physical and economic well-being of the aging population is a continual challenge facing society. The objectives of this course are to develop an understanding of the influence of demographic changes, economic factors, and public policy on the health status and health care of the aging population; investigate the work, retirement, savings, and health insurance decisions facing the elderly; describe the system of health care financing and delivery arrangements for the elderly in the United States and other developing countries. Prerequisites: Basic biostatistics or equivalent. 3 hours (Locher)

HCO 687/787. Empirical Methods for Health Research- The objectives of the course are to provide thorough treatment of simple and multivariate regression models, simple binary dependent variable models, instrumental variables estimators, sample selection and two-part models, and simple panel data models. Course provides students with an opportunity to acquire hands-on software. This course is designed for students who have had limited experience with regression analysis but a working knowledge of simple statistics, probability distributions, and basic calculus. Prerequisite: Upper level undergraduate or graduate course in statistics and probability; basic calculus. 3 hours (Sen)

HCO 691. Policy Analysis: Modeling and Simulation- Training in basic skills necessary to design, test, implement, manage, present, and critique policy analysis in health care sector. Fundamentals of policy research design, and linkage between theory and operation. Various research techniques examined case studies and analyses of secondary data. Emphasis on choosing appropriate analytical strategies for particular policy issues. Data analysis using computers and critical evaluation of technical policy literature. Special topics in econometrics also addressed. Original policy analytic paper required at end of sequence. Prerequisites: HCO 601 or equivalent, BST 600 or higher recommended. 3 hours (Menemeyer)

HCO 692. Advanced Topics in Health Disparities Research- The primary aim of this course is to engage students in critical thinking about the current paradigms for health care disparities research in the U.S. As a part of this process, students will be challenged to think about the social, political, and economic determinants of health disparities for diverse health care consumers, to identify substantive trends and gaps in the health disparities literature, and to develop an innovative research or policy-oriented strategy for reducing health disparities. A secondary aim of this course is to provide students with a broad overview of health and health care disparities according to race/ethnicity, gender, and health status. The three specific racial/ethnic groups are: African Americans, Hispanic/Latinos, and Asian/Pacific Islanders. The gender classifications include men and women. The health status groupings include persons with chronic health problems (such as diabetes or a mental health condition, e.g., schizophrenia). Course graded by letter. 3 hours (Gary)

HCO 697. Internship- Field experience under joint direction of faculty member and qualified specialist working in selected aspects of public health. Written report specifying activities, products, and outcomes of experience required upon completing the internship. Pass/No Pass.3,6,9 hours


HCO 701/601. Health Economics- Economics as systematic way of thinking about use of resources. Tools of economics applied to issues of organization, delivery, financing, and outcome of health care. Develops economic principles and describes system of health care financing and delivery in the United States, providing basis for analyzing health management and policy options. With didactic coursework provided in HCO 601, doctoral students prepare a major paper under instructor's direction. Prerequisite: BST 601 or equivalent. 3 hours (Sen, Becker, Menemeyer)

HCO 703/603. Public Health Policy- Theoretical framework and concepts used to understand evolution of public health policies and processes of policy formulation, implementation, and change. Significance of health policy for public health practical foundation of knowledge and skills useful in analyzing and responding to policy environment. Doctoral students will have an emphasis on independent analysis of health policy issues. Prerequisite: HCO 601 or HCO 701 recommended. 3 hours (Becker)

HCO 706. Strategic Mgt Theory and Research- The vision for the course is to develop highly competitive (the very best) strategic management major graduates at that doctoral level. Students will be able to compete nationally for academic positions in both health administration programs and business schools. Strategic Management Theory and Research is to provide a forum for the introduction
of the concepts and issues of strategic management in order to facilitate their understanding and communications. The mission of the strategic management track is to develop highly qualified strategic management scholars and teachers who are contributing to the field. 3 hours (Menachemi)

**HCO 708/608. Reproductive Health**-
Examines key areas of reproductive health including contraception and family planning, sexual health and sexually transmitted diseases, unwanted pregnancies, health pregnancy and safe motherhood, and adolescent reproductive health. Content addresses measurement, prevalence, determinants and consequences of reproductive health problems; issues of survey design, research methods, and analysis; and development, implementation, and evaluation of reproductive health policies and services to low-to-middle-income. 3 hours (Kulczycki)

**HCO 711/611. Child Health and Development: Womb to Young Adulthood**-
Focuses on the key developmental processes that influence health outcomes from the prenatal period through early childbearing years. Processes and outcomes are linked to MCH programs, policies, resources, and barriers relevant to these populations. 3 hours (Mulvihill)

**HCO 713/613. Health Information Technology and Policy**-
The overall goal of the course is to familiarize students with current issues associated with health information technology (IT) and their impact on the U.S. healthcare system. Health IT applications (e.g., electronic health records, computerized physician order entry systems, decision support systems, health information exchanges, etc.) are playing an increasingly important role in the efficiency and effectiveness of healthcare delivery and management. 3 hours (Menachemi)

**HCO 715/615. Finance for Health Professionals**-
Financial management of public health care organizations. Emphasis on time value on money, capital raising methods, cost of capital, capital budgeting methods and working capital policy. Problem-solving orientation with applications to public health issues. 3 hours (Rucks)

**HCO 718/618. Management Concepts in Public Health Programs**-
Organization structure, management, finance and budgeting, human resources, contracts, negotiation, and operations research in public health settings. Presentation of general principles combined with study of actual cases from practice. Prerequisite: Permission of Instructor. 3 hours (Duncan)

**HCO 720/620. Health Insurance and Managed Care**-
Insurance as mechanism for dealing with consequences of an uncertain world. Health insurance and its consequences as significant reasons health care markets differ from others. Workings of insurance markets and current policy issues. Demand for health insurance, underwriting, rate making, moral hazard and adverse selection, HMOs and PPOs, employer health benefits and self insurance, Medicare and Medicaid, long term care insurance and catastrophic coverage. Prerequisite: HCO 601 or equivalent. 3 hours (Morrissey)

**HCO 721/621. Clinical Decision Making and Cost-Effectiveness Analysis**-
The objectives of this course are to acquaint public health and other professionals with techniques of decision making under conditions of uncertainty and the basics of cost-effectiveness analysis. Topics include decision analysis, Markov processes, Monte Carlo simulation, valuing diagnostic tests, and measuring the costs and outcomes of health service programs. Students who successfully complete the course will be able to understand the strengths and limitations of these types of analysis and determine the relevance of research findings to their on areas of expertise. Prerequisite: HCO 601, BST 611, BST 612, or Permission of instructor. 3 hours. (Kilgore)

**HCO 722/622. Cost-Effectiveness Research Methods**-
The objective of this course is to familiarize students with the design and implementation of cost-effectiveness and cost-benefit analysis. Specific topics include cost estimation, effectiveness measurement, time preference, uncertainty, ethical issues, valuing health outcomes, and ethical issues in cost-effectiveness research. At the end of the course students will develop and present analysis plans related to their particular fields of practice. Prerequisite: HCO 621 or Permission of instructor. 3 hours. (Kilgore)

**HCO 728/628. Qualitative and Mixed Methods Research in Public Health**-
The main purpose of the course is to facilitate the development of knowledge and skills related to conducting qualitative and mixed methods research in public health: with a specific focus on the use of these methods in the maternal and child health, sexual health, and reproductive health fields. This course is designed to familiarize students who have little or no experience in conducting qualitative research with the perspectives, methods, and techniques of a vast tradition of research. The course will cover some of the methods of data collections used in the conduct of qualitative inquiries, the analysis of textual data, the write-up of findings from qualitative studies, and the development of a qualitative research proposals and reports. The main purpose of the bulk of the course is to facilitate the development of knowledge and skills related to conducting qualitative research in public health. A few classes towards the end of the semester will introduce mixed-methods research, in which qualitative and quantitative research methods are combined in a single line of research inquiry. 3 hours (Turan)

**HCO 740/640. Disaster and Emergency Management**-
This course will provide a concerted look into the realm of disaster and emergency management. Discussions in the course will concentrate on how disaster and emergency management has changed since 9/11 including new legislation and governmental structures. The course will culminate with a look at the roles and responsibilities of the public health system in preparing for and responding to both natural and man-initiated disasters. This course is intended for advanced MPH or doctoral students with an interest in preparedness policy, emergency management, or public health preparedness. Course graded as letter. 3 hours (McCormick)

**HCO 741/641. Preparedness and Response Policy**-
This course will focus on the development of public policy in the U.S. and the evolution of preparedness policy since September 2001. Students should gain both a capacity for framing issues in order to influence policy makers and public discourse and an understanding of how preparedness policy affects the public health system in the U.S.
HCO 743/643. Emergency Preparedness Exercises, Evaluation, and Communication- This course will provide participants with an understanding of Public Health Emergency Preparedness (PHEP), exercise development, and evaluation. During this course you will learn how to identify threats within your community, determine what capabilities are most needed to prepare for and meet these threats, and how to develop and evaluate exercisizes to test knowledge, skills and abilities. 3 hours (Hites)

HCO 781. Research Methods and Study Design- The course supplements the material covered in HCO 787, with a focus on the sensible application of econometric methods to important topics in health research. The course will begin with an overview of experimental and non-experimental research and the critical distinction between associative and causal relationships. The remainder of the course will focus on the difficulty of identifying causal relationships in non-experimental contexts, and the methods that are commonly used to overcome these challenges. At the end of the semester, students should come away with an improved grasp of the interdisciplinary language of health research and a deeper appreciation of the importance of research design. 3 hours (Becker)

HCO 782, Advanced Causal Inference-Causal Inference- This course involves the methods and thinking one uses to move from associations to cause-and-effect relationships. This course provides an intermediate treatment of econometric and biostatistical methods for causal inference in public health. These methods include propensity scores, econometric selection models and the handling of dynamic treatments (using marginal structural models and structural nested models). Prerequisite HCO 781. 3 hours (Foster)

HCO 787/687. Empirical Methods for Health Research- The objectives of the course are to provide thorough treatment of simple and multivariate regression models, simple binary dependent variable models, instrumental variables estimators, sample selection and two-part models, and simple panel data models. Course provides students with an opportunity to acquire hands-on software. This course is designed for students who have had limited experience with regression analysis but a working knowledge of simple statistics, probability distributions, and basic calculus. Prerequisite: Upper level undergraduate or graduate course in statistics and probability; basic calculus, 3 hours (Sen)

HCO 788. Longitudinal Methods in Health Services Research- This course provides an intermediate treatment of econometric and biostatistical methods for longitudinal analyses of data in public health. 3 hours (E. Michael Foster)

HCO 791. Policy Analysis: Modeling and Simulation- Training in basic skills necessary to design, test, implement, manage, present, and critique policy analysis in health care sector. Fundamentals of policy research design and linkage between theory and operation. Various research techniques examined, case studies, and analyses of secondary data. Emphasis on choosing appropriate analytical strategies for particular policy issues. Data analysis using computers and critical evaluation of technical policy literature. Special topics in econometrics also addressed. Original policy analytic paper required at end of sequence. Prerequisites: HCO 601 or equivalent, BST 600 or higher recommended. 3 hours (Mennemeyer)

HCO 793. DrPH Practicum in HCO- Doctoral students are required to complete a 6 hour practicum working in a public health agency or organization. Students should have passed their comprehensive exam prior to enrolling in HCO 793. Pass/No Pass. 3-6 hours.


HCO 796. Doctoral Seminar in Health Care Organization and Policy- Through participation in this course, students will be introduced to advanced topics in public health and management research. Students are required to register for the seminar course each fall and spring semester they are enrolled. 1 hour (Menachemi)

HCO 797. Directed Readings for DrPH Comprehensive Exam in Health Care Organization and Policy- Assists students in preparing for the comprehensive exam. Doctoral Students may register in the semester in which they prepare for and take their comprehensive exam. Pass/No Pass. 3 hours

HCO 798. Dissertation Protocol Development in Health Care Organization and Policy- Assists students with their dissertation protocol development. Doctoral Students may register for this course during the period in which they are preparing their doctoral dissertation protocol. Pass/No Pass. 3 hours


HCOP Student Handbooks

Add new comment

- DrPH Student Handbook 2011-2012 (pdf)
School of Public Health Courses

UNDERGRADUATE COURSES (PUH)

PUH 101. Prepare, Promote and Prevent. This First Year Experience (FYE) course is for students majoring in or interested in Public Health. It is designed to introduce freshmen to the tools and techniques that will enhance their transition to college and improve their academic success. Goal setting, time management, faculty/peer interaction, and other relevant academic skills will be addressed. Students will also gain an understanding of the various educational opportunities and career options associated with Public Health. (3 Credit Hour)

PUH 201. The Origins of Public Health: How Public Health Defines Population and Nations. (Cross listed with PUH 301) This course explores the richness of public health through its disciplines and its stories to demonstrate how the understanding of the origins of epidemics determines the progress of civilization. (3 Credit Hour)

PUH 202. Introduction to Global Health. (Cross listed with PUH 303) This course is designed to introduce students to the topic of global health and impart a basic understanding of its interdisciplinary nature, successes to date, and current challenges in the field. The first part of the course provides a basic framework for understanding global public health issues and improvement of health at a population level by exposing students to basic public health concepts of disease burden, standard indices for measuring population-based health, and highlighting global epidemiologic trends. Progress towards the Millennium Development Goals will be a focus of discussion. The second section of the course will discuss vulnerable populations and how their specific needs are prioritized and addressed. Third, the class will examine strategies for organization and delivery of health care services at a population level and examine health as a human right. Finally, the course will look at the key institutions and organizations working in tandem with health ministries to address global health and the need for major collaborative initiatives to address health disparities worldwide. (3 Credit Hour)

PUH 204. Health Meets Life: Sex, Drugs, Weight, and other Health Behaviors. This course will be structured around lectures, in-class activities, and discussions of lecture, readings, and current events. The successful student will engage in active listening and critical thinking of the topics presented. Students will be evaluated by class participation, projects, and exams. (3 Credit Hour)

PUH 210. Biological Basis of Public Health. This course will consist of lectures and in-class active-learning activities centered on deepening the students’ understanding of the fundamental biological concepts with an emphasis on significant public health problems. Each major system will be presented first as normal physiology, then, how genetics and/or specific exposures (voluntary and involuntary) contribute to diseases of public health significance. Examples may include genetics/genomics with cancer and disease susceptibility; the immune system and infectious diseases; respiratory system with asthma; the nervous system with pesticide exposure; the reproductive system, STIs and reduced fertility; and, fetal development with drug addiction. (3 Credit Hour)

PUH 300- Environmental Factors in Public Health. (Cross listed with ENH 400) This didactic lecture course open to students from all majors will survey current issues and challenges in our global and local environmental and how those impact our health. It will examine the sources, exposure routes, regulation and health outcomes associated with biological, chemical, and physical agents in the environment, both naturally occurring and man-made. We will examine these agents and how they impact air, water and food quality to cause disease. Regulatory agencies, risk assessment and disaster response and preparedness will be discussed.

PUH 301. The Origins of Public Health: How Public Health Defines Population and Nations. The intellectual tools of public health describe diseases from cholera and pandemic avian influenza to obesity and diabetes that threaten the integrity of organized societies. This course explores the richness of public health through its disciplines and its stories to demonstrate how the understanding of the origins of epidemics determines the progress of civilizations. (3 Credit Hour)

PUH 302. Epidemiology: Beyond the Outbreak. The course will provide students with a basic understanding of epidemiology history, methods, and practice. The history of epidemiology will focus on major historical events such as John Snow and the 1854 Broad Street cholera outbreak. The course will also cover basic epidemiologic methods such measures of disease occurrence (e.g., prevalence and incidence) as well as basic study designs such as case-control and cohort studies. Later in the term, students will utilize actual epidemiologic investigations in order to learn how these methods are put into practice. The coursework will focus mostly on discussion for the first part of the course focused on the history of epidemiology. The section on methods will primarily be problem-based, performing basic analysis of epidemiologic data through calculation of prevalence/incidence and measures of association (e.g., prevalence ratio, incidence rate ratio). This work will lead to students to prepare a document on how they would respond to an outbreak in a situation described by the course master. The entire coursework will take place in a lecture format, with the class meeting twice a week. (3 Credit Hour)
PUH 303. Introduction to Global Health. (Cross listed with PUH 202) This course is designed to introduce students to the topic of global health and impart a basic understanding of its interdisciplinary nature, successes to date, and current challenges in the field. The first part of the course provides a basic framework for understanding global public health issues and improvement of health at a population level by exposing students to basic public health concepts of disease burden, standard indices for measuring population-based health, and highlighting global epidemiologic trends. Progress towards the Millennium Development Goals will be a focus of discussion. The second section of the course will discuss vulnerable populations and how their specific needs are prioritized and addressed. Third, the class will examine strategies for organization and delivery of health care services at a population level and examine health as a human right. Finally, the course will look at the key institutions and organizations working in tandem with health ministries to address global health and the need for major collaborative initiatives to address health disparities worldwide. (3 Credit Hour)

Undergraduate Schedule Fall 2013

GRADUATE COURSES (PUH)

PUH 602. Narrative Public Health. The purpose of this course is to develop communication skills primarily through written exercises directly relevant to public health. Each exercise will explore and teach students different formats and techniques for communicating complex public health information to different audiences, such as colleagues, the lay public, public officials, or potential future public health students. (graduate and undergraduate)

PUH 695. Public Health Integrative Experience (MPH). - This course is designed to fulfill the requirement that all Master of Public Health degree candidates have the opportunity as defined by CEPH on Public Health to synthesize and integrate knowledge acquired in course work and other learning experiences to apply theory and principles in a situation that approximates some aspects of professional practice. 1-3 hours. (MPH graduate student only)

PUH 697. MPH/MD Practice Placement Internship. - This course is taken by those students in the coordinated MPH/MD program who have an interest in public health or disease prevention practice or research. Graded as Pass/No Pass. 1-9 hours. (MPH/MD graduate student only)

Policies and Procedures

Academic Practices

Academic Performance

For a student to maintain good academic standing, a grade point average of at least 3.0 (B average) and overall satisfactory performance on pass/no pass courses is required. Satisfactory performance on pass/no pass courses is defined as the earning of at least as many P grades as NP grades combined.

UAB Graduate School Student Handbook

Academic Probation

A degree seeking or nondegree seeking graduate student, who has been in good academic standing but who, at the end of any semester, fails to meet the criteria to continue in good academic standing will be placed on probation. Such a student must re-establish good academic standing within the next two semesters of graduate study undertaken. Students who do not accomplish this level of performance will be dismissed from the UAB Graduate School.

The rules stated above govern university probation and dismissal, administered by the Graduate School. Individual graduate programs may establish and administer program probation and dismissal governed by more stringent requirements. In general, a student’s retention in a specific graduate program is contingent on the faculty’s belief that the student is likely to complete the program successfully. If the faculty ceases to hold this belief, the student may be dismissed from the program.

UAB Graduate School Student Handbook

Readmission After Academic Withdrawal
Students dismissed for failing to meet scholastic or other degree requirements are considered withdrawn for academic reasons and will be considered for readmission only with a written recommendation from the faculty responsible for the program. A written statement from the student’s advisor and department chair justifying a readmission decision should support the student’s written petition for readmission. The statement should clearly set forth conditions that the student must meet in order to establish good academic standing and complete the degree requirements within the required time limits for the degree.

UAB Graduate School Student Handbook

Grading, Grade Point Average and Course Repeat Policies

Grading System, Pass/No Pass, Incomplete and No Grades Reported

Grading in the School of Public Health is based on a 4.0 scale. The grade of A is used to indicate superior performance; B, for adequate performance; C, for minimally adequate performance. Performance below C is recorded as an F and negatively affects the students total quality point rating. Some classes are designated as pass/no pass courses, for which a grade of P (passing) signifies satisfactory work and the grade of NP (not passing) indicates unsatisfactory work. Temporary notations used by the school are N for no grade reported, I for incomplete. The letter N denotes late or no submission of a grade by the instructor. An I may be requested by a student and submitted at the instructor’s discretion, to indicate that a student has performed satisfactorily in the course but due to unforeseen circumstances has been unable to complete requirements. Students requesting consideration of an I grade must discuss with the instructor and agree upon a plan and a schedule for completing course requirements and complete a “Request for Incomplete Grade Form”. If no permanent grade is reported by the end of the following term, an F will be automatically assigned to replace the I or N. Extension of I grades may be granted only upon written request of the instructor to the Academic Dean.

Cumulative Credits and Grade Point Average

Semester Hours Earned: The student’s “semester hours earned” are increased by:
1. earning a grade of C or better in a course for which the student was registered on a regular (letter grade) basis, or
2. obtaining the P grade in a course taken on a pass/no pass basis

Semester Hours Attempted: The student’s “semester hours attempted” are increased by:
1. receiving an A, B, C or F in a course for which the student was registered on a regular basis, or
2. receiving an NP grade in a course taken on a pass/no pass basis.

Quality Points: Four quality points are awarded for each semester hour for which the student receives a grade of A, three quality points are awarded for each semester hour in which a B is earned, and two quality points are awarded for each semester hour in which a C is earned. No quality points are earned for P grades.

Grade Point Average: The grade point average (GPA) is determined by dividing the total quality points awarded by the semester hours attempted. The transcript will show cumulative GPA’s for students who have completed previous graduate work at UAB and those students who are enrolled in dual programs; however, to determine the students current academic status the GPA for each program will be calculated separately by each program.

Course Repeat Policy

Public Health courses may be repeated using the following guidelines:

- Only a course with a grade of C or F is eligible for repeat
- A course can be repeated only once at UAB
- A course taken at UAB earning a grade of C or F that is repeated at UAB, will have the credit and GPA of the first course removed and will have the credit and GPA of the second course retained.
- The UAB transcript will show both courses.

A course taken at another university, that a student requests be transferred to replace the credit of a C or F graded course at UAB, must have a B or better grade and follow all transfer of credit guidelines. In addition, the GPA will be retained but the credit of the first course dropped and both the credit and GPA retained for the second course.

The UAB transcript will show both courses.

UAB Graduate School Student Handbook

Incomplete Request Policy
Request for "I" Incomplete Grade

The UAB Incomplete Grade Policy states that a temporary grade notation of "I" for incomplete may be requested by the student prior to the end of the term and submitted at the course master's discretion due to unforeseen circumstances that effect the student's ability to complete course requirements.

Students requesting consideration of an "I" grade must discuss with the course instructor, and agree upon a plan and a schedule for, completion of course requirements. It is the students responsibility to initiate this discussion, assure completion of the "I" request form and return it to the Office of Student and Academic Services.

If no permanent grade is reported by the end of the subsequent term, an "F" will be automatically assigned to replace the "I". Extension of "I" grades may be granted only upon written request of the course instructor to the Academic Affairs Dean.

UAB Graduate School Student Handbook

Time Limitations for Degree Completion and Satisfactory Progress

The School of Public Health allows a maximum of five years from initial matriculation to complete an MPH, MSPH or MS degree and a maximum of seven years from initial matriculation to complete a DrPH or PhD degree. Credits older than five years cannot be counted toward a master's degree; credits older than seven years cannot be counted toward a doctoral degree. In general, retention in the school is contingent on the faculty's belief that the student is likely to complete the program in a timely fashion. A student must complete the degree requirements within specified time limits or otherwise exhibit satisfactory progress in their academic program to avoid the risk of being dismissed from the program.

Transfer of Credit

Previously earned graduate credit that has not been applied toward another degree (either at UAB or elsewhere) is eligible for transfer into the student's current degree program. Ordinarily no more than 12 semester hours of transfer credit can be applied to a degree program. Acceptance of more than 12 hours will require approval by the program director, department chair, and Graduate School Dean. All credit transfer requests must be initiated by the student and require the approval of the graduate program director and the Graduate School Dean. Transfer of Credit forms are available online at www.uab.edu/graduate/online - forms. An application for transfer of credit will not be considered until the student has completed at least 9 semester hours of graduate credit in the current UAB program and is in good academic standing. Once transfer credit has been accepted, it will be included in the calculation of the grade point average in the student's current UAB program.

Graduate credit earned with a grade of B or above while a graduate student in another regionally accredited graduate school may be considered for transfer. In programs offered jointly by UAB and other universities, all graduate credits earned in the program at a cooperating university are eligible for transfer to UAB. If a student earns credit in one UAB graduate program and is later admitted to another program, unused credits from the previous program are eligible for consideration for transfer into the current program.

All transfers must be initiated by the student through the Office of Student and Academic Services and require the approval of the advisor, department chair, and academic dean. Transfer of credit, including non-degree credit, cannot take place until one term of course work toward a degree has been completed and/or until probationary status has been removed. Once the transfer of credit has been accepted, it will be included in the grade point average (GPA) calculation in the student's current program.

UAB Graduate School Student Handbook

Course Substitution

The substitution of a "Core", "Track" or "Elective" courses can be requested by the student when a "Course Substitution Form" is completed. In addition, a copy of the syllabus or course description of the substituted course must be provided before the request can be evaluated. The request for substitution of a Core Course Substitution and a Track Substitution, requires the signature of the instructor. The student's advisor can determine substitution applicability for elective courses. The form must have all appropriate signatures before returning to Office of Student and Academic Services for processing.

The following rules apply for course substitutions:

- Documentation verifying that the course was not used to complete a previous degree; and
- Verification that the course was at a graduate level.
If a course substitution is requested for a course taken at another university, a "Transfer of Credit Form" will also be processed and if accepted will be included in the grade point average (GPA) calculation in the student's current program.

UAB Graduate School Student Handbook

Course Waiver

A course waiver indicates that a course was completed, most likely as part of another degree, but it is felt by the student in consultation with his/her advisor that the student has sufficient knowledge in a particular area and is not required to complete a course that would be redundant. In the case of "core" courses, the core instructor must determine if the student can waive the course. A waiver request must be accompanied by a written explanation for the request as well as a copy of a syllabus or course description. Receiving a waiver of a required class does not remove the obligation to earn sufficient credit hours as required for the degree. The deficit in credit hours due to course waivers must be made up by determining course options in consultation with the advisor.

School of Public Health Student Forms

UAB Graduate School Student Handbook

Grade Appeal Policy

The only legitimate bases for appealing a grade assigned for School of Public Health courses are:

- a belief that an error was made in the determination of the grade; and
- a belief that a grade was arrived at unfairly or on the basis of inconsistent application among students of the stated evaluation standards.

Should a student believe that either of these circumstances applied and that an appeal is warranted, the following procedures are to be followed:

1. Clarification should be sought from the course instructor in an attempt to resolve the disagreement without further appeal.

2. If the matter cannot be resolved in consultation with the course instructor, the student may submit a written appeal to the Academic Dean requesting consideration of the appeal. This request should include a description of the basis for the appeal and the failed attempt to resolve it with the instructor. Upon receipt of such a request, the Academic Dean will bear responsibility to solicit information relevant to the situation from the student and the course instructor, and on the basis of that information to make a determination for or against the appeal. If in the judgment of the Academic Dean there is a legitimate basis for the appeal, the chair of the course instructor's department will ensure that the assigned grade is appropriately changed.

3. If the Academic Dean determines that there is an insufficient basis for a grade change and rules against the appeal, the student may submit a final written appeal to the Academic Dean requesting him or her to convene a panel of three faculty and one student to consider the appeal and make a recommendation to him or her on its disposition. Similarly, if the Academic Dean rules for the appeal, the instructor may appeal the decision by going through the same process. Based on the recommendation of the panel, the Dean will issue a decision. This decision will be final.

4. Appeals of grades in courses taken outside the School of Public Health will be handled according to the policies and procedures of the schools within which the courses reside. Final disposition of grade appeals for courses in Graduate School programs resides with the Dean of the Graduate School.

Approved, Admissions and Graduation Committee, March 1997
Adopted, Educational Policy Committee, April 1997
Amended at Faculty Assembly Meeting, April 18, 1997

UAB Graduate Student Handbook

Administrative Practices

Changing Degree, Track, Advisor Options (Inter- and Intra-
departmental Change of Status)

Change Degree, Track and Advisor Options Across Departments (Interdepartmental Change)

If a matriculated student wishes to transfer departments, the Interdepartmental Change of Status Form must be completed and returned to the Office of Student and Academic Services. A newly matriculated student may request a transfer only after the completion of one term in the department of which the student was originally admitted. All applicable changes must be indicated on the form and only the signatures of the students current advisor and department chair should be obtained before returning the form to the Office of Student and Academic Services for processing. A copy of the student's file will be forwarded to the department for which the student is requesting a transfer for review. The student, as well as, the former and new department will receive notification of the decision. Students only requesting a change of advisor should complete the Change of Advisor Request Form.

Change Degree, Track and Advisor Options Within Current Department (Intradepartmental Change)

If a matriculated student wishes to transfer degree, track and advisor within the same department, the Intradepartmental Change of Status Form must be completed and returned to the Office of Student and Academic Services. All applicable changes should be indicated on the form and all required departmental signatures should be obtained before returning the form to the Office of Student and Academic Services for processing. The student and the department will receive notification of the decision. Students only requesting a change of advisor should complete the Change of Advisor Request Form.

School of Public Health Student Forms

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Continuous Enrollment and Leave of Absence

All students are required to remain continuously enrolled throughout his or her course of study unless medical, personal or family emergencies necessitate a leave of absence. A Leave of Absence is generally granted for one semester at a time. A student may request a leave of absence extension however, circumstances must warrant such considerations. If an extension is needed, a new leave request form must be completed. If a leave of absence is approved, it is still the student's responsibility to complete his or her degree requirements in the time period allotted (5 years for master's students and 7 years for doctoral students).

International students are required to complete their degree in seven (7) semesters including vacations. Under no circumstances shall students enroll in coursework of any kind at UAB or engage in any work toward completion of a degree while on active leave of absence. This would include sitting for comprehensive examinations, being examined for admission to candidacy, and defending dissertations. Students enrolled in courses or otherwise engaged in degree-related work are not on leave and must be enrolled for a minimum of three (3) credit hours.

Records of students who do not obtain written approval for a Leave of Absence but who fail to enroll in courses for one year, will be archived by the university student system and be administratively withdrawn as a student in the School of Public Health. Conversely, students who do not return from an approved leave of absence will also be administratively withdrawn.

Whether or not a leave of absence is taken, the school allows a maximum of five years from initial matriculation to complete the MPH, MS, and MSPH degrees and a maximum of seven years from initial matriculation to complete the DrPH and PhD degrees. Leave of Absence forms can be found on the Schools website under Student Forms.

Note: International students must complete a leave of absence form in the School of Public Health as well as any required documents in the International Scholars and Student Office when taking their vacation.

School of Public Health Student Forms

UAB Graduate School Student Handbook

Administrative Withdrawal

Students who would be administratively withdrawn from the School of Public Health fall into the following categories:

- Students who voluntarily withdraw.
- Students who do not request a leave of absence.
• Students who do not enroll for a one year period and whose records are archived
• Students who do not return from an approved leave of absence by the designated and approved date.

School of Public Health Student Forms

UAB Graduate School Student Handbook

Readmission after Administrative Withdrawal

Students may be considered for readmission into the program to which they were previously admitted in the School of Public Health if it was within the last five (5) years; they were administratively withdrawn; or were accepted within the past year but did not matriculate, and did not request a deferral of matriculation.

Note: Students who have attended another university in the interim must provide an official transcript from that school.

The Application for Readmission Form must be completed, following all instructions and returned to the Office of Student and Academic Services before readmission will be considered.

If readmitted, students will be required to meet the degree requirements of the catalog in effect at the time of readmission.

Credits older than five (5) years cannot be counted toward a master's degree and credit older than seven (7) years cannot be counted toward a doctoral degree.

School of Public Health Student Forms

UAB Graduate School Student Handbook

Policy - Pursuit of Two Degrees Concurrently

School of Public Health Policy Regarding the Pursuit of Two Degrees Concurrently.

It is against school policy to pursue two degree programs at the same time unless the programs are approved coordinated/dual programs.

• Students who wish to pursue a degree other than that for which they were admitted in the School of Public Health must withdraw from the School of Public Health.
• Students found to be pursuing a second degree without having followed the withdrawal procedure, will be automatically withdrawn from the School of Public Health.
• Once withdrawn, students may reapply to the School of Public Health but must follow the catalog in force at the time of the readmission.

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