



EMORY

ROLLINS
SCHOOL OF
PUBLIC
HEALTH



CATALOG

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Rollins School of Public Health
Emory University
1518 Clifton Road, N.E.
Atlanta, Georgia 30322

Rollins School of Public Health Information: 404.727.5481
Monday–Friday, 9:00 a.m.–4:00 p.m

See page 194 for additional directory information.

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AMERICANS WITH DISABILITIES ACT

If you are an individual with a disability and wish to acquire this publication in an alternative format, please contact the associate dean for academic affairs, Rollins School of Public Health, Emory University, 1518 Clifton Road, N.E., Atlanta, Georgia 30322. Telephone: 404.727.7703.

Emory University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone number 404.679.4501) to award degrees at the associate, bachelor's, master's, and doctoral levels.

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There has never been a more exciting or challenging time to enter the field of public health. Today's students must face complex issues, such as AIDS, violence, environmental hazards, access to health care, SARS, bioterrorism, and the reemergence of infectious diseases. The Rollins School of Public Health (RSPH) of Emory University is preparing students to meet these challenges in an environment unique among schools of public health.

Located in Atlanta, often called the "Public Health Capital of the World," the school is adjacent to the U.S. Centers for Disease Control and Prevention. The national headquarters of CARE, the American Cancer Society, the Arthritis Foundation, the Boys and Girls Clubs of America, and The Carter Center are each fewer than five miles from the Grace Crum Rollins Building. Our students benefit from the school's partnerships with these national and international agencies and with the Georgia Department of Human Resources, district health offices, and local health departments. Each of these relationships provides unique opportunities for faculty and students to engage in hands-on research and actual public health practice.

The RSPH is an integral part of the Robert W. Woodruff Health Sciences Center of Emory University, which has excellent schools of medicine and nursing, and programs in allied health, as well as the research facilities at the Yerkes National Primate Research Center of Emory University. We offer a flexible schedule of classes to accommodate the needs of students who work full or part time. The master of public health and master of science in public health curricula feature basic course work in the student's chosen department. Doctoral programs are offered in biostatistics, epidemiology, behavioral sciences and health education, health services research and health policy, and nutrition. Joint-degree programs are available in conjunction with the schools of business, law, medicine, nursing, physical therapy, physician assistant, and theology, and cross-registration is available with the graduate school.

I am very proud of the school, faculty, staff, and, especially, our students. We welcome applications from individuals interested in combining academic training and knowledge with a commitment to solving the world's health problems. Please visit us in Atlanta or on the web at www.sph.emory.edu.

A handwritten signature in black ink, reading "James W. Curran". The signature is written in a cursive, flowing style.

James W. Curran, MD, MPH
Dean

Emory University considers itself to be a destination university internationally recognized as an inquiry-driven, ethically engaged, and diverse community, whose members work collaboratively for positive transformation in the world through courageous leadership in teaching, research, scholarship, health care, and social action.

Since its founding in 1836, Emory University has grown into a national teaching, research, and service center with an enrollment exceeding 12,000. A coeducational, privately controlled university affiliated with the United Methodist Church, Emory awards more than 2,500 degrees annually. In addition to the Rollins School of Public Health, the University's academic divisions include Emory College and Oxford College, the Graduate School of Arts and Sciences, and the schools of Medicine, Allied Health, Business, Law, Nursing, and Theology.

Among the centers for specialized research and study at Emory are the Graduate Institute of Liberal Arts, the Center for Ethics in Public Policy and the Professions, the Emory Center for International Studies, the Center for Healthcare Leadership, the Center for AIDS Research, the Center for Molecular Medicine, the Center for Geriatrics, the Center for Clinical Evaluation Sciences, the Emory Vaccine Center, the Center for Research in Faith and Moral Development, the Michael C. Carlos Museum, and the Soviet, Post-Soviet, and East European Studies Program. Campus-based independent affiliates include the African Studies Association, the American Academy of Religion, the Georgia Endowment for the Humanities, and the National Faculty for the Humanities, Arts, and Sciences.

Emory University maintains formal exchange agreements with the following universities abroad: Oxford and Lancaster (England); St Andrews (Scotland); Beijing, Xiamen, and Xi'an Medical (People's Republic of China); Johannes Kepler (Austria); Kobe and Kwansai Gaukuin (Japan); Yonsei (Korea); Augsburg, Berlin, Gottingen, and Regensburg (Germany); University of Trieste (Italy); Montpellier University (France); the Pushkin Institute and St. Petersburg State University (Russia); and Tbilisi State University (Republic of Georgia).

Emory boasts an uncommon balance: it generates more research funding than any other university in Georgia, while maintaining a rich tradition of outstanding teaching. Emory also benefits from a student body that is the most ethnically and religiously diverse of any of the top-twenty national research universities.

Emory's efforts to build a better world are being guided by an ambitious strategic plan—Where Courageous Inquiry Leads. The University has committed its unique combination of resources to address some of the toughest challenges and greatest opportunities facing the world today – from religion, conflict and peace building, to race and social difference, to issues of global health and new understandings of what makes us human.

THE ROBERT W. WOODRUFF HEALTH SCIENCES CENTER

The Robert W. Woodruff Health Sciences Center joins those components of Emory University concerned with patient care, education of health professionals, research affecting health and illness, and policies for prevention and treatment of disease. The center is named for Robert W. Woodruff, a man whose vision and generosity left a lasting imprint on Emory and the city of Atlanta. The center consists of the following components: Emory University School of Medicine, Rollins School of Public Health, Nell Hodgson Woodruff School of Nursing, Yerkes National Primate Research Center, Emory University Hospital, Crawford Long Hospital, Wesley Woods Center, Emory-Adventist Hospital, and The Emory Clinic.



MISSION

The mission of the Rollins School of Public Health of Emory University is to acquire, disseminate, and apply knowledge and train leaders to promote health and prevent disease in human populations around the world.

At the Rollins School of Public Health (RSPH), students learn to identify, analyze, and intervene in today's most pressing public health issues. The school's location in Atlanta, referred to as the "Public Health Capital of the World," is home to the U.S. Centers for Disease Control and Prevention; CARE; the national home office of the American Cancer Society; The Carter Center; the Arthritis Foundation; numerous state and regional health agencies; and the patient care, teaching, and health-related research programs of Emory University's Woodruff Health Sciences Center. This setting is ideal for hands-on research and collaborations with the world's leading public health agencies, as well as interdisciplinary work with national and international organizations.

The program is community oriented, and many students bring actual problem-solving experience with them. Students join the RSPH community from all fifty states and more than fifty foreign countries to contribute to the school and apply knowledge to promote health and prevent disease in human populations.

The school comprises six academic departments and seventeen interdisciplinary centers: behavioral sciences and health education, biostatistics, bioinformatics, environmental health, epidemiology, health policy and management, global health, Biostatistics Consulting Center, Center for AIDS Research, Center for Health, Culture and Society, Center for Injury Control, Center for Public Health Communications, Center for Biomedical Imaging Statistics, Center for Public Health Practice, Emory Center on Health Outcomes and Quality, Emory Prevention Research Center, Georgia Center for Cancer Statistics, Interfaith Health Program, Lymphatic Filariasis Support Center, Rollins Center for Public Health Preparedness and Research, Southeast Institute for Training and Evaluation (SITE), Tobacco Technical Assistance Consortium (TTAC), and Women's & Children's Center. More than 130 full-time, doctoral-level faculty members teach and conduct research in areas such as mathematical modeling of infectious disease transmission, exploration of relationships between nutrition and chronic disease, and investigation of cancer causation and control. Other research interests include identifying the social determinants of health-risk behaviors, AIDS, developing church-based health promotion programs to foster changes in nutrition and other health-related behaviors, detecting and preventing adverse outcomes in occupational settings, and evaluating the cost of health care and the allocation of health resources.

The RSPH offers dual-degree programs with Emory's business, medical, nursing, theology, and law schools, and with the physician's assistant and physical therapy program. In addition to these programs, the schools of public health and medicine collaborate on many levels. Research areas of mutual interest include nutrition, Alzheimer's disease, and the prevention and control of AIDS, cardiovascular disease, cancer, and adverse reproductive outcomes.

The RSPH also draws strength from several unique local resources. The U.S. Centers for Disease Control and Prevention, the federal agency dedicated to developing and applying disease prevention and control programs, provides more than one-half of the school's 200-plus adjunct faculty members. The Carter Center is involved in global health intervention programs that provide student practicum opportunities. The school also shares research activities with the national headquarters of the American Cancer Society and international headquarters of CARE, both based in Atlanta.

Global Health at the Rollins School of Public Health

Rollins School of Public Health offers an opportunity for any student to be involved in global health through its academic programs, faculty research and practice, the global field experience, collaborating public health institutions, and a geographically diverse student body.

Academic Programs in Global Health

Students in Behavioral Sciences and Health Education, Health Policy and Management, and Biostatistics may enroll in elective courses in areas of global health. Students may be attracted to courses in public nutrition, infectious diseases, reproductive health and population studies, or community health and development taught by the Hubert Department of Global Health or offered jointly by several departments (see page 115).

The Department of Epidemiology enables MPH or MSPH students to concentrate through elective courses in global infectious diseases. Students acquire a strong foundation in epidemiological methods and elect a sequence of courses offered jointly by the departments of Epidemiology and Global Health (see page 82). Students interested in developing skills in applied epidemiology in international settings may enroll in a program of study offered by both the departments of Epidemiology and Global Health, the MPH or MSPH in global epidemiology (see page 162).

The Global Environmental Health MPH Program, offered by both the departments of Environmental Health and Global Health, focuses on assuring the availability of food, clear air, and clean water in the context of development and globalization (see page 159). In addressing fundamental public health needs students learn the broad contextual issues that frame health problems and their social, technical, and policy aspects.

Many students enroll for a Master of Public Health (MPH) degree in the Hubert Department of Global Health and concentrate in one of four areas of instruction: infectious diseases, public nutrition, reproductive health, and population studies and community health and development (see page 115). The department also offers a Master of Science in Public Health (MSPH) degree in public nutrition, providing a foundation in basic human nutrition, familiarity with nutrition assessment methods, research methods, and an overview of nutrition problems affecting both developed and developing countries (see page 123). Experienced health professionals may enroll in the Global Health Leadership Program, in which they fashion an individualized curriculum to enhance their practice skills (see page 122).

The U.S. Peace Corps Masters International Program is available to students in any department or program. Students complete course work prior to starting two years of volunteer service in the Peace Corps. Students are awarded a small grant to be used toward tuition for the MPH or MSPH degree (see page 176).

Faculty Research and Practice in Global Health

Faculty members in all departments are engaged in research affecting populations around the world. Biostatisticians collaborate with international colleagues in modeling epidemics of infectious diseases. Epidemiologists are studying the etiology of emerging infections and chronic diseases in the populations of several countries. Faculty members in Behavioral Sciences and Health Education are designing and evaluating health promotion programs tailored for different cultures and societies in Latin America, China, and Africa. Political scientists and economists in Health Policy and Management are working with the World Health Organization to study health reform and related

economic policies affecting Western and Eastern European countries. Epidemiologists in Environmental Health are investigating approaches to ensuring safe water and the environmental impact of technological development around the world. More than 250 students are employed as paid research assistants each year, some with faculty members working in global health.

The Global Field Experience

Three endowment funds—the Eugene J. Gangarosa Award, the O.C. Hubert Fellowships in International Health and the Anne E. and William A. Foege Global Health Fund—support more than sixty students per year in global field experiences. Students from all departments in the school are eligible to apply for funding to support travel around the world as part of a practicum and/or field experience, which is often related to thesis research. School faculty, adjunct faculty, and health professionals at related area public health institutions assist students in the development of proposals for international study as part of their MPH or MSPH program.

In recent years students have been sponsored to develop public health skills in countries such as Bangladesh, Brazil, Bulgaria, Cameroon, Dominican Republic, El Salvador, French Guyana, Ghana, Guatemala, Haiti, Honduras, Nepal, Peru, Republic of Georgia, Russia, Rwanda, South Africa, Thailand, Trinidad and Tobago, Uganda, Ukraine, Vietnam, and Zambia.

Collaborating Public Health Institutions Involved in Global Health

Atlanta is home to several major public health institutions welcoming the involvement of RSPH students. Students work on global health projects at these institutions through paid internships, the practicum, and thesis research. The U.S. Centers for Disease Control and Prevention (CDC), the federal government's premier agency devoted to disease eradication, is increasingly involved in global health through interventions to prevent infectious and chronic diseases and injuries. Affiliated with Emory University, the Carter Center hosts a number of projects directed to improving global health including the Guinea Worm Eradication Program, Onchocerciasis Elimination Program (river blindness), Trachoma Control Program, Ethiopia Public Health Initiative, and the Mental Health Program. CARE USA serves individuals and families in the poorest communities in the world. Its programs support the health and well-being of populations threatened by ongoing poverty, conflicts, and natural disasters. The Task Force for Global Health is dedicated to improving the lives of children and families through public health programs. The Task Force operates the Mectizan Donation Program for river blindness and the Malarone Donation Program for malaria. The Task Force also is involved in projects designed to prevent suicide.

A Geographically Diverse Student Body

The RSPH student body reflects the school's involvement in the world. The 2010 graduating class of MPH and MSPH students came from thirty-nine states and forty-two countries and enrolled in academic programs offered by all RSPH departments. The Hubert Humphrey Fellowship Program, sponsored by the U.S. State Department, brings mid-career health professionals interested in HIV/AIDS to study at the school from countries such as Ghana, India, Namibia, Cambodia, Kenya, and Thailand. The Edmund S. Muskie and Freedom Support Act Fellowship Program, also sponsored by the U.S. State Department, supports mid-career professionals from Eastern European countries such

as Armenia, Azerbaijan, Latvia, Republic of Georgia, Russia, and the Ukraine. Fogarty fellows, sponsored by the National Institutes of Health, come from Mexico, Vietnam, Russia, and other countries. Finally, William Foege fellows, sponsored by the Bill and Melinda Gates Foundation, come from numerous countries and are nominated by agencies working with the school such as the CDC, the Carter Center, and CARE USA.

Elective Course Focus on Substantive Topics

Students often focus their elective courses on a particular substantive topic in order to gain a more specialized expertise within their department concentration. By completing a thesis, practicum and/or capstone course paper on that topic, students obtain additional depth.

Selected substantive topics of study available at the Rollins School of Public Health are



listed below. Courses associated with those topics are described department sections of the catalog. Some courses list prerequisites for enrollment.

CHRONIC DISEASES

- Translating Epidemiology for Decision Making: Issues in Women's Health
- Epidemiology of Chronic Diseases
- Diet and Chronic Disease
- Cardiovascular Disease Epidemiology
- Epidemiology of Cancer
- Diabetes: A Public Health Pandemic
- Aging and Health Care Issues
- Global Tobacco Control: Programs and Policy

COMPARATIVE HEALTH SYSTEMS

- Global Policy
- Global Health Program Management
- Global Health Financing Policy and Methods
- Health Care and Society Seminar Abroad
- Public Financing in the Health Care System
- Comparative Health Care Systems
- Global Tobacco Control: Programs and Policies

ENVIRONMENTAL HAZARDS

- Occupational and Environmental Toxicology
- Issues in Toxicology
- Risk Assessment I
- Risk Assessment II
- Environmental Hazards I
- Environmental Hazards II
- Biomarkers and Environmental Public Health
- Air Quality in the Urban Environment
- Water and Sanitation in Developing Countries

HEALTH COMMUNICATION

- Social Marketing in Public Health
- Public Health Communication
- Risk Communication
- Mass Media and Health
- Applied Public Health Advocacy
- Communicating for Healthy Behavior
- Health Care Marketing
- Health Literacy: Importance as a Public Health Problem

HEALTH DISPARITIES

- Health Care Issues in Minority Populations
- Translating Epidemiology for Decision Making: Issues in Women's Health

Social Epidemiology
Correctional Health Care Epidemiology
Migration and Health
Food and Nutrition in Humanitarian Emergencies
Gender, Health and Development
Health Care for the Indigent

HEALTH AND HUMAN RIGHTS

Correctional Health Care Epidemiology
Social Epidemiology
Health as Social Justice
Seminar in Health and Human Rights
Interdisciplinary Perspectives on Health and Human Rights
Gender, Health and Development
Forced Migration and Reproductive Health

INFECTIOUS DISEASES

AIDS: Public Health Implications
Introduction to Analytic Methods for Infectious Diseases
Environment, Climate and Infectious Disease
Water and Sanitation in Developing Countries
Environmental Microbiology: Control of Food and Waterborne Diseases
Introduction to Public Health Surveillance
Epidemiology in Public Health Practice
Case Studies in Infectious Disease
Hospital/Health Care Epidemiology
Epidemiology of Tuberculosis
Epidemiology of Foodborne and Diarrheal Diseases
Epidemiology and Dynamics of STD and HIV Transmission
Global Issues in Antimicrobial Resistance
Emerging Infectious Diseases
Public Health Preparedness and Bioterrorism
CDC Seminar
Biosafety Principles and Practices for Laboratories
Methods in HIV Epidemiology
Vaccines and Immunization
International Infectious Diseases
Global Perspectives in Parasitic Diseases
Public Health and Clinical Microbiology Laboratories
Pathogenesis of Selected Diseases

INFORMATICS

Introduction to Public Health Surveillance
Health Outcomes

Principles of Public Health Informatics I
Principles of Public Health Informatics II
Management Principles for Informatics
Database Management Systems
Artificial Intelligence
Geographic Information Systems
Current Topics in Public Health Informatics

INJURIES AND VIOLENCE

Violence as a Public Health Problem
Injury Prevention and Control

MATERNAL AND CHILD HEALTH

Adolescent Health
Community Needs Assessment
Violence as a Public Health Problem
Women's and Children's Health Seminar
Maternal and Child Health Demography
Genetic Epidemiology
Data Sources and Methods in MCH Epidemiology
Vaccines and Immunization
Pediatric and Prenatal Epidemiology
Maternal and Child Health Nutrition
Health Care for the Indigent

MENTAL HEALTH AND MENTAL HEALTH SERVICES

Medical Sociology: Perspectives on Mental Health and Illness
Behavioral Epidemiology
Seminar in Stress Reduction
Seminar on Mental Health
Substance Abuse
Prevention of Mental and Behavioral Disorders and Promotion of Mental Health
Mental Illness, Public Health and American Culture in Interdisciplinary Perspective
Aging and Health Care Issues
Mental Health Policy
Mental Health/Medical Interface in the US

POPULATION AND DEMOGRAPHY

Population Dynamics
Maternal and Child Health Demography
Survival Analysis Methods
Migration and Health
Reproductive Health Program Management
Technology of Fertility Control
Introduction to Population and Ecology
Forced Migration and Reproductive Health
Gender, Health and Development

PUBLIC HEALTH AND HUMANITARIAN EMERGENCIES AND PREPAREDNESS

- National Security and Public Health
- Public Health Preparedness and Bioterrorism
- Health in Complex Emergencies
- Food and Nutrition in Humanitarian Emergencies
- Forced Migration and Reproductive Health
- Health in Complex Humanitarian Emergencies
- epidemiologic Methods in Humanitarian Emergencies
- Food and Nutrition in Humanitarian Emergencies

PUBLIC NUTRITION

- Diet and Chronic Disease
- Assessment of Dietary Intake
- Food and Nutrition in Humanitarian Emergencies
- Nutritional Assessment
- Maternal and Child Health Nutrition
- Nutrition I
- Nutrition II
- Global Elimination of Micronutrient Malnutrition
- Nutrition Seminar
- Diabetes: A Public Health Pandemic

RELIGION, ETHICS AND HEALTH

- Role of Faith Communities in Health Care
- Ethics in Public Health
- Health as Social Justice
- Faith and Health: Transforming Communities
- Ethnography, Reproductive Health and Religious Ethics

REPRODUCTIVE HEALTH/WOMEN'S HEALTH

- Adolescent Health
- AIDS: Public Health Implications
- Issues in Women's Health
- Women's and Children's Health Seminar
- Translating Epidemiology for Decision Making: Issues in Women's Health
- Epidemiology and Dynamics of STD and HIV Transmission
- Reproductive Epidemiology
- Women's Health Policy: A Lifestyle Approach
- Reproductive Health Program Management
- Technology of Fertility Control
- Forced Migration and Reproductive Health
- Gender, Health and Development

ADMISSION TO THE MPH, MSPH, AND CAREER MPH PROGRAMS

Degree-Seeking

Departments normally admit degree-seeking applicants only starting in the fall semester (August). Under special circumstances, applicants may be considered in other semesters. The sequence of courses is designed for students entering in the fall.

The deadline for the receipt of the completed application and all required supporting documents from all applicants for fall semester is January 10 or the next business day, should it fall on a holiday or weekend. The Rollins School of Public Health participates in a centralized application service called SOPHAS. Applicants can access the online application through www.sph.emory.edu/APPLY. However, all application material should be sent directly to the Schools of Public Health Application Service (SOPHAS). A complete set of application documents includes the following: the online application (includes personal statement and work/research/volunteer history), one transcript from each postsecondary institution attended; completed recommendation forms from at least two individuals; and an official graduate-level entrance examination score report.

Admission is competitive; therefore, applications should be submitted well in advance of the deadlines. Applications received or completed after the deadlines will be considered on an availability basis.

Applicants whose files are completed by the January 10 deadline are normally notified of their admission decision within eight weeks.

Admission Requirements

Minimum requirements for admission include satisfactory completion of a four-year baccalaureate degree or its equivalent and a strong interest in a career in public health. Work or academic experience in the health field is highly desirable but not essential. However, preference is given to students who have advanced training and applied experience.

In general, applicants are required to submit test scores from the Graduate Record Examination (GRE). Applicants who have completed doctoral-level degrees are not required to submit GRE scores unless otherwise specified by the department. Applicants who have recently taken the Medical College Admissions Test (MCAT) may submit these scores as alternatives to the GRE, except for the Department of Biostatistics and Bioinformatics. Some dual-degree programs accept other entrance examinations.

There is no minimum requirement for the GRE. A minimum GPA of 3.0 is preferred. It is important to note that the GRE and GPA are evaluated in the context of the overall application and other supporting documents.

The program encourages applications from international students who are proficient in speaking, reading, writing, and understanding the English language. All applicants whose native language is not English are required to take the Test of English as a Foreign Language (TOEFL) and to earn a minimum score of 550 (213 computer-based test, 80 Internet-based test). Such applicants should schedule and take the TOEFL as one of the first steps in the admission process. The International English Language Testing System (IELTS) is also acceptable.

Applications to the MPH and MSPH degree programs are reviewed and applicants are admitted by a specific department selected by the applicant. Departments may have additional minimum admission requirements to those listed here. Applicants applying for the MPH or MSPH degree program should review the individual department's admission selection in this catalog and comply with any additional requirements.

The Career MPH (CMPH) Program requires a minimum of 5 years professional experience in a field related to public health. Otherwise, the basic application procedure for the Career MPH Program is identical to that of the MPH and the MSPH degree programs.

For additional information regarding the application process, please refer to the RSPH Admission website, www.sph.emory.edu/prospectivestudents/admissions.php.

Special Standing

The school usually allows students who are not degree candidates to register for courses. Individuals interested in taking courses as special-standing students must complete the special-standing application/admission procedure. The special-standing application deadline for receipt of properly completed applications and official degree transcripts is one month prior to the start of the semester of anticipated enrollment.

Enrollment of special-standing students in courses is contingent on the availability of space and the permission of the department and/or program. Students in special standing, however, are ineligible for federal financial aid or for RSPH merit scholarships.

Students in special standing who later complete the degree-seeking application process will be considered on the same basis as other applicants. Admission to special standing does not ensure that an individual will be accepted into a degree program. If admitted to a degree program, students may apply up to nine semester hours of special-standing course work toward the MPH or MSPH degree. Additional information and application forms may be found at www.sph.emory.edu/non-degree_programs.php.

Transient Status

Students who are enrolled at another academic institution but wish to earn graduate credit at Emory and transfer the credit to that university may take course work in the RSPH. Such students should complete a transient status application that certifies good standing in another program. The degree-granting institution must also authorize the enrollment in selected courses. Transcripts and letters of recommendation are not required. Transient applications must be completed no later than thirty days prior to the semester selected for enrollment. Enrollment of transient students in courses is contingent upon the availability of space and the permission of the department(s) and/or program. The transient applicant must apply for each semester of enrollment.

FINANCIAL INFORMATION

Financial Aid

Financial aid information is available through the Emory University Office of Financial Aid, which coordinates the need-based financial aid packages and can be reached at 404.727.6039. Loan options include the Stafford Loan, unsubsidized Stafford Loan, Graduate PLUS Loans, and Emory Student Loan programs. Non-U.S. citizens are ineligible for federal loans. Students who apply for need-based aid may also be considered for need-based scholarships from the school, normally in the amount of \$2,000 per semester. Refer to the RSPH website at www.sph.emory.edu/student-services/financial_aid.php or the public health section of Office of Financial Aid at www.emory.edu/financial_aid/health_professions/public_health/ for more information.

RSPH Practical Experience Award

The Rollins School of Public Health (RSPH) Practical Experience Award provides funding for master's level public health students to support their academic interests with an applied public health experience. Student work opportunities are an integral part of the RSPH experience. Each year, more than 400 students find public health work opportunities with agencies such as the Centers for Disease Control and Prevention, CARE, American Cancer Society, The Carter Center, Children's Healthcare of Atlanta, and other local agencies while pursuing advanced studies. Additionally, many students find opportunities working on faculty research grants within the Rollins School of Public Health and throughout the Emory University/Emory Healthcare systems. These experiences may fulfill practicum requirements and lead to thesis opportunities.

Eligibility for this award is based on need as determined by the FAFSA and availability of funds. Funds are earned and paid directly to students through biweekly paychecks. The amount of the award is the maximum the student may earn for the academic year. Students typically work 10–20 hours per week. The wage for graduate students is \$12/hour. Students may apply for positions through Emory's online system, Rollins Opportunities Link (Simplicity). Access to Rollins Opportunities Link will be provided to incoming students in early August, followed by a public health job fair during orientation.

Cost of Living

Information regarding University and off-campus housing may be obtained from the Office of Residential Services (www.emory.edu/HOUSING/). According to the Emory University Office of Financial Aid, living expenses for a single person are estimated to be \$1,650 a month for the 2010–2011 academic year.

Tuition and Fees 2010–2011 Academic Year

Tuition and fees are subject to annual increases:

Degree Program	Length of Degree Program	Full-Time Semester Rate**
MPH (excludes CMPH)	4 semesters	\$12,600
MPH	3 semesters	\$16,800
MSPH	4 semesters	\$14,400
Dual Degree Program	2 semesters in public health	\$19,200
Career MPH	7 semesters	\$1,200/credit hour
Part-time MPH/MSPH program (5+ semesters)		\$1,400/credit hour
Non-degree rate		\$1,400/credit hour
Graduate in Residence		\$500/semester

Fees: All students will be charged the following fees per semester. Orientation fee (first semester only) – \$150; Student Activity fee – \$86; Student Athletic fee – \$110; Mental Health fee – \$50

**All full-time degree-seeking students (with the exception of the distance program) are charged the semester rate. Students are responsible for paying the total tuition for their academic plan (semesters x semester rate). Students in the traditional or accelerated program plans who register for less than nine credit hours will be charged the full semester rate of their appropriate degree program plan.

In the case of complete withdrawal within the first five weeks of a semester, an adjusted proportionate refund of tuition and fees will be granted. No refund will be awarded if a student is dismissed or if a student drops course work after the last day for course changes stipulated in the academic calendar. For the withdrawal schedule and policy statement on refunds, please refer to www.sph.emory.edu/studentsservice/financial_aid.php.

Honors and Awards

Delta Omega

Delta Omega is the national honorary society for public health professionals. Founded in 1924, it now has chapters at most schools of public health. Each year the chapter elects members from the student body, faculty, and alumni based on scholarship (among students), teaching, research (among faculty), and community service (among alumni).

James W. Alley Award

This award, in memory of James W. Alley, state health officer for Georgia from 1973 until 1990, recognizes the graduating MPH student who, in the eyes of the faculty and students, has provided the greatest service to disadvantaged populations during his or her career.

Eugene J. Gangarosa Award

This award, named after the former director of public health at Emory, is presented to the graduating student who has demonstrated a creative approach to solving public health problems and who shows promise for outstanding service in the international arena.

Thomas F. Sellers Jr. Award

This award, named after the former chair of community health at Emory, is presented to the faculty member of the RSPH who exemplifies the ideals of public health and who serves as a role model and mentor to his or her colleagues. The award is given to an individual who, like the man for whom it is named, represents the best qualities of collegiality.

Charles C. Shepard Award

This award, in memory of an outstanding scientist at the U.S. Centers for Disease Control and Prevention, is presented to the graduating student who is deemed by the faculty to have prepared the most scholarly thesis.

Who's Who Among Students in American Universities and Colleges

This award honors those students whose presence on campus has enriched and enhanced the community, and made it a better place for all to live and work.

Rollins School of Public Health Student Government Professor of the Year

This award, selected by students, honors an outstanding faculty member who demon-

strates leadership, a genuine concern for students, and a sense of academic excellence. It is awarded annually by the RSPH student government.

Emory Humanitarian Award

This award is given to students in recognition of qualities of honesty, integrity, courage, and responsibility, which are fundamental to effective leadership.

Student Organizations

Student Government Association (SGA)

Students participate in school governance through the RSPH student government. Annual elections are held for officers. The student government assigns students to various school committees, makes recommendations about school policies and procedures, organizes activities to promote public health in the community, sponsors programs to support academic life, and plans various social activities. The student government's annual budget is allocated from the student activity fee.

Association of Black Public Health Students (ABPHS)

ABPHS provides support services for minority students, faculty, and staff associated with the RSPH. Its primary goal is to be the vehicle wherein ideas, needs, and interests regarding the enhancement of the total academic, social, and health-related experiences of membership can be channeled, deliberated, and acted upon collectively.

Emory Global Health Organization (EGHO)

The Emory Global Health Organization is a student organization based in the Rollins School of Public Health (RSPH) at Emory University in Atlanta. The goal of EGHO is to facilitate engagement in global health outside the classroom. To accomplish this, EGHO works through several different committees, each of which focuses on an important aspect of student interests. Through these communities, EGHO works to engage in global health issues through service and advocacy; foster global health awareness and encourage the growth of a global perspective; increase resources and opportunities available to all students with an interest in global health; and build connections with each other and with professionals in the field.

Emory Reproductive Health Association (ERHA)

ERHA is a student organization based at the Rollins School of Public Health committed to reproductive justice and the dignity of all people. ERHA promotes reproductive health and rights awareness through community outreach, research and fund-raising locally and globally. The purpose of ERHA is to increase awareness of current local and global reproductive health issues through educational outreach through guest speakers, films, and distribution of information; be actively involved in the Emory and Atlanta communities by volunteering with local organizations focused on disparities in reproductive health; and to fundraise for reproductive causes, more specifically the Global Elimination of Maternal Mortality Due to Abortion (GEMMA) fund established by Roger Rochat.

Georgia Public Health Association (GPHA)

GPHA, a nonprofit corporation organized for the purpose of promoting the public and personal health of Georgia's citizens, is the largest public health organization in the Southeast. It provides many opportunities for networking with public health profession-

als, attending continuing education seminars, and advocating for public health issues concerning Georgians. The Emory chapter of GPHA, founded in 1999, aspires to have membership and participation from all RSPH departments, fostering the achievement of public health goals chosen by chapter members.

Human Rights Action (HuRA)

Human Rights Action is an association of student leaders dedicated to promoting involvement in local, national, and international human rights issues. In conjunction with faculties, staff, related organizations and institutions, the organization seeks to act on issues of social justice and create awareness through education and practice. A large component of Human Rights Action is Emory Human Rights Week which strives to highlight the work that has been going on all year to promote human rights. The event aims to strike a balance between reflection and action, hopefully bringing together the best of education and advocacy. In this sense Human Rights Week represents more than volunteering for a campus event or attending a lecture. It is, in fact, a statement of solidarity for the victims of human rights abuses, the defenders of human rights, and those who do not wish to be passive in the presence of injustice.

Rollins Environmental Health Action Committee (REHAC)

REHAC is a student organization dedicated to creating a working space for a just and sustainable existence. REHAC advocates reducing pollutants, pathogens, and physical hazards, and promoting a harmonious relationship with nature. REHAC seeks to improve and protect living and working environments through locally focused and collaborative education and action.

Rollins Healthcare Association (RHA)

Rollins Healthcare Association (RHA) is a student-run organization with a focus on networking and career development in the health care field. Our members come from a diverse background representing all departments of Rollins. RHA hosts career panels, a hospital management tour, and as well as service events and socials throughout the year.

Student Outreach and Response Team (SORT)

SORT is a collaborative effort between the DeKalb County Board of Health and the Rollins School of Public Health's Center for Public Health Preparedness & Research, whose mission is "To promote future public health leadership by providing students with hands-on experiences that contribute to improved community health." SORT provides current public health students with the opportunity to apply public health theory in practical settings. Thirty MPH students are chosen annually at the start of the fall semester via a competitive process to participate in this program.

Unite for Sight Emory Chapter

The Emory chapter of Unite For Sight was started in the Spring of 2004 by six Emory students—four public health and two undergraduate students. With a mission of promoting healthy vision in the Emory and Atlanta communities, the members encourage student involvement throughout all the schools at the university. Volunteers work with partner eye clinics to provide eye care in communities, with the goal of creating eye disease-free communities.

Grading System

The symbols A, A-, B+, B, B-, C, and S (satisfactory) indicate credit, and F and U (unsatisfactory) indicate failure and no credit. The symbol W indicates withdrawal without penalty, WF indicates withdrawal while failing, and WU indicates unsatisfactory withdrawal. No course credit will be awarded for grades of F, U, W, WF, or WU. When a course, seminar, or research activity is scheduled to last for more than one semester, the notation P (in progress) will be made at the end of the semester, and will remain until the final grade is awarded.

Quality Points

For each semester hour of credit, quality points are computed as follows:

- A = 4.0
- A- = 3.7
- B+ = 3.3
- B = 3.0
- B- = 2.7
- C = 2.0
- F = 0

The grade of S carries academic credit but no quality points; U carries neither academic credit nor quality points. The grades of W, S, and U are not used in computing a student's grade point average (GPA). The grade of WF is counted as an F in computing a student's GPA.

Incompletes

If the student does not complete assigned work during the prescribed period, the notation I (incomplete) may be given. If the work is not completed within the time allowed by the instructor, which is a maximum of one traditional academic semester (fall or spring), a final grade of IF will be given, and the student may be required to repeat the course. A student having two or more incompletes will not be permitted to register for additional courses without special permission from the assistant dean for student affairs.

Satisfactory/Unsatisfactory (S/U) Grading

Students may register for elective courses using a satisfactory/unsatisfactory (S/U) grading basis rather than a letter grade grading basis with the permission of the course instructor or the assistant director of academic programs. The grade of S indicates at least passing course work (B-). All core courses must be taken for a letter grade. No more than six credit hours may be taken under the S/U grading basis, not including credits for a thesis.

Grade Appeal Procedure

In keeping with the principles of academic freedom, responsibility for evaluation of a student's work rests with the course instructor. The grade appeal process is designed to ensure that the grading system is applied fairly to all individuals in the class.

When students believe that their work merits a different grade than that assigned by the course instructor, they should first contact their instructor as soon as possible, not to exceed one month after the grade is posted in OPUS. The instructor and student should discuss the grade.

If, following a discussion with the instructor, students believe their work was not fairly assessed, they may submit an appeal in writing within two weeks (and with any

documents at issue) to the department ADAP in which the course was offered. This material will be reviewed in a timely way by the department chair in consultation with the course instructor.

Should students believe the department review to be unfair, they may appeal the decision, in writing and within two weeks, to the associate dean for academic affairs, who may consult the academic standards committee. The student will be notified of the review outcome by the associate dean of academic affairs.

Variable Credit

Some designated courses, such as thesis, special study project, and directed study, are taken on a variable credit (VC) basis. Students should discuss with their advisers the number of hours for which to register. Other courses available for variable credit will be indicated on the schedule of courses.

Repeating Courses

A course with the letter R after the course number indicates a course that has varying topics and may be repeated for credit.

Grade Point Average and Academic Probation

Students are required to maintain an overall GPA of 2.7 for graduation. Students whose cumulative GPA falls below 2.7 after having attempted at least ten credit hours will be placed on academic probation in the traditional program, or six hours for students participating in the Career Masters Public Health program. Students on probation must raise their cumulative GPA to 2.7 within the next ten attempted credit hours of enrollment for students in the traditional program and the next six attempted credit hours of enrollment for the students in the Career Masters Public Health program. Failure to do so will result in exclusion from the program. Once the student has again achieved a 2.7 GPA and probation has been removed, the 2.7 GPA must be maintained until graduation. If the student again falls below the 2.7 GPA, she or he will be excluded from the program.

Attendance

Although attendance generally is not recorded, students are expected to attend all classes and to negotiate absences with the course instructor.

Time Limit

Only course credits earned within five years prior to graduation may be applied toward the forty-two credit hour degree requirement for a master of public health, or the forty-eight credit hour degree requirement for a master of science in public health. Students who exceed the five-year limit may be required to repeat courses. Under extraordinary circumstances, students may petition the curriculum committee with the support of their faculty adviser and department chair for one extension, provided the petition is initiated no less than one semester before the five-year limit. The extension will be for a period of one year.

Graduate in Residence (GIR) Status

Graduate in Residence is a special registration category reserved for eligible RSPH students. To be eligible to register as a Graduate in Residence, students must have satisfactorily registered for all degree requirements, fulfilled their financial requirements, and be in the final stages of completing their degree.

Students enrolled in this status will be assessed a reduced tuition rate. Students registered as Graduate in Residence will be considered full-time, will be eligible for limited federal loans, and will have the on-campus privileges of all full-time students. The Graduate in Residence status carries no academic credit and is not required to complete an RSPH degree program.

Students may be registered as a Graduate in Residence for no more than three semesters. Before a student is registered for their second or third semester as GIR, continued progress towards the completion of the degree must be demonstrated to the department. If a student is not able to demonstrate progress towards completing degree requirements, the department may determine to deny this registration until due progress is demonstrated.

Leaves of Absence

A student in good academic standing may be granted up to two one-year leaves of absence upon recommendation of the student's department and approval of the dean. The student must demonstrate that during this period he or she must (or plans to) interrupt progress toward the degree. The student should be aware that the University will not certify to loan officers or governmental agencies that a student on leave of absence is in residence or actively pursuing a course of study.

For the purpose of determining eligibility for leave of absence, a student must be in good academic standing and have resolved all incomplete work. Time spent in leave of absence does not count toward the five-year limit. Students beyond this limit are not eligible for leave, but may apply for extension of the time within which to complete degree requirements, in full accord with the rules governing such extensions.

Leaves of absence are not to be used to resolve academic difficulties, reconsider continuation in study, or finish incomplete work. Rather, this policy is intended to allow students to "step out of" academic work for a specified period, during which they will be unable to continue work in any way, as when required to take advantage of a unique professional opportunity, deal with short-term disabilities, or meet competing responsibilities of a nature which preclude meaningful work toward the degree.

A student desiring to return to the Rollins School of Public Health after a leave of absence should request readmission at least thirty days prior to the beginning of the term in which he or she wishes to return.

Academic Advisement

Upon admission to the program, degree-seeking students are assigned advisers. Advisers for students will be their department's assistant director of academic programs and designated faculty.

Course Work at Other Colleges/Institutions

Degree-seeking students in the MPH and MSPH programs may take courses at other Emory schools with permission from the course instructor and the approval of their department. Graduate level courses may count towards the student's degree completion. Students may also take classes at Emory College (undergraduate school) as additional courses, but these credits will not count towards the completion of degree requirements.

Students may petition the department and the executive associate dean for academic affairs for permission to take at other institutions relevant courses unavailable at Emory University. The RSPH participates in the Atlanta Regional Commission for Higher



Education (ARCHE) cross-registration agreement. Students wishing to enroll in courses outside Emory should try to enroll at one of these participating institutions, if possible. Complete information pertaining to cross-registration is available in the RSPH Registrar's Office.

If a particular course is not available at an ARCHE member institution, the student may enroll as a transient student at a nonmember institution. Student requests to cross-register or enroll as a transient student should be submitted in writing to the assistant director for academic programs and the department chair at least one month prior to registration. These requests should include course objectives, course requirements, and reading lists. Additional information about cross registration is available from the University Registrar at 404.727.6042.

Transfer Credit

Up to six semester hours of transfer credit may be allowed for relevant graduate-level courses taken at other academic institutions within the three previous years, provided these credits were not used toward another degree. The transcript must reflect a grade of an A or B for transfer credit to be granted. The request for transfer credit must be approved by the department chair where the course is taught and the executive associate dean for academic affairs.

The acceptance of transfer credits does NOT prorate or change the student's responsibility for full payment of the established tuition plan for their degree.

Course Audit

The charge for audit courses is the same as for credit courses. Courses audited may not later be used for credit by examination, nor may they be transferred to credit courses after the end of the course change period. Individuals interested in auditing a RSPH course must complete the admission process and officially register for the course. Although the tuition fee is the same for credit courses, audit hours do not count toward eligibility for federal financial aid.

Transfer between Departments

Students may request a transfer from one department to another. The department to which the student seeks to transfer will review the student applicant. Both departments must agree to the transfer. Notification of agreement should be sent to Enrollment Services.

Curriculum Policy

The RSPH Curriculum Committee decides curriculum policy. The purpose of the curriculum committee shall be to initiate, develop, establish, and interpret standards pertaining to the curriculum of the MPH and MSPH degrees and their delivery and to approve, review, and evaluate academic course offerings of the RSPH.

Student Petitions

Student petitions requesting exemptions, course credit, and transfer credit must first be approved by the appropriate department chair(s) before the course is offered or taken. If there is a discrepancy regarding the petition decision between the student's department and the course department, the petition will be submitted for review to the executive associate dean for academic affairs.

Enrollment During Semester of Graduation

The RSPH requires that students be enrolled in the University during the semester in which they graduate.

PhD Programs

Academic policies for the PhD programs may be obtained from the Graduate School of Arts and Sciences at 404.727.6028.

Student Grievance Procedure

RSPH students who wish to file a grievance or disagreement that does not fall within the jurisdiction of the RSPH Student Honor and Conduct Code should first discuss the concern with the Departmental Assistant Director of Academic Programs. Depending on the nature and/or complexity of the complaint, the Assistant Director of Academic Programs may either choose to address the issue with the appropriate parties her/himself or choose to share the grievance with the Department Chair for further review and discussion.

Students who are not satisfied with the resolution through these channels, or believe the scope of the grievance cannot be resolved satisfactorily through these channels may present their grievance to the Associate Dean of Student Affairs. The Associate Dean of Student Affairs may choose to address the issue and resolve the grievance on an informal basis. If the student is not satisfied with this methodology, he/she may file a formal complaint.

To file a formal complaint, the student must submit a written statement addressed to the Associate Dean of Student Affairs. The statement must state the charge to be considered; describe fully the nature of the complaint, the evidence and all circumstances surrounding the event(s) which will support the charge. The Associate Dean of Student Affairs will convene a meeting of an Ad Hoc Grievance Committee, comprised of two faculty members and one student who are not affiliated with the Department linked to the grievance. The Grievance Committee will independently review the written complaint. If necessary the Grievance Committee may request additional information from the grievant as well as statements and additional information from other persons involved in the situation. If necessary the Grievance Committee may request a meeting with these persons as well to gain additional information.

On the basis of the written statement and additional information, the Grievance Committee will make a recommendation to the Executive Associate Dean of Academic Affairs, providing supporting documentation. Taking into consideration the information and supporting documentation provided, the Executive Associate Dean will determine the legitimacy of the grievance and any further action to be taken. The Executive Associate Dean will inform the student and the Grievance Committee of the final determination.

A student may appeal the determination to the Grievance Appeal Council through the Executive Associate Dean of Academic Affairs. The Executive Associate Dean of Academic Affairs will preside over this session. The decision of the Grievance Appeal Council is final.

Use of the RSPH school grievance procedure will not prejudice in any way a student's rights under the University Student Grievance Procedure.



This section contains the specific policies adopted by the various governing bodies of the RSPH. All students in the RSPH are subject to the rules and regulations of the University as set forth in the Emory University Campus Life Handbook and in the RSPH catalog. Students should be familiar with these policies.

General University Policy

Registration

Registration is conducted on the dates indicated on the academic calendar. Students not completing registration on regular registration days are charged a late registration fee of \$150. Registration is not permitted after the schedule change period. Registration for any term is not complete until all requirements have been fulfilled and financial responsibilities are met. All matriculated, degree-seeking students are expected to preregister each semester.

Cancellation and Withdrawal

Students who need to withdraw from the University due to some hardship are required to complete a withdrawal form. This form is obtained from enrollment services and requires permission of the department assistant director of academic programs. An adjusted proportionate reimbursement of tuition and fees will be granted within the first five weeks of a semester for a complete withdrawal. Refunds for first-time Emory University students who are federal (Title IV) aid recipients will be prorated in accordance with the Higher Education Amendments of 1992 and any related regulations. A student who is dismissed will not receive a refund. No refund is received for partial cancellation of classwork after the deadline for the last day for course changes listed in the academic calendar. For more detailed information about refunds, refer to the refund schedule in the Emory University Schedule of Courses Bulletin, or call the Bursar's Office at 404.272.6089.

Transportation, Vehicle Registration, Parking, and Traffic Regulations

Metro Atlanta Rapid Transit Authority (MARTA) buses connect Emory to the rapid-rail system and all parts of the city. Students who intend to have cars on campus must adhere to the following regulations:

1. All students operating automobiles, motorcycles, and scooters at Emory must register their vehicles with the Parking Office at the beginning of every academic year immediately after arriving on campus or as soon as the vehicle is acquired. Proof of ownership is required at the time of registration. There is an annual fee for registration, which must be paid at the time of registration. The Parking Office is located at 1701 Lowergate Drive.
2. University traffic regulations are specified in a booklet provided at the time of vehicle registration. Persons with vehicles on campus are expected to know and abide by these regulations.

Introduction

In accordance with University by-laws, the president of the University has delegated to the dean and faculties of each school the responsibility of designing honor and conduct codes for its students. This Student Honor and Conduct Code in the RSPH and the procedures in cases of alleged misconduct were formulated by a committee appointed by the Student Council of the RSPH. Faculty members appointed by the associate dean for academic affairs have reviewed this document, and it has been approved by the dean of the school.

The RSPH expects all members of its community to maintain academic integrity in their courses of study and to conduct themselves in a manner appropriate to a public health professional and consistent with the standards of Emory University.

Student Academic Honor

The RSPH requires that all material submitted by a student in fulfilling his or her academic course of study must be the original work of the student.

Violations of Academic Honor

Violations of academic honor include any action by a student indicating dishonesty or a lack of integrity in academic ethics. Violations in this category include, but are not limited to, cheating, plagiarism, or falsifying research data.

Cheating includes, but is not limited to, seeking, acquiring, receiving, or passing information about the content of an examination prior to its authorized release or during its administration, or attempting to do so. Cheating also includes seeking, using, giving, or obtaining unauthorized assistance in any academic assignment or examination, or attempting to do so.

Plagiarism is the act of presenting as one's own work the expression, words, or ideas of another person, whether published or unpublished (including the work of another student). A writer's work should be regarded as his or her own property. Any person who uses another writer's work, in part or in full, without proper acknowledgment, is guilty of plagiarism.

Falsifying research data includes, but is not limited to, creating information not actually collected and altering information and/or data.

Student Conduct

The RSPH requires all members of its community to conduct themselves with dignity and integrity, and in line with the established policies and standards of Emory University and the RSPH.

Student Conduct Violations

Student conduct violations include, but are not limited to, the following actions:

- A. Dishonesty through misrepresentation or withholding of pertinent factual information in a student or agencies of the University. This also includes falsification of information for the purpose of admission to the RSPH.
- B. Infraction of rules and regulations promulgated by appropriate University authority for the purpose of protecting the interests of the University community. These rules and regulations are to permit all members of the University community to attain their

educational objectives without hindrance, the generation and maintenance of an intellectual and educational atmosphere throughout the University community, and the protection of activity, health, safety, welfare, and property of all members of the University community and of the University itself. These policies also pertain to student conduct when representing the RSPH in community activities.

- C. Infractions of public law. Conduct that is the basis for an allegation or charge of violation of public law also may subject a student to an allegation of a student conduct violation. Acquittal or conviction in court does not necessarily exclude or dictate action by the RSPH. Further, the RSPH may proceed with a conduct matter without awaiting the start or conclusion of any criminal proceeding.
- D. Actions contrary to the standards of the RSPH and Emory University, including actions that are deliberately demeaning to other human beings or that violate the dignity and integrity of other members of the University.
- E. Sexual Harassment and Sexual Assault. Sexual harassment includes unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature. The University's policy on sexual harassment is published annually in the *Emory Report* and the student newspaper, the *Emory Wheel*.
- F. The above also pertains to students participating in Educational Field Studies or internships while attending the RSPH.

Procedures in Cases of Alleged Misconduct

It is the policy of the RSPH that procedures in cases of alleged misconduct be handled expediently, meet certain requirements of fairness to all parties concerned, and guard against arbitrary or capricious decisions. To this end, the person charged with alleged misconduct will:

1. Be considered innocent until judged otherwise by an ad hoc committee appointed by the dean* for this purpose.
2. Be advised of the charges against him/her and of the names of witnesses who may be present at the hearing.
3. Be allowed to defend himself/herself and select a nonattorney adviser from the RSPH faculty or the academic University community to assist and counsel him/her in preparing for and participating in the hearing.
4. Be given a reasonable time to prepare for his/her hearing and a fair opportunity to present evidence to the committee provided that the chairperson may decline to hear evidence not deemed relevant or that is merely cumulative.
5. Be allowed to hear and question witnesses who appear at the hearing and have access to all written statements.
6. Be allowed the right of appeal.

In cases of sexual assault:

1. The accuser and the accused are entitled to the same opportunities to have others present during a campus disciplinary proceeding.
2. Both the accuser and the accused shall be informed of the outcome of any campus disciplinary proceeding brought because of an allegation of a sexual assault.

**If it is believed that reasonable promptness is not met, it is the right of anyone involved in the matter to request that the process be expedited.*

Preliminary Review

Instances involving an alleged violation of the academic honor code or an alleged student conduct violation should be reported to the Office of the Dean. The Student Honor and Conduct Code adviser or another official of the RSPH designated by the dean will conduct a preliminary investigation of the alleged violation with reasonable promptness. This may include seeing the person charged and witnesses alone or in concert. The Student Honor and Conduct Code adviser may seek advice as needed to assist in determining if the evidence is sufficient and/or the charge serious enough to warrant a formal hearing. If the decision reached is that the charge warrants a formal hearing, the following procedures will be observed:

Formal Hearing

1. The person charged is informed in writing, with reasonable promptness following the preliminary investigation, by the Student Honor and Conduct Code adviser of:
 - a. The charges against him/her and the name(s) of the person(s) who reported the charges and details of the charges, with enough specificity to enable him/her to prepare for the hearing on these charges.
 - b. The right to choose a faculty adviser (nonlegal) to counsel him/her.
 - c. The right to a hearing before an ad hoc committee appointed by the dean or other designated official, and the date, time, and place of the hearing.
2. From the time he/she receives written notice, the person charged has at least fourteen calendar days to prepare his/her case, unless he/she requests the hearing take place within a shorter period of time.
3. An ad hoc committee will be appointed by the dean or other designated official.
 - a. The committee will be composed of a minimum of four members and a chairperson: two students, two faculty members, and a chairperson.
 - b. No person involved in advising the Student Honor and Conduct Code adviser during the preliminary hearing may serve on the ad hoc committee.
 - c. The committee will be chaired by a faculty member other than the Student Honor and Conduct Code adviser.
 - d. The committee by majority shall decide the method of voting. The chairperson shall vote in case of a tie.
 - e. A majority vote is required for a finding of a violation. An abstention is not considered a vote.
 - f. No individuals making the charge shall be members of the committee.
 - g. The person charged may request in writing that an individual(s) be replaced on the originally appointed ad hoc committee. The dean will consider the written request of the person charged and will make replacements at his/her discretion. The new appointments will be made by the dean in consultation with the person charged and the student's faculty adviser.
 - h. The Student Honor and Conduct Code adviser should be present at all hearings to assist in the process.
4. The chairperson is responsible for conducting the hearing in a fair and impartial manner.
 - a. If the person charged is not present at the hearing, the hearing will be conducted with the student charged in absentia.



- b. The person charged may admit the misconduct or not. If he/she admits misconduct, the committee shall hear the evidence to determine the appropriate recommendation.
 - c. The person charged may be present while all evidence is presented but not during deliberations or voting of the committee.
 - d. At the hearing, the alleged violation will be read. Evidence against the student will be presented first, followed by questions from the ad hoc committee and the person charged and/or faculty adviser. The person charged may then present his/her evidence, and the committee members again may ask questions.
 - e. Evidence shall be admitted without regard to the rules of evidence in courts of law.
 - f. Evidence may include, but is not be limited to, witnesses, documents, tangible evidence, and written statements from witnesses not present.
5. After thorough review of the case, the committee will decide whether the person charged is guilty or not guilty of the charge(s). A majority vote of the committee will suffice for a finding of guilt. If the person is found guilty, the committee may recommend to the dean, in writing, one or more of the following actions, or such other action as the committee deems appropriate:
- a. Issue the student a warning.
 - b. Place the student on probation.
 - c. Issue a grade of F on the assignment in question or for the course.
 - d. Suspend the student for the remainder of the term or longer.
 - e. Dismiss the student from school.
6. The dean, after receiving the ad hoc committee recommendation, may:
- a. Dismiss the case.
 - b. Accept the recommendation.
 - c. Modify the recommendation but not change a finding of “no misconduct” to a finding of “misconduct.” The dean, on recommendation of the committee and/or on the basis of his/her own judgment, may report any action taken to the appropriate University authorities.

The student charged with a violation shall be notified in writing by the dean of his/her judgment and any action taken. This notification shall be written and delivered to the student promptly, usually within fourteen calendar days of receipt of the ad hoc committee's recommendations.

Appeals

A student who wishes to appeal the decision of the dean must make such a request in writing to the dean. The written appeal must be made with reasonable promptness following the dean unless the student has received a written extension from the dean. In the letter to the dean, the student must indicate the reasons for the appeal.

After reviewing the request for appeal, the dean may make a decision about the written appeal himself/herself or appoint a second ad hoc committee to review the charge(s), recommendation(s), and action(s).

1. The ad hoc committee:
 - a. Shall be composed of a minimum of one student and two faculty members, one of whom will act as chairperson. No member of this committee will have participated in the previous reviews.
 - b. Shall be furnished with all written data concerning the formal hearing, recommendations of the prior ad hoc committee, and actions of the dean.
 - c. At its discretion, may request oral or written statements from the accused and other witnesses, and may request that additional documentary evidence be presented.
 - d. Shall require a majority vote for a decision. An abstention is not considered a vote. The committee shall decide by a majority the method of voting. The chairperson shall vote in case of a tie.
 - e. Shall not have any individual who brought a charge as a member of the committee.
 - f. Shall conduct the review in a fair and impartial manner.
2. Recommendations of the committee shall be reported in writing with reasonable promptness to the dean.* The following actions may be recommended:
 - a. Affirm the prior decision.
 - b. Reverse the prior decision.
 - c. Modify the prior decision.
 - d. Re-hear and appoint a new ad hoc committee in accordance with the original hearing procedures.
3. The student charged with a violation shall be notified in writing of the recommendation of the ad hoc committee within seventy-two hours. The dean, subsequent to receiving the ad hoc committee's recommendation, may:
 - a. Affirm the prior decision.
 - b. Reverse the prior decision.
 - c. Modify the prior decision.
 - d. Recommend the case be re-heard and appoint a new ad hoc committee in accordance with the original hearing procedures.

The dean will consider, but is not bound by, the recommendation of the appeal committee. The dean will render a final decision on the appeal and inform the student of this decision, with reasonable promptness, given the receipt of the ad hoc committee's recommendation.

**If it is believed that reasonable promptness is not met, it is the right of anyone involved in the matter to request that the process be expedited.*

Master of Public Health

Students pursuing a Master of Public Health (MPH) are required to complete forty-two semester hours of credit and a practicum. Prospective students must designate one of six departments when applying to the school: behavioral sciences and health education (BSHE), biostatistics and bioinformatics (BIOS), environmental health (EH), epidemiology (EPI), health policy and management (HPM), or global health (GH). There are also joint MPH programs with the departments of Environmental Health and Global Health (Global Environmental Health, GEH) and the departments of Global Health and Epidemiology (Global Epidemiology). The number of required and elective courses within a specific department varies.

Master of Science in Public Health

Students pursuing a Master of Science in Public Health (MSPH) are required to complete forty-eight semester hours of credit and a required practicum. Prospective students must designate one of the following departments when applying to the school: biostatistics and bioinformatics (BIOS), epidemiology (EPI), health policy and management (HPM), or global health (GH). There are also joint MSPH programs with the departments of Environmental Health (EH) and Epidemiology (EPI) and the departments of Global Health and Epidemiology. The number of required and elective courses within a specific department varies.

Practicum

A practicum is a unique opportunity for graduate students to integrate and apply practical skills and training learned through course work and prior experiences in a professional public health work environment. In some cases, students can use a work study, graduate assistantship, or teaching assistantship position structured to meet the practicum requirement. A practicum is a significant educational experience that generally requires 200 to 400 clock hours in a public health agency, institution, or community under the supervision of site administrators and the guidance of the student's department, the Office of Applied Public Health, and/or Career Services.

All Rollins School of Public Health (RSPH) graduate students are required to submit practicum details into the Practicum Web Client. To view the Practicum Web Client or find more detailed information, you can visit www.sph.emory.edu/practicum.php. There you will find answers to frequently asked questions and information on who you might contact, should you have any additional questions.

Core Courses

The following courses are required of all MPH and MSPH students. Within each department, there are exceptions to these core courses. These exceptions are listed in each department section of this catalog.

Course Number	Course Title	Credit Hours
BSHE 500	Behavioral Sciences in Public Health	2
<i>or</i> BSHE 504	Social Behavior in Public Health	2
BIOS 500	Statistical Methods I	3

BIOS 500L	Lab (optional)	1
EOH 500	Perspectives in Environmental Health	2
EPI 504	Fundamentals of Epidemiology	2
or EPI 530	Epidemiologic Methods I	4
HPM 500	Introduction to the U.S. Health Care System	2
HPM 502	Introduction to Health Care Management	2



Department of Behavioral Sciences and Health Education

www.sph.emory.edu/bshe/
Michael Windle, Chair

The Department of Behavioral Sciences and Health Education (BSHE) has full-time, doctoral-level faculty representing the disciplines of anthropology, communications, health education, history, psychology, nursing, and sociology. The program is also supported by faculty in the School of Medicine, School of Nursing, Emory College, and the Graduate School departments of Anthropology, Sociology, and the Graduate Institute of Liberal Arts. Leading health educators and behavioral scientists from the U.S. Centers for Disease Control and Prevention, the Georgia Department of Human Resources, the American Cancer Society, and The Carter Center serve as adjunct faculty. State and local health departments, county school systems, and public and private organizations in the city of Atlanta serve as potential laboratories. BSHE serves as the home of the Emory Prevention Research Center. The Southeast AIDS Training and Education Center for health professionals is associated with the department, and faculty members work closely with Emory's Center for AIDS Research.

Students in the department serve as teaching assistants, research assistants for various community research projects, and staff campus and statewide health promotion activities coordinated by BSHE faculty members. The philosophy of the department defines the role of the instructor as mentor, the student as practitioner, and the community as classroom.

Graduates hold positions in public and private institutions participating in research and practice that are oriented to the promotion of health.

Department Admission Criteria

Students with a variety of academic and professional backgrounds are eligible to apply to the department. Some pursue the MPH degree directly after completing their undergraduate studies in the natural sciences, social sciences, or the humanities. More often, students apply to the department after work experiences in public health. Admission is based on prior academic performance in postsecondary education, abilities as assessed by standardized tests (GRE, MCAT), and demonstrated commitment to working in public health. Completion of a college-level statistics course or other quantitative courses prior to application is highly recommended. Students are admitted only in the fall to facilitate adherence to the standard course sequence. For more information see <http://www.sph.emory.edu/prospectiveStudents/admissions.php>.

Behavioral Sciences and Health Education Requirements

Course Number	Course Title	Credit Hours
BIOS 500/	Statistical Methods I	3
500L	Statistical Methods I lab	1
EOH 500	Perspectives in Environmental Health	2
EPI 504	Fundamentals of Epidemiology	2
or EPI 530	Epidemiologic Methods I	4
HPM 500	Introduction to the U.S. Health Care System	2
HPM 502	Introduction to Health Care Management	2
BSHE 520	Theory in BS and HE	3
BSHE 530	Conduct of Evaluation Research	3
BSHE 532	Quantitative Analysis	3
BSHE 540	Behavioral Research Methods	3
BSHE 579	History of Public Health	3
BSHE 590	Capstone Seminar	4
BSHE 591W	Thesis Mentorship	1
BSHE 595	Practicum	0
BSHE 599R	Thesis	3
BSHE	Elective Courses	5+

Concentration

	Behavioral Sciences	
BSHE 544	Survey Methods	3
BSHE 550R	Theory-Driven Research in the Behavioral Sciences	3
	<i>and/or</i>	
	Health Education	
BSHE 524	Community Needs Assessment	3
BSHE 522	Principles of Curriculum and Instruction in Health Education	3

Total Credit Hours: 42

BSHE students may choose BSHE 590 or BSHE 591W and BSHE 599R as their culminating experience. BSHE students must complete a minimum of 30 credit hours in the Department of Behavioral Sciences and Health Education. Students who choose to enroll in the four semester hour epidemiology core course may enroll in 28 hours of courses in the department.

Selecting a Concentration

The BSHE curriculum prepares students for a wide range of career possibilities in public health. Students must complete at least one of the concentrations listed below. Concentration decisions must be made by October of the first semester of enrollment. Students are supported should they decide to pursue both concentrations.

Behavioral Sciences Concentration

The curriculum features advanced course work in measurement of behavior, behavioral science theories, and evaluation methods. This specialization appeals to students seeking

work in a research or an evaluation capacity or those who plan to pursue a research-based PhD program.

Health Education Concentration

Students who are interested in pursuing a career as a health practitioner often select the health education concentration. This concentration provides more hands-on field work experience with community-based organizations. The health education curriculum prepares students for eight competency areas including community needs assessment, health education program planning, health education program implementation, health education program evaluation, health education services, health communication, policy development, and resource development and distribution.

Culminating Experience

As the culminating experience of their education, students in the department are required to complete either a thesis or a capstone seminar.

The thesis is an original piece of publishable research and/or a contribution to the knowledge base of behavioral sciences and health education. Students write theses under the supervision of a thesis committee made up of a minimum of two members.

The chair must be a BSHE faculty member. Public health agencies in the area often provide research topics and support for studies.

There are two types of capstone seminars: Program Planning and Special Topics. In both types of capstone seminars, students are required to apply and integrate the skills and competencies gained during their training to a select topic.

Admission Requirements for the PhD Degree

To be admitted into the PhD program in Behavioral Sciences and Health Education, a student must complete all the admission requirements specified by the Graduate School. Students must have completed a Master's degree. Those with a Master's degree outside of public health may need to take additional public health courses beyond the core doctoral curriculum.

To select the entering cohort, the department considers performance in undergraduate and graduate courses, standardized exam performance (Graduate Record Examination scores taken within the previous five years), letters of recommendation, research or published papers, fit with departmental areas of scientific strength, and other relevant experience. Recommended GRE score range is 1100–1500 combined for Verbal Reasoning and Quantitative Reasoning sections and an Analytical Writing score

of 4 or 5. International students whose native language is not English must attain a score of 560 or more on the paper Test of English as a Foreign Language (TOEFL) or a score of 220 or higher on the computer-based TOEFL.

Please see the Behavioral Sciences and Health Education Departmental website www.sph.emory.edu/bshe/bshephd.php for complete degree requirements.

Students apply for this program through the Graduate School. The online application and additional instructions are provided at www.graduateschool.emory.edu/admissions/index.php. The deadline for applications to the PhD program is December 1.

Financial Assistance for the Behavioral Sciences and Health Education PhD Program

Students admitted to the BSHE PhD Program receive merit-based support packages consisting of full tuition scholarships each year and annual stipends for two years. The awards are renewed each year, contingent upon satisfactory academic performance. Doctoral students receive annual stipends for the initial two years and in following years typically have the opportunity to be supported on research projects by faculty investigators, fellowship and/or grant funding obtained by the student, and by teaching in BSHE. Students may work as research assistants or in other activities related to their professional development during the summer months for additional income. Some courses may be required in the summer semesters.

Faculty

Melissa Alperin, Senior Associate. BA, Brown University, 1988; MPH, Emory University, 1991. Applied evaluation of community-based public health programs, training public health professionals, workforce development, distance education.

Kimberly R. Jacob Arriola, Associate Professor. BA, Spelman College, 1994; MA, Northeastern University, 1996; PhD, 1998; MPH, Emory University, 2001. HIV/AIDS, breast cancer prevention, organ and tissue donation among African Americans.

Carla J. Berg, Assistant Professor. BA, Dakota Wesleyan University, 2001; MA, University of Kansas, 2003; PhD, 2007. Cancer prevention; health disparities; multiple health risk behaviors; tobacco control; young adults and adolescents; positive psychology.

Susan Butler, Research Assistant Professor. BSEd, University of Georgia, 1976; MEd, Georgia State University, 1980; EdD, University of Tennessee, 1992. Tobacco use prevention and control, nutrition related to disease prevention, physical fitness, women's health, needs assessment, curriculum development.

Gene H. Brody, Research Professor. BA, University of California, 1972; MA, University of Arizona, 1973; PhD, 1976. Family influences on intellectual, social, and personality development; factors that protect children and adolescents at risk; contributions of sibling relationships to social and personality development; interrelationships among marital quality, parenting, and developmental outcomes.

David H. Chae, Assistant Professor. BA, University of Chicago, 1999; MA, Columbia University, 2000; ScD, Harvard School of Public Health, 2007. Minority health; discrimination and identity; stress and biology; measurement; context, place, and health; gene and environment interactions.

Hannah L. F. Cooper, Assistant Professor. BA, Yale University 1993; SM, Harvard School of Public Health, 1998; ScD, 2003. Social epidemiology of drug use and drug-related harms; qualitative research methods; health disparities; urban health; epidemiologic and social theory; drug policy and related police strategies; social geography

Ralph J. DiClemente, Charles Howard Candler Professor; Associate Director, Prevention Science, Emory Center for AIDS Research (CFAR) for Behavioral Science. BA, City University of New York, 1974; MS, Harvard School of Public Health, 1978; PhD, University of California, San Francisco, 1984. Design and evaluation of STD and HIV prevention interventions tailored for adolescents and women.

Colleen K. DiIorio, Professor. BSN, University of Iowa, 1969; MA, New York University, 1978; PhD, 1981. HIV/AIDS medication adherence, prevention with families, prevention with fathers and sons, epilepsy.

Kristin L. Dunkle, Assistant Professor. BA, Case Western Reserve University, 1994; MPH, University of Michigan, 2000; PhD, 2003. HIV/AIDS, gender and violence, sexual and reproductive health, health and South Africa.

Kirk Elifson, Research Professor. BA, Knox College, 1965; MA, Vanderbilt University, 1968; PhD, 1972. Substance abuse, HIV/AIDS, methodology, violence.

Cam Escoffery, Assistant Professor. BS, Emory University, 1992; MPH, 1995; PhD, University of Georgia, 2002. Training public health professionals, curriculum development and instructional design, design and evaluation of community health education programs.

Kimberly S. Hagen, Senior Associate; Assistant Director, Emory Center for AIDS Research (CFAR); BA, University of the South, 1979; MEd, University of Georgia, 1995; EdD, 1998. HIV/AIDS, vaccines, politics of program planning, curriculum development, instructional design, public health program evaluation.

Michelle C. Kegler, Associate Professor and Director of Graduate Studies, Ph.D. Program. BA, University of Minnesota-Minneapolis, 1983; MPH, University of Michigan, 1985; DrPH, University of North Carolina-Chapel Hill, 1995. Community-based chronic disease prevention, program evaluation, and coalitions/community partnerships.

Howard I. Kushner, Nat C. Robertson Distinguished Professor, Director, MPH Program, Department of Behavioral Sciences and Health Education, and Graduate Institute of Liberal Arts. AB, Rutgers University, 1965; MA, Cornell University, 1968; PhD, 1970. Historical and clinical aspects of addiction and mental health, history and etiology of Kawasaki syndrome.

Delia L. Lang, Research Assistant Professor. BA, California State University at San Bernadino, 1994; MA, 1997; MPH, Loma Linda University, 1999; PhD, 2001. HIV/AIDS, adolescent health, sexual behavior.

Richard M. Levinson, Charles Howard Candler Professor and Associate Dean for Academic Affairs. BA, University of Connecticut, 1964; MA, University of Wisconsin, 1966; PhD, 1975. Social determinants of health risk behavior, access to and utilization of health services.

Kathleen R. Miner, Professor and Associate Dean for Applied Public Health. BA, California State University-Long Beach, 1968; MEd, Georgia State University, 1979; MPH, Emory University, 1979; PhD, Georgia State University, 1984. Design and evaluation of domestic and international community-based interventions focused on public health workforce development with an emphasis on competency-based instruction in topical areas that include: tobacco prevention and control; graduate professional education; public health informatics; bioterrorism and disaster preparedness.

Eric J. Nehl, Research Assistant Professor. BS, Ball State University, 1998; MS, 2001; PhD, Indiana University, 2009. Cancer prevention; health disparities; multiple health risk behaviors; research methods, measurement, and statistics; public health theory.

Laura F. Salazar, Research Assistant Professor. BA, State University of New York at Buffalo, 1982; MA, Georgia State University, 1996; PhD, 2001. HIV/AIDS prevention.

Jessica M. Sales, Research Assistant Professor. BS, University of Iowa, 1998; PhD, Emory University, 2004. Adolescent HIV/AIDS prevention, adolescent health, mental health, and sexual behavior.

Iris Smith, Clinical Associate Professor. BA, Fordham University, 1971; MPH, Emory University, 1979; PhD, Georgia State University, 2000; Substance abuse, program evaluation, cancer-related psycho-social research.

Claire E. Sterk, Charles Howard Candler Professor and Sr. Vice Provost. Doctoral, University of Utrecht, 1983; PhD, Erasmus University Rotterdam, 1990. Social determinants of health, design and evaluation of health promotion programs for special populations, epidemiology of drug use, mental health, and HIV/AIDS.

Deanne W. Swan, Assistant Research Professor. BA, Auburn University 1993; MS, Georgia State University 1998; PhD, 2008. Quantitative research methods; growth modeling; childhood obesity; health disparities; school health; developmental disabilities; policies for health and education for young children.

Colin L. Talley, Research Assistant Professor. BA, University of Houston, 1988; MA, San Diego State University, 1993; PhD, 2008. Quantitative research methods; growth modeling; childhood obesity; health disparities; school health; developmental disabilities; policies for health and education for young children. Behavioral and social science theories in public health, lesbian, gay, bisexual, transgender, and queer public health; health disparities; history and social studies of multiple sclerosis; history of smoking and health history of public health, medicine, and disease in the United States.

Lisa A. Tedesco, Professor and Dean, Graduate School. BS, University of Bridgeport, 1972; MEd, State University of New York at Buffalo, 1975; PhD, 1981. Behavioral determinants of oral health, education policy.

Nancy J. Thompson, Associate Professor. BA, Emory University, 1971; MPH, 1977; PhD, Georgia State University, 1989. Behavioral and psychiatric epidemiology, mental health, injury and violence prevention and control, aging, and applications of psychological theory to public health.

Winifred Wilkins Thompson, Research Assistant Professor. BS Ed., University of Georgia, 1992; MSW, University of Georgia, 1994; PhD, University of South Carolina, 2006. Addressing disparities in health among African American breast cancer patients, survivors, and their family members through patient navigation and examining social determinants of health; evaluation; community health development; religion and reproductive health; maternal child health.

Michael Windle, Rollins Professor and Chair. BA, University of Missouri–St. Louis, 1977; MA, Southern Illinois University–Edwardsville, 1980; PhD, Pennsylvania State University, 1984. Alcohol and drug use among youth, youth violence, mental health.

Gina M. Wingood, Agnes Moore Professor in HIV/AIDS Research. BA, Boston University, 1985; MPH, University of California, Berkeley, 1990; ScD, Harvard University School of Public Health, 1995. Examination of social factors influencing women's risk of HIV, developing and disseminating HIV interventions for women.

Frank Yuan Wong, Associate Professor. BA (Honours), University of Guelph, 1981; PhD, Texas A&M University, 1990. Use and abuse of alcohol, tobacco, and other drugs; Asian American and Pacific Islander health in the U.S.; community-based health: prevention, intervention, and treatment; global health, especially substance abuse, HIV, and sexually transmitted diseases; migration and health.

Jointly Appointed Faculty

Daniel D. Adame, Associate Professor. BA, LaVerne College, 1969; MSPH, University of California-Los Angeles, 1975; PhD, Cornell University, 1982. Emory University Department of Health and Physical Education.

Peter J. Brown, Professor. BA, University of Notre Dame, 1975; MA, State University of New York–Stony Brook, 1976; PhD, 1979. Emory University Department of Anthropology and Hubert Department of Global Health.

Michael T. Compton, Assistant Professor. BS, Mary Washington College, 1993; MD, University of Virginia, 1997; MPH, Emory University, 2003. Emory University School of Medicine.

Benjamin Druss, Professor. BA, Swarthmore College, 1985; MD, New York University, 1989; MPH, Yale University, 1995. Department of Health Policy and Management.

Paula Frew, Assistant Professor. BA, University of California at San Diego, 1990; MA, San Diego State University, 1997; MPH, Emory University, 2001; PhD, University of Georgia, 2007. Emory School of Medicine, Department of Medicine, Division of Infectious Diseases.

Julie Gazmararian, Research Associate Professor. BBA, University of Michigan, 1983; MPH, University of South Carolina, 1985; PhD, University of Michigan, 1982. Department of Epidemiology, Emory University.

Alfred B. Heilbrun, Professor Emeritus. BA, Oberlin College, 1949; MA, 1950; PhD, State University of Iowa, 1954. Emory University Department of Psychology.

Carol R. Hogue, Professor. AB, William Jewell College, 1966; MPH, University of North Carolina at Chapel Hill, 1971; PhD, University of North Carolina, Chapel Hill, 1973. Department of Epidemiology.

Debra Houry, Associate Professor. BS, Emory University, 1994; MPH, Tulane University, 1998; MD, Tulane University, 1998. Emory University School of Medicine.

Kara L. Jacobson, Adjunct Associate Professor. BA, Emory University, 1991; MPH, 1993. Department of Health Policy and Management, Emory Center on Health Outcomes and Quality.

Corey Lee M. Keyes, Associate Professor. BS, University of Wisconsin–Eau Claire, 1988; MS 1991, PhD, University of Wisconsin–Madison, 1995. Emory University Department of Sociology.

David J. Malebranche, Assistant Professor. BA, Princeton University, 1990; MD, Emory University, 1996; MPH, Columbia University, 2001. Emory University School of Medicine.

Barbara O. Rothbaum, Professor, Director of the Trauma & Anxiety Recovery Program. BA, University of North Carolina at Chapel Hill, 1982; MSc, University of Georgia, 1984; PhD, University of Georgia, 1986. Emory University School of Medicine, Department of Psychiatry.

Ira K. Schwartz, Associate Professor. BS, Union College, 1972; MD, University of Chicago, 1977. Emory University School of Medicine.

Elizabeth S. Sharp, Professor. BSN, University of Michigan, 1956; MSN, Yale University, 1959; CNM, 1959; PhD, The Johns Hopkins University, 1969; Nell Hodgson Woodruff School of Nursing.

Kathryn Yount, Associate Professor. BA, University of North Carolina, Chapel Hill, 1991; MHS, The Johns Hopkins Bloomberg School of Public Health, 1994; PhD, Johns Hopkins Bloomberg School of Public Health, 1999. Hubert Department of Global Health.

Adjunct Faculty

Lynda Anderson, Lynda Anderson, Adjunct Associate Professor. BS, University of Oregon, 1976; MS, 1978; PhD, University of North Carolina at Chapel Hill, 1984. U.S. Centers for Disease Control and Prevention.

Martha E. Alexander, Adjunct Instructor. BA, University of Kentucky, 1978; MA, University of Tennessee, 1979; MPH, Emory University, 1986. Acting Deputy Director, Behavioral Science and Health Education Team National Center on Birth Defects and Developmental Disabilities (NCBDD). Health Education Specialist for Fetal Alcohol Syndrome Prevention Team, NCBDD.

Sevgi Aral, Adjunct Professor. BS, Middle East Technical University, 1967; MA, University of Pennsylvania, 1968; MA, Emory University, 1970; PhD, Emory University, 1972.

Grant T. Baldwin, Adjunct Assistant Professor. BA, University of Michigan, 1994; MPH, Emory University, 1996; PhD, University of Michigan, 2003. U.S. Centers for Disease Control and Prevention.

Deborah Rae Bauer, Adjunct Instructor. BSN, University of Oklahoma, 1974; MPH, Emory University, 1980. Georgia Department of Human Resources.

Jay M. Bernhardt, Adjunct Associate Professor. BA, Rutgers University, 1992; MPH, University of Medicine and Dentistry of New Jersey and Rutgers University, 1994; PhD, University of North Carolina, 1999. Director, National Center for Health Marketing, U.S. Centers for Disease Control and Prevention.

Nancy A. Boxill, Adjunct Assistant Professor. BA, Duquesne University, 1969; MA, New School for Social Research, 1972; PhD, Union Graduate School, 1980. Fulton County Commission.

J. Nell Brownstein, Adjunct Associate Professor. BA, University of California–Santa Barbara, 1971; MA, 1974; PhD, 1977. U.S. Centers for Disease Control and Prevention.

Lisa Carlson, Adjunct Instructor. BA, Yale University, 1992; MPH, Emory University, 1993. Emory Transplant Center, Emory University.

Colleen Carter–Lunceford, Adjunct Assistant Professor. BBA, Georgia State University, 1985; MEd, Florida Atlantic University, 1991; PhD, Georgia State University, 1998.

Joan P. Cioffi, Adjunct Assistant Professor. BS, St. John’s University, 1966; MS, New York University, 1971; PhD, Georgia State University, 1980. U.S. Centers for Disease Control and Prevention.

Ronda Cochran, Adjunct Instructor. BA, Emory University, 1995; BS, 1995; MPH, 1997. U.S. Centers for Disease Control and Prevention.



Galen Cole, Adjunct Associate Professor. BS, Brigham Young University, 1977; MHE, 1980; MPH, University of Pittsburgh, 1987; MA, Georgia School of Professional Psychology, 2001; PhD, Southern Illinois University, 1982. U.S. Centers for Disease Control and Prevention.

Donald W. Compton, Adjunct Assistant Professor. BA, Hamline University, 1974; MS, Virginia Polytechnic Institute and State University, 1976; PhD, University of Minnesota, 1980. U.S. Centers for Disease Control and Prevention.

Katharina V. Echt, Adjunct Assistant Professor. BA, Jacksonville University, 1990; MS, University of Georgia, 1995; PhD, 1997. Atlanta Veterans Administration Center.

Jacob Gayle, Adjunct Associate Professor. BA, Oberlin College, 1979; MSc, Ohio State University, 1982; MA, 1984; PhD, 1986. U.S. Centers for Disease Control and Prevention.

Karen Glanz, Adjunct Professor. BA, University of Michigan, 1974; MPH, 1977; PhD, 1979. University of Pennsylvania.

Joyce Goldberg, Adjunct Instructor. BA, Brooklyn College, 1964; MA, Columbia University, 1968. Georgia Technology Authority.

Na He, Adjunct Professor. MD, Shanghai Medical University, 1991; MS, 1994; PhD, University of California at Los Angeles, 2003; Professor and Vice-Chair, Department of Epidemiology, Fudan University School of Public Health.

Edwin B. Hutchins, Adjunct Professor. BA, Lake Forest College, 1951; MA, University of Missouri, 1953; PhD, University of Illinois, 1958. The Healthier People Network, Inc.

Wendell Johnson, Adjunct Assistant Professor. AA, Delaware County Community College, 1980; BA, Cheyenne University of Pennsylvania, 1983; MA, Northwestern University, 1984; PhD, 1994.

Camara Phyllis Jones, Adjunct Professor. BA, Wellesley College, 1976; MD, Stanford University, 1981; MPH, The Johns Hopkins University, 1982; PhD, 1995. U.S. Centers for Disease Control and Prevention.

Cynthia M. Jorgensen, Adjunct Assistant Professor. BA, Boston University, 1981; MA, 1982; PhD, University of North Carolina-Chapel Hill, 1988. U. S. Centers for Disease Control and Prevention.

Steven R. Katkowsky, Adjunct Professor. BA, University of Baltimore, 1970; MD, Ross University of Medicine, 1987. Fulton County Board of Health.

Carol Koplan, Adjunct Assistant Professor. BA, Brandeis University, 1964; MD, Tufts University, 1968.

Marshall W. Kreuter, Adjunct Professor. BA, California State University, 1961; MA, 1963; PhD, University of Utah, 1971. Health 2000. Georgia State University Program in Public Health.

Amy Lansky, Adjunct Assistant Professor. BA, Swarthmore College, 1987; MPA, University of North Carolina-Chapel Hill, 1991; PhD, 1996. U.S. Centers for Disease Control and Prevention.

Francis A. McCarty, Adjunct Assistant Professor. BS, Bridgewater College, 1987; MEd, University of Virginia, 1990; PhD, Georgia State University, 2001. Quantitative methods, development and evaluation of psychosocial measures, use of advanced statistical methods in public health research. Institute of Public Health, Georgia State University.

Gary D. Nelson, Adjunct Professor. BS, Kansas State University, 1973; MS, Central Michigan University, 1978; PhD, University of Utah, 1982. President, Healthcare Georgia Foundation.

Ann O'Leary, Adjunct Professor. BA, University of Pennsylvania, 1981; PhD, Stanford University, 1986. U. S. Centers for Disease Control and Prevention.

Kathleen A. Parker, Adjunct Instructor. BA, Nazareth College of Rochester, 1965; MA, Case Western Reserve University, 1969; MPH, University of North Carolina, 1975. U.S. Centers for Disease Control and Prevention.

J. Terry Parker, Adjunct Instructor. BS, Texas A&M University, College Station, 1980; MS, Texas A&M University, Commerce; PhD, Texas Women's University, 1990. U.S. Centers for Disease Control and Prevention.

Jennie P. Perryman, Adjunct Instructor. AB, Georgia State University, 1974; MSN, Medical College of Georgia, 1978; PhD, Georgia State University, 1999. Transplant Center, School of Medicine.

Erika I. Pluhar, Adjunct Assistant Professor. BA, Cornell University, 1997; PhD, University of Pennsylvania, 2001; MS/EdS, Georgia State University, 2006. Therapist, Private Practice.

Barbara Powe, Adjunct Associate Professor. BSN, University of North Carolina at Charlotte; MS, University of South Carolina; PhD, 1994. American Cancer Society.

Kenneth E. Powell, Adjunct Assistant Professor. BA, Harvard University, 1963; MD, Northwestern University Medical School, 1968; MPH, Harvard School of Public Health, 1970. Georgia Department of Human Resources.

Robert Robinson, Adjunct Associate Professor. BA, City College of New York, 1967; MSW, Adelphi University, 1969; MPH, University of California, Berkeley, 1977; DrPH, 1983. U.S. Centers for Disease Control and Prevention.

Mark L. Rosenberg, Adjunct Professor. BA, Harvard University, 1967; MPH, 1972; MD, 1972. Task Force for Child Survival.

Deborah Rugg, Adjunct Assistant Professor. BA, University of Wisconsin, 1975; MA, San Diego State University, 1977; PhD, University of California-San Francisco, 1982. U.S. Centers for Disease Control and Prevention.

Thomas Schmid, Adjunct Associate Professor. BA, University of Bridgeport, 1973; MS, West Virginia University, 1977; PhD, 1979. U.S. Centers for Disease Control and Prevention.

John R. Seffrin, Adjunct Professor. BSEd, Ball State University, 1966; MS, University of Illinois, 1967; PhD, Purdue University, 1970. American Cancer Society.

Melissa B. Shepherd, Adjunct Instructor. BA, University of Georgia, 1976. Senior Health Communication Specialist, Centers for Disease Control and Prevention.

Theresa Ann Sipe, Adjunct Associate Professor. BSN, Georgia State University, 1983; MN, Emory University, 1986; MPH, 1986; PhD, Georgia State University, 1995. Georgia State University.

David Sleet, Adjunct Professor. BA, San Diego State University, 1966; MA, 1968; PhD, University of Toledo, 1973. U.S. Centers for Disease Control and Prevention.

Michelle J. Staples-Horn, Adjunct Associate Professor. BS, Clark Atlanta University, 1976; MD, Morehouse School of Medicine, 1990; MPH, Emory University Rollins School of Public Health, 1993.

Michael E. Stefanek, Adjunct Professor. BA, Towson University, 1974; MA, Southern Illinois University, 1976; MS, Virginia Polytechnic Institute and State University, 1982; PhD, Virginia Polytechnic Institute and State University, 1984; Maryland State License, Psychologist, 1986. Vice President, Behavioral Research, and Director, Behavioral Research Center, American Cancer Society.

Kevin D. Stein, Adjunct Assistant Professor. BS, University of Florida, 1990; MA, University of South Florida, 1994; PhD, 1996. American Cancer Society.

Jo Ellen Stryker, Adjunct Assistant Professor. BA, University of Massachusetts, 1995; MA, University of Pennsylvania, 1998; PhD, 2001. Health campaigns; mass media and public health; communication and health behavior.

Melissa Taylor, Adjunct Instructor. BA, York College; MA, University of Maryland. Director, Strategic Planning, and Research Senior Vice President, Porter Novelli.

Dennis Tolsma, Adjunct Assistant Professor. AB, Calvin College, 1991; MPH, Columbia University, 1969. Kaiser Permanente.

Adewale Troutman, Adjunct Associate Professor. BS, Lehman College, 1969; MA, State University of New York, 1972; MPH, Columbia University, 1972; MD, University of Medicine and Dentistry of New Jersey, 1979. Fulton County Board of Health.

Rueben C. Warren, Adjunct Professor. BA, San Francisco State University, 1968; DDS, Meharry Medical College, 1972; MPH, Harvard University, 1973; DrPH, 1975. U.S. Centers for Disease Control and Prevention.

J. Lee Westmaas, Adjunct Assistant Professor. BA, University of Waterloo, 1989; MA, University of California–Irvine, 1994; PhD, University of California–Irvine, 1996.

Behavioral Sciences and Health Education Course Descriptions

BSHE 500 (2) Behavioral Sciences in Public Health

Provides the student with basic knowledge about behavioral sciences as applied to public health in global perspective. Content includes an overview of each discipline and current issues within that area.

BSHE 504 (2) Social Behavior in Public Health

Examines psychosocial aspects of health and illness. Areas include social and cultural factors in disease etiology and definition, theory and methods of community health promotion, and behavioral aspects of health services delivery.

BSHE 512 (3) Medical Sociology

This course introduces students to sociological and social/psychological research in selected areas of medical sociology. Familiarizes the student with dominant theoretical orientations and associated empirical research.

BSHE 516 (3) Behavioral Epidemiology

Prerequisites: BIOS 500 and EPI 530, or consent of the instructor. Provides the student with basic knowledge about epidemiological applications in a behavioral area. Content stresses ways in which behavioral research differs from other applications of epidemiology with respect to approaches to measurement, terminology, and analytic methods.

BSHE 517 (2) Adolescent Health

Introduces the major issues in adolescent health, such as physical and psychosocial growth, teenage pregnancy, HIV/AIDS, substance abuse, and violence and abuse. Examines adolescent health services and adolescent health care-seeking behavior. Presents students with the major theoretical perspectives in adolescent health from an interdisciplinary point of view.

BSHE 520 (3) Theory in Behavioral Science and Health Education

Introduces the basic principles and functional areas of health promotion and education. Describes prevalent educational and psychological theories of learning and behavior change used by health educators in a variety of work settings. Explores considerations for incorporating health promotion and education activities into the design of local, regional, national, and international public health programs. Students plan activities for health promotion and education.

BSHE 522 (3) Principles of Curriculum and Instruction in Health Education

Prerequisite or co-requisite: BSHE 520. Introduces methods used by education practitioners in designing health interventions. Presents decision-making models for health education strategies selection for specific target populations. Explores techniques in group facilitation, mass communication, behavior modification, classroom instruction, and organizational development. Students will conduct health promotion and education activities.

BSHE 524 (3) Community Needs Assessment

Prerequisites: EPI 504 or EPI 530; BIOS 500; BSHE 520; or consent of the instructor. Encompasses the development of data about the health status, knowledge, perceptions, attitudes, motivation, and health practices of a population or community and its socioeconomic environment.

BSHE 530 (3) Conduct of Evaluation Research

Prerequisites: BSHE 520; BSHE 540; BSHE 532; and BIOS 500; or consent of the instructor. Covers major types of program evaluation, including formative, process, and outcome evaluation using a utilization-focused approach. Also covers stakeholder engagement, logic model development, evaluation design, data collection and analysis in evaluation, and evaluation reports.

BSHE 532 (3) Quantitative Analysis

Prerequisite or co-requisite: BIOS 500. This data analysis class provides the student with the skills necessary to identify and analytically investigate research questions from existing databases and to create new databases. In addition, students will learn how to present data and report results.

BSHE 535 (2) Macrosocial Determinants of Health

Advances understanding of how macrosocial factors (also called “contextual” or “structural” factors) affect health. Introduces students to the theoretical underpinnings of related research, current methodological and conceptual challenges, and interventions to improve population health by altering macrosocial factors or mitigating/amplifying their effects. The course has three modules, one on each of the following sets of macrosocial determinants: (1) Policies, Laws, and Their Enforcement; (2) Neighborhood Physical Environment; and (3) Neighborhood Social Environment.

BSHE 538 (3) Qualitative Research Methods

Prerequisites: BSHE 520 or consent of the instructor. The focus of this course is on the qualitative research paradigm as it is utilized in the social and behavioral sciences. Students are introduced to research design and ethical issues. Students are expected to engage in data collection and analysis.

BSHE 540 (3) Behavioral Research Methods

This course provides students with the fundamental language, concepts, and constructs associated with the scientific approach, including inductive and deductive reasoning, the role of theory, problem definition, and hypothesis formulation. It provides instruction in the design, implementation, and analysis of health behavior research studies and presents the theory and analytic strategies for various research designs, including choice of comparison groups, as well as examples of appropriate applications.

BSHE 542 (2) Measurement in Health Behavior Research

Prerequisites: BSHE 520; BSHE 540; BSHE 532; BIOS 500; or consent of the instructor. Provides the student with information and skills related to basic measurement issues involved in assessing variables in health behavior research.

BSHE 544 (3) Survey Methods

Prerequisites: EPI 504 or 530; BIOS 500; familiarity with SAS or SPSS programming for data analysis. This course covers basic methodology necessary to implement a sample survey and to present survey findings, including survey design, sampling techniques, questionnaire design, interviewer training, coding, editing, data management, and descriptive data analysis and presentation.

BSHE 545 (2) Population Dynamics

This course provides an interdisciplinary perspective on fundamental population processes and contemporary population issues. The focus is on theory and measurement of fertility, mortality, and migration. Examples from resource poor settings are emphasized. Other topics covered include population composition, age structures, population and development, and population and reproductive health policy.

BSHE 550R (3) Theory-Driven Research in the Behavioral Sciences

Prerequisite: BSHE 520, or consent of the instructor. This course presents an in-depth look at a selected theory of behavior change, from development of the theory to its application in research and design of interventions. Theories are selected from those currently used within public health and vary by instructor.

BSHE 554 (2) Social Marketing in Public Health

Prerequisite: BSHE 520, or consent of the instructor. Provides students with an overview of concepts and strategies used in social marketing and public health information campaigns; emphasizes skills to create consumer-oriented public health intervention efforts, including formative research, audience segmentation, channel analysis, and the application of behavioral theory.

BSHE 555 (2) Public Health Communication

The study of public health communication: theoretical foundations, organizational models, and strategies for intervening at multiple levels with diverse populations.

BSHE 556 (2) Mass Media and Public Health

This seminar will explore the dissemination of health information through news, popular entertainment, product advertising, and the Internet. This course will not deal with traditional mass media campaigns; instead, it will survey the literature on both positive and negative “real world” media messages related to a wide array of public health topics, exploring both impact and relevant regulatory issues. The seminar will also examine public health strategies, including media advocacy and entertainment education, to help shape media content.

BSHE 560R (1-3) Special Topics in Behavioral Sciences and Health Education

Explores and analyzes selected topics in public health.

BSHE 563 (2) AIDS: Public Health Implications

Explores the virologic, immunologic, clinical, preventive, educational, legal, ethical, and epidemiological aspects of infection with the human immunodeficiency virus. Emphasizes current problems in organizing governmental and non-governmental responses to the AIDS epidemic.

BSHE 565 (2) Violence as a Public Health Problem

Introduces students to the concept of violence as a public health problem. Focuses on the epidemiology, surveillance, and prevention of interpersonal and self-directed violence.

BSHE 567 (2) LGBTQ Public Health

This course will focus on the possible benefits and costs of public health organizations' approach to consider the LGBTQ populations as special health populations with distinctive needs like those based on race, gender, or age. This course will explore key issues in LGBTQ health including analyzing public health for gay men, lesbians, bisexuals, and transgendered persons.

BSHE 568 (2) Human Sexuality

This course is designed to provide an overview of human sexuality for future public health professionals. Through discussion, interactive learning experiences, and course assignments, students will gain knowledge, increased comfort, and personal insight about such topics as sexuality in the media, language and communication, sex research, gender identity and gender roles, sexual orientation, sexual harassment, assault, and abuse, family planning and contraception, sexually transmitted infections, and sexuality education.

BSHE 572 (1) Health Care Issues in Minority Populations

Examines the causes and effects of the growing disparity in the health status of African Americans, Hispanics, and Native Americans compared with the general population of the United States. Examines the major contributors to this disparity: cancer, cardiovascular disease, chemical dependency, infectious disease (including AIDS), diabetes, homicide, and infant mortality. Disease prevention and health promotion strategies to help reduce morbidity and mortality will be discussed.

BSHE 575 (1) Journal Club: Problems in Public Health

This student-led seminar will address current public health problems, especially as they relate to behavior and health education, through a close reading of recent journal articles on crucial issues facing public health practitioners. Topics to be examined are open but might include issues such as obesity, Type II diabetes, HIV/AIDS, addiction, smoking, risky behaviors, and mental health and public health.

BSHE 577 (2) The Role of Faith Communities in Health Care

Examines the role of faith communities in the provision of health care, both domestically and internationally. Emphasizes contemporary, existing programs, while considering historical connections.

BSHE 578 (2) Ethics in Public Health

Examines ethical rules, principles, and theories as they relate to public health practice and the delivery of health services through individual and institutional providers.

BSHE 579 (3) Applied History of Public Health

This course examines issues of population health affecting behavioral sciences and health education in historical and comparative perspective. By calling on the tools and disciplines of public health, students will reach a more complex understanding of how particular population health issues have been understood in different times and places and what those responses may illuminate about strategies for current and future responses.

BSHE 581 (1) Strategies in Stress Reduction

This course is designed to explore sources of stress and coping methods to prevent a wide range of physical and psychological diseases that have been correlated with stress. Students will examine models of stress, coping mechanisms, physical and psychological symptoms of stress, sources of stress, and stress prevention and reduction. This course should assist individuals in identifying personal sources of stress and coping techniques as well as providing a foundation for work in the field of public health.

BSHE 585 (1) Introduction to Public Mental Health

This course is designed to provide an overview of mental health issues from a public health perspective. It covers the concepts of mental illness versus mental health, describes the burden of mental illness, discusses diagnosis of prominent mental illnesses and their prevention, and addresses racial and ethnic disparities. Students also complete an experiential exercise to give them some perspective on what it is like to have a mental illness.

BSHE 586 (2) Prevention of Mental and Behavioral Disorder

The goals of the course are to increase knowledge about the prevention of mental and behavioral disorders, including substance abuse, and the promotion of mental health. This will be accomplished through classroom presentations and discussions, associated readings, and exposure to actual interventions in the community.

BSHE 587 (2) Substance Abuse

Introduces the study of substance abuse including current research methodologies, epidemiology, and the impact of substance use and abuse on both the individual and the community.

BSHE 588 (3) Addiction and Behavior

This seminar explores the construction, meaning, and impact of addiction and addictive behaviors from a multidisciplinary perspective. Particular attention will be given to the putative neurobiological mechanisms associated with addiction and consciousness altering substances and behaviors. The seminar is designed to enable student collaboration across disciplines and stages of education.

BSHE 589 (3) Mental Illness, Public Health, and American Culture in Interdisciplinary Perspective.

This seminar explores the construction and origin of mental illnesses, including schizophrenia, depression, post traumatic stress disorder, multiple personality disorder, eating disorders, attention deficit, Tourette syndrome, and addiction. All these syndromes will also be viewed in the context of an increasing public health concern with mental health and mental illness. Attention will be paid to the putative neurobiological and psychiatric mechanisms associated with these disorders.

BSHE 590R (4) Capstone Seminar

There are two types of capstone seminars: the Program Planning capstone and the Special Topics capstone. In the Program Planning capstone seminar, students apply basic program planning skills, including problem analysis, needs assessment, intervention design, implementation and evaluation. In the Special Topics Capstone seminars, students critically examine the concepts, theories, and methods applied to study a particular health outcome and evaluate related interventions. Regardless of the capstone format, students will undertake an independent project that will result in a final 30-50 page paper and an oral presentation.

BSHE 591M / EOH 580 (2) Injury Prevention and Control

This course introduces injuries as a public health problem and discusses the epidemiology and surveillance, prevention, acute care, and rehabilitation of unintentional and intentional injuries. Emphasizes injury research methodology and injury prevention programs. Uses case studies to explore the interaction of public policy and epidemiology in injury prevention and control.

BSHE 591W (1) Thesis Mentorship

Provides students with guidance in the creation of their thesis as a unique scholarly contribution to public health. During this course students will work with their thesis chair to complete a literature review, select a theory or organizing framework that applies to their research question, proceed with data collection, develop a project abstract, and complete many of the main components of a master's-level thesis in public health.

BSHE 595 (0) Practicum

Enables students to use skills and knowledge in an applied setting through a supervised field training experience in a public health setting that complements the student's interests and career goals. Students will document their experience in the Practicum Web Client: <http://www.sph.emory.edu/practicum.php>.

BSHE 597R (VC) Directed Study

Provides the opportunity to pursue a specialized course of study in an area of special interest. Complements rather than replaces or substitutes course work.

BSHE 598R (VC) Special Topics

Provides an opportunity to participate at an advanced level on specific scholarly research and developmental projects.

BSHE 599R (3) Thesis

Enables students to apply the principles and methods learned in an academic setting through the preparation of a monograph embodying original research applicable to public health, incorporating a proposition that has been successfully evaluated with appropriate statistical techniques and is potentially publishable or has potential public health impact.

BSHE 721 (4) Applying Theory to Public Health Research and Practice

This course provides the student with advanced knowledge about the role of behavioral sciences applied to public health. Content includes an examination of behavioral theories and approaches that: 1) presently shape our understanding of health behavior 2) form the basis for most research agendas in health behavior, and 3) comprise “best practice” in health education and health promotion programs.

BSHE 725 (4) Health Promotion Interventions

The purpose of this course is to provide doctoral students with a deep understanding of the conceptual frameworks, values, and assumptions underlying a range of intervention strategies for solving public health problems. The course will also examine intervention design, implementation, and evaluation across various levels of social ecology.

BSHE 728 (4) Advanced Research Design and Analysis

This course is designed to introduce advanced research designs and statistical analysis. More specifically the course will: 1) provide students with an understanding of current research techniques including research design, sampling, data collection and analysis, scale development, reliability and validity; 2) enable them to develop a preliminary research proposal for their dissertations; and 3) provide them with a “working” knowledge of statistics as they are typically applied in prevention sciences research settings. An emphasis will be placed on the application and interpretation of various statistical techniques (e.g., ANOVA, MANOVA, factor analysis, path analysis, and logistic regression).

BSHE 760R (1) Professional Development Seminar

This seminar will address a variety of topics of importance to the professional behavioral scientist in public health.

BSHE 797R (VC) Directed Study

Provides in-depth exposure to an advanced special topic not covered in regular courses.

BSHE 798R (VC) Research Hours

Directed student-driven research and writing.

BSHE 799R (VC) Dissertation Research

Directed doctoral dissertation research and writing (for postcandidacy students only).

Department of Biostatistics and Bioinformatics

www.sph.emory.edu/bios/
Lance A. Waller, Chair

Biostatistics is the science that applies statistical theory and methods to the solution of problems in the biological sciences. The biostatistician differs from the traditional statistician in that he or she is confronted by a wider range of problems dealing with all the phenomena that affect people's physical, social, and mental well-being. Thus the biostatistician works closely not only with biological researchers but also with epidemiologists, survey researchers, local community planners, state and national health policy analysts, and government officials. At present, there is considerable demand for biostatisticians in research institutes, government agencies, and industry.

Public Health Informatics is the science underlying the integration of computer science, information science, and public health science applied to the acquisition, management, processing, analysis, and synthesis of public health data, information, and knowledge supporting public health research, education, and practice. Public health informaticians work closely with computer and information scientists as well as public health scientists to introduce new technology and systems to enhance public health activities. There is similarly considerable demand by federal, state, and local public health agencies as well as businesses in the health care industry for individuals with knowledge and skills in both the public health sciences and computer and information sciences.

Bioinformatics is defined as the field of science in which biology, computer science, biostatistics, and information technology merge to form a single discipline. Bioinformatics more properly refers to the creation and advancement of algorithms, computational and statistical techniques, and theory to solve formal and practical problems arising from the management and analysis of biological data. Bioinformaticians work closely with biologists, mathematicians, clinical researchers, statisticians, and health scientists. Currently there is a tremendous demand in academia, industry, and government for individuals well-trained in the field of bioinformatics.

The Department of Biostatistics and Bioinformatics offers the master of science in public health (MSPH) and the master of public health (MPH) degrees in biostatistics, and the MSPH in public health informatics through the RSPH. In addition, the department offers a PhD degree in biostatistics through the Graduate School of Arts and Sciences. At present, the faculty in biostatistics has twenty-one full-time doctoral level scientists and twenty-six associate and adjunct faculty members. The research activities of the faculty are diverse and include studies of national and international scope. The department recently gained attention for work on the mathematical modeling of infectious diseases, including work on smallpox, AIDS, and estimation of vaccine efficacy.

Other current research areas include the design, management, and analysis of clinical trials, statistics of vector-borne and parasitic diseases, statistical genetics, spatial statistics and geographic informatics systems, sample survey design and analysis, discrete multivariate analysis, linear models, categorical data analysis, statistical computing, and survival analysis, as well as statistical issues related to cardiology, ophthalmology,

neurology, breast cancer epidemiology, reproductive epidemiology, aging, and quality of life. Faculty of the department have collaborated with researchers at the U.S. Centers for Disease Control and Prevention, The Carter Center, the Georgia Department of Human Resources, the Emory School of Medicine, and other health-related organizations.

The Department of Biostatistics and Bioinformatics has two predoctoral training programs. Master's level students may take courses from these training programs if they meet the requirements. The first training program is entitled Biostatistics in Genetics, Immunology, and Neuroimaging. This training program is based on the existing PhD degree program in biostatistics and the relevant degree programs in the Graduate Division of Biological and Biomedical Sciences (GDBBS) at Emory University: Genetics and Molecular Biology (GMB), Immunology and Molecular Pathogenesis (IMP), Neurosciences (NS), and Population Biology, Ecology, and Evolution (PBEE). The students will take the core biostatistics program, electives in biostatistics and their area of scientific concentration, as well as participate in three laboratory rotations to enhance their applied experiences. The goal of the program is to produce research-oriented biostatisticians who are knowledgeable in an applied bioscience field with the ability to interface science and statistics disciplines.

The second training program is in the area of environmental biostatistics. The focus here is on the interaction between the following research themes: (a) statistical methods for environmental policy (e.g., pertaining to setting and enforcing standards for priority pollutants, quantitative risk assessment, and assessments of environmental justice concerned with differential impacts of environmental exposures across sociodemographic groups); and (b) statistical methods in quantitative disease ecology (e.g., quantifying environmental impacts on vector-borne diseases and zoonoses such as rabies and Lyme disease, including investigations of the phylogeography or spatial patterns of particular genetic strains of such diseases). The training program integrates these two main areas through coursework and a "research rotation" for trainees. The program involves faculty from the following academic disciplines: biostatistics, environmental and occupational health, epidemiology, biology, and law.

The department coordinates the activities of the Biostatistics Consulting Center, which serves as a resource for advice on the design, conduct, and analysis of studies in the health sciences. Students may get hands-on experience in practical biostatistical problems by working with faculty on real-life consulting problems. Research-oriented students often are employed as graduate research assistants.

Students can enter the department from a variety of academic and professional backgrounds. Some applicants pursue a degree directly after completing undergraduate studies. For others, study is undertaken after completion of medical or public health training or experience. To the extent possible, the curriculum of each student is tailored to his or her background and interests. Students with prior relevant course work may receive academic credit toward their degree program.

Department Admission Criteria

The Department of Biostatistics and Bioinformatics seeks to train students who are likely to become highly motivated, effective public health professionals. Applicants are selected on the basis of their quantitative skills and their potential to make a contribution to the practice of biostatistics in a public health setting. Admission criteria are: (1) previous studies and grades, especially in quantitative areas such as mathematics, statistics, and

computer sciences; (2) Graduate Record Examination (GRE) scores, especially the quantitative and analytic portions; (3) letters of recommendation that allow the evaluation of the applicant's quantitative abilities and background in public health; and (4) course work, experience, or interest in health-related subjects. Successful completion of the equivalent of at least one year of calculus, including calculus of more than one variable, and a course in linear algebra, are required for admission to the biostatistics MSPH and MPH programs. Applicants must submit GRE scores unless they have a relevant doctoral degree. Scores should reflect at least the 50th percentile for the verbal and quantitative sections and a 3.5 for the analytical writing section. Those students for whom English is not their native language must have taken the TOEFL exam within the past two years. A score of 560 or more on the paper TOEFL or a 220 or higher on the computer-based test is recommended.

For information about our program, please contact Tracy Wachholz at 404.727.3968. Her email address is twachho@emory.edu.

Program Requirements for the MSPH Degree in Biostatistics

The MSPH program in biostatistics can be completed in four semesters. The objective of this program is to train students for careers as biostatisticians in government and private health agencies, industry, and research institutes. The MSPH program also may serve as preparation for a doctoral program in biostatistics.

Required Courses for the MSPH Degree in Biostatistics

Course Number	Course Title	Credit Hours
BIOS 506	Biostatistical Methods I	4
BIOS 507	Applied Linear Models	4
BIOS 508	Introduction to Categorical Data Analysis	2
BIOS 510	Probability Theory I	4
BIOS 511	Statistical Inference I	4
BIOS 522	Survival Analysis Method	2
BIOS 531	SAS/S-Plus Programming	2
EPI 530	Epidemiological Methods I	4
EPI 750	Analysis of Longitudinal Data In Epidemiological Research	3
	Core courses (see below)	6
	Electives (see below)	7
BIOS 595R	Practicum	0
BIOS 599R	Thesis	6

Core courses: A student must take one core course from each of the following fields: Behavioral Sciences and Health Education (BSHE 500 or 504), Environmental and Occupational Health (EOH 500), and Health Policy and Management (HPM 500 or 502).

Electives: A student must take seven semester hours of elective courses, of which at least two hours must be in biostatistics. The total number of credit hours required for the MSPH degree is forty-eight. To receive the MSPH degree, the student must pass all the required, core, and elective courses, maintain a cumulative GPA of at least B-, and submit an acceptable MSPH thesis.

Program Requirements for the MPH Degree in Biostatistics

The MPH program in biostatistics can be completed in four semesters, depending on the time needed to complete a thesis. The MPH degree is a broad-based credential in public health. The areas of required course work include not only biostatistics and epidemiology, but also health policy, management, environmental health, and social behavior. The MPH degree in biostatistics is usually a terminal degree, with graduates becoming involved in the design and analysis of studies in a variety of practical settings.

Required Courses for the MPH Degree in Biostatistics

Course Number	Course Title	Credit Hours
BSHE 500	Behavioral Sciences in Public Health	2
or BSHE 504	Social Behavior in Public Health	2
EOH 500	Perspectives in Environmental Health	2
HPM 500	Introduction to the U.S. Health Care System	2
HPM 502	Introduction to Health Care Management	2
EPI 530	Epidemiological Methods I	4
BIOS 506	Biostatistical Methods I	4
BIOS 507	Applied Linear Models	4
BIOS 508	Introduction to Categorical Data Analysis	2
BIOS 510	Probability Theory I	4
BIOS 522	Survival Analysis Methods	2
BIOS 531	SAS/S-Plus Programming	2
BIOS 511	Statistical Inference I	4
BIOS 595R	Practicum	0
BIOS 599R	Thesis	3–6
	Electives	2–5

The total number of required credit hours is forty-two. To receive the MPH degree, the student must pass all the required, core, and elective courses, maintain a cumulative GPA of at least a B-, complete a practicum, and submit an acceptable MPH thesis.

MSPH in Public Health Informatics

Public health decision making requires sound quantitative data to support deployment of resources for massive prevention and intervention campaigns and related health surveillance activities. Along with an explosive growth in public health data collection activities in the last two to three decades, the need for trained professionals in public health information sciences (public health informatics) has grown. Public health informaticians bridge the widening gap between the technical expertise of the computer scientist and that of the public health scientist, each working in a highly complex and dynamic environment. The MSPH program in public health informatics builds on the existing faculty expertise in the school, principally in the Department of Biostatistics and Bioinformatics but also in the Department of Epidemiology and the Department of Health Policy and Management. This program is designed to provide knowledge of techniques used to manage information in the public health sciences. Graduates of this program will possess the knowledge and skills necessary to introduce new technology and distribute information systems to support public health decision making.

Public health informatics draws from the disciplines of computer science, information science, and public health science to support the activities involved in the management and processing of public health data, information, and knowledge in effective public health practice. Public health informatics requires expertise in a variety of areas, including information retrieval, expert systems, networking, public health science, and education. The goal of public health informatics is to accomplish the information-processing tasks of public health practice, education, and research by bringing information science and technology tools to support these tasks.

The objective of this degree program is to prepare students in the principles and skills necessary to use technology effectively to access, organize, create, synthesize, and distribute computer-based information related to public health. Students will learn techniques to enable them to integrate a variety of heterogeneous public health information systems and databases. Students also will learn how to break down the barriers that prevent sharing and dissemination of public health information.

Department Admission Criteria for MSPH in Public Health Informatics

Students should have a strong quantitative background as evidenced by excellent scores on the mathematical and analytical sections of the Graduate Record Exam (GRE), as well as by the nature of their undergraduate (and any graduate) course work. In particular, they should have GRE scores in the fiftieth percentile or higher on all three exams. The desirable minimum GPA is 3.0/4.0. Applicants should have a background and/or interest in the health or biomedical sciences. It is preferable that students have had courses in calculus and linear algebra. Moderate computing experience and prior course work in numerical analysis and elementary statistics are desirable. International applicants should have a score of 560 or more on the paper TOEFL and a 220 or higher on the computer-based TOEFL.



Degree Requirements for the MSPH in Public Health Informatics

Students will be able to complete this program in two years, or four semesters. They must be registered for at least forty-four semester hours of course work and four student special project hours.

Course Number	Course Title	Credit Hours
BSHE 500	Behavioral Sciences in Public Health	2
<i>or</i> BSHE 504	Social Behavior in Public Health	2
EOH 500	Perspectives in Environmental Health	2
EPI 530	Epidemiologic Methods I	4
HPM 500	Introduction to the U.S. Health Care System	2
INFO 500	Principles of Public Health Informatics I	2
INFO 501	Principles of Public Health Informatics II	2
INFO 503	Management Principles for Informatics	2
INFO 510	Database Management Systems	3
INFO 511	Advanced Database Management	3
<i>or</i> INFO 591J	Artificial Intelligence	3
INFO 530	Geographic Information Systems	2
GH 515	Introduction to PH Surveillance	3
HPM 564	Health Outcomes	3
BIOS 500	Statistical Methods I	4
<i>and</i> BIOS 501	Statistical Methods II	4
<i>or (for the adequately prepared student)</i>		
BIOS 506	Biostatistical Methods I	4
<i>and</i> BIOS 507	Applied Linear Models	4
BIOS 595R	Practicum	0
BIOS 598R	Special Project	4
	Electives	6

The total number of required credit hours is forty-eight. To receive the MSPH degree, the student must pass all of the required, core, and elective courses, maintain a cumulative GPA of at least B-, complete a practicum, and submit an acceptable thesis.

Admission Requirements for the PhD Degree

To be admitted into the PhD program in biostatistics, a student must complete all the admission requirements specified by the Graduate School of Arts and Sciences. Requirements for admission include a baccalaureate degree from an accredited four-year college, an overall academic average of B- or better, and satisfactory scores on the Graduate Record Examination (GRE) that includes the verbal, quantitative, and analytical sections. Evidence of command of the English language, as indicated by TOEFL scores, is required for international applicants whose native language is not English.

Students enter from a variety of academic and professional backgrounds. Course work in college-level advanced calculus (multivariate calculus) and linear algebra is required for admission, and additional course work in real analysis is preferred. No previous background in statistics is required. Those with a statistics background, however, may receive

academic credit toward their PhD degree program. Students may elect to receive an MS degree after successfully obtaining PhD candidacy. Please see the Biostatistics website (www.sph.emory.edu/bios/degrees) for complete degree requirements.

Financial Assistance for the Biostatistics PhD Program

Graduate student support for the PhD program is available in the form of tuition scholarships and stipends. These awards are offered at the time of admission to applicants with excellent quantitative skills and genuine interest in biostatistics. Awards may be renewed for up to two additional years of support, depending upon satisfactory academic progress and available funds.

Faculty

F. DuBois Bowman, Associate Professor. BS, Morehouse College, 1992; MS, University of Michigan, 1995; PhD, University of North Carolina-Chapel Hill. Analysis of longitudinal data, clinical trials, missing data.

Donna J. Brogan, Emerita Professor. BA, Gettysburg College, 1960; MS, Purdue University, 1962; PhD, Iowa State University, 1967. Sample survey design and analysis, breast cancer epidemiology, women's health.

Claudine Carnevale, Associate. BA, College of William and Mary, 1992; MS, Medical College of Virginia, Virginia Commonwealth University, 1998. Statistical Consultation and Teaching, Introductory Statistics.

Nelson Chen, Research Assistant Professor. BS, Peking University, 1995; MS, 1998; MS, University of Southern California, 2001; PhD, 2008.

George Cotsonis, Senior Associate. MA, University of West Florida, 1978. Statistical computing, consulting.

Kirk A. Easley, Senior Associate. Associate Director, Biostatistical Consulting Center. MS, Louisiana State University, 1981. Statistical consulting.

Lisa K. Elon, Senior Associate. BS, Virginia Tech, 1978; MS, North Carolina State University, 1983; MPH, Emory University, 1997. Sample survey analysis, longitudinal cohort study.

Ying Guo, Assistant Professor. BS, Renmin University, 1998; MS, 2001; PhD, Emory University, 2004. Multivariate survival data with focus on developing new statistical methods to characterize and model agreement among survival times, statistical imaging.

Michael J. Haber, Professor. BSc, Hebrew University (Jerusalem), 1965; MSc, 1968; PhD, 1976. Categorical data analysis, statistical methods for infectious diseases data, evaluation of vaccine effects.

John J. Hanfelt, Associate Professor. AB, Harvard University, 1984; MS, George Washington University, 1988; PhD, The Johns Hopkins University, 1994. Longitudinal data analysis, genetic epidemiology, estimating functions, approximate likelihood.

Vicki Stover Hertzberg, Associate Professor. BS, Miami University, 1976; PhD, University of Washington, 1980. Categorical data analysis, clinical trials, reproductive epidemiology, statistical genetics.

Yijian (Eugene) Huang, Associate Professor. BS, Zhejiang University, 1990; MS, University of Minnesota, 1994; PhD, 1997. Survival analysis, covariate measurement error, semi- and non-parametric inferences.

Brent Johnson, Assistant Professor. BA, St. Olaf College, 1995; MS, University of Minnesota, 1997; PhD, North Carolina State University, 2003. Statistical models of human exposures to chemical pollutants, HIV AIDS modeling, variable selection with censored outcomes.

Mary Kelley, Research Associate Professor. BS, University of Pittsburgh, 1988; MS, 1995; PhD, 2004. Mental illness research, health outcomes research, schizophrenia research.

Patrick D. Kilgo, Senior Associate. BS, University of Georgia, 1996; MS, 1998. Clinical trials design, statistical power calculations, data analysis.

Michael H. Kutner, Professor. BS, Central Connecticut State College, 1960; MS, Virginia Polytechnic Institute and State University, 1962; PhD, Texas A&M University, 1971. Linear models, variance components, experimental design, clinical trials.

Yuan Liu, Assistant Research Professor. MS, University of North Carolina, 2004; PhD, 2008.

Qi Long, Rollins Assistant Professor. BS, University of Science and Technology of China, 1998; MS, University of Michigan, 2003; PhD, 2005. Causal inference in hybrid intervention trials, statistical analysis for microarray and other genetic data.

Robert H. Lyles, Associate Professor. BS, Vanderbilt University, 1988; MS, University of North Carolina-Chapel Hill, 1991; PhD, 1996. Longitudinal data analysis, prediction of random effects, measurement error models, missing data.

Michael J. Lynn, Senior Associate. BS, Mississippi State, 1973; MS, 1976. Clinical trials, statistical applications in ophthalmic research, statistical computing.

Amita K. Manatunga, Professor. BSc, University of Colombo, 1978; MSc, Purdue University, 1984; PhD, University of Rochester, 1990. Multivariate survival analysis, frailty models, longitudinal data.

Azhar Nizam, Senior Associate. BA, Grinnell College, 1985; MS, University of South Carolina, 1987. Multiple comparisons, statistical education.

Limin Peng, Rollins Assistant Professor. BS, University of Science and Technology of China, 1997; MS, 2000; PhD, University of Wisconsin, 2005. Survival analysis, empirical processes, causal inference, Bayesian statistics, bioinformatics.

Mourad Tighiouart, Research Associate Professor. BS, University of Algiers, 1987; MS, University of Central Florida, 1991; MS, Florida State University, 1997; PhD, 1998. Dose toxicity Bayesian models in cancer phase I clinical trials; Bayesian generalized nonlinear mixed effects models to analyze prostate cancer patients; nonparametric Bayesian modeling of toxicity index in retrospective phase I clinical trials; and modeling time-varying covariate effects for multivariate survival data.

Lance A. Waller, Rollins Professor and Chair. BS, New Mexico State University, 1986; MS, Cornell University, 1990; PhD, 1992. Spatial statistics, environmental epidemiology, geographic information systems, Bayesian methods.

Paul S. Weiss, Senior Associate. BS, University of Michigan, 1993; MS, 1996. Survey sampling design, research methodologies, statistical computing.

Tianwei Yu, Assistant Professor. BS, Tsinghua University, 1997; MS, 2000; MS, University of California, 2004; PhD, 2005. Expression array/SNP array analysis.

Hong Rebecca Zhang, Senior Associate. BS, Fudan University, 1985; MS, Florida State University, 1990. Data management, statistical analysis.

Jointly Appointed Faculty

Karen Conneely, Assistant Professor. BS University of Illinois, 1994; MA, Princeton University, 1997; PhD, University of Michigan, 2008.

Michael P. Epstein, Assistant Professor. BS, Duke University, 1996; MS, University of Michigan, 1998; PhD, 2002. Emory University Department of Human Genetics.

W. Dana Flanders, Professor. MS, University of Vermont, 1972; MA, Columbia University, 1974; MD, University of Vermont, 1977; MPH, Harvard University, 1979; DSc, 1982. Department of Epidemiology.

Frank J. Gordon, Associate Professor. BS, New Mexico State University, 1972; MA, New Mexico State University, 1974; PhD, University of Iowa, 1980. Department of Pharmacology.

Brani Vidakovic, Professor. BS, University of Belgrade, 1978; MS, 1981; PhD, Purdue University, 1992. Department of Biomedical Engineering.

Adjunct Faculty

Huiman X. Barnhart, Adjunct Associate Professor. BS, South China Normal University, 1983; MS, Jinan University, 1986; MA, University of Pittsburgh, 1988; PhD, 1992. Duke University.

Joseph Bauer, Adjunct Associate Professor BA, State University of New York 1981; MA, 1984; PhD, 1992. American Cancer Society.

Jason Bonander, Adjunct Assistant Professor. MA, Brown University, 1996. National Center for Public Health Informatics, Division of Knowledge Management Services, U.S. Centers for Disease Control and Prevention

Carol A. Gotway Crawford, Adjunct Associate Professor. BS, Bradley University, 1984; MS Iowa State University, 1986; PhD, 1989. U.S. Centers for Disease Control and Prevention.

Owen J. Devine, Adjunct Assistant Professor. BA, Pennsylvania State University, 1979; MS, University of Georgia, 1982; PhD, Emory University, 1992. U.S. Centers for Disease Control and Prevention.

Andrew N. Hill, Adjunct Lecturer. BS, University of Auckland (New Zealand), 1986; MS, 1987; PhD, University of Canterbury (New Zealand). U.S. Centers for Disease Control and Prevention.

Taha A. Kass-Hout, Adjunct Assistant Professor. MD, University of Texas Health Science Center, 1996; MS, 2001. Google.

James L. Kepner, Adjunct Professor, BS, Illinois State University, 1973; MS, University of Iowa, 1976; PhD, 1979. American Cancer Society.

Andrzej S. Kosinski, Adjunct Associate Professor. MS, AGH (Krakow), 1983; MSc, Oxford University, 1984; PhD, University of Washington, 1984. Duke University.

Lillian S. Lin, Adjunct Assistant Professor. AB, Massachusetts Institute of Technology, 1978; SM, Harvard University, 1980; PhD, University of Washington, 1990. U.S. Centers for Disease Control and Prevention.

Barbara Massoudi, Adjunct Assistant Professor, MPH, University of Pittsburgh, 1990; PhD, 1994. RTI International.

William E. Morse, Adjunct Assistant Professor. JD, Emory University, 1994; Oglethorpe University.

Marc Overcash, Adjunct Assistant Professor. BA, Davidson College, 1992. Emory University Research and Health Sciences. Public health and biomedical informatics.

Rajan Patel, Adjunct Assistant Professor, M.C.S. Rice University, 2002; PhD, Emory University, 2006, Amgen, Inc.

Kenneth Portier, Adjunct Professor, BS, Nicholls State University, 1973; MS, University of North Carolina at Chapel Hill, 1976; PhD, 1979. American Cancer Society.

Philip H. Rhodes, Adjunct Assistant Professor. BA, Northwestern University, 1975; MS, University of Washington, 1983; PhD, Emory University, 1992. U.S. Centers for Disease Control and Prevention.

Glen A. Satten, Adjunct Professor. BA, Oberlin College, 1979; MA, Harvard University, 1981; PhD, 1985. U.S. Centers for Disease Control and Prevention.

Maya Sternberg, Adjunct Assistant Professor. BS, Carnegie Mellon University, 1989; MS, Emory University, 1996. U.S. Centers for Disease Control and Prevention.

Donna F. Stroup, Adjunct Professor. BA, Vanderbilt University, 1973; MA, Princeton University, 1976; PhD, 1980; MSc, Cambridge University, 1992. Centers for Disease Control and Prevention.

G. David Williamson, Adjunct Associate Professor. BS, Georgia Institute of Technology, 1973; MS, Georgia Southern College, 1978; MS, Virginia Polytechnic Institute and State University, 1980; PhD, Emory University, 1987. Agency for Toxic Substances and Disease Registry.

John M. Williamson, Adjunct Assistant Professor. BA, Rensselaer Polytechnic Institute, 1986; MS, University of North Carolina, 1989; ScD, Harvard University, 1993. U.S. Centers for Disease Control and Prevention.

Ming Yuan, Adjunct Assistant Professor, BS, University of Science and Technology of China, 1997; MS, 2000; MS, University of Wisconsin, 2003; PhD, 2004. Georgia Institute of Technology.

Biostatistics Course Descriptions

BIOS 500 (3) Statistical Methods I

Fall. Prerequisite: Algebra. Introduces parametric and nonparametric statistical methodology, including descriptive measures, elementary probability, estimation, hypothesis testing, confidence intervals, common nonparametric methods, and base contingency table analysis. Empirically demonstrates underlying theory. (This course is for informatics and non-bios major students. If does not fulfill any requirements for a biostatistics major student.)

BIOS 500 Lab (1 Credit)

Fall. Prerequisites: Concurrent enrollment in BIOS 500. This lab complements the Bios 500 courses by using hands-on demonstrations of statistical concepts and methods taught in lecture. The statistical software, SAS, will be introduced as a programming tools to accomplish many of these tasks.

BIOS 501 (3) Statistical Methods II

Spring. Prerequisite: BIOS 500 or equivalent. Addresses estimation and hypothesis testing within the context of the general linear model. Examines in depth the analysis of variance, multiple regression, and logistic regression. Previews select advanced techniques. (The course does not fulfill core or elective requirements for biostatistics students.)

BIOS 501 Lab (1 credit)

Spring. Prerequisites: BIOS 500 and BIOS 500 Lab, and concurrent enrollment in BIOS 501. A continuation of the BIOS 500 Lab. Students learn SAS programming for the statistical methods covered in BIOS 501.

BIOS 505 (4) Statistics for Experimental Biology

Spring. Intended for PhD candidates in the biological and biomedical sciences. Introduces the most frequently used statistical methods in those fields, including linear regression, ANOVA, logistic regression, and nonparametric methods. Briefly reviews the material covered in BIOS 503. Students learn the statistical skills necessary to read scientific articles in their fields, do simple analyses on their own, and be good consumers of expert statistical advice.

BIOS 506 (4) Biostatistical Methods I

Fall. Prerequisite: matrix algebra. For biostatistics majors. Focuses on mathematically sophisticated presentations of principles and methods of data description; exploratory data analysis; graphics; point and confidence interval estimation; hypothesis testing; relative risk; odds ratio; Mantel-Haenszel test, chi-square tests, simple linear regression; correlation; and one- and two-sample parametric and nonparametric tests. Draws examples from biomedical literature. Real data set analysis is done, using statistical computer packages.

BIOS 507 (4) Applied Linear Models

Spring. Prerequisites: Biostatistics major, BIOS 506 or equivalent; one year of calculus, linear algebra, and matrix algebra. Provides sound statistical methods for the analyses of continuous data from observational studies and designed experiments. The analyses methods include mul-

tiple linear regression with model building (selection of predictor variables, diagnostics, residual analysis, collinearity, and simultaneous inferences); one-way, two-way, and multifactor analysis of variance (both balanced and unbalanced studies); analysis of covariance; fixed effect, random effect, and mixed effect models; mathematically sophisticated introduction to linear models in matrix form. Study designs include sample size planning, randomized block designs, nested designs, repeated measures designs, split-plot designs, and Latin squares designs. Discusses design-related analysis issues. Demonstrates appropriate programs such as SAS and S-Plus.

BIOS 508 (2) Introduction to Categorical Data Analysis

Fall. This course will introduce the students to categorical data analysis. It will cover topics such as distributions, goodness of fit, contingency tables (traditional approach), logistic models for contingency tables, logistic regression, logistic models for multi-category data, poison regression, and matched paired data. Prerequisites: BIOS 506 and one year of calculus.

BIOS 510 (4) Probability Theory I

Fall. Prerequisite: calculus and multivariate analysis. Focuses on axiomatic probability, random variables, distribution theory, special parametric families of univariate distributions, joint and conditional distributions, distributions of functions of random variables, and probability modeling.

BIOS 511 (4) Statistical Inference I

Spring. Prerequisite: BIOS 510. Focuses on sampling distributions, parametric point and interval estimation, tests of hypotheses, decisions theory, and Bayesian inference.

BIOS 520 (2) Clinical Trials Methodology

Spring. Prerequisite: BIOS 500, BIOS 504, or BIOS 506. Covers the organization, methodology, and reporting results of clinical trials. Topics covered include conceptualization, data collection, ethical considerations, and protocol adherence and compliance, as well as statistical techniques such as randomization, double-blind techniques, sample size determination, and analysis considerations.

BIOS 522 (2) Survival Analysis Methods

Fall. Prerequisites: BIOS 500 and BIOS 501, or BIOS 506 and BIOS 706 and one year of calculus. Deals with the modern methods used to analyze time-to-event data. Provides background theory, but emphasis is on using methods and interpreting results. Provides coverage of survivorship functions, Kaplan-Meier curves, logrank test, Cox regression, model-fitting strategies, model interpretation, stratification, time-dependent covariates, and introduction to parametric survival models. Computer programs are used. A data analysis project is required.

BIOS 524 (2) Introduction to Analytic Methods for Infectious Diseases

Spring.* Prerequisites: BIOS 506 and BIOS 510 or equivalent. Introduces dynamic and epidemiological concepts particular to infectious diseases, including elements of the infection process; transmission patterns; epidemic, endemic, micro- and macroparasitic diseases; zoonoses; basic reproduction number; dependent happenings; and effects of intervention.

BIOS 531 (2) SAS Programming

Fall. Prerequisites: BIOS 501 or equivalent, OR BIOS 506 (concurrent), OR permission of the instructor. This course offers instruction in basic SAS programming. It assumes no prior

knowledge of SAS, and begins with an introduction to the data step and procedure call. Topics covered include: dataset manipulation, report writing, arrays, looping, simulation, SAS macro, SAS Interactive Matrix Language (IML), SAS Graphics, and SAS Output Delivery System (ODS). The final exam for the course is the Base SAS Certification exam. Students who pass this exam successfully receive a certificate of completion from the SAS Institute.

BIOS 532 (2) Statistical Computing

Spring. Prerequisite: BIOS 531, BIOS 506, and BIOS 510, or permission of instructor. Programming style and efficiency, data management and data structures, hardware and software, maximum likelihood estimation, matrix methods and least squares, Monte Carlo simulation, pseudo-random number generation, bootstrap, and UNIX-based computing and graphical methods.

BIOS 536 (2) Modern Nonparametrics and Regression Methods

Fall or spring.* Prerequisites: BIOS 501 or BIOS 706 and BIOS 511. Focuses on robust estimates, jackknife, bootstrap, cross-validation, smoothing methods, generalized additive models, classification, and regression trees. Study of many different applications is included. Strong computing background is required.

BIOS 550 (2) Sampling Applications

Fall. Prerequisite: BIOS 501 or BIOS 506. Focuses on how to select probability samples and analyze the data, using simple random sampling, stratified random sampling, cluster sampling, and multistage sampling. The software package PC-SUDAAN is used for data analysis.

BIOS 551 (2) Sampling Theory

Spring. Prerequisite: BIOS 550. Examines the theoretical justification for the applications covered in BIOS 550.

BIOS 560R (VC) Current Topics in Biostatistics

Fall and spring. A faculty member offers a new course on a current topic of interest for both PhD and master's students.

BIOS 590R (1) Seminar in Biostatistics

Fall and spring. Features invited speakers, departmental faculty, students, and others who discuss special topics and new research findings. (Satisfactory/unsatisfactory grading only.)

BIOS 595R (0) Practicum

Fall. Enables students to apply skills and knowledge through a supervised field training experience in a public health setting that complements the student's interests and career goals.

BIOS 597R (VC) Directed Study

Fall and spring. Provides in-depth exposure to specific topics not covered in regular courses, for example, statistical genetics and specialized experimental designs.

BIOS 598R (VC) Special Projects

Fall and spring. Involves internlike participation on specific scholarly, research, or developmental projects that expose students to the role of the statistical consultant or collaborator in a variety of research settings.

BIOS 599R (VC) Thesis

Fall and spring. Master's thesis research.

BIOS 707 (4) Advanced Linear Models

Spring. Prerequisites: BIOS 507, BIOS 511, and a course in matrix algebra. Focuses on generalized inverse of a matrix; vectors of random variables; multivariate normal distribution; distribution theory for quadratic forms of normal random variable; fitting the general linear models by least squares; design matrix of less than full rank; estimation with linear restrictions; estimable functions; hypothesis testing in linear regression; and simultaneous interval estimation.

BIOS 708 (2) Advanced Methods for Categorical Data

Fall. Prerequisites: BIOS 507 and BIOS 511. This course will review the materials learned in BIOS 508 as well as introduce the additional topics of generalized linear models, models for repeated observations (GEE, random effect), and long-linear models. Appropriate computer programs are used for analysis of real data sets

BIOS 709 (2) Generalized Linear Models

Spring. Prerequisites: BIOS 511 and BIOS 707. Studies analysis of data, using generalized linear models as well as models with generalized variance structure. Parametric models include exponential families such as normal, binomial, Poisson, and gamma. Iterative reweighted least squares and quasi-likelihood methods are used for estimation of parameters. Studies methods for examining model assumptions. Introduces generalized estimating equations (GEE) and quadratic estimating equations for problems where no distributional assumptions are made about the errors except for the structure of the first two moments. Illustrations with data from various basic science, medicine, and public health settings.

BIOS 710 (4) Probability Theory II

Fall. Prerequisites: BIOS 510 and BIOS 511. Focuses on axioms of probability, univariate and multivariate distributions, convergence of sequences of random variables, Markov chains, random processes, and martingales.

BIOS 711 (4) Statistical Inference II

Spring. Prerequisite: BIOS 710. Examines the fundamental role of the likelihood function in statistical inference, ancillary and sufficient statistics, estimating functions, and asymptotic theory. Presents conditional, profile, and other approximate likelihoods; various ancillary concepts; generalizations of Fisher information in the presence of nuisance parameters; optimality results for estimating functions; and consistency/asymptotic normality of maximum likelihood and estimation function-based estimators. Briefly discusses alternative approaches to inference including Bayesian, Likelihood Principle, and decision theory.

BIOS 722 (2) Advanced Survival Analysis

Fall or spring. Prerequisites: BIOS 510, BIOS 511, and BIOS 706. Provides in-depth coverage of theory and methods of survival analysis, including censoring patterns and theory of competing risks, nonparametric inference, estimating cumulative hazard functions, Nelson estimator, parametric models and likelihood methods, special distributions, two-sample nonparametric tests for censored data, power considerations and optimal weights, sample size calculations

for design purposes, proportional hazards model, partial likelihood, parameter estimation with censored data, time-dependent covariates, stratified Cox model, accelerated failure time regression models, grouped survival analysis, multivariate survival analysis, and frailty models.

BIOS 723 (4) Stochastic Processes

Fall or spring.* Prerequisites: matrix algebra and BIOS 710. Provides dual coverage of the theory and methods for dealing with the diversity of problems involving branching processes, random walks, Poisson processes, birth and death processes, Gibbs sampling, martingale counting processes, hidden Markov chains, inference on semi-Markov chains, and chain of events modeling. Draws applications from the biological sciences, including the theory of epidemics, genetics, survival analysis, models of birth-migration-death, and the design and analysis of HIV vaccine trials.

BIOS 724 (2) Analytic Methods for Infectious Disease Interventions

Spring.* Prerequisite: BIOS 511. Focuses on advanced analytic, statistical, and epidemiological methods particular to infectious diseases, including analysis of infectious disease data and evaluation of intervention.

BIOS 726 (2) Applied Multivariate Analysis

Fall.* Prerequisites: BIOS 511. Investigates multivariate techniques. Main subjects are inferences about multivariate means, multivariate regression, multivariate analysis of variance (MANOVA) and covariance (MACOVA), principal components, factor analysis, discriminant analysis and classification, and cluster analysis. Demonstrates programs such as SAS and S-Plus.

BIOS 732 (2) Advanced Numerical Methods

Fall.* Prerequisites include BIOS 532, BIOS 710 and BIOS 711, or permission of the instructor. BIOS 711 may be taken concurrently. The course covers topics in traditional numerical analysis specifically relevant to statistical estimation and inference. The topics covered include numerical linear algebra, the root finding problem (maximum likelihood) methods such as IRLS, Newton-Raphson, and EM algorithm, and Bayesian techniques for marginalization and sampling for use in statistical inference (MCMC methods). Additional topics may include numerical integration and curve fitting.

BIOS 736 (2) Statistical Analysis with Missing and Mismeasured Data

Spring.* Prerequisites: BIOS 511 and knowledge of S-plus. For PhD biostatistics students; others must obtain permission of instructor. Introduces concepts and methods of analysis for missing data. Topics include methods for distinguishing ignorable and nonignorable missing data mechanisms, single and multiple imputation, and hot-deck imputation. Computer-intensive methods are used.

BIOS 737 (2) Spatial Analysis of Public Health Data

Spring.* Prerequisites: BIOS 506, 507, 510, 511. Familiarizes students with statistical methods and underlying theory for the spatial analysis of georeferenced public health data. Topics covered include kriging and spatial point processes. Includes a review of recent computational advances for applying these methods.



BIOS 738 (2) Bayesian and Empirical Bayes Methods

Fall.* Prerequisites: BIOS 510 and BIOS 511. Includes Bayesian approaches to statistical inference, point and interval estimation using Bayesian and empirical Bayesian methods, representation of beliefs, estimation of the prior distribution, robustness to choice of priors, conjugate analysis, reference analysis, comparison with alternative methods of inference, computational approaches, including Laplace approximation, iterative quadrature, importance sampling, and Markov Chain Monte Carlo (Gibbs sampling). Various applications, such as small area estimation, clinical trials, and other biomedical applications, will be used.

BIOS 739 (2) Longitudinal Data Analysis

Fall.* Prerequisite: BIOS 510 and BIOS 511. Focuses on design considerations, exploratory data analysis, general linear models, parametric models for covariance structure, generalized linear models, analysis of variance, transition models, and missing values.

BIOS 745R (1) Biostatistical Consulting

Fall. Prerequisite: BIOS 507. Focuses on the roles, responsibilities, and other issues related to the biostatistician as consultant or collaborator in the biomedical field. Initially focuses on preparing students to act as consultants through discussions of consulting models, interpersonal communication, ethics, common client types, time and financial management, and other issues. Students then collaborate with researchers to develop the design and/or the analysis of quantitative investigations, initially under supervision of a faculty member and later independently. This collaboration is reviewed and critiqued by faculty and students. May be taken more than once for credit, but not as fulfillment of biostatistics elective.

BIOS 760R (VC) Advanced Topics in Biostatistics

Fall and spring. A faculty member offers a new course on an advanced topic of interest, such as spatial analysis, time series, missing data methods, causal inference, and discrete multivariate analysis.

BIOS 777 (1) How to Teach Biostatistics

Fall. Prerequisites: BIOS 507, BIOS 511, and summer TATTO workshop. Prepares students for teaching introductory level courses in biostatistics. The topics discussed are: syllabus development, lecturing, encouraging and managing class discussion, evaluating student performance, test and examinations, cheating, the role of the teaching assistant, teacher-student relationships, teaching students with weak quantitative skills, teaching students with diverse backgrounds, teaching health sciences students, teaching medical students, use of audio-visual techniques, and use of computers. Each student is required to teach a certain subject to the other students and the instructor, followed by a discussion of presentation strengths and weaknesses.

BIOS 780R (1) Advanced PhD Seminar

Spring. Prerequisite: BIOS 511. Acquaints students with a variety of areas of biostatistical research and provides the chance to do preliminary reading in an area of interest. Each student reads a few papers in an area of interest, and presents the material to the group. Topics and readings can be suggested by the faculty member in charge or by the students. This course may be repeated for credit. (Satisfactory/unsatisfactory grading only.)

BIOS 790R (1) Advanced Seminar in Biostatistics

Fall and spring. Invited speakers, faculty, and advanced students discuss special topics and new research findings. (Satisfactory/unsatisfactory grading only.)

BIOS 795R (VC) Pre-Candidacy Research

Fall and spring. Provides in-depth exposure to advanced special topics not covered in regular courses.

BIOS 797R (VC) Directed Study

Fall and spring. Provides in-depth exposure to advanced special topics not covered in regular courses.

BIOS 798R (VC) Special Projects

Fall and spring. Involves intern-like participation at advanced levels on specific scholarly, research, or developmental projects. Students assume independent roles as statistical consultants and collaborators in a variety of research settings.

BIOS 799R (VC) Thesis

Fall and spring. Dissertation research.

INFO 500 (2) Principles of Public Health Informatics I

Fall. In the emerging field of public health informatics, this course defines PHI as the application of information systems and technology to public health practice and research.

INFO 501 (2) Principals of Public Health Informatics II

Spring. Provides an overview of some of the major areas in which information systems are used in public health. Discusses the opportunities presented and challenges faced in the design, development, deployment, and maintenance of these systems.

INFO 503 (2) Management Principles for Informatics

Spring. The purpose of this course is to allow students to gain understanding of multiple dimensions to management related to provision of information services. At the end of this course, students should be able to evaluate and justify information technology investments, evaluate the utility of alternative information system delivery modes, and plan strategically for future information system development.

INFO 510 (3) Database Management Systems

Fall. Provides an overview of the concepts relevant to the effective use of data, information, and knowledge tools to build, manage, merge, retrieve, and analyze public health data.

INFO 511 (3) Advanced Database Management Systems

Spring.

INFO 530 (2) Geographic Information Systems

Fall. Introduces the use of geographic information systems (GISs) in the analysis of public health data. Addresses basic GIS operations such as buffering, layering, and spatial queries, and develops GIS skills through homework and case studies. Addresses introductory cartography and basic statistical aspects of spatial analysis.

INFO 560R (VC) Current Topics in Public Health Informatics

Fall and spring. A faculty member offers a new course on a current topic of interest to both master's and doctoral students.

INFO 591J (3) Artificial Intelligence

Spring. Prerequisites: INFO 510. Provides a continuation of the concepts relevant to the effective use of data, information, and knowledge tools to build, manage, merge, retrieve, and analyze public health data.

INFO 595R (0) Practicum

Fall. Enables students to apply skills and knowledge through a supervised field training experience in a public health setting that complements the student's interests and career goals. Must meet RSPH guidelines and have departmental approval.

INFO 597R (VC) Directed Study

Fall and spring. Provides an in-depth exposure to specific topics not covered in regular courses, such as statistical genetics and specialized experimental designs.

INFO 598R (4) Special Projects

Fall and spring. Involves intern-like participation on specific scholarly, research, or developmental projects that expose students to the role of the statistical consultant or collaborator in a variety of research settings.

*Course will not be taught each year.

Department of Environmental Health

www.sph.emory.edu/EOH/
Paige Tolbert, Chair

The Department of Environmental Health is concerned with the health effects of exposures such as air and water pollution, pesticides, organic solvents, dusts, and physical hazards that occur in the workplace, home, and general environment. Many disciplines contribute to recognizing, assessing, and controlling these risks, ranging from epidemiology to toxicology, from microbiology to safety engineering, from industrial hygiene to medicine and nursing, and from law to labor economics.

The department includes a multidisciplinary core faculty and a large adjunct faculty. Major interests of the core faculty include occupational cancer, biomarker development and application, neurologic outcomes, children's environmental health, agricultural safety and health, air pollution, injury prevention and control, disease ecology, and climate change. The adjunct faculty includes scientists at the CDC, National Center for Environmental Health, the National Institute for Occupational Safety and Health, the Agency for Toxic Substances and Disease Registry, the American Cancer Society, the Environmental Protection Agency, the Georgia Division of Public Health, nearby universities, and the private sector. Expertise in every aspect of environmental health is represented.

The MPH training program reflects a commitment to education, research, and service in public health. The core of the program is a set of required and elective courses. In addition, Atlanta offers an unparalleled selection of activities in environmental health. Students are encouraged to become involved to conduct research, provide service, and gain valuable field experience.

Department Admission Criteria

Applicants range from recent college graduates to experienced physicians. Criteria for selection include background and experience relevant to environmental health, potential to make a contribution to the field, academic excellence, and recommendations. All applicants should have completed both college-level biology and chemistry; calculus, college-level statistics, and organic chemistry are recommended. GRE or MCAT scores are required.

Environmental Health Program Requirements

Six competency requirements are identified as central to the environmental health curriculum: general environmental sciences, toxicology, epidemiology, environmental health practice, environmental health policy, and recognition, evaluation, and control of hazardous exposures. Required course work corresponds to these six competency areas; a minimum of 42 credits are required to graduate. Additionally, a final thesis or culminating experience project and practicum are required.

Students are encouraged to contact and network with professionals in environmental health in the Atlanta area, including agency officials, private consultants, researchers from the U.S. Centers for Disease Control and Prevention, and others for project advising, career counseling, networking, and other assistance.

Interdepartmental Programs

The Department of Environmental Health offers several interdepartmental programs. A joint MPH degree, **Global Environmental Health (GEH)**, is offered in Environmental Health and Global Health. A joint MSPH degree is offered in **Environmental Health and Epidemiology (EH-EPI)**. The department also participates in dual-degree programs with the Nell Hodgson Woodruff School of Nursing (MSN/MPH), the Emory University School of Law (JD/MPH), the Emory University School of Medicine (MD/MPH), and the Physician Assistant Program (MMSc/MPH).

A five-year bachelor's/master's degree (BS/MPH) is offered through the Emory College Environmental Studies Department and the Rollins School of Public Health Environmental Health program. Students can earn a Bachelor of Science and Master of Public Health in five years.

Please see the interdepartmental program section in this catalog for more information on EH joint and interdepartmental programs (page 151).

Environmental Health Required Courses

Course Number	Course Title	Credit Hours
BSHE 500	Behavioral Sciences in Public Health	2
or BSHE 504	Social Behavior in Public Health	2
BIOS 500	Statistical Methods I with lab	4
EPI 530	Epidemiologic Methods I with lab	4
HPM 500	Introduction to the U.S. Health Care System	2
HPM 502	Introduction to Health Care Management	2
EOH 520	Human Toxicology	3
EOH 524	Risk Assessment I	2
EOH 530	Environmental Epidemiology	2
or EOH 537/ EPI 747	Methods in Occupational and Environmental Epidemiology (permission required)	2
EOH 540	Environmental Hazards I	2
EOH 550	Environmental and Occupational Health Practice	2
EOH 570	Environmental and Occupational Health Policy	3
EOH 590R	EH Seminar: Journal Club	1
EOH 595	Practicum	0
EOH 596	Research Design in Environmental Health	1
or GH 555	Proposal Development	2
EOH 599R or	Thesis	4
EH 594	Skills for Environmental Health Professionals	3
	Electives	3 courses (or more)
Total Credit Hours for EH MPH program		42

Suggested Electives

Course Number	Course Title	Credit Hours
BIOS 501*	Statistical Methods II with lab	4
EOH 515	Air Quality in the Urban Environment	2
EOH 521	Molecular Toxicology	3
EOH 523	Neurotoxicology	2
EOH 525	Risk Assessment II	2
EOH 527	Biomarkers & Environmental Public Health	2
EOH 537/EPI 747	Methods in Environmental Epidemiology	2
EOH 541	Environmental Hazards II	2
EOH 542	Radiation Health & Safety	2
EOH 546/GH 580	Environmental Microbiology: Control of Food and Waterborne Disease	1–3
EOH 580	Injury Prevention and Control	2
EOH 581	National Security and Public Health Consequences of Disasters and Terrorism	2
EOH 582/GH 582	Global Climate Change: Health Impacts and Response	2
EOH 583/ENVS 485	Spatial Analysis in Disease Ecology	4
EOH 584	Built Environment and Public Health	2
EOH 585	Public Health Ecology: The Environmental Determinants of Infectious Disease	2
EOH 586	Advanced Seminar in Climate Change and Health	2
EOH 587	Introduction to Satellite Remote Sensing of the Environment and its Applications to Public Health	2
INFO 530	Geographic Information Systems	2
EPI 530	Public Health Preparedness and Bioterrorism	2
* Strongly recommended		
Total credits required for MPH Program		42

Faculty

Dana B. Barr, Research Professor. BA, Brenau College, 1987; PhD, Georgia State University, 1994. Biomarkers, biomonitoring, exposure assessment, analytic chemistry, pesticides, and other hazards.

Lyndsey Darrow, Research Assistant Professor. BA, Stanford University, 2000; PhD, Emory University, 2008. Environmental epidemiology, children's environmental health, reproductive and respiratory health effects of ambient air pollution.

Roby Greenwald, Research Assistant Professor. BS, Clemson University, 1994; MS, Georgia Institute of Technology, 2001; PhD, 2005. Air pollution, pediatric asthma, and environmental engineering.

Mitchel Klein, Research Assistant Professor. BA, State University of New York, 1979; MAT, Indiana University, 1986; PhD, Emory University, 1998. Epidemiologic methods.

Flemming Konradsen, Visiting Fellow. BSc, University of Copenhagen, 1990; PhD, University of Copenhagen, 1998. Global environmental health, esp. water and sanitation in developing countries, malaria vector control, pesticide self-harm. University of Copenhagen.

Karen Levy, Assistant Professor. BA, Stanford University, 1995; MSc, University of California, Berkeley, 2002; MPH, 2006; PhD, 2007. Environmental change and the transmission and inci-

dence of infectious diseases. Epidemiology of waterborne disease with emphasis on household water quality, transmission of enteric waterborne pathogens, impacts of climate change on incidence of waterborne disease, and evolution and spread of antibiotic resistance.

Yang Liu, Assistant Professor. BS, Tsinghua University, 1997; MS, 1999; PhD, Harvard University, 2004. Modeling of the spatial and temporal distribution of atmospheric aerosols; satellite remote sensing in public health research.

Gary W. Miller, Professor. BS, Old Dominion University, 1989; MS, 1992; PhD, University of Georgia, 1995. Neurotoxicology.

Justin V. Remais. Assistant Professor. BA, University of California at Berkeley, 1998; MS, 2002; PhD, 2006. Disease ecology of environmentally mediated tropical diseases, impact of land use and climate change.

P. Barry Ryan, Professor. BS, University of Massachusetts, 1973; MS, University of Chicago, 1975; PhD, Wesleyan University, 1979. Environmental exposure assessment, community-based environmental epidemiology, environmental chemistry with emphasis on environmental fate and transport.

Jeremy A. Sarnat, Assistant Professor. BA, University of Michigan, 1990; MS, Indiana University, 1992; MS, Harvard University School of Public Health, 1998; ScD, 2001. Air pollution, exposure assessment, and epidemiology.

Stefanie Ebelt Sarnat, Assistant Professor. BSc, University of British Columbia, 1997; MSc, University of British Columbia, 2000, ScD, Harvard University, 2004. Air pollution epidemiology.

N. Kyle Steenland, Professor and Georgia Cancer Coalition Distinguished Scholar. BA, Stanford University, 1968; MA, PhD, State University of New York-Buffalo, 1974; MS, PhD, University of Pennsylvania, 1985. Environmental and occupational epidemiology.

Matthew J. Strickland, Assistant Professor. BA/MA, Case Western Reserve University, 2000; MPH, Ohio State University, 2002; PhD, Emory University, 2007. Children's environmental health, air pollution epidemiology, birth defects epidemiology, and epidemiological methods.

Paige E. Tolbert, Professor and Chair. AB, Harvard University, 1979; MSPH, University of North Carolina-Chapel Hill, 1986; PhD, 1989. Environmental epidemiology.

Ying Zhou, Research Assistant Professor. BS, Tsinghua University, 1997; ScD, Harvard University, 2002. Exposure and health risk assessment.

Jointly Appointed Faculty

Thomas Gillespie, Assistant Professor. BSc, University of Illinois at Urbana, 1996; MS, University of Florida, 2000; PhD, 2004. Department of Environmental Studies, Emory College.

Murray J. Gilman, Associate Professor. BSc, McGill University, 1971; MDCM, 1975. Emory School of Medicine, Department of Medicine.

Betty B. Goetz, Senior Associate. BA, Emory University, 1963; BS, University of Georgia, 1965; MMSc, Emory University, 1972. Emory Environmental Health and Safety Office.

Jason M. Hansen, Assistant Professor. BS, Brigham Young University, 1994; MS, 1996; PhD, University of Michigan, 2001. Emory School of Medicine, Department of Pediatrics.

Jeremy J. Hess, Assistant Professor. BA, Brown University, 1995; MPH (IH), Emory University, 2002; MD, Emory University, 2003. Emory School of Medicine, Department of Emergency Medicine.

Debra Houry, Assistant Professor. BS, Emory University, 1994; MPH, MD, Tulane University Schools of Public Health and Medicine, 1998. Emory School of Medicine, Department of Emergency Medicine.

Uriel Kitron, Professor. BSc, Hebrew University, 1975; PhD, University of California, 1981; MPH, University of Michigan, 1982. Department of Environmental Studies, Emory College.

Juan Leon, Assistant Professor. BA, Dartmouth College, 1996; MPH/PhD, Northwestern University, 2003. Rollins School of Public Health, Hubert Department of Global Health.

Michele Marcus, Professor and Interim Chair. BS, City University of New York–Brooklyn College, 1974; MPH, Columbia University, 1981; MPhil, 1984; PhD, 1986. Emory University, Rollins School of Public Health, Department of Epidemiology.

Linda A. McCauley, Professor and Dean. BSN, University of North Carolina, 1971; MN, Emory University, 1979; PhD, University of Cincinnati, 1988. Nell Hodgson Woodruff School of Nursing.

Christine L. Moe, Associate Professor. BA, Swarthmore College, 1979; MS, University of North Carolina, 1984; PhD, 1989. Rollins School of Public Health, Hubert Department of Global Health.

Clair Null, Assistant Professor. BA, Smith College, 2001; PhD, University of California at Berkeley, 2009. Rollins School of Public Health, Hubert Department of Global Health.

Michael S. Schechter, Associate Professor. BA, University of Rochester, 1971; MD, State University of New York at Buffalo, 1975; MPH, University of North Carolina School of Public Health, 1996. Emory School of Medicine, Department of Pediatrics.

Adjunct Faculty

Scott M. Bartell, Adjunct Assistant Professor. BA, University of California–Berkeley. 1994; MS, University of Washington, 1996; MS, University of California–Davis, 2001; PhD, 2003. University of California–Davis.

Suzanne Binder, Adjunct Professor. BS, McGill University, 1976; MD, Tufts University School of Medicine, 1981. Consultant.

William H. Bullock, Adjunct Assistant Professor. BS, University of South Alabama, 1986; MSPH, Tulane University, 1991, DHSc, Nova Southeastern University, 2007. CSX Transportation.

Paula A. Burgess, Adjunct Assistant Professor. MD, Emory University School of Medicine, 1979; MPH, Emory University Rollins School of Public Health, 2001. Agency for Toxic Substances and Disease Registry.

Andrew L. Dannenberg, Adjunct Professor. AB, Swarthmore College, 1974; MD, Stanford University, 1979; MPH, The Johns Hopkins University, 1983. U.S. Centers for Disease Control and Prevention.

Owen J. Devine, Adjunct Associate Professor. BS, Pennsylvania State University, 1979; MS, University of Georgia, 1982; PhD, Emory University, 1992. U.S. Centers for Disease Control and Prevention.

Uma V. A. Dhanabalan, Adjunct Assistant Professor. BA, Rutgers University, 1984; MD, UMDNJ New Jersey Medical School, 1995; MPH, Harvard University, 1999. Consultant.

V. Ramana Dhara, Adjunct Associate Professor. MBBS, Armed Forces Medical College, 1976; MPH, Rutgers University, 1987; SED, University of Lowell, 2002. Consultant.

Richard L. Ehrenberg, Adjunct Associate Professor. AB, Harvard University, 1967; MD, University of Pennsylvania, 1971. National Institute for Occupational Safety and Health, U.S. Centers for Disease Control and Prevention (retired). Consultant.

Thomas L. Farris, Adjunct Professor. BS, College of William and Mary, 1983; MD, University of Virginia, 1987; MPH, George Washington University, 1994. Kimberly Clark Corporation.

Bruce Fowler, Adjunct Professor. BS, University of Washington, 1968; PhD, University of Oregon Medical School, 1972. Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention.

Ben Gerhardstein, Adjunct Instructor. BA, Brown University, 2003; MPH, Emory University, 2008. National Center of Environmental Health/Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention.

Philip L. Graitcer, Adjunct Professor. BA, Duke University, 1966; DMD, Temple University, 1970; MPH, Harvard University, 1972. Consultant.

Richard D. Henkel, Adjunct Associate Professor. BS, University of Texas, 1977; MS, University of Texas, 1983; PhD, 1985. Centers for Disease Control and Prevention.

Richard C. Hertzberg, Adjunct Associate Professor. BS, Harvey Mudd College, 1968; PhD, University of Washington, 1977. USEPA (retired). Consultant.

Bilqis Amin Hoque, Adjunct Associate Professor. BSc, Bangladesh Agricultural University, 1977; MSc, University of Reading, 1980; PhD, Oklahoma State University, 1984. Environment and Population Research Center, Bangladesh.

Barry L. Johnson, Adjunct Professor. BS, University of Kentucky, 1960; MS, Iowa State University, 1962; PhD, 1967. Assistant Surgeon General (retired). Consultant.

Muin J. Khoury, Adjunct Professor. BS, American University of Beirut, 1975; MD, 1979; PhD, The Johns Hopkins University, 1985. U.S. Centers for Disease Control and Prevention.

Judy Kruger, Adjunct Assistant Professor. BSc, University of Waterloo, 1993; MS, University of Illinois at Chicago, 1997; PhD, 2001. Centers for Disease Control and Prevention.

Richard A. Lemen, Adjunct Professor. BA, Central Methodist College, 1967; MSPH, University of Missouri, 1971; PhD, University of Cincinnati, 1992. National Institute for Occupational Safety and Health (retired). Consultant.

Randall O. Manning, Adjunct Assistant Professor. BSA, University of Georgia, 1979; MS, 1982; PhD, 1986. Environmental Protection Division.

Morris L. Maslia, Adjunct Instructor. BCE, Georgia Institute of Technology, 1976; MSCE, 1980. Agency for Toxic Substances and Disease Registry.

Henry M. Mathews, Adjunct Associate Professor. BS, University of Georgia, 1962; MS, Emory University, 1965; PhD, Emory University, 1967. Biosafety Consultant.

Michael A. McGeehin, Adjunct Associate Professor. BS, University of Scranton, 1977; MSPH, University of Colorado, 1989; PhD, Colorado State University, 1992. U.S. Centers for Disease Control and Prevention, National Center for Environmental Health.

Frank L. Mitchell, Adjunct Associate Professor. AB, New Mexico Highlands University, 1960; DO, College of Osteopathic Medicine and Surgery, 1964; LLB, LaSalle Extension University, 1966; MPH, University of Michigan, 1970. U.S. Public Health Service (retired). Consultant.

Joel F. Moorhead, Adjunct Assistant Professor. AB, Brown University, 1968; MD, University of Cincinnati, 1978; MPH, University of Arizona, 1995. Consultant.

Karen G. Mumford, Adjunct Assistant Professor. BA, St. Olaf College, 1983; MS, Iowa State University, 1986; MA, University of Iowa, 1991; PhD, University of Minnesota, 2002. University of Minnesota at Morris.

M. Moiz Mumtaz, Adjunct Associate Professor. BS, Osmania University, 1970; MS, 1972; MS, Oregon State University, 1976; PhD, University of Texas, 1984. Agency for Toxic Substances and Disease Registry.

H. Edward Murray, Adjunct Professor. BS, Texas A&M University, 1969; MT, U.S. Navy, 1972; MS, University of Arizona, 1976; PhD, University of Texas, 1979. Agency for Toxic Substances and Disease Registry.

Melvin Myers, Adjunct Associate Professor, BS, University of Idaho, 1967; MPA, Indiana University, 1977. National Institute for Occupational Safety and Health (retired).

Eric K. Noji, Adjunct Associate Professor. BS, Stanford University, 1977; MD, University of Rochester, 1981; MPH, The Johns Hopkins University, 1987. U.S. Centers for Disease Control and Prevention.

Anne Riederer, Adjunct Assistant Professor. BSc, Brown University, 1989; MSc, Georgetown University School of Foreign Service, 1991; ScD, Harvard University School of Public Health, 2004. Biomarker validation, exposure assessment, global environmental health.

Mark G. Singer, Adjunct Assistant Professor. MD, University of Ottawa, 1975. General Motors Corporation.

Thomas H. Sinks Jr., Adjunct Professor. BS, Tulane University, 1973; MS, 1982; PhD, Ohio State University, 1985. U.S. Centers for Disease Control and Prevention, National Center for Environmental Health.

James M. Smith, Adjunct Professor. BS, West Virginia University, 1964; MS, 1966; PhD, 1969. U.S. Centers for Disease Control and Prevention, National Center for Environmental Health (retired).

Kevin F. Smith, Adjunct Assistant Professor. BA, Knox College, 1979; MD, Universidad Central del Este, 1984; MPH, Yale University, 1993. Consultant.

Pamella D. Thomas, Adjunct Associate Professor. MD, University of the West Indies, 1974; MPH, Medical College of Wisconsin, 1990. Lockheed Martin Aeronautics.

Michael J. Thun, Adjunct Professor. BA, Harvard University, 1964; MD, University of Pennsylvania, 1975; MS, Harvard University, 1983. American Cancer Society.

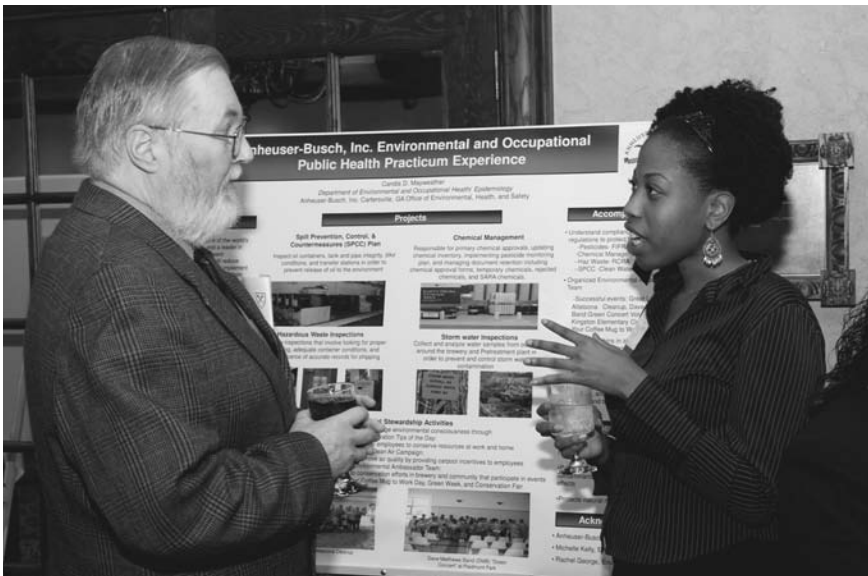
Gonzalo M. Vazquez Prokopec, Adjunct Senior Associate. Master's equivalent, University of Buenos Aires, 2003; PhD, 2007. Department of Environmental Studies, Emory College.

Mary C. White, Adjunct Professor. BA, University of Rochester, 1977; MPH, University of Michigan, 1979; ScD, Harvard University, 1986. U.S. Centers for Disease Control and Prevention.

Environmental Health Course Descriptions

EOH 500 (2) Perspectives in Environmental Health

Fall, spring. Presents the ecological paradigm as applied to public health. Introduces various aspects of environmental health, including air, surface water, and ground water contamination, food safety, occupational health, radiation, chemical and physical hazards, vector control, and injuries. Students may choose a course section emphasizing environmental and occupational health problems in an international context, including issues such as the health effects of global climate change and rapid industrialization, developing nations' perspectives on potable water supply, water pollution, indoor and ambient air pollution, sanitation, food safety, and waste management.



**EOH 515 (2) Air Quality in the Urban Environment:
A Survey of Research Methods and Recent Findings**

Spring. The link between the air we breathe and human health affects millions globally, placing urban air quality as a major public health concern. This course examines ways to characterize urban air pollution as well as its public health implications based on recent clinical, epidemiological, and toxicological research. The course will be highly interactive and will provide instruction on conducting basic, applied air quality research in academic, governmental, and grassroots settings.

EOH 520 (3) Human Toxicology

Fall. Prerequisites: college-level biology and chemistry or instructor's permission. Examines the basic concepts of toxicology in environmental and occupational surroundings. Discusses distribution, absorption, metabolic conversion, and elimination of toxic agents. Mechanisms of injury to body systems following exposure to toxic chemicals are explored at systemic, organ, and cellular levels. Topics include classes of toxicants, methods for detecting and evaluating their effects, and the scientific basis for risk estimation in humans.

EOH 521 (3) Molecular Toxicology

Spring, every other year, odd years. Prerequisites: introductory biochemistry, EOH 520 or instructor's permission. Studies the role of metabolism in the activation or inactivation of toxic chemicals. Topics include bioactivation of chemicals known to produce selective system toxicity, molecular mechanisms of chemical carcinogenesis, DNA damage and repair, mechanisms of cell injury, biomarkers, and evaluation of the role of chemical structure in predicting toxicological hazard.

EOH 522 (1) Issues in Toxicology

Prerequisite: EOH 520 or equivalent. Explores key issues in toxicology at a molecular and mechanistic level through a discussion of journal articles and other current literature. Each class session addresses a specific topic, and students are assigned articles to read; the instructor provides an overview of the topic, followed by student presentations of journal articles and general discussion.

EOH 523 (2) Neurotoxicology

Spring, every other year, even years. Prerequisite: EOH 520 or instructor's permission. This course is designed to permit in-depth analysis of the impact of neurotoxic agents on human health. Each course meeting will consist of a lecture on a particular class of neurotoxic agents, with emphasis on human health impact mechanisms of action, followed by critical analysis of relevant neurotoxicology literature. Topics covered include chemical warfare agents, pharmaceutical agents, drugs of abuse, lead, solvents, alcohol, PCBs, venoms, and pesticides.

EOH 524 (2) Risk Assessment I

Fall. Introduces the general principles and practices of risk assessment, including hazard identification, dose response assessment, exposure assessment and risk characterization, management, data extrapolation techniques and model selection. Case studies demonstrate the process of risk assessment and methods of interpretation.

EOH 525 (2) Risk Assessment II

Spring. Prerequisite: EOH 524. Educates and trains students in the processes of risk assessment, risk model selection, and use of toxicology and environmental informational databases to create risk assessment calculations and determinations.

EOH 527 (2) Biomarkers and Environmental Public Health

Spring. The study of human susceptibility to environmental toxic chemicals is about to undergo a major transformation as the new knowledge of how toxic chemicals behave in the human body becomes more readily available. Coupled with the advanced Human Genome Project and the ecogenetic research programs, the use of biomarkers will allow us not only to accurately assess the exposures to those toxic chemicals, but to predict the resulting adverse health outcomes as well. This course is designed to introduce the use of biomarkers in environmental public health from qualitative and quantitative perspectives.

EOH 530 (2) Environmental and Occupational Epidemiology

Spring. Prerequisite: EPI 530 or equivalent. Reviews basic epidemiological principles and presents issues unique to environmental and occupational health, such as health outcomes, exposure measurement and classification, sources of bias and health worker effect. Develops skilled consumers rather than producers of epidemiologic studies. Considers the relation of epidemiological evidence to risk assessment. Students review and critique a number of published articles.

EOH 537 / EPI 747 (2) Methods in Environmental Epidemiology

Fall. Prerequisites: EPI 530, BIOS 500, BIOS 501; EPI 534 is also preferred, or instructor's permission. Explores design and analysis issues specific to occupational and environmental epidemiology. Case studies representative of a variety of exposures, outcomes, and study designs are used to illustrate the application of epidemiological principles to the study of exposures occurring in the workplace and in the general environment.

EOH 540 (2) Environmental Hazards I

Spring. Prerequisite: General Chemistry. Integrates aspects of industrial hygiene, environmental management and environmental science by exploring the underlying environmental science common to both environmental and occupational hazard evaluation. Includes units on environmental and industrial contamination, health and safety, and the interaction between industrial and community environments. Class structure includes lecture materials, field trips, and student presentation of case studies. Focuses on industrial and occupational hygiene and elements of environmental science.

EOH 541 (2) Environmental Hazards II

Fall. Prerequisite: EOH 540 or instructor's permission. Integrates aspects of industrial hygiene, environmental management and environmental science by exploring the underlying environmental science common to both environmental and occupational hazard evaluation. Includes units on environmental and industrial contamination, health and safety, and the interaction between industrial and community environments. Class structure includes lecture materials, field trips, and student presentation of case studies. Focuses on environmental management and modeling.

EOH 542 (2) Radiation Health and Safety

Fall. A survey course that introduces participants to ionizing and non-ionizing radiation. The course provides health professionals with information needed to understand the origin and characteristics of radiation, to protect themselves and others, and to comply with governmental and institutional regulations regarding the use of radioactive materials and radiation-generating equipment. The practical applications of the use of radiation in the diagnosis and treatment of diseases, scientific research, energy production and industrial applications are explored.

EOH 545 (3) Water Pollution and Health

Spring. Reviews available information on pollution and associated health effects through case studies and discussion. Laboratory sessions familiarize students with commonly used laboratory methods and techniques for evaluating aquatic systems.

**EOH 546 / GH 580 (2) Environmental Microbiology:
Control of Food and Waterborne Diseases**

Spring. Introduces the major disease-causing microorganisms in the environment and their transmission through water, food, and air. Describes the organisms, pathogenesis, clinical diseases, reservoirs, modes of transmission, and epidemiology. Discusses the transport, survival, and fate of pathogens in the environment and the concept of indicator organisms as surrogates for pathogens and the removal and inactivation of pathogens and indicators by water and wastewater treatment processes. Presents examples of the public health impact of food and waterborne diseases.

EOH 547/GH 506 (1) Introduction to Microbial Risk Assessment

Spring. Introductory course risk-assessment methods for infectious diseases, with emphasis on description of microbial infectivity, quantification of microbial concentrations in the environment, description of risk, and exposure in outbreaks. Upon completion of this short introductory course, students will be expected to understand the general approach of microbial risk assessment and acquire skills to work with specialists (microbiologists, epidemiologists, biostatisticians) in a multidisciplinary team to tackle microbial risk assessment problems.

EOH 550 (2) Environmental and Occupational Health Practice

Fall. Presents an overview of organizational, legal, and administrative issues in environmental and occupational health practice such as program design in industry, worker's compensation, drug screening, employee assistance programs, and ethical issues.

EOH 570 (3) Environmental and Occupational Health Policy

Spring. Introduces administrative and regulatory law principles, specific laws (OSHA, SARA, etc.) pertinent agencies (OSHA, EPA, ATSDR, etc.), and related topics such as risk communication and worker's compensation.

EOH 580/BSHE 591M (2) Injury Prevention and Control

Fall; every other year, even years. Introduces injuries as a public health problem. Discusses the epidemiology and surveillance, prevention, acute care, and rehabilitation of unintentional and intentional injuries. Emphasizes injury research, methodology, and injury prevention programs. Uses case studies to explore the interaction of public policy and epidemiology in the prevention and control of injuries.

EOH 581 (2) National Security and Public Health

Spring. This course considers public health aspects of preparedness and management of natural and man-made disasters, including tornados, floods, and nuclear accidents, with an emphasis on understanding their complexity and impact. The course is taught using texts, peer-reviewed journal articles, and presentations by top field experts. This course is designed to stimulate understanding and to encourage exchange of ideas regarding lessons learned from the past and the implications for current and future policies and disaster planning.

EOH 582/GH 582 (2) Global Climate Change: Health Impacts and Response

Fall. Explores the role of the environment in the transmission of infectious diseases and the emergence of new pathogens. Topics include the basic principles of infectious disease transmission, the influence of climate variation and change on infectious diseases, the impact of deforestation and urbanization on emergence or re-emergence of pathogens, infectious disease outbreaks associated with natural disasters, ecological sanitation, and infectious disease transmission in indoor environments.

EOH 583/ ENVS 483 (4) Spatial Analysis in Disease Ecology

Spring. This course covers patterns of health and disease in place and time; application of geospatial technologies and methods for epidemiology; analysis of time-space relations; clusters and diffusion of disease; and geographical epidemiology of selected infectious and noninfectious diseases.

EOH 584 (2) Built Environment and Public Health

Fall. An interdisciplinary course on the built environment and public health. The United States and other developed, as well as developing countries, are facing increasingly lethal and costly epidemics of acute and chronic diseases related to land use and built environment decisions. While the hazards presented by air and water pollution are well recognized for acute, infectious, and toxicological illnesses, there is only now increasing recognition of the hazards presented by building and community designs that fail to recognize human health. Land use and built environment decisions impact every age group, social and racial minority. These impacts range from the very acute (motor vehicle trauma) to the long term (obesity, cancer, heart disease). Increased attention to the health implications of the built environment has led to the development of innovative solutions, such as mixed use developments and investments in bicycling and pedestrian infrastructure.

EOH 585 (2) Public Health Ecology: The Environmental Determinants of Infectious Diseases

Spring. Recommended prerequisite: EOH 582. This course takes a global perspective, exploring the diverse environmental phenomena that influence the transmission of infectious diseases. The epidemiological significance of environmental processes are explored, including weather, climate extremes, hydrology, development projects, and land use change. Anthroponotic and zoonotic diseases of global significance are examined with respect to how environmental factors shape their distributions, intensity, environmental fate, transport, and persistence. The specific ecological consequences of climate change, dams, irrigation, agricultural intensification and de/ reforestation are emphasized, and analytical tools for their study presented and critiqued. An optional, one-credit lab component focuses on quantitative methods for modeling coupled with environmental-epidemiological systems. EOH 585L is an optional laboratory component.

EOH 585L (1) Public Health Ecology Laboratory

Spring. Concurrent enrollment in EH 585. Explores analytical approaches for estimating the role of environmental phenomena in infectious disease transmission at regional, community, household, and individual scales. Students will develop and implement epidemiological and environmental models in Matlab, R and other simulation environments to gain new insights into environmental factors in a system of their choosing.

EOH 586 (2) Advanced Seminar in Climate Change and Health

Spring. Recommended prerequisite: EOH 582. This course builds on EOH/GH 582, Global Climate Change: Health Impacts and Response, exploring the interaction of methodological and policy issues surrounding the public health effects of climate change. Methodological topics will include advanced modeling issues, epidemiologic methods, bias, remote sensing, issues of measurement error and uncertainty analysis. Meanwhile, policy discussions will emphasize how scientific evidence based on these methods is injected into policy debates. Topics will include issues of scientific consensus, objectivity, uncertainty and the ethics of scientist advocacy. The course will cover the impact of environmental change on the practice of environmental epidemiology; problems and opportunities in using models to project impacts; the necessity of, and strategies for, interdisciplinary work; strategic concerns in emerging areas of public health practice; challenges deriving policy on issues of great importance and cost; the role of health scientists in determining adaptation funding priorities, technology transfers and global treaties; and applied public health tools, including vulnerability assessments and health impact assessments.

EOH 587 (2) Introduction to Satellite Remote Sensing of the Environment and its Applications to Public Health

Spring. This course covers instruction on basic principles behind satellite remote sensing; the terminology and instrumentation of satellite remote sensing and structure of satellite data; solid-surface and atmospheric remote sensing techniques; case studies of applying satellite remote sensing in public health and environmental science; and analysis of the spatial patterns of air pollution using satellite data.

EOH 590R (1) Environmental and Occupational Health Seminar: Journal Club

Fall. Provides an overview of the environmental and occupational health field and the RSPH EH Department by exploring department faculty's research. Students rotate through discussion sessions with various faculty each week; preparation includes studying journal articles written by presenting faculty. This course has a satisfactory/unsatisfactory grading basis.

EOH 590R (1) Environmental Health Seminar: Initiation and Management of Research Projects under Constrained Conditions

Spring. Students will learn critical aspects of managing research projects in resource-limited environments. Key topics covered include: local permits and ethical clearances, international transport of biological and environmental material, formalizing partnerships, introducing a project to relevant stakeholders, administrative management, recruitment of staff and terms and conditions for staff, staff security, quality assurance systems, and data sharing/authorships among partners. Learning will take place through role plays, student presentations, instructor case presentations, and group problem-solving exercises. One hypothetical project will be used as a case throughout the module. Taught in a short-course format, usually over four days.

EOH 591A/EPI 591A (2) Biosafety Principles and Practice for Lab

Fall. An introduction to biosafety, this course emphasizes how general biosafety strategies and practices used in high-containment laboratories minimize risk to the health and safety of laboratory staff. This course provides a general overview of biocontainment, biosecurity concerns, laboratory risk assessments, responding and recovering from laboratory emergencies, and provides students with the opportunity to experience working in a high-containment “mock” laboratory. This course also examines the difference in biosafety practices, biosafety levels, BSCs, and laboratory design.

EOH 594 (2) Skills for Environmental Health Professionals

Spring. This course provides a culminating experience for Environmental Health students, preparing them with skills and competencies needed for successful careers. Students identify topics of interest, engage in outreach activities with community partners on that topic, and complete a series of written, poster, and oral presentations on an original contribution to the field. Environmental health skills gained during the program are applied and integrated, including critical thinking on methodological and policy issues, conducting community needs assessments, and effective communication strategies for complex environmental health problems. Students will critically review each other’s written and oral work with an emphasis on methodological understanding, appropriate assessment of applied and research needs posed by the topic, and policy concerns. Career development goals will also be addressed.

EOH 595 (0) Practicum

A practicum is a unique opportunity for graduate students to integrate and apply practical skills and training learned through course work and prior experiences in a professional public health environment. In some cases students can use a work study, graduate assistantship, or teaching assistant position structured to meet the practicum requirement. A practicum is a significant educational experience that generally requires 200 to 400 clock hours in a public health agency, institution, or community under the supervision of site administrators and the guidance of the student’s department, the Office of Applied Public Health, and/or Career Services.

EOH 596 (1) Research Design in Environmental Health

Spring. Introduces basic concepts for conducting research in environmental health. The course occurs during the second half of the spring (first year, for most students) and first half of the fall (second year, for most students) semesters. During the spring section of the course, students will have opportunities to identify and/or refine potential thesis or culminating experience project topics. Students will also review: criteria for selection of a project topic, objectivity in science, research design issues, human subjects requirements, and use of the literature. By the end of the spring semester, students will complete a brief plan for next steps in the development of their potential projects. During the fall section of the course, students will have opportunities to develop, refine and apply their analytical and writing skills in the development of their thesis proposal or culminating experience project summary. Students pursuing a thesis will refine research questions, formulate plans for data analysis, and prepare and present their thesis research proposal to departmental faculty for review, comment and approval. Students moving on to the Culminating Experience Seminar will continue planning for next steps in the development of their projects.

EOH 597R (VC) Directed Study

Students pursue a specialized course of study in an area of special interest. Complements rather than replaces or substitutes for course work.

EOH 599R (VC) Thesis

Students prepare a monograph that embodies original research in environmental or occupational health. This incorporates a proposition that has been successfully evaluated with appropriate statistical techniques and is potentially publishable or has potential public health impact. All students in the EH department will be graded as satisfactory/unsatisfactory on the thesis project.

Courses of Interest Outside Emory

Students may be interested in taking courses that are not available at Emory through the Atlanta Regional Council for Higher Education (ARCHE) program. Ask your department for more information about the ARCHE program. Examples students in the EH department may be interested in include:

Courses at the Georgia Institute of Technology School of Civil Engineering**CEE6311 (3) Microbial Principles**

Microbiological principles with emphasis on microbial nutrition and growth, inhibition and control of growth, biochemical thermodynamics, metabolic pathways, enzyme and microbial kinetics.

CEE6312 (3) Chemical Principles-EnvE

Fundamental principles of chemical equilibria and environmental organic chemistry in dilute aqueous systems with emphasis on chemical speciation and environmental engineering applications.

CEE6313 (3) Fate of Contaminants

Effects of physical, chemical, and biological processes on the fate and transport of contaminants in unsaturated and saturated porous media.

CEE6330 (3) Physicochemical Process

Theory and application of the physical and chemical processes of coagulation, flocculation, sedimentation, softening, filtration, and disinfection in water and wastewater treatment.

CEE6761 (3) Contaminated Sed Geochem

Acquaints students with fate of major pollutants, nutrients, organic compounds, such as pesticides, PAHs, and trace metals in sedimentary systems.

CEE6792 (3) Air Pollution Meteorology

Vertical temperature and wind structure, topographic effects, natural removal processes, atmospheric dispersion of stack effluents, air pollution climatology, meteorological management of air pollution.

CEE6794 (3) Atmos Chem Modeling

Application of modern numerical methods to the prediction of atmospheric chemical and physical compositions; specific applications using computer models developed by the students are included.

The following courses are taught at the undergraduate level:

CE 4100 (3) Environmental Engineering Systems

An introduction to the field of environmental engineering and issues associated with water, air, and land pollution. Includes current topics such as hazardous waste, risk assessment, groundwater contamination, global climate change, ozone depletion, acid deposition, and sustainable technologies.

CE 4110 (2) Water Quality Engineering

Introduction to reclamation of water and wastewater for potable and industrial uses and groundwater remediation. Includes principles of physical, chemical, and biological treatment processes such as coagulation, sedimentation, softening, filtration, secondary biological treatment, and reactor design.

CE 4120 (2) Hazardous Substance Engineering

A senior-level course providing an introduction to the technical aspects of hazardous waste and toxic substance management. Topics include legislation, exposure and risk assessment, procedures for conducting remedial investigation/feasibility studies, waste treatment methods, basics of solute transport, on-site treatment methods, landfill design, waste minimization, and recycle and reuse.

CE 4130 (2) Environmental Engineering Facilities Design

Focuses on design of facilities for water, wastewater, air quality, hazardous waste, and solid waste. Includes supervised design problems and inspection trips.

**Courses at the Georgia Institute of Technology
College of Architecture, City Planning Program****CP 8823 Environmental Planning and Management**

This course exposes students to the role ecological principals may play in urban planning. Students learn about ecological structure and function and the principal technological and design-based tools currently employed in environmental management. The lab component of the course introduces students to a range of spatial analysis and remote sensing techniques.

Department of Epidemiology

www.sph.emory.edu/epi/index.php

Viola Vaccarino, Chair

The Department of Epidemiology offers courses of study leading to the Master of Public Health (MPH) and the Master of Science in Public Health (MSPH) degrees in epidemiology through the Rollins School of Public Health, and the Doctor of Philosophy (PhD) degree in epidemiology through the Graduate School. The programs are designed for individuals with a strong background and interest in mathematics and the sciences. Graduates pursue careers in public health agencies, academic institutions, and in the private sector, including health organizations and industry.

Areas of Research

The department provides outstanding opportunities for education and research. In addition to faculty interest in infectious diseases, environmental health, reproductive health, cancer, chronic and cardiovascular diseases, women's and children's health, nutritional epidemiology, and epidemiologic methods, students can take advantage of the department's close working relationship with the adjacent U.S. Centers for Disease Control and Prevention by participating in collaborative research projects. Those interested in developing skills in cancer epidemiology will find opportunities with the Surveillance, Epidemiology, and End Results (SEER) Program, supported by the National Cancer Institute; the American Cancer Society, whose national headquarters are located in Atlanta; and the Winship Cancer Institute at Emory University. Research opportunities are available in other departments at RSPH, The Carter Center, the Georgia Division of Public Health, the Morehouse School of Medicine, the five large teaching hospitals affiliated with Emory University, and state and local health departments. These resources, as well as others in the clinical and basic science divisions of the Emory University School of Medicine, provide students with a wide range of study and research opportunities.

Areas of Concentration

The department offers required courses that focus on epidemiologic methods and analysis. This specialized knowledge allows students to apply their skills to any research area they choose. Students are free to choose, with advisement, electives that will allow informal concentrations in several areas of study, including: cancer, cardiovascular disease, other chronic disease, environmental health, infectious diseases, methods, reproductive health, and women's and children's health.

MPH/MSPH Admission Requirements

Requirements for admission to the MPH and MSPH degree programs in epidemiology include a baccalaureate degree, completion of college-level science and math course work, and the Graduate Record Examination (GRE) or the Medical College Admissions Test (MCAT). At least one semester of calculus, statistics, and biology are preferred.

Applications are evaluated on the basis of several criteria. The applicant's overall academic performance in his/her undergraduate/graduate programs is considered, with particular attention focused on the applicant's science and math coursework. Previous work experience, letters of recommendation, and the applicant's statement of purpose are also taken into account. If your academic transcripts do not document your course work in mathematics, please provide a written summary of the course work and a brief description of the contents of the course. Reference letters should be sent from professors, supervisors, and mentors who have related knowledge and experience with the rigors of graduate study and who can speak to your ability to succeed in the program. Students are only admitted for the fall semester.

PhD Admission and Requirements

Prerequisites for the PhD degree include calculus, a comprehensive science background, including biology and chemistry, and a competitive GRE score. A student entering the PhD program with an MPH/MSPH in epidemiology is required to complete forty-eight credit hours, twenty-four of which must be research. Entering students who do not have a graduate degree in epidemiology are required to take seventy-two credit hours, twenty-four of which must be research. Application information is available online at www.graduateschool.emory.edu/. Applications and all supporting credentials must be received by December 1 for consideration the following fall. Students are only admitted for the fall semester. Please visit www.sph.emory.edu/epi/epiphd.php for additional information.

Epidemiology MPH/MSPH Program Degree Requirements

Students seeking an MPH are required to complete forty-two semester hours, including a research thesis of publishable quality. The curriculum consists of core courses in public health and graduate courses in epidemiology and biostatistics. The MPH program requires a minimum of three or four semesters of study.

The MSPH is an academic degree designed for those students who desire to specialize in methodology. The curriculum consists of core courses in public health and advanced course work in epidemiology and biostatistics. This degree requires forty-eight semester hours and takes a minimum of four semesters of study.

Please visit www.sph.emory.edu/epi/degreeprograms.php for more information about degree requirements and course plans.

Thesis

All MPH and MSPH students in the Department of Epidemiology complete a thesis as part of their requirements for graduation. It is a creative effort demonstrating the student's mastery of epidemiologic concepts and should be of a quality that is worthy of publication. The purpose of the thesis is to enable the student to develop skill in performing research in epidemiology and in presenting the results of such a study. Projects may be made available by the epidemiology faculty for student consideration, or students may develop their own project. In both cases, the project must be completed in consultation with the student's faculty thesis adviser. The faculty thesis adviser must approve the project before the project begins and must evaluate and grade the final thesis for graduation.

Required Courses for the MPH Degree in Epidemiology

Course Number	Course Title	Credit Hours
BSHE 500	Behavioral Sciences in Public Health	2
<i>or</i> BSHE 504	Social Behavior in Public Health	2
EH 500	Perspectives in Environmental Health	2
HPM 500	Introduction to the U.S. Health Care System	2
HPM 502	Introduction to Health Care Management	2
Total Required Core Hours		8
EPI 530	Epidemiologic Methods I with lab	4
EPI 533	Programming in SAS	1
EPI 534	Epidemiologic Methods II with lab	3
BIOS 500	Statistical Methods I with lab	4
BIOS 591P	Statistical Methods II with lab	3
EPI 591U	Application of Epidemiologic Concepts with lab	3
EPI 595R	Practicum	0
EPI 599R	Thesis	4
EPI 740	Epidemiologic Modeling	3
Electives		9
Total for MPH degree in epidemiology		42

Required Courses for the MSPH Degree in Epidemiology

Course Number	Course Title	Credit Hours
BSHE 500	Behavioral Sciences in Public Health	2
<i>or</i> BSHE 504	Social Behavior in Public Health	2
EH 537	Methods in Environmental Epidemiology	2
HPM 500	Introduction to the U.S. Health Care System	2
Total Required Core Hours		6
EPI 530	Epidemiologic Methods I with lab	4
EPI 533	Programming in SAS	1
EPI 534	Epidemiologic Methods II with lab	3
EPI 591U	Applications of Epidemiologic Concepts	3
EPI 538	Advanced Epidemiologic Methods I	2
EPI 595R	Practicum	0
EPI 599R	Thesis	4
EPI 740	Epidemiologic Modeling	3
EPI 750	Analysis of Longitudinal Data	3
BIOS 500	Statistical Methods I with lab	4
BIOS 591P	Statistical Methods II with lab	3
Electives		12
Total for MSPH degree in epidemiology:		48

Interdepartmental Programs

The Department of Epidemiology offers two interdepartmental programs. A joint MSPH degree is offered in **Environmental and Occupational Health and Epidemiology (EH-EPI)**. It also offers a joint MPH or MSPH degree in **Global Epidemiology** with the Hubert Department of Global Health.

For more information and specific coursework, please refer to the Interdepartmental Programs section.

Faculty

Jerome Abramson, Research Assistant Professor. BA, University of Michigan, 1990; PhD, Yale University, 1999. Cardiovascular disease, and hypertension.

Harland D. Austin, Professor. BA, State University of New York-Stony Brook, 1973; MS, 1976; DSc, Harvard University, 1983. Quantitative methods, cancer epidemiology.

Ruth L. Berkelman, Rollins Professor. AB, Princeton University, 1973; MD, Harvard Medical School, 1977. Infectious diseases, emerging infections, surveillance.

John R. Boring III, Professor. BS, University of Florida, 1953; MS, 1955; PhD, 1961. Infectious disease epidemiology, molecular microbiology.

Roberd M. Bostick, Professor and Georgia Cancer Coalition Distinguished Scientist. BS, Wofford College, 1973; MD, Medical University of South Carolina, 1976; Family Medicine, 1976-79; MPH, University of Minnesota, 1990. Cancer epidemiology, etiology and primary prevention of colon and prostate cancer, use of biomarkers of risk and molecular epidemiologic methods in observational studies and chemo-prevention trials.

James W. Buehler, Research Professor. BA, University of California-Berkeley, 1973; MD, University of California-San Francisco, 1977. Improving public health surveillance, infectious diseases, application of epidemiology to public health practice.

John Carter, Research Assistant Professor. BA, University of Virginia, 1963; PhD, Rice University, 1968; MPH, Emory University, 1991. Perinatal epidemiology, nutrition, cancer.

James W. Curran, Professor and Dean. BS, University of Notre Dame, 1966; MD, University of Michigan, 1970; MPH, Harvard University, 1974. AIDS, emerging infectious diseases.

Carolyn D. Drews-Botsch, Associate Professor. BA, University of California-San Diego, 1981; MPH, University of California-Los Angeles, 1983; PhD, 1988. Reproductive and ophthalmic epidemiology, methods.

W. Dana Flanders, Professor. BS, University of Vermont, 1972; MA, Columbia University, 1974; MD, University of Vermont, 1977; MPH, Harvard University, 1979; DSc, 1982. Quantitative epidemiology, methods.

Julie A. Gazmararian, Associate Professor. MPH, University of South Carolina, 1985; PhD, University of Michigan, 1992. Health outcomes; health literacy; maternal and child health; domestic violence.

Michael Goodman, Assistant Professor. MD, Kaunas Medical Academy (Lithuania), 1984; MPH, The Johns Hopkins University, 1995. Cancer epidemiology; prostate cancer, breast cancer, lung cancer, respiratory and neurobehavioral outcomes in children.

Abhinav Goyal, Rollins Assistant Professor. BS, Northwestern University, 1996; MHS, Duke University, 2006; MD, Northwestern University, 1999. Coronary heart disease, stroke, and diabetes mellitus in developing countries, preventive and metabolic cardiology, hyperglycemia in patients with acute coronary syndromes.

Carol J.R. Hogue, Professor and Jules and Uldeen Terry Professor of Maternal and Child Health. AB, William Jewell College, 1966; MPH, University of North Carolina, 1971; PhD, 1973. Women's and children's health epidemiology.

Penelope P. Howards, Assistant Professor. BA, Dartmouth College, 1990; MS, Penn State University, 1994; PhD, University of North Carolina at Chapel Hill, 2004. Reproductive Health.

Sean Kaufman, Senior Associate. BS, San Diego State University, 1996; MPH, 1999. Public health preparedness.

David G. Kleinbaum, Professor. AB, Hamilton College, 1962; AM, University of Rochester, 1964; PhD, University of North Carolina, 1970. Quantitative epidemiology, methods.

Jonathan M. Liff, Associate Professor. BA, University of Chicago, 1973; MS, University of Illinois, 1979; PhD, University of Washington, 1985. Cancer epidemiology and surveillance.

Michele Marcus, Professor. BS, Brooklyn College, 1974; MPH, 1981; PhD, Columbia University, 1986. Reproductive, environmental, neuroepidemiology.

William M. McClellan, Professor. MD, University of Alabama, 1972; MPH, Emory University, 1992. Chronic disease, cardiovascular disease.

John E. McGowan Jr., Professor. BMS, Dartmouth Medical School, 1965; MD, Harvard University, 1967. Infectious disease epidemiology.

Ramkumar Menon, Research Associate Professor. BS, University of Kerala, India, 1988; MS, Wright State University, 1993; PhD, University of Aarhus, Denmark, 2007. Preterm birth, maternal and child health.

Pamela J. Mink, Assistant Professor. BA, Williams College, 1985; MPH, University of Minnesota, 1995; PhD, University of Minnesota, 1999. Cancer epidemiology, role of menopausal hormone therapy, exercise, diet, and obesity in morbidity and mortality among women.

Godfrey P. Oakley Jr., Research Professor. MD, Bowman Gray School of Medicine, 1965; MSPM, University of Washington, 1972. Pediatric and perinatal epidemiology, with emphasis on birth defects, developmental disabilities, genetics.

Bradley Pearce, Research Associate Professor. BS, Florida State University, 1985; PhD, University of Miami, 1990.

Chanley Small, Research Assistant Professor. BA, Brown University, 1991; MS, Stanford University, 1995; PhD, Emory University, 2005. Maternal and child health.

Anne C. Spaulding, Research Assistant Professor. ScB, Brown University, 1984; MD, Medical College of Virginia, 1989; MPH, The Johns Hopkins University, 2005. Infectious and chronic disease epidemiology in correctional and drug-using populations.

Shaoyong Su, Research Assistant Professor. BS, Beijing Normal University, 2000; PhD, Peking Union Medical College and Chinese Academy of Medical Sciences, 2005. Genetic epidemiology of cardiovascular disease.

Kevin Sullivan, Research Associate Professor. BS, Franklin University, 1981; MHA, Ohio State University, 1983; MPH, University of Michigan, 1984; PhD, 1990. Nutritional epidemiology, survey methods, epidemiologic computing.

Patrick Sullivan, Associate Professor. BS, Emory University, 1988; DVM, University of Tennessee, 1992; PhD, University of Tennessee, 1994. Infectious disease, surveillance, animal models for infectious diseases, zoonotic diseases, HIV vaccine development.

Laura Viola Vaccarino, Professor of Medicine. MD, Milan University Medical School, Italy, 1984; PhD, Yale University School of Medicine, 1994. Cardiovascular disease epidemiology. Emory University School of Medicine.

Kevin Ward, Assistant Research Professor. BIE, Georgia Institute of Technology, 1993; MPH, Emory University, 1998; PhD, 2008.

John L. Young Jr., Research Professor and Director, Georgia Center for Cancer Statistics. BA, Baylor University, 1963; MPH, University of North Carolina, 1965; DrPH, 1974. Cancer surveillance and control.

Jointly Appointed Faculty

Susan A. Allen, Professor. MD, Duke, 1984, MPH, UC Berkeley, 1995; BS, Duke 1980. HIV/AIDS, infectious disease, sexual behavior. Global Health.

Michael Benatar, Assistant Professor, MBChB, University of Cape Town, 1992; PhD, Oxford University, 1998. The use of Bayesian statistics in the electrodiagnosis of neuromuscular disease, clinical outcome and treatment of cervical spondylotic as, and the prevention and treatment of familial amyotrophic lateral sclerosis. Emory University School of Medicine.

Henry M. Blumberg, Associate Professor. BA, Washington University, 1979; MD, Vanderbilt University, 1983. Infectious disease epidemiology. Emory University School of Medicine.

Phillip Brachman, Professor. BS, University of Wisconsin, 1950; MD, 1953. Epidemiology, public health surveillance, preventive medicine, infectious diseases, hospital infections. Department of Global Health.

Otis W. Brawley, Professor. BS, University of Chicago, 1981; MD, 1985. Screening, prevention and treatment of hormonal cancer, inclusion of minorities in clinical trials, state-of-art health care to the socioeconomically disadvantaged. American Cancer Society.

Amy Y. Chen, Associate Professor. BA, University of Texas-Austin, 1988; MPH, University of Texas-Houston, 1999; MD, Johns Hopkins University, 1992. Cancer epidemiology, outcomes, health literacy, and compliance. Atlanta Veterans Affairs Medical Center and Emory University School of Medicine.

Lyndsey Darrow, Research Assistant Professor. BA, Stanford University, 2000; PhD, Emory University, 2008. Department of Environmental and Occupational Health.

Cristina Drenkard, Assistant Professor. MD, Universidad Nacional de Rosario, Argentina, 1981; PhD, Universidad Nacional de Cordoba, Argentina, 2002. Emory University School of Medicine.

John William Eley, Associate Professor. BA, Emory University, 1979; MD, 1983; MPH, 1990. Cancer epidemiology and control. Emory University School of Medicine.

Robert P. Gaynes, Associate Professor. BS, University of Illinois, 1975; MD, University of Chicago, 1979. U.S. Centers for Disease Control and Prevention.

Ellen L. Idler, Adjunct Professor. BA, College of Wooster, 1974; MA, Rutgers University, 1976; PhD, Yale University, 1985. Department of Sociology, Emory College.

Joseph M. Kinkade Jr., Professor. AB, Princeton University, 1959; PhD, University of California-Berkeley, 1966. Chronic disease, biomarkers, molecular epidemiology. Emory University School of Medicine.

Uriel Kitron, Professor. BSc, Hebrew University, 1975; PhD, University of California, 1981; MPH, University of Michigan, 1982. Department of Environmental Studies, Emory College.

Mitchel Klein, Research Assistant Professor. BA, State University of New York, 1979; MA, Indiana University, 1986; PhD, Emory University, 1998. Department of Environmental and Occupational Health.

Keith P. Klugman, William H. Foege Chair and Professor. MBBCh, PHD, University of the Witwatersrand (Johannesburg), 1981; DTMH, 1985; FRCPATH, London, 1991; FRSSAfr (South Africa), 1996. Department of Global Health.

Jeffrey P. Koplan, Professor. BA, Yale University, 1966; MD, New York University, 1970; MPH, Harvard University, 1978. Public health, disease prevention, health promotion, decision analysis, health services research. Emory University School of Medicine.

Levy, Karen, Assistant Professor, Department of Environmental and Occupational Health

Juan S. Leon, Assistant Professor. BA, Dartmouth College, 1996; MPH/PhD, Northwestern University, 2003. Department of Global Health.

S. Sam Lim, Assistant Professor. BA, Duke University; MD, State University of New York at Brooklyn. Outcomes and epidemiology of systemic lupus erythematosus. Emory University School of Medicine.

Michael Lindsay, Assistant Professor. BS, Morehouse College, 1975; MD, Yale University, 1979; MPH, Emory University, 1991. Obstetrics and gynecology. Emory University School of Medicine.

Ann C. Mertens, Professor. BS, St. Louis University; MS, University of Minnesota; PhD, University of Minnesota. Pediatric hematology and oncology. Emory University School of Medicine.

Christine L. Moe, Professor. BA, Swarthmore College, 1979; MS, University of North Carolina, 1984; PhD, 1989. Infectious disease, environmental transmission of infectious agents; food-borne and waterborne disease. Department of Global Health.

K. M. Venkat Narayan, Professor. MBBS, St. Johns Medical College, 1980; MSc, University of Edinburgh, 1987; MFPHM, Royal College of Physicians, 1988; MBA, Herriot Watt University, 1995. Department of Global Health.

Saad Omer, Assistant Professor. MBBS (MD), Aga Khan University, 1998; MPH, Johns Hopkins University, 2003; PhD, 2007. HIV, infectious disease, vaccines. Department of Global Health.

Ruth Parker, Professor. BS, Davidson College, 1977; MD, University of North Carolina, 1981. Emory University School of Medicine.

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Roger Rochat, Research Professor. BA, University of Rochester, 1962; MD, University of Washington, 1966. Women's and children's health. Department of Global Health.

Richard Rothenberg, Adjunct Professor. BA, Columbia, 1962; MD, Harvard, 1966; MPH, 1973. Georgia State University Public Health Institute.

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N. Kyle Steenland, Professor. BA, Stanford University, 1968; MA, State University of New York-Buffalo, 1971; PhD, 1974; MS, University of Pennsylvania, 1981; PhD, 1985; MS, University of Cincinnati, 1989. Occupational epidemiology, cancer epidemiology. Department of Environmental and Occupational Health.

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David S. Stephens, Professor. BS, The Citadel, 1970; MD, Bowman Gray University, 1974. Microbiology, immunology. Emory University School of Medicine.

Barbara Stoll, Professor. BA, Barnard College; MD, Yale University. Emory University School of Medicine.

Matthew Strickland, Assistant Professor. BA, Case Western Reserve University, 2000; MA, 2000; MPH, Ohio State University, 2002; PhD, Emory University, 2007. Birth defects, environmental exposures. Environmental and Occupational Health.

David Swerdlow, Clinical Assistant Professor. BA, University of California, 1981; MD, Harvard University, 1986. U.S. disease surveillance, infectious diseases.

Nancy Thompson, Associate Professor. BA, Emory University, 1971; MPH, 1977; PhD, Georgia State University, 1988. Behavioral epidemiology. Department of Behavioral Sciences and Health Education.

Paige Tolbert, Associate Professor. BA, Harvard University, 1979; MSPH, University of North Carolina, 1986; PhD, 1989. Department of Environmental and Occupational Health.

Monnie Wasse, Assistant Professor. BS, Walla Walla College, 1988; MPH, University of Washington, 1993; MD, 1997. Emory University School of Medicine.

Peter W. Wilson, Professor. BS, Yale University, 1970; MD, University of Texas Medical School at San Antonio, 1974. Emory University School of Medicine.

Adjunct Faculty

Fred Angulo, Adjunct Assistant Professor. BS, University of San Francisco, 1978; MS, 1979; DVM, University of California-Davis, 1984; MPVM, 1984; PhD, University of California-Los Angeles, 1994. Centers for Disease Control and Prevention.

Kathryn E. Arnold, Adjunct Assistant Professor. BS, Duke University, 1981; MD, Case Western Reserve University, 1985. Georgia Department of Human Resources, Division of Public Health.

Robert J. Berry, Adjunct Professor. BS, University of Utah, 1968; MPHTM, Tulane, 1977; MD, Cornell, 1973. Centers for Disease Control and Prevention.

Dan Blumenthal, Adjunct Professor. BS, Oberlin College, 1964; MD, University of Chicago, 1968; MPH, Emory University, 1986. Morehouse School of Medicine.

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Peter Cegielski, Adjunct Assistant Professor. BA, Harvard University, 1979; MD, University of California at San Diego, 1984; MPH, University of North Carolina at Chapel Hill, 1995. Infectious Diseases and International Health.

Martin S. Cetron, Adjunct Assistant Professor. AB, Dartmouth College, 1981; MD, Tufts University, 1985. Centers for Disease Control and Prevention.

Robert Chen, Adjunct Professor. BS, University of Illinois, 1977; MA, University of Chicago, 1980; MD, 1982. Centers for Disease Control and Prevention.

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Susan Cookson, Adjunct Associate Professor. BS, Duke University, 1975; MD, University of North Carolina at Chapel Hill, 1985; MPH, Emory University, 2003. Centers for Disease Control and Prevention.

Adolfo Correa, Adjunct Professor. BS, San Diego State University, 1969; MS, University of California-San Diego, 1970; MD, 1974; MPH, The Johns Hopkins University, 1981; PhD, 1987. Centers for Disease Control and Prevention.

Steve Coughlin, Adjunct Associate Professor. BS, University of Nevada, 1978; MPH, University of Nevada, 1984; PhD, Johns Hopkins University, 1987. Centers for Disease Control and Prevention.

Cham Dallas, Adjunct Professor. BA, University of Texas at Austin, 1975; MS, University of Texas School of Public Health, 1982; PhD, 1984. University of Georgia.

Andrew Dannenberg, Adjunct Professor. AB, Swarthmore College, 1974; MD, Stanford University, 1979; MPH, The Johns Hopkins University, 1983. U.S. Centers for Disease Control and Prevention.

Robert L. Davis, Adjunct Professor. BA, Bennington College, 1979; MD, University of California at San Diego; MPH, University of Washington, 1993. Kaiser Permanente of Georgia.

Ann Dilley, Adjunct Assistant Professor. BA, University of Maryland, 1977; MPH, University of California at Los Angeles, 1989; PhD, Emory University, 1994. Atlanta Veterans Affairs Medical Center.

Nicole Dowling, Adjunct Assistant Professor. AB, Harvard, 1988; PhD, Emory University, 2001. Centers for Disease Control and Prevention.

Jonathan Edwards, Adjunct Instructor. BS, University of Kentucky, 1986; MS, 1988. U.S. Centers for Disease Control and Prevention.

Heather S. Feigelson, Adjunct Associate Professor. BS, Colorado State University, 1986; MPH, San Diego State University, 1991; PhD, University of California at Los Angeles, 1995. American Cancer Society.

Stephen J. Fortunato, Adjunct Professor. BS, University of Notre Dame, 1973; MD, University of Cincinnati, 1980. Perinatal Research Center, The Women's Health Research and Education Foundation.

Susan Gapstur, Adjunct Professor. BS, University of Wisconsin, La Crosse, 1983; MPH, University of Minnesota School of Public Health, 1989; PhD, 1993. American Cancer Society.

Karen Glanz, Professor and Georgia Cancer Coalition Distinguished Research Scholar. BA, University of Michigan, 1974; MPH, 1977; PhD, 1979. University of Pennsylvania.

Richard A. Goodman, Adjunct Associate Professor. BA, University of Wisconsin, 1971; MD, University of Michigan, 1975; MPH, University of California at Los Angeles, 1983. U.S. Centers for Disease Control and Prevention.

L. Hannah Gould, Adjunct Professor. BS, University of Texas, 1996; MS, University of California, 2000; PhD, Yale University, 2005. Centers for Disease Control and Prevention.

Jodie L. Guest, Adjunct Associate Professor. BA, Baylor University, 1990; MPH, Emory University, 1992; PhD, 1999. Atlanta Veterans Affairs Medical Center.

Marta Gweinn, Adjunct Associate Professor. BA, University of Louisville, 1977; MD, Vanderbilt University, 1981; MPH, University of North Carolina at Chapel Hill, 1988. Public health genomics.

Alan R. Hinman, Adjunct Professor. BA, Cornell University, 1957; MD, Case Western Reserve University, 1961. U.S. Centers for Disease Control and Prevention.

John M. Horan, Adjunct Professor. BA, College of the Holy Cross, 1970; MD, State University of New York, Upstate Medical Center, 1974; MPH, Johns Hopkins University, 1984. Georgia Department of Human Resources.

Teresa Horan, Adjunct Instructor. BS, California Polytechnic State University, 1979; MPH, The Johns Hopkins University, 1984. U.S. Centers for Disease Control and Prevention.

Dale J. Hu Jr., Adjunct Associate Professor. BA, Stanford University, 1983; MD, University of California at San Diego, 1987; MPH, The Johns Hopkins University, 1989. U.S. Centers for Disease Control and Prevention.

Kashef Ijaz, Adjunct Associate Professor. MBBS, King Edward Medical College, University of Punjab (India), 1989; MPH, University of Oklahoma, 1993. U.S. Centers for Disease Control and Prevention.

Eric Jacobs, Adjunct Associate Professor. BA, University of Chicago, 1989; MS/PhD, University of Washington, 1993. Colorectal cancer and the potential effects of nutritional supplements and common medications such as aspirin and cholesterol-lowering drugs, on the risk of developing cancers.

Ahmedin Jemal, Adjunct Assistant Professor. DVM, Addis Ababa University, 1986; MS, Louisiana State University, 1993; PhD, 1997. American Cancer Society.

Charlotte K. Kent, Adjunct Assistant Professor. BA, Amherst College, 1980; MPH, University of California at Berkeley, 1988; PhD, 2006. U.S. Centers for Disease Control and Prevention.

Ali Shan Khan, Adjunct Professor. BS, City University of New York, 1983; MD, State University of New York, 1987. U.S. Centers for Disease Control and Prevention.

Muin J. Khoury, Adjunct Professor. BS, American University of Beirut, 1975; MD, 1979; PhD, The Johns Hopkins University, 1985. U.S. Centers for Disease Control and Prevention.

Lonnie King, Adjunct Professor. BS, Ohio State University, 1966; DVM, Ohio State, 1970; MS, University of Minnesota, 1979; MPA, American University, 1991. Centers for Disease Control and Prevention.

Denise Koo, Adjunct Professor. BA, Harvard University, 1984; MPH, University of California at Berkeley, 1988; MD, University of California at San Francisco, 1989. Centers for Disease Control and Prevention.



Michael Kramer, Visiting Assistant Professor. BA, Earlham College, 1991; MMSc, Emory, 1997; MS, Alderson-Broadus College, 2004; PhD, Emory, 2009. Maternal and Child Health, Social and spatial epidemiology.

Darwin Labarthe, Adjunct Professor. AB, Princeton University, 1961; MD, Columbia University, 1965; MPH, University of California at Berkeley, 1967; PhD, 1974. Centers for Disease Control and Prevention.

Benjamin Lopman, Adjunct Assistant Professor. BA, University of Florida, 1999; MSc, London School of Hygiene and Tropical Medicine, 2000; PhD, Open University/Health Protection Agency, 2004. Epidemiology, including mathematical modeling of diarrheal diseases in developed and developing countries.

Michael Lynch, Adjunct Assistant Professor. BS, Georgetown, 1985; MD, Tufts, 1989; MPH, Harvard, 2000.

Maurizio Macaluso, Adjunct Professor. MD, University of Palermo (Italy), 1979; DrPH, University of Alabama-Birmingham, 1991. Centers for Disease Control and Prevention.

Mildred Maisonet, Adjunct Assistant Professor. BS, University of Puerto Rico, 1987; MS, University of Puerto Rico, 1991; PhD, Johns Hopkins University, 2001. Centers for Disease Control and Prevention.

Marjorie L. McCullough, Adjunct Associate Professor. BS, Michigan State University, 1983; MS, MGH Institute of Health Professions, 1986; ScD, Harvard University, 1999. American Cancer Society.

Scott J. N. McNabb, Adjunct Associate Professor. BS, University of Oklahoma, 1972; MS, 1979; PhD, 1986. U.S. Centers for Disease Control and Prevention.

Alpa V. Patel, Adjunct Assistant Professor. BS, University of Florida, 1996; MPH, Emory University, 1997; PhD, University of Southern California, 2003. American Cancer Society.

Alexander K. Rowe, Adjunct Assistant Professor; BS, Cornell University, 1987; MD, 1992; MPH, Emory University, 1997. Centers for Disease Control and Prevention.

Elaine Scallan, Adjunct Assistant Professor. BA, National University of Ireland, 1995; MA, National University of Ireland, 1997; PhD, University College of Dublin, 2004. Centers for Disease Control and Prevention.

Myron G. Schultz, Adjunct Professor. DVM, New York State College, 1958; MD, Albany Medical College, 1962; DCMT, London University, 1967. U.S. Centers for Disease Control and Prevention.

David Shay, Adjunct Associate Professor. BA, Duke University, 1984; MD, University of Cincinnati, 1989; MPH, University of Washington, 1997. Centers for Disease Control and Prevention.

Hylan Shoob, Adjunct Assistant Professor. BA, Emory University, 1991; BS, Augusta State University, 1993; MSPH, University of South Carolina, 1996; PhD, 1999. Centers for Disease Control and Prevention.

Craig Smith, Adjunct Associate Professor. BS, University of Georgia, 1977; MS, 1982; MD, Medical College of Georgia, 1984. Phoebe Putney Memorial Hospital.

Robert A. Smith, Adjunct Professor. BA, University of Georgia, 1973; MA, 1975; PhD, State University of New York-Stony Brook, 1984. American Cancer Society.

Jeremy Sobel, Adjunct Assistant Professor. BA, Cornell University, 1987; MD, 1995; MPH, Emory University, 1998. U.S. Centers for Disease Control and Prevention.

J. Michael Soucie, Adjunct Assistant Professor. BS, Ohio State University, 1971; BMedS, Emory University, 1980; MPH, 1988; PhD, 1994. U.S. Centers for Disease Control and Prevention.

Fred C. Tenover, Adjunct Professor. BS, University of Dayton, 1976; MS, PhD, University of Rochester, 1980. U.S. Centers for Disease Control and Prevention.

Stephen B. Thacker, Adjunct Associate Professor. BA, Princeton University, 1969; MD, Mt. Sinai, 1977; MSc, London School of Hygiene and Tropical Medicine, 1984. U.S. Centers for Disease Control and Prevention.

Michael J. Thun, Adjunct Professor. BA, Harvard University, 1964; MD, University of Pennsylvania, 1975; MS, Harvard University, 1983. American Cancer Society.

Kathleen E. Toomey, Adjunct Associate Professor. AB, Smith College, 1973; MPH, Harvard University, 1979, MD, 1979. U.S. Centers for Disease Control and Prevention.

Edwin Trevathan, Adjunct Professor. BS, Lipscomb University, 1977; MD, Emory, 1982; MPH, Emory, 1982. Centers for Disease Control and Prevention.

Andrew A. Vernon, Adjunct Associate Professor. AB, Harvard University, 1971; MD, 1975; MHS, The Johns Hopkins University, 1987. U.S. Centers for Disease Control and Prevention.

Andrew Voetsch, Adjunct Assistant Professor. BA, Emory University, 1993; MPH, 1995; PhD, University of North Carolina, 2005. Centers for Disease Control and Prevention.

Suma Vupputuri, Adjunct Assistant Professor. BSc, McGill University, 1994; MPH, Tulane University, 1996; PhD, 2001. Kaiser Permanente, Georgia.

Elizabeth Ward, Adjunct Professor. BA, State University of New York at Buffalo, 1973; MS, University of Pennsylvania, 1982; PhD, University of Pennsylvania, 1983. American Cancer Society.

Ian T. Williams, Adjunct Professor, BA, College of William and Mary, 1986; MS, Ohio State University, 1988; PhD, Johns Hopkins University, 1994. Centers for Disease Control and Prevention.

Shanita D. Williams-Brown, Adjunct Assistant Professor. BSN/MN, University of South Carolina, 1991; PhD, Georgia State University, 2001; MPH, Johns Hopkins University, 2002. Morehouse School of Medicine.

Carla A. Winston, Adjunct Assistant Professor. BA and MA, Stanford University, 1994; PhD, Emory University, 2003. Centers for Disease Control and Prevention.

Epidemiology Course Descriptions

EPI 504 (2) Fundamentals of Epidemiology

Spring. Prerequisite: college algebra. Non-EPI students only. Emphasizes the underlying concepts of the epidemiological approach, stressing study design. Discusses the calculation and interpretation of measures of frequency, association, and public health impact. Discusses sources of study error including the influence of chance, bias, confounding, and effect modification. Introduces basic concepts of standardizing rates, surveillance, and screening.

EPI 515 (3) Introduction to Public Health Surveillance

Spring. Prerequisite: EPI 504 or EPI 530. Teaches the basic principles of public health surveillance, including the establishment of a public health surveillance program, the collation and analysis of data, and the preparation and distribution of a report. Helps students to recognize the importance of a direct association between a public health surveillance program and public health action. Helps students become familiar with the use of computers in public health surveillance, with public health surveillance systems conducted in developed, as well as developing countries, and with public health surveillance programs as applied to all public health problems involving either infectious or noninfectious diseases. Cross-listed with GH 515.

EPI 516 (2) Translating Epidemiology for Decision Making: Issues in Women's Health

Fall. Prerequisite: EPI 504 or EPI 530; BIOS 500. Presents issues in women's health that are a biological function of being female, but not pathologies of reproduction. These include cardiovascular disease, osteoporosis, and breast and cervical cancer. Addresses health problems related to the physiological and psychological aspects of being female. These include depression, premenstrual syndrome, addictive behavior, and violence perpetrated by and against women.

EPI 530 (4) Epidemiologic Methods I with Lab

Fall. Prerequisite/concurrent: BIOS 500. Required for epidemiology majors. Emphasizes the concepts and premises of the science of epidemiology. Stresses methods of hypothesis formulation and evaluation. Introduces techniques for quantifying the amount of disease (or other health indicator) in populations, followed by discussion of epidemiologic study designs useful

for identifying etiologic factors and other relevant correlates of disease. Students gain facility with the calculation of basic epidemiologic measures of frequency, association, and impact. The concepts of random variability, bias, and effect modification are examined in detail. The use of stratified analysis, including Mantel-Haenszel techniques, is explored. Inferences from study results are discussed. Students are required to analyze and critique studies from the current medical and scientific literature.

EPI 533 (1) Programming in SAS

Fall. Permission only. Required for epidemiology majors. This is an applied computer analytic course utilizing a database to cover univariate analysis—frequencies, cross-tabs, stratification, and multivariate analysis, logistic regression.

EPI 534 (3) Epidemiologic Methods II with Lab

Spring. Prerequisites: EPI 530, BIOS 500, and BIOS 501 (BIOS 501 may be taken concurrently). Required for epidemiology majors. Emphasizes the statistical foundations of epidemiological methods. The concepts of matching, confounding, effect modification, and interaction are further developed. Presents modeling techniques for epidemiological data analysis, including logistic regression for matched and unmatched studies. Examines some survival analysis methods. Statistical packages such as SAS are used.

EPI 535 (2) Epidemiology in Public Health Practice

Spring. Prerequisite: EPI 530. Uses a series of case studies to teach the principles and practice of epidemiology, ranging from surveillance and descriptive epidemiology to outbreak investigations and analytic methods. Focuses on the use of sound epidemiological judgment. Cross-listed with GH 535.

EPI 536 (2) Applied Data Analysis

Fall. Prerequisites: EPI 504 or EPI 530, BIOS 500. This is an applied computer analytic course covering frequencies, cross-tabs, stratified analysis, and logistic regression. Global health students only.

EPI 537 (2) Epidemiology of Chronic Disease

Fall. Prerequisite: EPI 530. Emphasizes the distribution and determinants of chronic disease within the population. Research design and analysis are not the primary focus of the course, but methodological issues are considered when pertinent to the interpretation of findings.

EPI 538/738 (2) Advanced Epidemiologic Methods I

Spring. Prerequisites: EPI 530, EPI 534, BIOS 500, BIOS 501 (EPI 534 and BIOS 501 may be taken concurrently). Covers a wide variety of topics in epidemiological methodology. Topics include basic epidemiological measures, confounding, misclassification, selection bias, types of case-control studies, Berkson's bias, matching, and estimation of epidemiological parameters.

EPI 540 (2) Case Studies in Infectious Disease

Fall. Prerequisites/concurrent: EPI 504 or EPI 530 and BIOS 500 or permission of instructor. Provides training in the investigation, control, and prevention of infectious diseases by both descriptive and analytic epidemiological techniques. Students work with infectious diseases of national and international interest. Cross-listed with GH 517.

EPI 541 (2) Hospital/Healthcare Epidemiology

Spring. Prerequisites/concurrent: EPI 505 or EPI 530 and BIOS 500. This course provides training in the investigation, control, and prevention of hospital-acquired infectious diseases and other hospital events by the use of appropriate epidemiologic techniques, both descriptive and analytic.

EPI 542 (1) Tuberculosis: A Re-emerging Health Problem

Spring. Prerequisite: EPI 504 or EPI 530. Provides training in the domestic and international public health aspects of tuberculosis, its epidemiology and diagnosis, the theory and practice of treatment and the means of prevention in developed and developing countries, and the interaction between HIV and tuberculosis. Cross-listed with GH 502.

EPI 544 (1) Epidemiology of Foodborne and Diarrheal Diseases

Fall. Prerequisite/concurrent: EPI 504 or EPI 530. Covers the basic epidemiology of infectious foodborne and diarrheal diseases of the United States and the world. Uses the study of these diseases and outbreak investigations to develop broadly applicable epidemiologic skills. Explores dynamic relationship between changing global environment and human health—evolving and emerging pathogens, changes in food production and distribution, and changes in the human population.

EPI 546 (2) Methods in HIV Epidemiology

Spring. Prerequisites: EPI 530, BIOS 500, or instructor permission. Explores the epidemiology of the HIV epidemic in the United States through a detailed examination of the major types of epidemiologic studies that have led to our current understanding of the epidemic. Students gain an understanding of important issues in the epidemiology of HIV in the United States, and, as importantly, increase their understanding of the strengths and weaknesses of various epidemiologic study designs and the interpretation of data from such studies.

EPI 550 (2) Epidemiology and Dynamics of STD and HIV Transmission

Fall. Not offered every year. Prerequisite/concurrent: EPI 504 or EPI 530. Explores the social, biologic, and public health issues of sexually transmitted diseases and their overall importance in public health. Topics include the basic biology and epidemiology of the major STDs, the implication of transmission models for prevention, and the psychosocial, behavioral, and economic aspects of STD/HIV. Cross-listed with GH 550.

EPI 552 (1) Human Genome Epidemiology

Spring. Prerequisite/Concurrent: EPI 504 or EPI 530. Designed for students interested in the intersection of epidemiology, genetics, preventive medicine, and health policy. Introduces students to applications of epidemiologic methods, and approaches to evaluating the use of human genetic discoveries in medicine and public health. With the completion of the human genome project, the epidemiologic approach is now urgently needed to assess the prevalence of genetic variation in the population, to characterize the burden of disease associated with genetic variation and gene-environment interaction, and to evaluate the impact of genetic tests in reducing morbidity and mortality. Students learn to identify types of information needed to translate genetic discoveries into medicine and public health, and to review and evaluate such information in the scientific literature.

EPI 553 (3) New Topics in Epidemiologic Methods

Spring. Prerequisites: EPI 530, EPI 534, BIOS 500, BIOS 501, EPI 740. Covers new topics in the design and analysis of epidemiologic studies including: potential influence of measurement error on epidemiologic effect measures, Bayesian approaches to estimating epidemiologic effects, the meaning of a “positive” dose response, alternative methods of sampling controls in case-control studies, non-parametric or semi-parametric methods for estimating exposure-response curves, Bayesian approaches to the program of multiple comparisons, and quantitative methods for incorporating uncertainty in the estimation of epidemiologic effect measures.

EPI 558 (2) Global Issues in Antimicrobial Resistance

Spring. Develops tools to understand the microbiological, behavioral, and economic factors that contribute to the expanding epidemic of infectious diseases that may become untreatable due to the emergence of resistance. Provides a framework for intervention studies. Cross-listed with GH 558.

EPI 560 (2) Cardiovascular Disease Epidemiology

Spring. Prerequisite: EPI 504, or EPI 530. Emphasizes the distribution and determinants of cardiovascular disease within the population. Research design and analysis are not the primary focus of the course, but methodological issues are considered when pertinent to findings interpretation.

EPI 562 (2) Emerging Infectious Diseases

Spring, alternating years. Prerequisite/concurrent: EPI 504 or EPI 530 or permission of instructor. Previous course work in microbiology strongly preferred. Examines factors that contribute to the emergence and re-emergence of infectious diseases, and provides a framework for assessing the public health threat from infectious diseases and for recommending an appropriate response. Fundamental principles of infectious disease surveillance and epidemiology, as well as pathogenesis, are addressed. Cross-listed with GH 518.

EPI 564 (2) Public Health Preparedness and Bioterrorism

Fall. Acquaints students with major topics associated with past and potential future acts of bioterrorism. Includes familiarity with disease agents and their pathology, epidemiology, and means of dispersion. Students become knowledgeable in the key elements of planning the response to bioterrorism at all functioning levels of public health. Cross-listed with GH 564.

EPI 565 (2) Data Sources and Methods in MCH Epidemiology: An Introductory Course in Applied MCH Epidemiology

Spring. Not offered every year. Prerequisites: graduate level courses in epidemiology and biostatistics and SAS or Epi Info skills. Introduces students to data sources and methods commonly used by epidemiologists in state or provincial health departments. Data sources include websites, census, vital statistics, and surveys (PRAMS). Methods include record linkage, questionnaire design, mapping, trend analysis, perinatal periods of risk, cluster investigation, small number analysis, and secondary data analysis.

EPI 566 (2) Vaccines and Immunization

Spring. Provides an introduction to the entire spectrum of vaccines and immunization: from basic bench research through testing, licensure, and use; program design, implementation, and

evaluation; and social, economic, and political factors affecting the use of vaccines. Emphasizes the international setting, though examples are also taken from developed countries. Cross-listed with GH 566.

EPI 590R (1–2) Epidemiology Seminar

Fall or Spring, not offered every year. Various topics by Epi faculty.

EPI 591A (2) Biosafety Principles and Practices for Laboratories

Spring. Not offered every year. An introduction to biosafety, this course emphasizes how general biosafety strategy and practices used in high-containment laboratories minimize risk to the health and safety of laboratory staff. This course provides a general overview of biocontainment, biosecurity concerns, laboratory risk assessments, responding and recovering from laboratory emergencies, and provides students with the opportunity to experience working in a high-containment “mock” laboratory. This course also examines the difference in biosafety practices, biosafety levels, BSCs, and laboratory design. Cross-listed with EOH 591A.

EPI 591S (2) Social Epidemiology

Spring. Prerequisites: EPI 504 or EPI 530. This course will focus on the contribution of social factors to health and disease in human populations. With an emphasis on both theory and methods, seven topics of contemporary interest to public health research will be covered in depth: (1) social status; (2) race, ethnicity and racism; (3) geography/place; (4) immigration; (5) health literacy; (6) stress; and (7) social support.

EPI 591U (2) Application of Epidemiologic Concepts with Lab

Spring. Prerequisites: EPI 530, BIOS 500, EPI 533. Provides a conceptual overview to the development and implementation of epidemiologic studies. Covers assessment of causation and its influence on study design, assessing and minimizing bias, and development of data collection instruments. Required for epidemiology and global epidemiology students.

EPI 595R (0) Practicum

Fall, Spring, Summer. Enables students to apply skills and knowledge through a supervised field training experience in a public health setting that complements the student’s interest and career goals.

EPI 597R (1–3) Directed Study

Provides the opportunity to pursue a specialized course of study in an area of special interest. Complements rather than replaces or substitutes for course work.

EPI 599R (4) Thesis

Fall, Spring, Summer. Permission of faculty adviser required. Students prepare a monograph that embodies original research applicable to public health. This incorporates a hypothesis that has been successfully evaluated with appropriate statistical and epidemiological techniques, and is potentially publishable and has public health impact.

**EPI 739 (2) Advanced Epidemiological Methods II**

Fall. Prerequisite: EPI 530, EPI 534, BIOS 500, BIOS 510 (may be taken concurrently). Permission required. Deals with a variety of topics in quantitative epidemiological methodology. Topics include concepts of study design and the relationship to hazard rates and ratios, conditional logistic regression, polytomous logistic regression, continuation odds ratio models, and Poisson regression.

EPI 740 (3) Epidemiological Modeling

Fall. Prerequisites: EPI 530, EPI 534, BIOS 500, BIOS 501, or BIOS 591P. Previous course work/experience in epidemiologic methods and regression required. Offers methods for analyzing multivariable data sets in order to evaluate epidemiological research questions involving relationships between exposure and disease variables.

EPI 743 (2) Epidemiology of Cancer

Fall. Prerequisite: EPI 504 or EPI 530 or permission of the instructor. Presents basic issues and methodologies relevant to the investigation of cancer epidemiology. Assigned readings of current and past journal and review articles provide the basis for classroom discussion. Cancer etiology and control issues are covered.

EPI 744 (2) Pediatric and Perinatal Epidemiology

Fall. Prerequisites: EPI 530 and EPI 534 or permission of instructor. A survey course to review the current knowledge about various topics related to factors that affect pregnancy outcome. Introduces methodologic issues that are specific to these studies. Methodologic issues are addressed in the context of choosing study design options and evaluating current research, including choice of study populations, prevalence issues, selection issues, confounding, misclassification, and etiologic heterogeneity.

EPI 746 (2) Reproductive Epidemiology

Spring. Prerequisite: EPI 504 or EPI 530. Reviews the epidemiology of human reproductive function and the methodologic issues involved in studying reproduction. Topics include male and female infertility, pregnancy loss, the impact of infectious diseases on reproduction, contraceptive efficacy, unintended pregnancy, and environmental and occupational impacts on reproduction.

EPI 747/EOH 537 (2) Methods in Occupational and Environmental Epidemiology

Fall. Prerequisites: EPI 530, EPI 534, BIOS 500, BIOS 501, or permission of instructor. Explores design and analysis issues specific to occupational and environmental epidemiology. Case studies representative of a variety of exposures, outcomes, and study designs are used to illustrate the application of epidemiological principles to the study of exposures occurring in the workplace and in the general environment.

EPI 750 (3) Analysis of Longitudinal Data in Epidemiological Research

Spring. Prerequisite: EPI 530, EPI 534, EPI 740, BIOS 500, BIOS 501. Permission required. Offers methods for analyzing longitudinal data sets to evaluate epidemiological research involving relationships between exposure and disease variables.

EPI 790R (1) PhD Journal Club

PhD students only. Presents discussions by invited guests, faculty, and students of special topics and research findings.

EPI 797R (1–3) Directed Study

PhD students only. Provides the opportunity to pursue a specialized course of study in an area of special interest. Complements rather than replaces or substitutes for course work.

EPI 798R. Pre-candidacy Research

PhD students only. Dissertation research.

EPI 799R (VC) Research

PhD students only. Dissertation research.

RES 999/PUBH MPH Graduate in Residence

Full-time status. Must have completed all course hours.

Department of Health Policy and Management

www.sph.emory.edu/

www.sph.emory.edu/CMPH/

Kenneth E. Thorpe, Chair

The Department of Health Policy and Management (HPM) offers courses of study leading to the Master of Public Health (MPH) and the Master of Science in Public Health (MSPH) degrees through the Rollins School of Public Health (RSPH) and the a Doctor of Philosophy (PhD) degree through the Emory University Graduate School of Arts and Sciences in collaboration with the departments of economics and political science. The residential MPH programs of the HPM department are oriented to professional public health practice with concentrations in either health services management or health policy. The MSPH in health policy research focuses on building analytic skills for the assessment and development of health-related public policy. Through participation in the career master of public health (CMPH) program, the department offers a health outcomes option in a distance learning format. Additional information on admission processes, course sequencing, and course scheduling can be found on the HPM and CMPH websites.

The HPM department cooperates with other Emory schools in offering several residential dual degree programs. The collaboration with Goizueta Business School leads to the MBA and the MPH with a concentration in health policy. The joint offerings with the Emory School of Medicine lead to MD and MPH degrees for medical students; the MMSc and MPH for physician assistants students; and, the DPT and MPH degrees for physical therapy students with a concentration in health services management. The collaborations with Emory University School of Law, the Nell Hodgson Woodruff School of Nursing, and the Candler School of Theology lead, respectively, to the JD and MPH, the MSN and MPH, or the MDiv and MPH or MTS and MPH, with concentrations in either health services management or health policy.

Interdisciplinary in philosophy and content, the courses of the Department of Health Policy and Management are designed to provide students with a comprehensive background in the conceptual and analytical knowledge necessary to understand and improve health status and health services delivery. The orientation of the HPM courses aligns academic knowledge with best professional practice. The teaching programs of the department are reinforced by its adjunct faculty members, all of whom are working in the health sector. They provide students with a professional practice perspective in the ever-changing and evolving health care system.

The HPM faculty is interdisciplinary. Academic backgrounds and active research commitments include economics, political science, management, epidemiology, and sociology, as well as the clinical health sciences. Major research areas include comparative health systems analysis and health reform initiatives in the United States, Europe, as well as both emerging and developing economies. Individual members are conducting research in clinical economics of cardiovascular disease and cancer, outcomes and effectiveness research, quality of life measures, payment systems, physician reimbursement and physician profil-

ing, mental health policy, women's health policy, and health care labor markets. HPM is home to the Emory Center on Health Outcomes and Quality. It focuses on the cutting edge issues relating to health outcomes studies and methodology. PhD dissertations and MSPH theses build on the research activities of the faculty. MPH students are encouraged to identify research opportunities with individual members of the faculty. The department conducts collaborative research with other components of Emory University and with The Carter Center, the United States Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), the World Bank, voluntary organizations, U. S. corporations, and Atlanta-based hospitals and health care institutions.

Department Admission Criteria

Students in the master's programs come from a variety of academic and professional backgrounds. Some are mid-career professionals who have considerable experience as managers, policy makers, or clinicians. Others are more recent graduates from a variety of academic backgrounds who are beginning their professional careers in public health. Combined with students in the dual-degree programs, the result is a diverse student body that is encouraged to contribute its knowledge and experience to classroom experience. Applicants are expected to demonstrate both strong academic skills, including analytical, quantitative, and verbal skills, as well as leadership potential in their chosen field. Barring exceptional circumstances, students are admitted only at the fall semester. The residential option may be completed on either a full-time or part-time basis. The department does not offer an evening program. Individuals interested in a program that has evening and weekend options should consider the CMPH options.



PhD Department Admission and Program Requirements

The Department of Health Policy and Management offers a PhD program in health services research and health policy through the Graduate School of Arts and Sciences (GSAS). An online application is available at www.emory.edu/GSOAS. Students specialize in economics and political science and take most of their coursework in the departments of economics and political science. The Department of Health Policy and Management offers doctoral seminars in health policy, health economics, and empirical methods.

The admissions process focuses on qualifications indicating that the candidate is likely to excel as a scholar in an academic or applied research organization. Demonstration of quantitative aptitude, as indicated by previous coursework or GRE scores, is particularly important. International students whose native language is not English must attain a minimum score of 560 or more on the paper Test of English as a Foreign Language (TOEFL) or 200 or higher score on the computer-based TOEFL. To be considered for admission in fall 2008, applications and supporting credentials must be received by January 4, 2008. Please see the Department of Health Policy and Management website at www.sph.emory.edu/hpm/doctoral.php for a full description of the doctoral degree course and dissertation requirements.

MPH-MSPH Departmental Program Requirements

The MPH in both HPM residential options and the MSPH in health policy research build on the public health core of epidemiology, biostatistics, environmental health, and the behavioral sciences. HPM required course work includes Health Policy and Resource Allocation, Financial and Managerial Accounting, Health Economics, and Theory of Health Care Organizations. During the first semester as a graduate student, MPH students choose either the policy or management option. Courses are sequenced and scheduled with prerequisites. Students not following the recommended course-sequencing pattern will find it necessary to extend their programs beyond their original expectations. Each MPH option concludes with a set of two capstone courses. After at least ten hours of MPH or MSPH course work, each student is responsible for completing a field-work experience or practicum. The HPM residential MPH programs require forty-two semester hours for graduation. The forty-eight hour MSPH requires a master's thesis. For those considering doctoral work or a career in health services research, the MSPH is recommended. In addition to the required courses students have the opportunity to expand their education through a variety of HPM selectives. Students wishing to take elective courses outside the departmental list of selective courses may request permission to do so by petitioning the HPM chair. Exemptions must be justified in the context of enhancing the degree program in which the student is enrolled.

MPH PROGRAMS

MPH Required Core Courses

Course Number	Course Title	Credit Hours
BSHE 504	Social Behavior in Public Health	2
or BSHE 500	Behavioral Sciences in Public Health	2
BIOS 500	Statistical Methods I	3
BIOS 500L	Statistical Methods I Lab	1

EOH 500	Perspectives in Environmental Health	2
EPI 504	Fundamentals of Epidemiology	2
<i>or</i> EPI 530	Epidemiologic Methods I (prerequisite or concurrent with BIOS 500)	3

MPH Required HPM Core Courses

HPM 501	Health Policy and Resource Allocation	3
HPM 510	Financial and Managerial Accounting	3
HPM 521	Introduction to Health Economics	3
HPM 530	Theory of Health Care Organizations	3
HPM 595R	Practicum	0

Health Policy Option Requirements

HPM 522	Economic Evaluation of Health Care Programs	3
HPM 523	Public Financing in the Health Care System	3
HPM 561	Public Health Law	2
<i>or</i> HPM 557	Healthcare Administration Law	2
HPM 575	Capstone I: U.S. Health Policy	3
HPM 576	Capstone II: Policy Analysis: Analytic Applications Selectives	3 8

Health Services Management Option Requirements

HPM 511	Financial Management for Health Care Organizations	3
HPM 540	Human Resource Management in Health Care	2
HPM 545	Health Care Marketing	2
HPM 557	Health Care Administration Law	2
<i>or</i> HPM 561	Public Health Law	2
HPM 550	Capstone I: Operations Management	3
HPM 560	Capstone II: Strategic Management Selectives	3 7

MSPH PROGRAM

MSPH Required Core Courses

Course Number	Course Title	Credit Hours
BSHE 504	Social Behavior in Public Health	2
<i>or</i> BSHE 500	Behavioral Sciences in Public Health	2
BIOS 500	Statistical Methods I	3
BIOS 500L	Statistical Methods I Lab	1
<i>or</i> by petition a more advanced statistical analysis course		
EOH 500	Perspectives in Environmental Health	2
EPI 504	Fundamentals of Epidemiology	2
<i>or</i> EPI 530	Epidemiologic Methods I (prerequisite or concurrent with BIOS 500)	3

MSPH in Health Policy Research Required HPM Courses

HPM 581	Research Seminar I (Process)	1
HPM 582	Research Seminar II (Design)	2
HPM 583	Research Seminar III (Analysis)	2
HPM 584	Research Seminar IV (Presentation)	2
HPM 585	Quantitative Methods I (Database Management—SAS)	2
HPM 586	Quantitative Methods II (Statistical Analysis—Stata)	3
HPM 587	Advanced Research Methods	3
HPM 501	Health Policy and Resource Allocation	3
HPM 510	Financial and Managerial Accounting	3
HPM 521	Introduction to Health Economics	3
HPM 530	Theory of Health Care Organizations	3
HPM 522	Economic Evaluation of Health Care Programs	3
HPM 523	Public Financing in the Health Care System	3
HPM 595R	Practicum	0
	Selectives	6

Faculty

E. Kathleen Adams, Professor. BS, Florida State University, 1970; MS, 1972; PhD, University of Colorado, Boulder, 1979. Costs of illness, public financing of health care, Medicaid and low-income populations, provider supply.

Adam J. Atherly, Associate Professor. BA, University of Arizona, 1989; MA, University of Washington, 1992; PhD, University of Minnesota, 1998. Quality outcomes measurement, health economics.

Edmund R. Becker, Professor. BS Westminster College, 1971; MA, Ohio University, 1973; PhD, Vanderbilt University, 1981. Health care organization and financing, health politics and policy, organizational theory and behavior, physician payment and productivity, unions and labor relations.

Sarah C. Blake, Senior Associate. BA, University of South Carolina, 1992; MA, The George Washington University, 1996. Health policy, health care financing and delivery for underserved populations, welfare reform, women's health, maternal and child health.

Walter M. Burnett, Visiting Professor. BA, Wesleyan University, 1959. MA University of Iowa, 1964; PhD University of Iowa, 1965. Strategic Management, medical care organization, health policy analysis.

Steven D. Culler, Associate Professor. BA, College of Wooster, 1977; MA, 1979; PhD, University of Illinois, 1981. Health care financial management, cost effectiveness analysis, outcomes research, and health economics.

Janet R. Cummings, Assistant Professor. BA, University of North Carolina, Chapel Hill, 1999; PhD, University of California at Los Angeles, 2009. Mental health services, health disparities, geographic variations in health care access and utilization, and children's health.

Benjamin G. Druss, Rosalynn Carter Chair in Mental Health, Professor. BS, Swarthmore College, 1985; MD, New York University, 1989; MPH, Yale University, 1995. Mental health services, mental health policy research.

Joyce D. K. Essien, Visiting Associate Professor and Director, Office of Public Health Practice; BS, Wayne State University, 1969; MD, 1971; M.BA, Georgia State University, 1988. Health reform and public health policy, preventive health systems, continuous quality improvement, clinical laboratory systems design and management.

Laura Gaydos, Assistant Research Professor. BA, Brown University, 1998; PhD, University of North Carolina, Chapel Hill, 2004. Adolescent/child health, faith-based health, health policy, maternal and child health.

Ron Goetzel, Research Professor. BS, City College of New York, 1972; MA, New York University, 1975; PhD, New York University, 1981. Worksite health and productivity, management evaluation, return-on-investment analysis.

David H. Howard, Associate Professor. BA, Vassar College, 1994; PhD, Harvard University, 2000. Health economics, medical decision making.

Kara Jacobson, Visiting Senior Research Associate. BA, Emory University, 1991; MPH, Emory University, 1993. Associated with the Emory Center on Health Outcomes and Quality. Health outcomes, health promotion and prevention programming, health literacy, arthritis.

Joseph Lipscomb, Professor and Georgia Cancer Coalition Distinguished Cancer Scholar; BA, Vanderbilt University, 1970, PhD, University of North Carolina at Chapel Hill, 1975. Outcomes research with a focus on cancer, quality of care assessment, cost-effectiveness analysis, health workforce planning, decision modeling.

Victoria L. Phillips, Associate Professor. BA, Tulane University, 1986; DPhil, Oxford University, 1991. Health economics, labor markets for health professionals, long-term and community-based care, economic evaluation.

Kimberly Rask, Research Associate Professor. Director, Emory Center on Health Outcomes and Quality; BA, Bryn Mawr College, 1980; MD, University of Pennsylvania, 1984; PhD, University of Pennsylvania, 1991. Access to medical care, public hospital needs of underserved populations. Jointly appointed with the Emory University School of Medicine.

Cheryl L. Raskind-Hood, Visiting Senior Associate; BS Syracuse University, 1982; MS State University of New York, 1984; MPH Emory University, 1995, research design and methods.

Richard B. Saltman, Professor. BA, Dartmouth College, 1969; MA, 1971; PhD, Stanford University, 1980. Comparative health policy, organization theory, United States health policy, health systems reform, accountability and governance.

Kenneth E. Thorpe, Robert W. Woodruff Professor and Chair, Department of Health Policy and Management; BA, University of Michigan, 1978; MA, Duke University, 1980; PhD, Rand Graduate Institute, 1985. Director, Emory Center on Health Outcomes and Quality. United States health policy and finance.

Zhou Yang, Assistant Professor. MB (internal medicine), Beijing University of Chinese Medicine, 1996; MPH, University of California at Los Angeles, 1999; PhD, University of North Carolina, Chapel Hill, 2003. Cost and efficacy of prescription drugs, economic burden of chronic diseases.

Emeritus Faculty

Fredric D. Kennedy, Emeritus Professor. BE, Yale University, 1956; BS, 1958; MBA, University of California, Los Angeles, 1961; PhD, University of North Carolina at Chapel Hill, 1974.

Roland J. Knobel, Emeritus Professor; BS Miami University, 1946; MA, George Washington University, 1966; PhD, University of Michigan, 1970.

Stephen Margolis, Emeritus Professor. BA, Yeshiva University 1963; PhD, Cornell University, 1970.

Jane C. Nelson, Emeritus Professor; BA, Barry College, 1965; MEd, University of Washington, 1969; PhD, University of Florida, 1977; MPH, Emory University, 1992.

Jointly Appointed Faculty

Amy Y. Chen, Assistant Professor and Director; BA, University of Texas at Austin, 1988; MD, The Johns Hopkins School of Medicine, 1992; MPH, University of Texas School of Public Health, 1999. Health services research. Emory University School of Medicine; Atlanta Veterans Affairs Hospital.

John L. Ford, Professor. Senior Vice President and Dean for campus life; BA, Boston University, 1966; MSW, University of Michigan, 1968; MPH, University of Michigan, 1969; PhD, University of Michigan, 1976. Health Services Research. Senior Vice President for Campus Life.



Michael M.E. Johns. Chancellor. BS, Wayne State University, 1964; MD, University of Michigan Medical School, 1968. Executive Vice President for Health Affairs.

Jeffrey P. Koplan, Professor and Director, Global Health Initiative. BA, Yale University, 1966; MD, New York University, 1970; MPH, Harvard University, 1978. Director, Global Health Initiative.

Deborah A. McFarland, Associate Professor. BA, Ohio Wesleyan University, 1968; MPH, University of North Carolina, Chapel Hill, 1973; MSc, London School of Economics, 1984; PhD, University of Tennessee, 1987. Health policy, health financing in UNITED STATES and developing countries, comparative health policy, health systems reform, equity and the poor. Jointly appointed with the Department of Global Health.

Ani B. Satz, Associate Professor of Law. BA, University of Tulsa, 1994; PhD Monash University (completed at Princeton University), 2001; JD, University of Michigan, 2001. Health law, law and philosophy, torts, and disability law. School of Law.

Adjunct Faculty

Jeff Booth, Adjunct Instructor. BBA, Emory University, 1984; MBA, 1994. Partner, PriceWaterhouseCoopers.

Ayanna V. Buckner, Adjunct Assistant Professor. BS, Xavier University of Louisiana, 1997; MD, MPH, Yale 2005; MD, Meharry Medical College, 2001. Morehouse School of Medicine.

Stuart Capper, Adjunct Professor. BA, Tulane University, 1969; MHA, Tulane University; 1971; Tulane, PhD, 1976. Samford University.

Darren Collins, Adjunct Instructor. BS, Indiana University, 1992; MPH Candidate, Emory University. Bearing Point.

Fred H. Downs, Adjunct Assistant Professor; BSN, Jacksonville State University, 1975; MSN, University of Alabama at Birmingham. Practice Management Services.

- Myra J. Downs**, Adjunct Assistant Professor. BSN, Jacksonville State University, 1973; MSN, University of Alabama at Birmingham, 1977. The Mann Group.
- Curtis S. Florence**, Adjunct Assistant Professor. BA, University of Alabama, 1989; PhD, University of North Carolina, 1997; Health and labor economics, econometrics.
- Allan B. Goldman**, Adjunct Assistant Professor. BS, City College of New York, 1966; MPH, Emory University, 1976. Georgia Division of Aging Services.
- Robert E. Gross**, Adjunct Assistant Instructor. BA, University of Maryland, 1971; MBA, Loyola College, 1977. Databases in health care, health care revenue cycle. PriceWaterhouseCoopers.
- Michael T. Halpern**, Adjunct Professor. BA, Cornell University, 1984; MD, University of Michigan, 1992; PhD, 1992. American Cancer Society.
- Leigh S. Hamby**, Adjunct Associate Professor. BS, Emory University, 1984; MD, Emory University, 1988; MSHA, University of Alabama, 2000. Vice President, Piedmont Hospital.
- David Harrell**, Adjunct Assistant Professor. BS, Nova University, 1989; MSFS, American College, 1981; MHA, Mercer University 1993; PhD, Walden University, 2001. 3M Consulting Services.
- Carol Koplan**, Adjunct Assistant Professor. BA, Brandeis University, 1964; MD, Tufts University, 1968. The Carter Center.
- Robert K. Merritt II**, Adjunct Assistant Professor; BA, Washington and Lee University, 1987. MA, Emory University, 1991. U.S. Centers for Disease Control and Prevention.
- Jean O'Connor**, Adjunct Assistant Professor. BS, Emory University, 1998; JD/MPH Emory University 2001. Consultant.
- Robert Carl Osborne**, Adjunct Assistant Professor. BS, Emory University, 1970. MD & MS University of Alabama, 1974. MBA, University of Alabama, 1996. American Diabetes Associates.
- Christopher E. Press**, Adjunct Assistant Professor. BBA, Ohio University, 1976; MBA, University of Cincinnati, 1980. Morgan Health Care Consulting.
- Douglas Roblin**, Adjunct Assistant Professor. BA, Indiana University of Pennsylvania, 1975; MA, University of Chicago, 1978; PhD, 1984. The Center for Health Research/Southeast, Kaiser Permanente, Georgia.
- Enid Chung Roemer**, Adjunct Assistant Professor. BA, Wellesley College, 1995; PhD, George Washington University, 2005.
- Hana Ross**, Adjunct Assistant Professor. MPH, Prague School of Economics (Czech Republic), 1992; MA, University of Illinois, 1999; PhD, 2000. American Cancer Society.
- Lawrence Sanders Jr.** Adjunct Assistant Professor. BA, Clemson University, 1977; MD, Vanderbilt University, 1981; MBA, University of Pennsylvania, 1988. Southwest Hospital and Medical Center.
- Richard Sanders**, Adjunct Assistant Professor. BA, Duke University, 1992, JD, Emory University, 1996. Private law practice.
- Fred Shaw**, Adjunct Professor. BA, University of New Hampshire, 1973; MD, University of Vermont College of Medicine, 1977; JD, Columbia Law School, 1992. Public Health Law. Centers for Disease Control and Prevention.
- Russell B. Toal**, Adjunct Assistant Professor. AB, University of Illinois, 1974; MPH, University of North Carolina, 1976. Institute of Public Health, Georgia State University.
- Ed Varian**, Adjunct Assistant Professor. BA, Findlay University, 1961. Kaiser Foundation Health Plan of Georgia. Human Resources Consultant.
- Scott Wetterhall**, Adjunct Associate Professor. BA, Columbia University, 1975; MD, Tufts University, 1979; MPH, University of Washington, 1989. RTI International.
- Jon W. Wollenzien Jr.**, Adjunct Assistant Professor. BBA, Marshall University, 1985; MS-HCA, University of Osteopathic Medicine and Health Sciences, 1990; DBA, Nova Southeastern University, 1999. Palmetto Health Council Inc.

Health Policy and Management Course Descriptions

HPM 500 (2) Introduction to the U.S. Health Care System

Fall, Spring. Required for all MPH students except those in the HPM Department. Introduces students to the U.S. health care system, both the public and private sector. Examines the structure of the health system, current topics in health care reform, the policy process, and advocacy for public health.

HPM 501 (3) Health Policy and Resource Allocation

Fall. Required for students in the residential MPH options offered by the HPM Department. Examines the formulation and implementation of health policy in the U.S. health care system. Emphasizes the application of analytical contributions from health economics, health services research, and other policy-related disciplines to current issues in health care delivery, organization, and financing.

HPM 502 (2) Introduction to Health Care Management

Fall, Spring. Required for all MPH students except those in the HPM Department. Introduces the theory and principles of management. Topic areas include motivation, leadership, organizational change, human resources administration, organizational theory, strategic planning, and management control systems. Teaches practical applications of management theory through case studies and group discussions.

HPM 510 (3) Financial and Managerial Accounting

Fall. Introduces the basic accounting concepts, analytical techniques, decision-making tools, and vocabulary needed for effective management of health care organizations. The first part of the course is devoted to the fundamentals of accounting, including preparation and analysis of financial statements. The second part covers the generation, use, and interpretation of accounting information for making managerial decisions.

HPM 511 (3) Financial Management for Health Care Organizations

Spring. Prerequisite: HPM 510. Introduces the fundamental theories and relationships guiding financial decision making as they apply to the management of health care organizations. Focuses on the key managerial issues related to maintaining and expanding a health care organization's assets. Selected topics in this course include short-term assets management, discounting cash flow analysis, capital acquisition decisions, and capital budgeting decisions.

HPM 513 (4) Health Care and Society Seminar Abroad

Summer. Focuses on issues and problems in health care delivery in Britain and the United States. Emphasizes the comparative social organization of the two countries, contrasting the evolution and current status of the two health care systems. Explores the linkage of medical practice to the larger socio-cultural context in terms of public policy and social change. Offered jointly by the Rollins School of Public Health and the University Department of Sociology in a six-week seminar and field study program in London.

HPM 521 (3) Introduction to Health Economics

Fall. Introduces basic supply and demand concepts applied to health care markets, using micro-economic theory. Topics of discussion include what does or does not make health care distinctive as an economic good, the market for health care in theory and practice, and economic proposals to overcome existing market failure.

HPM 522 (3) Economic Evaluation of Health Care Programs

Spring. Prerequisite: HPM 521 or permission of instructor. Prerequisites: HPM 500 or HPM 501, and HPM 521. Examines the theory, methods, and applications of economic evaluations (cost-effectiveness, cost-benefit, cost-utility) of health care programs, using examples from both developing and developed countries. Applications range from economic evaluations of medical procedures to economic evaluations of intervention programs in developing countries.

HPM 523 (3) Public Financing in the Health Care System

Spring. Prerequisites: HPM 500 or HPM 501, and HPM 521. Focuses on the principles of public finance to enable students to evaluate tax subsidies and revenue structure used to finance health care with comparisons to alternative structures. Students apply the concepts of equity and efficiency in financing health care at the national and state levels.

HPM 530 (3) Theory of Health Care Organizations

Fall. Reviews a variety of conceptual frameworks for understanding organizational theory and behavior. Presents alternative strategies for improving organizational performance. Emphasis is placed on applying general theory to health care organizations.

HPM 540 (2) Human Resource Management in Health Care

Spring. Prerequisites: HPM 501 and HPM 530 or permission of the instructor. Provides an overview of interpersonal dynamics, conflict resolution, and human resource management in health care organizations.

HPM 545 (2) Health Care Marketing

Spring. Prerequisites: HPM 501 and HPM 510 or permission of the instructor. Presents the basic concepts of marketing in the context of the delivery of health care services in the United States. Students undertake an applied marketing project on a group basis.

HPM 550 (3) Capstone Seminar: Management

Fall, summer. Prerequisites: HPM 501, HPM 510, HPM 511, HPM 521, HPM 530, HPM 540, HPM 545, HPM 561 or 557, or permission from department chair. Integrates various analytical approaches developed in prerequisite courses into practical decision making by analyzing the problems of day-to-day operations within the health care organization. Includes problems in personnel staffing, personnel training and directing, financial control, performance measurement, and planning. Uses a case method approach.

HPM 554 (2) Quality Improvement Methodologies for Health Care

Summer. Prerequisite: HPM 500 or HPM 501 or permission of the instructor. Presents a theoretical framework to facilitate the continuous improvement of quality in health care organizations. Introduces multiple approaches, including outcome measurement and case management. Emphasizes team development, analytical statistics, and process knowledge.

HPM 556 (2) Physician Performance

Fall. Prerequisite: HPM 500 or HPM 501 or permission of the instructor. Provides a systematic review of the major determinants of the performance of physicians, who by one estimate directly or indirectly influence 70 to 90 percent of all medical activities. Covers practice variation; medical appropriateness; patient and physician characteristics; uncertainty and medical

decision-making; organizational characteristics and financial incentives; error and negligence; measuring MD performance via physician profiling, report cards, managed care; changing practice; utilization management; standards and professional society guidelines.

HPM 557 (2) Healthcare Administration Law

Spring. Introduces students to legal aspects of contemporary issues associated with the administration of health services organizations. Through readings, lectures and group interactions, the course will analyze the legal relationships between individual providers, payors, and regulatory entities and their impact on administration of these organizations.

HPM 559 (3) Negotiation and Conflict Management in the Health Care Setting

Spring. The purpose of this course is to understand the basic theory and processes of negotiation so that the student can negotiate successfully in a variety of organizational settings. Students will develop these skills by preparing for and simulating a variety of case study negotiations.

HPM 560 (3) Capstone Seminar: Management

Fall, summer. Prerequisites: HPM 501, HPM 510, HPM 511, HPM 521, HPM 530, HPM 540, and HPM 545 and HPM 557 or 561 or permission from department chair. This course is intended as the integrative Capstone course for management students completing their degree in Health Policy and Management. Examines the formulation and implementation of business strategies in health care organizations, models of strategic management, and the role of stakeholders in the strategic management process. Reviews specific analytical tools used in strategy formulation, choice, and implementation, with an emphasis on real-world health care applications.

HPM 561 (2) Fundamentals of Public Health Law

Spring. Introduces students to U.S. and international legal environments of public health, including constraints imposed by constitutional, statutory, and conventional requirements. Addresses the sources of law and their interrelationships, legal protections of fundamental rights, government police powers, social welfare and entitlements programs, health care regulation, access to health care, ethics, legal liability, health care financing, and legal influences on public health programs in developing countries. Students are also exposed to the political and advocacy aspects of the law-making process as it relates to public health.

HPM 562 (2) Health Insurance Concepts

Spring. Introduces the basic structure, pricing, and management of financial risks by private health insurance plans, and the estimation of future expenditures for public health insurance programs. Examines the operation of health insurance plans from both the buyer and the insurer perspectives; how health plans employ actuarial estimates to project the cost of their benefit packages and determine the premiums they charge; and methodology as it pertains to the projection of costs in public health insurance programs.

HPM 563 (2) Aging and Health Care Issues

Fall. Acquaints the students with physical, social, psychological, and economic changes related to aging and the impacts of an aging population on the delivery of health care services. Demographic trends, public policies, recent legislation, long-term care, Alzheimer's disease, family care giving, and the socioeconomic characteristics of the elderly are discussed.

HPM 564 (3) Health Outcomes

Fall. Prerequisite: HPM 500 or HPM 501 or permission of instructor. Assists students in understanding outcomes research and provides a background in the basic tools used in outcomes studies.

HPM 565 (2) Health Care for the Indigent

Fall. Prerequisite: HPM 500 or HPM 501, or permission of instructor. Explores the problems of uninsured Americans in obtaining health care. Reviews the scope of the current problem and the role of existing programs, as well as future directions for health policy. Addresses practical issues in program administration, with an emphasis on Medicaid and other indigent care programs.

HPM 566 (3) Mental Health Policy

Spring. Prerequisite: HPM 500 or HPM 501, or permission of instructor. Provides an overview of mental health policy in the United States and the epidemiology of psychiatric disorders, with an emphasis on recent challenges of financing and providing care to special populations. Reviews the stigma and discrimination toward individuals with mental illnesses. Examines mental health care in the context of total health care. Looks at the impact of health care reform and advocacy and how mental health care in the United States compares to other countries. Identifies strategies for the prevention and amelioration of mental disorders and the rehabilitation of individuals with serious mental disorders.

HPM 569 Women's Health Policy: A Lifecycle Approach

Spring. Instructs students in understanding the historical, social, political, legal, and economic factors and values that have influenced the development and implementation of health policy pertaining to women in the United States. Addresses current key policy and advocacy issues and examines varying views of women's rights, roles, and responsibilities in the health care system.

HPM 570 (3) Comparative Health Care Systems

Spring. Prerequisite: HPM 500 or HPM 501 or permission of instructor. Explores and analyzes the current reform process in European and North American health systems. Emphasizes normative policy as well as financial objectives, and the conflicting interests of key actors. Concludes with a consideration of implications for health system reform in the United States.

HPM 571 (2) Introduction to Public Health Practice

Fall. The course is an introduction to the public health sector of the healthcare economy, including its history, organization, and financing. The unique relationships between the public and private sectors are discussed. Changing patterns and roles of public health agencies in public health practice are emphasized.

HPM 572 (2) Contemporary Health Policy Issues

Fall. The seminar focuses on building a sophisticated understanding of current and proposed public policy for a set of selected current clinical and public health issues. The topics will vary from semester to semester depending on which issues are seen to be imminent for legislative renewal or reform.

HPM 573 (3) Access to Health Care: Measures, Determinants and Current Issues

Fall. Topics in the course include the measurement of access and examination indicators of access over time and across states and constituent groups. The determinants of access including age, race, ethnicity, income, insurance and health risk are presented. Current topics in access are integrated into the course. These include racial disparities, immigrant status, geographic variation, the uninsured and access under Medicaid.

HPM 574 (2) Health Literacy—Importance as a Public Health Problem

Spring. The purpose of this course is to provide students with the academic background to describe health literacy as an important public health problem. Course content will focus on the prevalence of literacy problems in America, the relationship between health literacy and health outcomes, organizational approaches to improving health literacy, assessment and development of appropriate educational materials from a clear and simple perspective, and patient education in the health care setting.

HPM 575 (3) Capstone Seminar: Policy

Fall. Prerequisites: HPM 501, HPM 510, HPM 521, HPM 522, HPM 523, HPM 530, HPM 561 or 557, or permission from the department chair. This course is intended as the integrative Capstone course for policy students completing their degree in Health Policy and Management. Concentrates on the reform process in the U.S. health care system. Reviews major proposals for system reform currently under consideration in national and state capitals. Considers likely mechanisms for implementing reforms in the United States. Investigates advanced topics in health policy, including governance and accountability models.

HPM 576 (3) Capstone Seminar: Policy

Fall. Prerequisites: HPM 501, HPM 510, HPM 521, HPM 523, HPM 522, HPM 530, HPM 561 or 557. Quantitative Program Evaluation. Presents a framework for evaluating policies and understanding how political factors influence policy development. The first part of the course explores the use of quantitative techniques to model the impact of policies. These techniques include dynamic models, queuing models, decision analysis, and cost-benefit analysis. Emphasis is placed on applying empirical and theoretical tools learned in previous classes. The second part draws on the disciplines of political science and public choice economics to study the behavior of participants in the policy making process.

HPM 577 (2) The Mental Health/Medical Interface in the United States

Spring. The seminar explores the complex and dynamic relationship between general health and mental health in the United States. Gaps in parity and proposal for achieving parity are discussed in the context health reform.

HPM 581 (1) Research Seminar I

Fall. The seminar introduces the health services research process, ethical problems faced by researchers and the development of the MSPH thesis. Enrollment is limited to students admitted to the MSPH in health policy research.

HPM 582 (2) Research Seminar II

Spring. Prerequisite: HPM 581. The seminar introduces the student to the various study design options that currently used by health services researchers in dealing with health policy issues. Enrollment is limited to students admitted to the MSPH in health policy research or the HPM doctoral program.

HPM 583 (2) Research Seminar III

Fall. Prerequisite: HPM 581, 582. The seminar provides HPM MSPH students with the guidance necessary for developing a quantitatively-based thesis using large secondary data sets. It begins with development of a researchable health policy question and the selection of appropriate databases and operational definitions. Enrollment is limited to students admitted to the MSPH in health policy research.

HPM 584 (2) Research Seminar IV

Spring. Prerequisite: HPM 581, 582, 583. The seminar provides HPM MSPH students with the guidance necessary for successfully completing a quantitatively-based master's thesis. The seminar concludes with the defense of the thesis and the production of a finished study.

HPM 585 (2) Quantitative Methods I

Fall. The course is an introduction to SAS software with a focus on organizing and merging large databases for purposes applying statistical analysis. The course complements the introduction to SAS in the BIOS 500 lab. Enrollment is limited to students in the HPM MSPH program.

HPM 586 (3) Quantitative Methods II

Spring. Prerequisite: HPM 585 and BIOS 500. This course introduces student the STATA software with a focus on using the software for statistical analysis for data which has been organized using the SAS software. The course builds on the concepts intro in BIOS 500 and concludes with regression analysis. Enrollment is limited to students admitted to the HPM MSPH program or permission of the instructor is required.

HPM 587 (3) Advanced Research Methods

Fall. Prerequisite: HPM 582, 586. The course provides the opportunity for students to explore in depth the major research methods used in health policy research. The emphasis is on employing methods which are consistent with the limitations of study data and study assumptions. Enrollment is limited to students admitted to the MSPH in health policy research or the HPM doctoral program.

HPM 590 (VC) Seminar: Selected Topics in Health Services Management

Prerequisite: permission of instructor.

HPM 591 (VC) Seminar: Selected Topics in Health Policy

Prerequisite: permission of instructor.

HPM 591F (2) Informatics for Public Health Management and Policy

Designed for individuals with careers focused on decision- and/or policy-making responsibilities in health care organizations. Highlights the policy and management issues associated with the mixture of information technology health care and public health decision making. To build a basic decision-making perspective and skills, each student prepares and presents a decision-based project proposal.

HPM 595R (0) Practicum

Students who do not have prior experience in a health care organization must fulfill a practicum requirement.

HPM 598R (VC) Special Study Project

Presentation of a paper that defines a problem in public health, reviews the literature on this subject, details the methodologies for data collection and analysis, describes findings and conclusions, and discusses implications for public health.

HPM 599R (VC) Thesis

Preparation of a monograph based on original research applicable to public health. Should be publishable or have potential public health impact.

HPM 720R (8) Doctoral Seminar in Health Policy

The purpose of this year-long seminar is to acquaint students with the major areas of health policy research, active areas of research in health policy and economics, and faculty from the Department of Health Policy and Management and elsewhere in the University who conduct health policy research. The course will address a different topic every week, and the instructor for that week will provide an overview of the topic, discuss the research methods that are used to study the topic, highlight the seminal works in the area, and lead a discussion of the readings.

HPM 740 (4) Doctoral Seminar in Health Economics

This reading course is designed to acquaint students with advanced mathematical theoretical economics. Students will learn theoretical models of health behavior, estimate health production functions, learn the economics of insurance and adverse selection. They will develop tools to evaluate the advantages/shortcomings of health care markets (hospitals, insurance, pharmaceutical).

HPM 760 (4) Doctoral Seminar in Health Services Research

This class is designed to acquaint students with the major tools of health services research. The course will also highlight existing and emerging issues in health services research, policy and management. Discussions of options for addressing the issues, and a review of the empirical literature evaluating their impact are examined.

Hubert Department of Global Health

www.sph.emory.edu/

Carlos del Rio, Chair

Roger Roachat, Director of Graduate Studies

The Hubert Department of Global Health (GH) offers a course of study leading to the Master of Public Health (MPH) degree. Students have the option to select one of four areas of concentration: infectious diseases, community health and development, public nutrition, or reproductive health and population studies. Graduation requires 42 hours of credit, 70 percent of which are school, department, or concentration required courses. Flexibility and personal attention are hallmarks of the program.

A great strength of the department is the cultural and ethnic diversity of our students, faculty and staff. In the 2009–2010 academic year, the student body included students from 25 different countries. The department is the host of the Humphrey Fellowship program. Humphrey fellows are mid-career professionals from developing countries who are selected for their leadership potential. Additional international fellows are funded by the Foege, Fulbright, and Muskie Programs.

A major strength of the Rollins School of Public Health is the opportunity for students to participate in field work as a part of their program. These field experiences include a wide range of program, research, and service opportunities. Opportunities are available both with local agencies such as the U.S. Centers for Disease Control and Prevention (CDC), the American Cancer Society, CARE, and The Carter Center as well as an extensive network of national and international organization. Funding for travel is available on a competitive basis through three endowments: Foege, Gangarosa, and Hubert.

Graduates of the program find employment abroad with international and bilateral agencies, government departments, nongovernmental organizations, and research and academic institutions. Many also work with U.S.-based organizations concerned with global issues. In addition, many graduates find opportunities in the domestic sector in a variety of settings, demonstrating that the knowledge and skills learned in the department are widely applicable.

The department co-sponsors a PhD program in nutrition and health sciences. This program is administered by the Graduate School of Arts and Sciences of Emory University. MPH graduates have successfully gained admission to this PhD program in the past.

Interdepartmental and Dual Degree Programs

The Department of Global Health offers two interdepartmental programs and eight dual degree programs. For more information about each of these programs, please see the 'Interdepartmental Degrees' or 'Dual Degree' sections of this catalog.

The first interdepartmental program, facilitated in collaboration with the Department of Environmental Health, is the Global Environmental Health MPH. This program is designed to provide students with the basic skills required to address environmental health issues worldwide.

The second interdepartmental program, facilitated in collaboration with the Department of Epidemiology, is the Global Epidemiology MPH or MSPH. This program is designed to provide students with qualitative and quantitative research methodologies that enable graduates to contribute to the global public health sector.

The department also offers eight dual-degree programs facilitated in collaboration with other schools within the University. We offer a MSN/MPH with the Nell Hodgson Woodruff School of Nursing, a MBA/MPH with the Goizueta School of Business, MD/MPH, DPT/MPH and PA/MPH with The School of Medicine as well as a JD/MPH with the School of Law, as well as an MDiv/MPH and MTS/MPH with the Candler School of Theology. In addition to the previous internal dual degree programs, the department offers an external MD/MPH program. Students in good standing at any fully accredited U.S. medical school are welcome to apply to the Rollins School of Public Health for an MPH year. It is strongly recommended that the MPH year follow the clinical year of the medical school, usually the third year in conventional medical school curricula.

Department Admission Criteria

The Department of Global Health actively seeks a multicultural body of graduate students. Minimum requirements for admission include satisfactory completion of a four-year baccalaureate degree or its equivalent, a strong commitment to global health and an appreciation of cultural diversity. Work or academic experience in the health field is highly desirable but not essential. Preference is given to students who have advanced training and applied experience in the global arena. This might include working with underserved populations, volunteer or mission experience, Peace Corps, AmeriCorps, etc.

In general, all applicants (U.S. and non-U.S.) are required to submit test scores from the Graduate Record Examination (GRE). Test scores submitted may not be more than five years old. Waivers are granted for some students who have prior doctoral-level degrees from U.S. institutions. Applicants who have recently taken the Medical College Admissions Test (MCAT) may submit these scores as alternative to the GRE. International applicants from non-English-speaking countries are required to take the Test of English as a Foreign Language (TOEFL).

Global Health Program Requirements

Completion of the MPH degree with a specialty in global health requires forty-two semester hours of course work. Full-time students complete these requirements in two years. Students are required to take RSPH/departmental core courses as well as courses from their selected area of concentration. Students may choose from a wide variety of electives from both within the department as well as from the school at large. Students must also complete a four credit hour thesis project which may take the form of a research thesis, a special studies project, or a systematic review of the literature. Topics should be relevant to global public health.

The Department of Global Health and RSPH place great importance on the practicum, which is designed to complement academic training with practical, hands-on experience. All students must show evidence of substantial practical public health experience relevant to the field of global health prior to receiving clearance for graduation. The practicum may provide an opportunity for some students to gather data or experience required in the development of their thesis or special studies project. In order to help students meet the costs of international travel for practicum, Rollins offers the Global Field Experience Award on a competitive basis.

Please find the school as well as Department core requirements outlined below. Additional requirements will be explored by concentration.

Department of Global Health Core Requirements

RSPH Core (12 credits)

Course Number	Course Title	Credit Hours
BIOS 500	Statistical Method I	4
BSHE 500 or 504	Behavioral Sciences	2
EPI 530	Epidemiological Method I	4
EOH 500	Perspectives in Environmental Health	2

Department Core (6 credits)

GH 501	Policies in Global Health	3
GH 542	Evidence-Based Strategies	3

Methods Section (6 credits)

Students are required to complete a minimum of 6 credits in approved methods courses. Please see your academic adviser to discuss course selection.

GH 599R/598R	Thesis/Special Study Project	4
GH 595R	Practicum	0
Total Core Required Courses		28 credits

Infectious Disease Concentration

Infectious diseases remain central determinants in the health and development of all populations. Emerging infections such as pandemic H1N1 influenza A-2009 present ongoing challenges to our health systems. Defining the causes, patterns, and options for the prevention, control or treatment of infectious diseases is key to a comprehensive public health policy for all countries. During the past sixty years, significant advances have been made in reducing the threat of a number of infectious diseases. Smallpox has been eradicated through the close collaboration of all countries. With the continuation of current worldwide efforts, poliomyelitis and dracunculiasis (guinea worm disease) are likely to be eradicated in the next 5–10 years.

At the same time, we recognize significant problems with emerging and reemerging infections. The increasing occurrence of tuberculosis, malaria, HIV/AIDS, antibiotic resistant hospital-acquired infections, pneumococcal disease, cholera, and hantavirus disease are but a few of the current global health problems. We have defined the problems and, in many instances, know what needs to be done for control and prevention. However, there are still areas that need research efforts to better define the problems and select the best methods of control and prevention.

The infectious disease concentration is designed to prepare students to assume appropriate, responsible positions to address these significant global infectious disease problems. Students will be strengthened in their abilities to provide leadership, research, and service throughout the world.

Course Requirements

The requirements for the infectious disease concentration include two required courses that total five to six credits and elective courses that total four to six credits. To gain necessary skills in the areas of epidemiology/research, program management, or health promotion, students should take additional courses in these areas. Students in the infectious disease concentration have the potential to develop their special study project or thesis with adjunct faculty at the U.S. Centers for Disease Control and Prevention, The Carter Center, or CARE.

ID Concentration Core

Course Number	Course Title	Credit Hours
Both courses required, 5–6 credits		
GH 511	International Infectious Diseases	2–3
GH 515	Introduction to Public Health Surveillance	3

Suggested Electives

BSHE 516	Behavioral Epidemiology	3
EPI 544	Foodborne and Diarrheal Diseases	1
GH 506	Introduction to Microbial Risk Assessment	1
GH 512	Health in Complex Emergencies	2
GH 516	Global Perspectives in Parasitic Diseases	3
GH 517	Case Studies in Infectious Diseases	2
GH 518	Emerging Infectious Diseases	2
GH 528	Public Health/Clinical Microbiology Labs	2
GH 529	Water and Sanitation in Developing Countries	2
GH 535	Epidemiology in Public Health Practice	2
GH 538	Food and Nutrition in Human Emergencies	2
GH 544	Field Trials and Intervention Studies	2
GH 550	Epi and Dynamic of STD/HIV Transmission	2
GH 558	Global Issues in Antimicrobial Resistance	2
GH 562	Epi of Tuberculosis	1
GH 563	AIDS: Public Health Implications	2
GH 564	Public Health Preparedness and Bioterrorism	2
GH 566	Immunization Programs and Policies	2
GH 571	Vaccines and Vaccine Preventable Diseases	2
GH 580	Control of Food and Waterborne Diseases	2
GH 582	Global Climate Change: Health Impacts and Response	2

Public Nutrition Concentration

Nutritional problems exist at global, national, community, and individual levels and include hunger, childhood malnutrition, famine, suboptimal growth, infection, dietary imbalance or deficiency, and chronic disease. Public Nutrition addresses population-based dietary and nutritional problems by elucidating their extent, determinants, and consequences. Public Nutrition also is concerned with the development and evaluation of policies and programs to address nutrition concerns. Public Nutrition therefore takes a global

perspective, spanning the concerns of wealthy and poor nations. The public nutrition practitioner requires a solid understanding of the biology of nutrition, the socioeconomic and demographic influences on nutrition, and the principles of design, implementation, and evaluation of interventions. Students from both developed and developing countries can use these skills to serve government ministries, private voluntary organizations, technical assistance agencies, applied research institutions, and universities.

Course Requirements

The core requirements in public nutrition include four to five credits of concentration courses and a minimum of four credits of concentration electives. Students are also encouraged to take additional elective courses of their choice based on the skill set they may desire (epidemiology, health promotion, or program management). Special projects and analytical theses are often conducted in conjunction with ongoing faculty research projects, or within an international agency or local action group program.

PN Concentration Core

Course Number	Course Title	Credit Hours
(GH 545 and one other course required (4–5 credits))		
GH 545	Nutritional Assessment (required)	2
<i>plus</i>		
GH 546	Maternal and Child Nutrition	3
<i>or</i>		
GH 551	Diet and Chronic Disease	2
<i>or</i>		
GH 552	Global Elimination of Micronutrient Malnutrition	2

Concentration Electives (minimum 4 credits, can include concentration core courses)

GH 523	Obesity and Society	2
GH 534	Diabetes: A Model for Global Noncommunicable Disease Prevention and Control	2
GH 538	Food and Nutrition in Humanitarian Emergencies	2
GH 548*	Human Nutrition I (cross-listed IBS 580)	6
GH 549*	Human Nutrition II (cross-listed IBS 581)	6
GH 590R	Nutrition Seminar	1
GH 591L	Assessment of Dietary Intakes	2

**Courses designed primarily for the PhD program in nutrition and health sciences that would be appropriate for students seeking basic courses in nutritional biochemistry or metabolism, or the clinical aspects of nutrition. A maximum of three credits from these two courses may be counted towards the public nutrition concentration requirement.*

Reproductive Health and Population Studies Concentration

The concentration in reproductive health and population studies is based on the long-standing public health interest in the links between population dynamics (fertility, mor-

tality, and migration) and population health. Students can choose from a variety of topics for in-depth study, including fertility and family planning, maternal nutrition, prenatal and perinatal care, (adverse) pregnancy outcomes, gender and sexual health, HIV/AIDS, migration and health, chronic disease, population and individual aging and the relationship between population and development. Students who concentrate in reproductive health/population studies will differ in the career focus they wish to pursue. Thus, this concentration prepares students for either programmatic or research work in reproductive health/population studies, depending on their career objectives. Students who wish to pursue a programmatic focus develop competencies in public health policy and programmatic skills relevant to reproductive health problems. All students are encouraged to learn methods of data collection, cross-cultural analysis, and analytic techniques for the study of fertility, mortality, and migration, broadly construed.

Every effort is made to have students gain an interdisciplinary perspective on population and reproductive health. Interdisciplinary courses are offered within the department, and students are encouraged to seek courses from other departments in the school and University as well. This concentration also maintains close ties with the U.S. Centers for Disease Control and Prevention, with which some of the world's foremost scientists in the field of reproductive health are affiliated. A number of these scientists play an important role in the concentration by serving as course lecturers and by mentoring students.

RHPS Concentration Core

The reproductive health/population studies concentration requires students to complete at least six credits from the following list:

Course Number	Course Title	Credit Hours
GH 502	Global Health Survey Research Methods	3
GH 523	Obesity and Society	2
GH 527	Migration and Health	2
GH 530	The Global Elimination of Maternal Mortality from Abortion	2
GH 539	Reproductive Health Program Management	2
GH 540	Population Dynamics	2
GH 539	Reproductive Health Program Management	2
GH 541	Technology of Fertility Control	2
GH 547	Issues in Sexual and Reproductive Health	3
GH 559	Gender and Global Health	2
GH 569	Introduction to Demography for Public Health	1
EPI 565	Data Sources & Utilization in MCH Epi	2
Suggested Electives		
BIOS 501	Statistical Methods II	4
EPI 516	Translating Epi for Decision Making: Issues in Women's Health	2
EPI 534	Epidemiologic Methods II	3
EPI 533	Programming in SAS	2
GH 515	Introduction to Public Health Surveillance	3

GH 546	Maternal and Child Nutrition	3
GH 550	Epidemiology and Dynamics of STD/HIV Transmission	2
GH 563	AIDS: Public Health Implications	2
GH 573	Gender, Sexuality, and Global Health	2

Community Health and Development Concentration

The community health and development concentration prepares professionals to work at national, district, and community levels in order to strengthen indigenous capacity to achieve well-being and improve health. Graduates of this concentration will have the capacity to work with grassroots organizations, private voluntary groups, governmental agencies, and other sector providers to design, implement, manage, and evaluate community-based public health initiatives. Emphasis will be given to the development of public health skills, the acquisition of knowledge about working within local communities in different cultural settings and development contexts, and promoting behavioral change for healthier communities.

CHD Concentration Core

Course Number	Course Title	Credit Hours
GH 505	Case Studies in Global Health Management	1
GH 560	Monitoring and Evaluating Global Public Health Programs	3

Suggested Electives

GH 504	Effective Oral Communications	1
GH 507	Health as Social Justice	2
GH 511	International Infectious Diseases	2–3
GH 512	Health in Complex Emergencies	2
GH 514	Communicating for Healthy Behavior and Social Change	2
GH 515	Introduction to Public Health Surveillance	3
GH 516	Global Perspectives in Parasitic Diseases	3
GH 517	Case Studies in Infectious Diseases	2
GH 518	Emerging Infectious Diseases	2
GH 524	Health Systems Performance and Health Systems Financing Methods and Evidence	2
GH 527	Migration and Health	2
GH 529	Water and Sanitation in Developing Countries	2
GH 538	Food and Nutrition in Humanitarian Emergencies	2
GH 539	Reproductive Health Program Management	2
GH 540	Population Dynamics	2
GH 541	Technology of Fertility Control	2
GH 546	Maternal and Child Nutrition	3
GH 551	Diet and Chronic Disease	2
GH 552	Global Elimination of MNM	2
GH 559	Gender and Global Health	2

GH 562	Epi of Tuberculosis	1
GH 563	AIDS: Public Health Implications	2
GH 572	Community Transformation	2
GH 580	Control of Food and Waterborne Diseases	2
GH 582	Global Climate Change: Health Impacts and Response	2
BIOS 501	Statistical Methods II	4
EPI 534	Epidemiology Methods II	3
EPI 533	Programming in SAS	2
HPM 522	Economic Evaluation of Health Care Programs	3
HPM 570	Comparative Health Systems	3
INFO 530	Geographic Information Systems	3

OTHER DEGREE OPTIONS IN GLOBAL HEALTH

Global Health Leadership

This program is designed for professionals who have doctoral degrees (MD, PhD, or foreign equivalent) and four or more years of developing world experience, and who identify an MPH program as important to upgrading their knowledge and skills for leadership responsibilities in health and development. The program of study requires 42 credit hours and is designed to be completed in two years. With guidance from a faculty mentor and an academic adviser, students in the leadership concentration can craft an educational program to meet a personally developed set of learning objectives. Each participant will develop a specific program-related project or research project for implementation upon their return to the field.

Leadership Concentration Core Requirements

RSPH Core (12 credits)

Course Number	Course Title	Credit Hours
BIOS 500	Statistical Method I	4
BSHE 500 or 504	Behavioral Sciences	2
EPI 530	Epidemiological Method I	4
EOH 500	Perspectives in Environmental Health	2

Department Core (6 credits)

GH 501	Policies in Global Health	3
GH 542	Evidence-Based Strategies	3

Methods Section (6 credits)

Students are required to complete a minimum of 6 credits in approved methods courses. Please see your academic adviser to discuss course selections.

GH 595R	Practicum	0
GH 599R/598R	Thesis/Special Study Project	4

MSPH in Public Nutrition

The MSPH in Public Nutrition includes nutrition and public health core requirements, elective courses, and a thesis. The program of study requires forty-eight credit hours and is designed to be completed in two years. The nutrition core provides students with an overview of basic human nutrition, familiarity with nutrition assessment methods, and an overview of major nutrition problems, related programs and policies. Students who complete this concentration will be prepared to work on the full range of nutrition problems afflicting both developed and developing countries. The public health core courses provide students with a strong quantitative foundation as well as an understanding of global health problems and policies.

MSPH in Public Nutrition Requirements (48 credits required)

RSPH core

Course Number	Course Title	Credit Hours
BIOS 500	Statistical Methods I	4
BIOS 501	Statistical Methods II	4
BSHE 500 or 504	Behavioral Sciences	2
EPI 530	Epidemiological Methods I	4
EOH 500	Perspectives in Environmental Health	2
EPI 534	Epidemiological Methods II	3

Department Core (6 credits)

GH 501	Policies in Global Health	3
GH 542	Evidence-Based Strategies	3

Methods Section (6 credits)

Students are required to complete a minimum of 6 credits in approved methods courses. Please see your academic adviser to discuss course selection.

GH 595R	Practicum	0
GH 599R/598R	Thesis/Special Study Project	4

MSPH Public Nutrition Core

Foundation

GH 548	Human Nutrition I	6
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Undernutrition (choose at least one)

GH 538	Food and Nutrition in Humanitarian Emergencies	2
GH 546	Maternal and Child Nutrition	3
GH 552	Global Elimination of Micronutrient Malnutrition	2

Overnutrition (choose at least one)

GH 523	Obesity and Society	2
GH 534	Diabetes: A Model for Global Noncommunicable Disease Prevention and Control	2
GH 551	Diet and Chronic Disease	2

Methods (choose at least one)

GH 545	Nutritional Assessment	2
GH 591L	Assessment of Dietary Intakes	2

Electives*Nutrition (Select from among courses not chosen for the nutrition core)*

GH 534	Diabetes: A Model for Global Noncommunicable Disease Prevention and Control	2
GH 546	Maternal and Child Nutrition	3
GH 549	Human Nutrition II	6
GH 551	Diet and Chronic Disease	2
GH 552	Global Elimination of Micronutrient Malnutrition	2
GH 545	Nutritional Assessment	2
GH 590R	Nutritional Seminar	1
GH 591L	Assessment of Dietary Intakes	2
GH 597R	Directed Study in Nutrition	1–2

Reproductive Health

GH 540	Population Dynamics	2
GH 547	Issues in Sexual and Reproductive Health	3
GH 559	Gender and Global Health	2
GH 573	Gender, Sexuality, and Global Health	2

Infectious Disease

EPI 544	Epidemiology of Foodborne and Diarrheal Diseases	1
GH 511	International Infectious Diseases	2–3
GH 516	Global Perspectives in Parasitic Diseases	3
GH 580	Control of Food & Waterborne Diseases	2

Program Evaluation

GH 560	Monitoring and Evaluating Global Public Health Programs	3
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Quantitative Methods

EPI 740	Epi Modeling	3
EPI 744	Perinatal and Pediatric Epidemiology	2
BIOS 522	Survival Analysis Methods	2
EPI 739	Advanced Epi Methods II	2
GH 555	Proposal Development	2

MSPH in Global Demography Requirements (48 credits required)

The MSPH in Global Demography is designed to train students in demographic field methods, with an emphasis on methods that are suitable for more resource-poor as well as more resource-rich countries and populations. Specifically, students will develop the expertise needed to design and to conduct, or to provide technical assistance to, four

major types of demographic field projects. These four types of projects include (1) representative, population-based demographic surveys, (2) in-depth qualitative field studies, (3) on-going demographic surveillance systems (including censuses and vital registration systems), and (4) formal program evaluations and needs assessments. Students also will develop expertise in the analysis of demographic data to inform science and policy. The program requires 48 credits and is designed to be completed in two years.

CORE REQUIREMENTS

	Credit Hours	
RSPH Core (19 credits)		
BIOS 500	Statistical Methods I	4
BIOS 501	Statistical Methods II	4
BSHE 500 or 504	Behavioral Sciences	2
EPI 530	Epidemiological Methods I	4
EPI 534	Epidemiological Methods II	3
EOH 500	Perspectives in Environmental Health	2
Department Core (10 credits)		
GH 501	Policies in Global Health	3
GH 542	Evidence-Based Strategies	3
GH 595R	Practicum	0
GH 599R/598R	Thesis/Lit Review/SSP	4
Demographic Field Core Courses (15–17)		
Foundational Courses (3 credits)		
GH 540	Population Dynamics I	2
GH 569	Introduction to Demography for Public Health	1
Demographic Field Methods Courses (choose 8 credits)		
Research Design		
GH 555	Proposal Development	2
Demographic Surveys		
GH 502	Global Health Survey Research Methods	3
Qualitative Field Studies		
GH 522	Qualitative Research Methods in Global Health	3
Demographic Surveillance		
GH 515	Intro to Public Health Surveillance	2
EPI 565	Data Sources & Methods in MCH Epi	2
Program Evaluation		
GH 560	Monitoring and Evaluation	3
Management and Analysis of Demographic Data Courses (choose 4–6 credits)		
BIOS 531	SAS Programming	2
BIOS 550	Sampling Applications	2
BIOS 522	Survival Analysis Methods	2

EPI 536	Applied Data Analysis	2
<i>or</i>		
EPI 740	Epi Modeling	3
EPI 750	Analysis of Longitudinal Data in Epi. Research	3
EPI 533	Programming in SAS	1
GH 525	Qualitative Data Analysis	3
GH 547	Issues in Sexual and Reproductive Health	3
INFO 510	Database Management Systems	3
INFO 530	Geographic Information Systems	2
INFO 560R	Advanced GIS	2
GH 597R	Directed Study	1–3

Recommended Electives (minimum 5 credits)

Fertility, Family Planning, and Reproductive Health

EPI 744	Pediatric and Perinatal Epidemiology	2
GH 547	Issues in Sexual and Reproductive Health	3
GH 559	Gender and Global Health	2
GH 541	Technology of Fertility Control	2
GH 539	Reproductive Health Program Management	2
GH 563	AIDS: Public Health Implications	2
GH 550	Epi. and Dynamics of STD and HIV Transmission	2
EPI 746	Reproductive Epidemiology	2

Migrant and Minority Health

GH 527	Migration and Health	2
BSHE 572	Health Care Issues in Minority Populations	1

Morbidity and Mortality

EOH 524	Risk Assessment I	2
EPI 537	Epidemiology of Chronic Disease	2
EPI 744	Pediatric and Perinatal Epidemiology	2
GH 517	Case Studies in Infectious Disease	2
GH 563	AIDS: Public Health Implications	2
GH 550	Epi. and Dynamics of STD and HIV transmission	2
GH 551	Diet and Chronic Disease	2
HPM 563	Aging and Health Care Issues	2
HPM 564	Health Outcomes	3

Population, Population Policy, and Development

GH 559	Gender and Global Health	2
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Note: The student must select courses that are not chosen in the DFM core.

Interdepartmental Programs

The Hubert Department of Global Health offers two interdepartmental programs. A joint MPH or MSPH degree is offered in **Global Epidemiology** with the Department of

Epidemiology. A joint MPH degree in **Global Environment Health** is offered with the Department of Environmental Health.

For more information and specific course work, please refer to the Interdepartmental Programs section of this catalog.

Faculty

Mohammed K. Ali, Assistant Professor. MBChB, University of Cape Town, 2003; MSc (cardiovascular medicine), University of Oxford, 2007; MSc (global health), 2007. Cardiovascular disease and diabetes, knowledge translation.

Karen Andes, Visiting Assistant Professor. BA, Arizona State University, 1987; MA, Northwestern University, 1989; PhD, 1994

Solveig Argeseanu, Assistant Professor. BA, George Washington University, 1997; MSc, London School of Economics and Political Science, University of London, 2001; MA, University of Pennsylvania, 2003; PhD, University of Pennsylvania, 2006. Demography and health, social determinants of health; child obesity.

John B. Blevins, Research Associate Professor. BA, Furman University, 1989; MDiv, Duke University, 1992; ThD, Emory University, 2005. Religion and public health, religion and sexual health, religion and HIV/AIDS, community-level HIV prevention, community health assets mapping.

Philip S. Brachman, Professor. BS, University of Wisconsin, 1950; MD, 1953. Epidemiology of infectious diseases, particularly hospital infections, disease prevention.

Carlos del Rio, Hubert Professor and Chair. MD, Universidad La Salle (México), 1983. Infectious diseases; AIDS.

Dabney Evans, Senior Associate Faculty. Executive Director, Institute of Human Rights. BA, Arizona State University, 1996; MPH, Emory University, 1998. CHES, Emory University. Health and human rights.

William H. Foege, Presidential Distinguished Professor of Public Health, Emeritus. BA, Pacific Lutheran College, 1951; MD, University of Washington, 1961; MPH, Harvard University, 1965. Disease eradication and agricultural projects of Global 2000 of The Carter Center, child survival and development, global tobacco plague, medical ethics, preventive medicine, injury control.

Stanley O. Foster, Visiting Professor. AB, Williams College, 1955; MD, University of Rochester, 1960; MPH, Emory University, 1982. Health policy, planning, and management; working with NGOs to strengthen community and health system capacity in promotion, prevention, case management.

Eugene J. Gangarosa, Professor Emeritus. BA, University of Rochester, 1950; MD, 1954; MS, 1955. Control of foodborne and waterborne diseases, child survival issues, primary health care, minority health issues, migrant health, graduate education in public health.

Monique Hennink, Rollins Associate Professor. BA, Flinders University of South Australia, 1986; PhD, University of Southampton, 1997. Demography, family planning and sexual behavior, reproductive health service provision, men's reproductive health, HIV/AIDS prevention, sex education, evaluation of health programs.

Cheng Huang, Research Assistant Professor. PhD, University of Pennsylvania, 2007; MA, Beijing University; BA, Xiamen University. Social demography, health economics, applied methodology, diabetes care.

Miriam Kiser, Senior Associate Faculty. RN, New Hampshire Technical Institute, 1978; BA, Georgia State University, 1990; MPH, Emory University, 1993. Senior Program Director, Interfaith Health Program.

Keith P. Klugman, William H. Foege Chair and Professor. MBBCh, PhD, University of the Witwatersrand (Johannesburg), 1981; DTMH, 1985; FRCPATH, London, 1991; FRSSAfr (South Africa), 1996. Global spread of antimicrobial resistance, acute respiratory infections, bacterial vaccines, typhoid fever.

Juan S. Leon, Assistant Professor. BA, Dartmouth College, 1996; MPH/PhD, Northwestern University, 2003. Infectious disease, immunology, enteric and foodborne diseases, diarrhea, norovirus, parasitology, chagas heart disease, rotavirus, vaccines and Latin America.

Pengbo Liu, Research Assistant Professor. PhD, Peking Union Medical College (PUMC) & Chinese Academy of Medical Sciences (CAMS), Beijing, China, 1997; M.S, Xi'an Medical School, Xi'an Jiaotong University, Xi'an, China, 1994; BS, Xi'an Medical School, Xi'an Jiaotong University, Xi'an, China, 1986. Virology, epidemiology of foodborne and waterborne diseases.

Glen F. Maberly, Professor Emeritus. BSc, University of New South Wales, 1975; MB, BS, 1977; MD, 1983. Micronutrient malnutrition, endocrinology.

Fauzia Malik, Visiting Instructor. BA, Punjab University, 1992; MSc, Quaid-I-Azam University, 1998. Community-based participatory interventions, project planning and evaluations, maternal and child health, health-related behavior, reproductive health, HIV/AIDS prevention.

Reynaldo Martorell, Robert W. Woodruff Professor of International Nutrition. AB, St. Louis University, 1969; PhD, University of Washington, 1973. Protein-energy malnutrition, maternal and child nutrition; child growth, nutrition, and infection; functional consequences of malnutrition; design and evaluation of nutrition interventions; food and nutrition policy; obesity.

Deborah A. McFarland, Associate Professor. BA, Ohio Wesleyan University, 1968; MPH, University of North Carolina-Chapel Hill, 1973; MSc, London School of Economics, 1984; PhD, University of Tennessee, 1987. Comparative health policy, health system finance and reform, equity and the poor.

Christine L. Moe, Eugene J. Gangarosa Chair and Associate Professor. BA, Swarthmore College, 1979; MS, University of North Carolina-Chapel Hill, 1984; PhD, 1989. Environmental transmission of infectious agents; epidemiology of foodborne and waterborne diseases; environmental microbiology; water, sanitation, and health.

K. M. Venkat Narayan, O. C. and Ruth Hubert Professor. MBBS, St. Johns Medical College, 1980; MSc, University of Edinburgh, 1987; MFPHM, Royal College of Physicians, 1988; MBA, Herriot Watt University, 1995. Diabetes, obesity and nutrition.

Clair Null, Assistant Professor. BA, Smith College, 2001; PhD, University of California at Berkeley, 2009. Economics and development.

Saad B. Omer, Assistant Professor. MBBS, The Aga Khan University Medical College, 1998; MPH, Johns Hopkins University, 2003; PhD, 2007. Vaccine trials, vaccine policy, mother-to-infant transmission of HIV, spatial epidemiology and GIS.

Usha Ramakrishnan, Associate Professor. BS, University of Madras, 1983; MS, 1985; PhD, Cornell University, 1993. Childhood malnutrition, maternal and child nutrition, micronutrient malnutrition.

Roger W. Rochat, Research Professor. AB, University of Rochester, 1962; MD, University of Washington, 1966. Maternal, infant, and child health epidemiology; maternal and child health epidemiology capacity building in state health departments; maternal death and abortion surveillance; unintended pregnancy prevention.

Aziz R. Samadi, Professor Emeritus. MD, Kabul University, 1956; DPH, American University of Beirut, 1961; MPH, Emory University, 1986. Maternal and child health, tropical diseases in children.

Aryeh D. Stein, Associate Professor. BSc, University of London, 1984; MPH, Columbia University, 1989; PhD, 1992. Nutritional epidemiology, diet and chronic diseases, intergenerational effects on health.

Rob Stephenson, Assistant Professor. BSc, Southampton University 1995, MSc, London School of Hygiene and Tropical Medicine. 1996. PhD, Southampton University 1999. Reproductive health with a focus on community influences on individuals.

Peter Teunis, Visiting Professor. PhD/MSc, Utrecht University, 1982; PhD, 1990. Biostatistician, Centre for Infectious Disease Control, RIVM, Netherlands.

Frits van der Haar, Visiting Associate Professor. MSc, Agricultural University (The Netherlands), 1974; PhD, 1977. Food and nutrition policy, global elimination of micronutrient malnutrition, public-private civic partnerships.

Nicholas Vogenthaler, Instructor. BS, Duke University, 1994; MD, University of California, San Francisco, 1999; MPH, University of California, Berkeley, 2004. Poverty, food insecurity, HIV-related health behaviors, and health outcomes in resource-rich and resource-poor settings.

Amy Webb Girard, Assistant Professor. BS, Mercer University, 1997; PhD, Emory University, 2006. Maternal and child health, particularly in relation to nutrition and food security, breast-feeding, and HIV.

David F. Williamson, Visiting Professor. BS, Pennsylvania State University, 1972; MS, Cornell University, 1980; PhD, 1984. Diabetes prevention. U.S. Centers for Disease Control and Prevention.

Kate Winskell, Visiting Assistant Professor. BA, Wadham College, University of Oxford, 1988; MA, Courtauld Institute, University of London, 1990; PhD, 1995. Health communications, AIDS, the media. Center for the Study of Health, Culture, and Society.

Kathryn M. Yount, Associate Professor. BA, University of North Carolina-Chapel Hill, 1991; MHS, The Johns Hopkins University, 1994; PhD, 1999. Social demography, reproductive health and gender studies in the Middle East and less-developed countries.

Jointly Appointed Faculty

Susan Allen, Professor. BA, Duke University, 1980; DTMH, Liverpool School of Tropical Medicine, 1983; MD, Duke University, 1984; MPH, University of California at Berkeley, 1995. HIV/AIDS, discordant HIV couples, couples' voluntary counseling and testing (CVCT), HIV vaccine clinical trials.

Ruth L. Berkelman, O. Wayne Rollins Professor. BA, Princeton University, 1973; MD, Harvard Medical School, 1977. Infectious diseases, emerging infections, surveillance, preparedness. Epidemiology Department.

Peter Brown, Professor. BA, University of Notre Dame, 1975; MA, State University of New York, Stony Brook, 1976; PhD, 1979. Department of Anthropology, Emory University.

Carlos Franco-Paredes, MD, MPH, Assistant Professor, MD Universidad La Salle (México). Department of Medicine, Emory University School of Medicine and Travel Well International Travelers' Clinic, Crawford Long Hospital of Emory University.

Mary R. Galinski, Associate Professor. BS, State University of New York, 1979; MS, New York University School of Medicine, 1983, PhD, 1987. Malaria, infectious diseases, parasitology.

Nana Gletsu Miller, Research Assistant Professor. BSc, University of Saskatchewan, 1990; PhD, University of Alberta, 1998. Mechanistic links between central adiposity, insulin resistance, beta-cell function and diabetes, clinical and translational studies in severely obese patients undergoing weight loss surgery.

Robert A. Hatcher, Professor. BS, Williams College, 1959; MD, Cornell University, 1963; MPH, University of California, Berkeley, 1973. Emory University School of Medicine.

Donald Hopkins, Professor. BS, Morehouse College, 1962; MD, University of Chicago, 1966; MPH, Harvard University, 1970. The Carter Center.

James M. Hughes, Professor. BA, Stanford University, 1966; MD, Stanford University, 1971. Emory University School of Medicine.

Phyllis Kozarsky, Assistant Professor. BA, Hobart and William Smith Colleges, 1974; MD, Albert Einstein College of Medicine, 1978. Travel Well International Travelers' Clinic, Crawford Long Hospital of Emory University.

Ngoc-Anh Le, Associate Professor. BA, University of California, San Diego, 1973; PhD, 1979. Lipid Research Laboratory, Emory University School of Medicine.

John E. McGowan Jr., Professor. BMS, Dartmouth Medical School, 1965; MD, Harvard University, 1967. Department of Epidemiology.

Justin V. Remais, Assistant Professor. BA, University of California at Berkeley, 1998; MS, 2002; PhD, 2006. Disease ecology of environmentally mediated tropical diseases, impact of land use and climate change. Department of Environmental Health.

Scott M. Sasser, Assistant Professor. BS, Auburn University, 1990; MD, Tulane University School of Medicine, 1994. Emory University School of Medicine.

Ira K. Schwartz, Associate Professor. BS, Union College, 1972; MD, University of Chicago, 1977. Emory University School of Medicine.

Lynn M. Sibley, Associate Professor. BS, University of Colorado, 1973; MS, University of Utah, 1980; MA, University of Colorado, 1987; PhD, 1993. Emory University Nell Hodgson Woodruff School of Nursing.

Parmi Suchdev, Assistant Professor. BS/BSA, University of Arizona, 1998; MD/MPH, Northwestern University, 2002.

Kevin M. Sullivan, Associate Professor. BS, Franklin University, 1981; MHA, Ohio State University, 1983; MPH, University of Michigan, 1984; PhD, 1990. Department of Epidemiology.

Sandra L. Thurman, Senior Lecturer and President and CEO, International AIDS Trust. BS, Mercer University.

Peter W. F. Wilson, Professor. BS, Yale University, 1970; MD, University of Texas at San Antonio, 1974. Cardiovascular and metabolic disease epidemiology, risk prediction, genetic epidemiology.

Adjunct Faculty

David Addiss, Adjunct Associate Professor. BA, University of California-San Diego, 1977; MD, Medical College of Georgia, 1981; MPH, The Johns Hopkins University, 1985. U.S. Centers for Disease Control and Prevention.

Rachel Albalak, Adjunct Assistant Professor. BS, University of Pennsylvania, 1991; MA, University of Michigan, 1993; PhD, 1997. U.S. Centers for Disease Control and Prevention.

Mark Anderson, Adjunct Assistant Professor. BA, Franklin and Marshall College, 1983; MPH, University of North Carolina, 1991; MD, University of North Carolina, 1992. U.S. Centers for Disease Control and Prevention.

Abhay Bang, Adjunct Professor. MPH, Johns Hopkins University, 1994; MBBS, Nagpur University, India; MD, Nagpur University, India. Society for Education, Action, and Research in Community Health, India.

Michael Beach, Adjunct Assistant Professor. BA, Humboldt State University, 1979; PhD, Purdue University, 1987. Centers for Disease Control and Prevention.

Caryn Bern, Adjunct Associate Professor. BA, Swarthmore College, 1974; MD, Stanford University, 1978; MPH, The Johns Hopkins University, 1989. Centers for Disease Control and Prevention.

Robert S. Bernstein, Adjunct Associate Professor. AB, University of Pennsylvania, 1965; MS, Pennsylvania State University, 1968; PhD, 1971; MD, University of Connecticut, 1977; MPH, The Johns Hopkins University, 1979. Management Sciences for Health.

Robert J. Berry, Adjunct Professor. BS, University of Utah, Utah, 1968; MD, Cornell University Medical College, New York, 1973. U.S. Centers for Disease Control and Prevention. Division of Birth Defects and Developmental Disabilities.

Oleg Bilukha, Adjunct Associate Professor. MD, Lviv State Medical Institute, Ukraine; PhD, Cornell University, Ithaca NY. U.S. Centers for Disease Control and Prevention. International Emergency and Refugee Health Branch, National Center for Environmental Health.

Suzanne Binder, Adjunct Professor. BS, McGill University, Montreal, 1976; MD, Tufts University School of Medicine, 1981. Consultant.

Muireann Brennan, Adjunct Assistant Professor. Medical Degree, Royal College of Surgeons in Ireland, 1985; MD, Trinity College, Dublin, 1990. U.S. Centers for Disease Control and Prevention.

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Susan Temporado Cookson, Adjunct Associate Professor. BS, Duke University, 1975; MD, University of North Carolina, 1985; MPH, Emory University, 2003. Centers for Disease Control and Prevention.

Bethann Cottrell, Adjunct Assistant Professor. BS Dietetics, Western Michigan University, 1978; MS Community Nutrition, Michigan State University, 1980; PhD, Michigan State University, 1985.

Andreea Creanga, Adjunct Assistant Professor. MD, Carol Davila University of Medicine and Pharmacy, 2002; PhD, Johns Hopkins University, 2009. Centers for Disease Control and Prevention.

Teresa Gonzalez de Cossio, Adjunct Professor. BSc, Universidad Iberoamericana, 1980; MS, Cornell University, 1984; PhD, 1994. Director, Doctorate Program Committee in Nutrition, INSP, Mexico.

Laurie A. Ferrell, Adjunct Lecturer. BBA, Radford University, 1990, MPH, Emory University, 1998.

C. Rafael Flores Ayala, Adjunct Professor. MAppStat, Louisiana State University, 1981; PhD, University of California at Los Angeles, 1989. Program design, monitoring, and evaluation.

Thomas R. Frieden, Adjunct Professor. BS, Oberlin College, 1982; MD/MPH, Columbia University, 1986. Director, Centers for Disease Control and Prevention.

Fiona Galloway, Adjunct Instructor. BA Psychology, Emory University, 1998; MPH Epidemiology, Boston University, 2000. U.S. Centers for Disease Control and Prevention. International Emergency and Refugee Health Branch (IERHB)

Helene Gayle, Adjunct Professor. BA, Barnard College, 1976; MPH, Johns Hopkins University, 1981; MD, University of Pennsylvania, 1981. CARE.

Richard Gelting, Adjunct Professor. BS, University of New Hampshire, 1984; MS, Stanford University, 1988; PhD, Stanford University, 1995. U.S. Centers for Disease Control and Prevention.

M.V. George, Adjunct Professor. MA/PhD, The Australian National University, 1966. Emory University, Department of Sociology.

Roger I. Glass, Adjunct Professor. AB, Harvard University, 1967; MD, 1972; MPH, 1972; PhD, University of Goteborg, 1984. Fogarty Center, NIH.

Phillip Lawrence Graitcer, Adjunct Professor. BA, Duke University, 1966; DMD, Temple University, 1970; MPH, Harvard University, 1972. Department of Environmental and Occupational Health.

Edward Gregg, Adjunct Associate Professor. BS, College of William and Mary, 1988; MS, Wake Forest University, 1990; PhD, University of Pittsburgh, 1996. Centers for Disease Control and Prevention.

Patricia M. Griffin, Adjunct Professor. AB, Immaculata College, 1971; MD, University of Pennsylvania, 1977. U.S. Centers for Disease Control and Prevention.

Douglas Hamilton, Adjunct Assistant Professor. BA, Earlham College, 1974; PhD, Vanderbilt University, 1982; MD, Vanderbilt University, 1984. Centers for Disease Control and Prevention.

Thomas Handzel, Adjunct Assistant Professor. BS, Cornell University, 1983; MS, University of North Carolina, 1990; PhD, University of North Carolina School of Public Health, 1998. U.S. Centers for Disease Control and Prevention.

Robert A. Hatcher, Adjunct Associate Professor. BS, Williams College, 1959; MD, Cornell University, 1963; MPH, University of California, Berkeley, 1973. Emory University School of Medicine.

Alan R. Hinman, Adjunct Professor. BA, Cornell University, 1957; MD, Case Western Reserve University, 1961. Task Force for Child Survival and Development.

Timothy Holtz, Adjunct Assistant Professor. BA, St. Olaf College, 1986; MPH, The Johns Hopkins University, 1990; MD, University of Iowa, MS, 1991. U.S. Centers for Disease Control and Prevention.

Donald R. Hopkins, Adjunct Professor. BS, Morehouse College, 1962; MD, University of Chicago, 1966; MPH, Harvard University, 1970. The Carter Center.

Dale Hu, Adjunct Professor. BA Psychology, Stanford University, California, 1983; MD, University of California, San Diego School of Medicine, 1987; MPH, The Johns Hopkins University, 1989. U.S. Centers for Disease Control and Prevention. Division of Birth Defects and Developmental Disabilities.

Jeffrey L. Jones, Adjunct Associate Professor. BS, University of California at Davis, 1974; MD, 1978; MPH, University of California at Berkeley, 1986. U.S. Centers for Disease Control and Prevention.

Moses Katarwa, Adjunct Professor. BSc, Makerere University, 1984; MPH, Emory University, 1997; MA, Commonwealth Open University, 1999; PhD, 2001. The Carter Center.

Senait Kebede, Adjunct Assistant Professor. MPH, Johns Hopkins University, 2002; Doctor of Medicine, AAU, Ethiopia, 1985.

Laura Kettel Khan, Adjunct Assistant Professor. BS, University of Arizona, 1981; PhD, 1991. U.S. Centers for Disease Control and Prevention.

Christine Ndunge Kiiti, Adjunct Professor. BS, Houghton College, 1988; MA, Wheaton College, 1992; PhD, Cornell University, 2002. MAP International, USA.

Denise Koo, Adjunct Professor. BA, Harvard College, 1984; MD, University of California, San Francisco, 1989; MPH, University of California, Berkeley, 1988. Centers for Disease Control and Prevention.

Barbara Lopes-Cardozo, Adjunct Assistant Professor. MPH, Tulane University, 1993; MD, University of Amsterdam, 1981. U.S. Centers for Disease Control and Prevention.

Stephen P. Luby, Adjunct Associate Professor. BA, Creighton University, 1981; MD, University of Texas Southwestern Medical School, 1986. U.S. Centers for Disease Control and Prevention.

Shabir Madhi, Adjunct Professor. MBCh, University of the Witwatersrand, 1990; MMed Pediatrics, 1998; PhD, 2003. Department of Science and Technology/National Research Foundation–Vaccine Preventable Diseases.

Michael D. Malison, Adjunct Associate Professor. BA, Catholic University of America, 1973; MD, University of Miami, 1978. U.S. Centers for Disease Control and Prevention.

Lise D. Martel, Adjunct Assistant Professor. BA/MEd, Saint Mary's University, 1993; MS, University of Hawaii, 2003; PhD, 2007. Centers for Disease Control and Prevention.

Marjorie McCollough, Adjunct Associate Professor. BS, Michigan State University, 1983; MS, MGH Institute of Health Professions, 1986; ScD, Harvard University, 1999. American Cancer Society.

Lesley McGee, Adjunct Assistant Professor. BSc and BSc (Hon), University of Natal, South Africa, 1993, 1994; PhD, University of Witwatersrand, South Africa, 2002. Centers for Disease Control and Prevention.

Scott J. N. McNabb, Adjunct Associate Professor. BS, University of Oklahoma, 1972; MS, 1979; PhD, 1986. U.S. Centers for Disease Control and Prevention.

V. Mohan, Adjunct Professor. MBBS, University of Madras, 1976; MD, 1981; PhD, 1987. Madras Diabetes Research Foundation.

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Li Zhu, Adjunct Professor. MD, Beijing Medical College 1970; MPH, Beijing Medical College 1981. Director of Reproductive and Child Health, Peking University. Director of the National Reference Laboratory on Reproductive Health, China.

James A. Zingeser, Adjunct Assistant Professor. DVM, Michigan State University, 1979; MPH, University of Michigan, 1989. U.S. Centers for Disease Control and Prevention.

Global Health Course Descriptions

GH 501 (3) Policies in Global Health

Fall. Strengthens learner understanding of the issues constraining the achievement of health and well-being around the world, the establishment of priorities, the development of policies, and the implementation of programs. Community, national, and international decision makers are challenged to optimally use limited resources to address global health issues such as population growth, high under-five and maternal mortality, environmental degradation, and HIV. Course strengthens learner skills in situation analysis, policy analysis, and policy formation through readings, lectures, weekly commentaries, papers, and small-group discussions.

GH 502 (3) Global Health Survey Research Methods

Spring. This course provides an introduction to the collection of quantitative data. Taking an applied approach, we cover the entire process of designing a study, including instrument design, sampling methods, budgeting and training, fieldwork components, and coding and editing of data. The focus is on collecting data in less-developed countries. Students develop their own surveys and accompanying methods proposals, which they may use for summer projects.

GH 504 (1) Effective Oral Communication

Fall. Satisfactory/Unsatisfactory grading. Public health officials must reach and influence diverse audiences in different settings. Conveys the principles and practice of dynamic and persuasive oral scientific communications for public health professionals. Provides instruction in specific areas of oral scientific communications. Offers a hands-on workshop in media training at the CDC's television production studio. Students give an oral presentation as the final exam.

GH 505 (1) Case Studies in Global Health Management

Fall. Required for CHD track. Available to other students who have taken HPM 502 or other management courses. This course is designed to complement/supplement traditional courses in management that focus on management theory and process with primary examples drawn from the United States. GH 505 will focus on the application of management principles to health programs in low and moderate income countries using case studies drawn from these contexts. This course focuses on increasing the student's ability to analyze, explain and diagnose managerial and organizational dilemmas and generate solutions that are feasible. This will be done using the case study approach.

GH 506 (1) Introduction to Microbial Risk Assessment

Spring break. Prerequisites: BIOS 500 and GH 580/EH 546. Introductory course risk assessment methods for infectious diseases, with emphasis on description of microbial infectivity, quantification of microbial concentrations in the environment, description of risk, and exposure in outbreaks. Upon completion of this short introductory course, students will be expected to understand the general approach of microbial risk assessment and to have acquired skills to work with specialists (microbiologists, epidemiologists, biostatisticians) in a multidisciplinary team to tackle microbial risk assessment problems. Cross-listed with EH 547.

GH 507 (2) Health as Social Justice

Fall. Offers an interdisciplinary approach to understanding the complexities inherent in improving the health of communities. Examines the multiplicity of social factors that affect health and working models of approaches to favorably alter them. Initiated by students, and cross-listed with the Nell Hodgson Woodruff School of Nursing, the Emory University School of Law, and Candler School of Theology. Emphasis is on enhancing one's life as a professional including both leadership roles and personal dimensions by expanding self awareness and strengthening critical thinking skills. The pedagogy and class design utilize a participatory, learner-directed approach to education. This approach makes possible an engaged experience with issues fundamental to social justice – power relations, empowerment, and participation.

GH 508 (2) Seminar in Health and Human Rights

Spring. Examines a spectrum of issues related to health and human rights including three main topics: health as a human right, the impact of human rights abuses on health, and strategies for the adoption of a human rights framework to public health program planning and practice. Case studies among vulnerable populations of interest to public health professionals in each of these topics are utilized to support critical inquiry into the field of health and human rights.

GH 509 (2) Knowledge Translation - from Research to Policy and Practice

Spring. This course aims to introduce students to translation of scientific knowledge into real-world implementation (policy, practice, behavior change). The course covers: determining burdens; identifying proven interventions and barriers that impede implementation; designing innovative and creative solutions, and the studies to test these; and informed decision-making as well as implementation and sustainability. Students will be exposed to case studies of health interventions globally which illustrate theoretical concepts while providing inspiration and motivation.

GH 510 (2) Epidemiological Methods in Humanitarian Emergencies

Winter break. This course will cover epidemiologic methods used in complex humanitarian emergencies, such as rapid assessment, surveillance, survey design (with a focus on cluster surveys) and analysis. In addition, the class will include other topics such as outbreaks in emergencies as well as practical sessions on anthropometry and field laboratory methods. Teaching methods will combine lectures and case studies of recent humanitarian emergencies.

GH 511 (2–3) International Infectious Diseases

Spring. Prerequisite: EPI 530. Offers an epidemiological perspective of selected acute infectious diseases of current national and international interest. Emphasizes the agent, methods of transmission, the host, role of surveillance, and methods of control and prevention.

GH 512 (2) Health in Complex Emergencies

Spring Break. Covers the technical and management principles that are the basis of planning, implementing, and evaluating health programs for acutely displaced populations in developing countries. Emphasizes refugees in camp situations. Includes modules on assessment, nutrition, epidemiology of major health problems, surveillance, and program management in the context of an international relief operation.

GH 514 (2) Communicating for Healthy Behavior and Social Change

Spring. Serves as a practical introduction to the methods and theories used in the planning, development, and implementation of communication interventions to promote healthy behavior and social change in the “developing” world. Participants learn how to describe and analyze behaviors, conduct formative research, design an intervention strategically, write a creative brief to guide materials design, and develop and pretest materials. Case studies range from community-level interpersonal communication to mass media campaigns, and address a range of health issues, with particular focus on sexual and reproductive health, especially HIV/AIDS.

GH 515 (3) Introduction to Public Health Surveillance

Spring. Prerequisite: EPI 530. Teaches the basic principles of public health surveillance, including the establishment of a public health surveillance program, the collation and analysis of data, and the preparation and distribution of a report. Helps students recognize the importance of a direct association between a public health surveillance program and public health action. Helps students become familiar with the use of computers in public health surveillance, with public health surveillance systems conducted in developed and developing countries, and with public health surveillance programs as applied to all public health problems involving either infectious or noninfectious diseases. Cross listed with EPI 515.

GH 516 (3) Global Perspectives in Parasitic Diseases

Fall. Prerequisite: EPI 530 (may be taken concurrently). Focuses on prevalent parasitic infections seen in this country as well as those seen primarily abroad. Topics include parasite life cycles, immunology, diagnostic methods, clinical manifestations, treatment and follow up, complications, epidemiology, prevention and control, methods of transmission, and future research priorities.

GH 517 (2) Case Studies in Infectious Disease

Fall. Prerequisites: EPI 530 and BIOS 500 (may be taken concurrently or with permission). Provides training in the investigation, control, and prevention of infectious diseases by both

descriptive and analytic epidemiological techniques. Students work with infectious diseases of national and international interest. Cross listed with EPI 540.

GH 518 (2) Emerging Infectious Diseases

Spring, alternating years. Previous course work in microbiology strongly preferred. Examines factors that contribute to the emergence and re-emergence of infectious diseases and provides a framework for assessing the public health threat from infectious diseases and for recommending an appropriate response. Fundamental principles of infectious disease surveillance and epidemiology as well as pathogenesis are addressed. Cross listed with EPI 562.

GH 519 (3) Faith and Health: Transforming Communities

Spring. Serves to help students oriented toward pastoral, social service, and community health roles better understand the theoretical relationship between religious practices at personal and social scale, and the health of the community as a basis for developing and leading practical initiatives. Students become familiar with both religious and health science literature in this area. Examines the characteristics of healthy congregations and the various roles they play that are critical to the formation of coherent and whole neighborhoods and communities. Examines those leadership practices that build the capacity for collaboration between religious organizations, including congregations and their partners in the public sector. Cross listed with SR 698.

GH 520 (2) Public Health Biology

Fall. This course will benefit students with little to no formal biology training, or those who wish a biology refresher, and will provide an introduction to the concepts in public health biology which is the study of biological principles to problems of public health importance. We will explore basic molecular, genetic, and cellular concepts, organ systems, population biology, and other important topics including laboratory assays, nutrition, the biology of cancer and mental disease, and ethics. Basic lectures will be complemented by speakers tying these basic concepts to the practice and research of public health. Students will also develop practical skills including: reading and discussing a scientific article, scientific writing, exposure to a biological laboratory, and basic proposal writing. This course fulfills all the requirements of the Public Health Biology Illustrative sub-competencies recommended by the Association of Schools of Public Health.

GH 522 (3) Qualitative Research Methods for Global Health

Spring. This course will provide students with practical skills and theoretical principles of qualitative research. Weekly sessions will focus on different tasks in the process of conducting qualitative research using the 'Qualitative Research Cycle' framework, developed by the instructor. This course will include theory and concepts underpinning qualitative research, qualitative research design, ethical considerations and challenges, key data collection methods used in public health, and an overview of data preparation and preliminary analysis. The course provides instruction on the challenges of applying qualitative methods in international settings and guidance on fieldwork planning and implementation to assist students in preparing for their practicum activities. This course uses a variety of approaches to foster the development of practical skills in qualitative research; formal lectures, interactive group sessions, discussions with experts, and task-based assignments. This course is a prerequisite for Qualitative Data Analysis (GH525).

GH 523 (2) Obesity and Society

Spring. Obesity has become a significant public health concern around the world. In this course, students will gain a multidisciplinary perspective on the epidemiology, sociology, economics, and demography of obesity. Through reading and discussion of published research, lectures emphasizing methodology and theory, and hands-on research, students will command a critical understanding of obesity that can be more broadly applied to addressing public health problems.

GH 524 (2) Health Systems Performance and Health Systems Financing Methods and Evidence

Spring. Prerequisite: GH 501. Introduces the major policy issues in health care financing for developing countries and transition economies. Topics include models of health care financing used by countries; performance of the systems with respect to equity, efficiency and effectiveness; evaluation of current financing and health sector reform proposals; and redefinition of the roles of government and the private sector. Investigates health care financing in the economic, political, and social contexts of country-specific health systems reform efforts and broader themes in international development.

GH 525 (3) Qualitative Data Analysis

Fall. Prerequisite: GH 522. This course is designed to provide students with the theoretical background and practical skills in analyzing qualitative data. The course is intended for second year MPH students who have completed GH 522 (Qualitative Research Methods) and who have collected qualitative data during fieldwork for their master's theses. During the course students will analyze their own data through weekly classroom exercises, structured assignments, and lab-based exercises using qualitative data analysis software. The course will provide an overview of the theoretical principles of qualitative data analysis, data preparation, data analysis, conceptualizing and interpreting data, writing and presenting data and an assessment of data quality.

GH 526 (2) Interdisciplinary Perspectives on Human Rights

Fall. Open to students from all of the graduate and professional schools. Examines the theory and practice of global and human rights from an interdisciplinary perspective. Examines issues of history, origins, and legitimacy of universal human rights, and discusses standards, institutions, and processes of implementation. Examines human rights across a variety of substantive areas, including: conflict, development, globalization, social welfare, public health, and rights of women and other vulnerable groups.

GH 527 (2) Migration and Health

Fall. This course examines the intersection of migration and health for migrant groups in both developed and developing countries. The course takes a theory-based approach to understanding the health issues faced by different types of migrants, including international migrants, refugees, and internal migrants. Students will work in groups to conduct case studies of migrant health issues, applying theory to real-life examples of migrant health.

GH 528 (2) Public Health/Clinical Microbiology Laboratories

Fall. The course will provide students with an understanding of the role of the clinical microbiology laboratory in public health practice and research. It focuses on the biology of major

groups of infectious disease organisms (bacteria, viruses, fungi, parasites, and prions) and their identification through microbiology, including key diagnostic tests and molecular epidemiology and issues involved in laboratory management in public health and clinical laboratories. The course includes lectures and hands-on laboratory exercises.

GH 529 (2) Water and Sanitation in Developing Countries

Spring. Provides students with techniques needed to develop, evaluate, and sustain successful drinking water and sanitation interventions for developing countries. Focuses on practical field and laboratory tools needed for different stages of projects, including: assessment of perceived and actual need, alternative strategies for different environmental settings, assessing cost and financial sustainability of projects, laboratory and field techniques for assessing exposure to microbial and chemical agents, and measuring health outcomes (for baseline or effectiveness assessment). Includes lectures, extensive case studies, and field and laboratory exercises.

GH 530 (2) The GEMMA Seminar: The Global Elimination of Maternal Mortality from Abortion

Spring. The overall objective of the course is for the participating student to understand the role of unsafe abortion in global maternal mortality, to develop a well informed project that will have the potential to make substantive progress toward GEMMA, and become an informed advocate for eliminating maternal mortality from abortion.

GH 531 (1) Psychological Impact of Complex Humanitarian Emergencies

Fall. This course covers essential principles necessary to understand and address mental health issues in complex humanitarian emergency situations. It emphasizes developing systemic approaches rooted in a public health perspective applicable to a broad range of target groups across the life span. Designed according to experiential learning methods, the course will highlight interventions for the beneficiary populations, as well as preparation and training for the emergency responders. It is competency and science based, has measurable outcomes, and provides students with a balance of theoretical insights and practical skills.

GH 533 (1) Global Planning for Emergencies and Disasters

Spring. This course covers the essential principles behind developing a practical operational plan for emergencies and disasters and common pitfalls and challenges of planning in the international context. The class will emphasize the importance of developing a plan that: is adapted to the needs and resources of the user, is competency and science based and has measurable outcomes. Students will have the opportunity to review and improve existing plans from international partners.

GH 534 (2) Diabetes: A Model for Global Noncommunicable Disease Prevention and Control

Spring. Provides students with both content and skills in the field of diabetes, a pandemic of international public health concern, which encourages effective public health programming for diabetes and other chronic diseases. Through a uniquely public health approach, examines a spectrum of issues related to chronic diseases, such as diabetes, and address the implications for public health practice. Published papers on each of these topics are utilized throughout the course to support critical inquiry into the burgeoning field of diabetes public health.

GH 535 (2) Epidemiology in Public Health Practice

Spring. Prerequisite: EPI 530. Uses a series of case studies to teach the principles and practice of epidemiology, ranging from surveillance and descriptive epidemiology to outbreak investigations and analytic methods. Focuses on the use of sound epidemiological judgment. Cross listed with EPI 535.

GH 536 (3) Religion and Health in Context: HIV

Fall. This course will explore the ways in which religion has been utilized over the last twenty-five years to make sense of the HIV epidemic and to mobilize or hinder productive responses. These processes of making meaning and responding have occurred in a variety of contexts; the course will critically explore a broad spectrum of religious, political, and public health contexts to demonstrate the ways in which religion is invoked in response to questions and practices of health and wellness. The readings for the course are designed to introduce the class topic and students are expected to complete assigned readings prior to class. In many instances, class time will include lecture and discussion of readings but at other times, the class sessions will function to develop ideas introduced in the readings more fully. In other words, students should not expect the class sessions merely to fully summarize assigned readings. Written assignments are designed to test not only students' knowledge of the material but also their ability to integrate that knowledge with critical reflection on both theory and practice.

GH 537 (3) Creative Writing and the Health Sciences

Spring. This course is designed to help students in medicine, nursing, the health sciences, and the college to study writing in the context of the health sciences; it is particularly aimed at students with some background or interest in fiction, creative non-fiction, personal essay, or formal journal writing, who would like to apply those skills to the health sciences field. Cross-listed with ILA 790R and IDS 385 RWR.

GH 538 (2) Food and Nutrition in Humanitarian Emergencies

Fall. Prerequisites: EPI 530 and BIOS 500. Each year millions of people are affected by humanitarian emergencies such as famine and conflict. Malnutrition during these humanitarian emergencies, including protein-energy malnutrition and micronutrient deficiencies, persists and presents a public health threat to the population. Who are the key players in nutritional emergencies? How are decisions made to determine when to distribute food, what type of food to distribute, and how much food to distribute? How do organizations concerned with nutrition evaluate nutritional status? What types of feeding programs are implemented in emergency situations? Some potential answers to these questions will be provided by this course.

GH 539 (2) Reproductive Health Program Management

Fall. Familiarizes students with current strategies for the implementation and delivery of family planning programs. Highlights the major policies and demographic and epidemiological data relevant to the development of programs, both domestically and internationally.

GH 540 (2) Population Dynamics

Spring. Provides an interdisciplinary perspective on population processes and contemporary population issues. Focuses on theory and methods useful for the study of fertility, mortality, and migration, and their impact on population structures and composition. Addresses special topics in the areas of population and development, demographic impact of HIV, population aging, and anthropological demography.

GH 541 (2) Technology of Fertility Control

Fall. Covers the effectiveness, complications, and benefits of contraceptive devices. Includes information on Norplant implants, morning-after approaches to birth control, the reversal of sterilization procedures, and techniques of condom distribution. Examines the administrative, managerial, and economic implications of the various approaches to fertility control.

GH 542 (3) Evidence-Based Strategies

Spring. Prerequisites: GH 501, BIOS 500, EPI 530, and a working knowledge of Epi Info, a CDC computer program for data analysis. Course provides a hands-on introduction to working with low resource populations to assess health needs, develop programs, and implement strategies. This course uses multiple data sets from Ethiopia's Oromia Region. Each learner is responsible for 1 of 16 development, population, health or environmental issues. For the selected issue, each learner describes the issue in a paper, presents the issue to her/his small group, prepares a log frame, develops and presents a strategy, prepares a Gant chart, and writes a budget. Students gain an understanding of the complexities of working in low resource settings and an appreciation of the need for qualitative and quantitative skills to work effectively with and for underserved populations.

GH 543 (2) Fundamentals of Qualitative Data Analysis

Fall. This course will provide an intensive overview of qualitative data analysis including the use of MAXqda10 software. On completing the course, students will be able to assess the quality of a qualitative data set, define objectives for a specific analysis project, develop and implement an approach using appropriate tools of analysis (e.g. segments, codes, memos, attributes), and develop descriptive and comparative accounts of project findings. In addition to lectures and conceptual discussions, the course will incorporate applied exercises using secondary data and MAXqda10 software in order to develop student skills in handling real-life textual data, implementing analysis procedures and techniques with software, and working in a team-based analysis setting.

GH 544 (2) Field Trials and Intervention Studies

Fall. This course will develop understanding of design, conduct, and analysis of field trials and intervention studies. The course will focus on methods relevant to community and facility based trials in resource poor settings. However, several skills covered in this course will also be applicable to field and clinical trials in developed countries.

GH 545 (2) Nutritional Assessment

Spring. Provides an overview of methods for assessing the nutritional status of both individuals and populations for purposes of etiologic research and disease prevention and control. Teaches the use of biochemical, anthropometric, and questionnaire methods for assessment of diet, body composition, physical activity, and biochemical characteristics. Research methods appropriate for measurement of any exposure in epidemiological or population studies are given special emphasis, including standardized data collection procedures, quality control, assessment of validity and reliability, and analytic methods to assess the effect of measurement error and to adjust for its effects when examining relations among variables. Covers methods for both acute and chronic disease.

GH 546 (3) Maternal and Child Nutrition

Spring. Emphasizes the significance and role of nutrition during pregnancy, lactation, and childhood in developing countries. Discusses the role of programs in developed countries.

GH 547 (3) Issues in Reproductive and Sexual Health

Fall. Issues in Reproductive and Sexual Health aims to introduce students to the calculation and interpretation of key indicators in sexual and reproductive health. The classes combine lectures detailing substantive issues in sexual and reproductive health and instruction on the calculation of indicators, with computer labs in which students can gain experience in calculating and interpreting indicators using data from large social surveys. The course will use the STATA software: no experience with the software is necessary. The course has no prerequisites and is open to first- and second-year students.

GH 548 (6) Nutrition I

Fall. Prerequisites: one year of biology and organic chemistry and permission of instructor. Focuses on developing a working knowledge of the major nutrient groups, their metabolism and function. Includes lectures on basic concepts of physiology and chemistry in nutrition. Cross listed with IBS 580.

GH 549 (6) Nutrition II

Spring. Prerequisites: chemistry, undergraduate biology, and permission of instructor. Provides a graduate-level introduction to human nutrition and disease, at both the clinical and research levels, and an understanding of the experimental bases for current clinical nutritional practice. Cross listed with IBS 581.

GH 550 (2) Epidemiology and Dynamics of STD and HIV Transmission

Fall. Explores the social, biologic, and public health issues of sexually transmitted diseases and their overall importance in public health. Topics include the basic biology and epidemiology of the major STDs, the implication of transmission models for prevention, and psychosocial, behavioral, and economic aspects of STD/HIV. Cross listed with EPI 550.

GH 551 (2) Diet and Chronic Disease

Fall, alternating years. Provides an overview of the epidemiology of the intersection between diet, physical activity, obesity and chronic disease from a life-course and global perspective and the potential for policy-level, and individuals level-approaches to address the key diet-related diseases of our time – cancer, cardiovascular disease, and diabetes. Special attention is given to the problems of implementation for diverse socio-cultural populations. Discusses changes in the prevalence of diet-related chronic disease and the potential for preventive measures in both developing and developed countries.

GH 552 (2) Global Elimination of Micronutrient Malnutrition (MNM)

Fall. Provides an understanding of the causes and consequences of global micronutrient malnutrition, including its complex biological, social and economic determinants. Describes policies, strategies, programs, and projects aimed at eliminating maternal and child MNM, including evidence of efficacy and effectiveness. Defines roles and responsibilities of the public, private and non-profit sectors in implementing national programs and advocating for MNM elimination. Describes available systems for MNM monitoring and evaluation.

GH 555 (2) Proposal Development

Spring. Provides structured guidance on proposal development for submission for funding.

GH 557 (2) Global Health: Anthropological Perspectives

Fall. A medical anthropology course that explores the field of global health, particularly the serious health problems facing developing world populations. Provides an introductory survey of the basic issues and initiatives in contemporary international public health, as well as in-depth case studies of four nations: Nepal, Haiti, Mali, and Egypt. Develops student awareness of the socioeconomic and cultural complexity of health problems in developing nations, and the consequent difficulties of developing effective long-term solutions.

GH 558 (2) Global Issues in Antimicrobial Resistance

Spring. Develops tools to understand the microbiological, behavioral, and economic factors that contribute to the expanding epidemic of infectious diseases which may become untreatable due to the emergence of resistance. Provides a framework for intervention studies. Cross listed with EPI 558.

GH 559 (3) Gender and Global Health

Spring. Provides an overview of theories and programs related to gender, health, and population change in comparative perspective, with a focus on less developed countries (LDCs). Exposes students to some of the major theoretical developments in social demography that have advanced our understanding of the institutional bases of gender inequality and of the power dynamics within families and households, that influence the health status and demographic profiles of populations in these settings. Theoretical and empirical underpinnings of existing social policies and interventions intended to improve the position of women in LDCs are emphasized and case studies of the health-related and demographic consequences of these policies and interventions are discussed. Cross listed with SOC 389/WS 385.

GH 560 (3) Monitoring and Evaluation of Global Public Health Programs

Fall and Spring. Spring offering is designed for first-year students, Fall offering is designed for second-year students. Provides students with the technical skills to conceptualize and design process and impact evaluations of international public health programs or projects. Helps students understand the role of monitoring and evaluation in policy analysis, planning, program design and management.

GH 562 (1) Epidemiology of Tuberculosis

Spring. Prerequisite: EPI 530. Provides training in domestic and international public health aspects of tuberculosis, its epidemiology and diagnosis, theory and practice of treatment and means of prevention in developed and developing countries, and the interaction between HIV and tuberculosis. Cross listed with EPI 542

GH 563 (2) AIDS: Public Health Implications

Fall. Explores the virologic, immunologic, clinical, preventive, educational, legal, ethical, and epidemiological aspects of infection with the human immunodeficiency virus. Emphasizes current problems in organizing governmental and nongovernmental responses to the AIDS epidemic.

**GH 564 (2) Public Health Preparedness and Bioterrorism**

Fall. This course will acquaint students with the comprehensive nature of public health preparedness and response efforts for disasters whether natural or man-made. We discuss all aspects of public health preparedness and include discussions of specific preparedness elements necessary for responses to natural disasters and man-made events including deliberate or unintentional biological, chemical, or radiologic incidents. Ethical and legal issues related to preparedness and bioterrorism are also discussed. The course includes several in-class case exercises. Students interested in public health preparedness, infectious diseases, and bio-defense are encouraged to take this course. This course is cross-listed with EPI 564.

GH 566 (2) Immunization Programs and Policies

Spring. Provides an introduction to the basic scientific epidemiologic, economic, programmatic, and political aspects of vaccines and immunization. Emphases immunizations in the developing world, with examples also drawn from U.S. experience. Cross-listed with EPI 566.

GH 567 (3) Diagnosis

Spring. Examines the question of diagnosis from the various, critical approaches of the humanities. Attention will be paid to how the idea of diagnosis is employed, its vocabulary, its goals, and its relationship to professional discourses in the health sciences and the humanities, and its histories. Cross-listed with ILA 790R and IDS 385 R.

GH 569 (1) Introduction to Demography for Public Health

Fall. This course provides an introduction to demography for students and practitioners of public health. It presents the themes, methods, and findings of demography and highlights how these can be used to understand and address public health issues. The focus of the course is substantive rather than methodological. Students will emerge with a strong grounding in the current state of empirical research ranging from historical health patterns to the future of human longevity.

GH 571 (2) Vaccines and Vaccine-preventable Diseases

Fall. This course will develop in-depth understanding of epidemiological, biological, and applied aspects of commonly used vaccines and vaccine preventable diseases (VPDs) of public health importance. The course content will be structured to review specific vaccines and VPDs (rather than overarching aspects of immunization programs covered in GH 566/EPI 566). Where relevant, the course lecturers will use examples from both developed and developing countries.

GH 572 (2) Community Transformation: A Five-day Experiential Workshop on Partnerships and Empowerment

Winter break. Registration for the course is by application only. Through participatory learning, this course introduces a process that can be used to help communities identify and reflect on their key issues and take action. Additionally, it expands the understanding of methods for community empowerment and facilitates through group exercise and reflection approaches to the community empowerment process.

GH 573 (2) Gender, Sexuality, and Global Health

Fall. In this seminar students will master some of the theoretical literature on gender and sexuality, debate how gender and sexuality are shaped by social and cultural influences, learn the importance of these theoretical concepts for public health policy and interventions, and become acquainted with current programmatic and research perspectives.

GH 580 (2) Control of Food and Waterborne Diseases

Winter break. Introduces the major disease-causing microorganisms in the environment and their transmission through water, food, and air. Describes the organisms, pathogenesis, clinical diseases, reservoirs, modes of transmission, and epidemiology. Discusses the transport, survival, and fate of pathogens in the environment, the concept of indicator organisms as surrogates for pathogens, and the removal and inactivation of pathogens and indicators by water and wastewater treatment processes. Presents examples of the public health impact of foodborne and waterborne diseases in developing countries. Cross listed with EOH 546.

GH 581 (0) HIV/AIDS Seminar

Offered exclusively to International Fellows. The HIV/AIDS Seminar is designed as a forum for Fellows participating in an international fellowship program (Humphrey, Foege, Muskie, Fogarty, etc.) to engage in open discussion regarding topics related to HIV/AIDS with one another and with experts in the field. Weekly discussions will be led by representatives from

RSPH, Emory, the CDC, and from organizations across Atlanta. Topics will vary to cover a range of issues related to HIV/AIDS. The seminar will also include site visits to various organizations and facilities in the Atlanta metropolitan area related to HIV/AIDS service and research.

GH 582 (2) Global Climate Change: Health Impacts and Response

Fall. Explores the role of global climate change in changing patterns of infectious disease transmission, water and air pollution, drought, extreme precipitation and heat, and loss of coastal and arable land. The particularly serious vulnerability to climate change among developing world populations will be emphasized, as will the largely developed country emission sources driving the phenomenon. Topics include a review of the public health effects of global climate change, epidemiologic and other methods for understanding and studying these effects, the public health adaptation response, and health impacts of potential mitigation efforts and activities. Cross-listed with EOH 582.

GH 590R (1) Nutrition Seminar

Fall and spring. Promotes critical thinking, effective communication skills and awareness of the current literature through weekly presentations and discussions by students.

GH 590R (3) Health and Healing: Understanding the Role of Religion

Fall. This seminar has been developed as part of the Religion and Health Collaborative of the Religion and the Human Spirit strategic plan initiative. Its goal is to introduce frameworks and resources for cultural and religious literacy to persons interested in religion, health, and healing (including students who are training to be health practitioners or are in health-related fields).

GH 591L (2) Assessment of Dietary Intake

Fall, alternating years. Explores in-depth approaches to estimate of dietary intakes at the community, household, and individual levels. Students gain experience with tools for assessing dietary intakes of free-living individuals in developed and developing countries, including twenty-four hour diet recall, twenty-four-hour and multiple-day food record, food frequency questionnaires, conversion of dietary intake data to yield nutrient intake estimates and analysis and presentation

GH 591Q (1) EpiInfo

Winter break. EpiInfo is a data entry and analysis program developed by the Centers for Disease Control and Prevention that runs under the Microsoft Windows operating system. Available for download free of charge, EpiInfo is widely used by public health professionals and is a popular choice in low resource settings. Skills in EpiInfo are a prerequisite for GH542-Evidence-Based Strategies. The purpose of this one-credit, two day class is to provides an overview of the main EpiInfo programs including the creation of data entry screens, the construction of databases, data storage and analysis.

GH 595R (0) Practicum

All. Complements academic training with practical, hands-on experience. All students must complete 200 to 400 hours of practical public health experience relevant to the field of global health prior to receiving clearance for graduation. Along with registering this course students are required to enter practicum information in the Practicum Web Client.

GH 597R (1–3) Directed Study

All. Provides the opportunity to pursue a specialized course of study in an area of special interest. Complements rather than replaces or substitutes for course work.

GH 598R (4) Special Studies Project

All. A special studies project is a project that is developed in response to a particular need or request from an organization or agency. It results in a deliverable, a product that is specific to the sponsoring organization. An SSP is not hypothesis driven research nor does it result in generalizable findings but is the result of a rigorous, approach to problem solving, policy development and implementation or an innovative project that advances the practice of global health in new and creative directions. The primary purpose of an SSP is to produce significant products that drive the practice of global health. These projects meet the final capstone requirement in Global Health and are completed in lieu of a thesis.

GH 599R (4) Thesis

All. Students prepare a research thesis or a systematic review of the literature that embodies original work applicable to public health. It incorporates a proposition that has been successfully evaluated with appropriate statistical techniques, and is potentially publishable or has potential public health impact.

Career Master of Public Health

www.sph.emory.edu/CMPH

Melissa (Moose) Alperin, Director

The Career Master of Public Health (CMPH) is a distance-based master of public health program designed to meet the needs of public health professionals and other professionals with a strong interest in the field. The forty-two credit-hour program allows midcareer professionals with at least three years of professional experience to remain employed while pursuing an advanced degree that will enable them to remain competitive and meet the challenges of public health in the future.

The master of public health (MPH) degree can be earned in approximately two and a half academic years (seven semesters). The Career MPH program requires students to attend classes on campus for the weekend at the beginning and end of each semester. All other course work is delivered online through web-based course management software. Courses are highly interactive and work is often collaborative.

Students are required to take a number of core courses designed to address the core competencies of public health practice. Core courses include biostatistics, epidemiology, surveillance, health policy, social behavior, community needs, public health advocacy, and ethics. Students also complete a special studies project and practicum. In addition to the core requirements, students choose one of three areas of concentration: Applied Epidemiology, Healthcare Outcomes, and Prevention Science.

Admission Requirements

Students may enter the CMPH program from a variety of professional backgrounds, but must have a minimum of three years of professional public health experience. Admission is based on appropriate experience, prior academic performance in postsecondary education, abilities assessed by standardized tests (GRE, GMAT, or MCAT), and a commitment to working in public health. New students are admitted in the fall semester.

Core Requirements

Course Number	Course Title	Credit Hours
APHI 501D	Applied Public Health Informatics	2
BIOS 503D*	Introduction to Biostatistics	2
or BIOS 516D	Applied Biostatistics I	2
BSHE 504D	Social Behavior in Public Health	2
EOH 500D	Perspectives in Environmental Health	2
EPI 504D*	Fundamentals of Epidemiology	2
or AEPI 530D	Applied Epidemiology I	2
AEPI 515D	Introduction to Public Health Surveillance	2
HPM 500D	Introduction to the U.S. Health Care System	2
PRS 540D	Conduct of Evaluation Research	2
PRS 500	Strategies and Resources for Online Learning	0
PRS 561D	Public Health Advocacy	2
or PRS 565D	Public Health Ethics	2



Special Studies Project

As the capstone of their educational experience, students will choose a faculty adviser and professional mentor(s) to design a capstone experience that demonstrates the student's mastery of a public health discipline that is relevant to his or her short- and long-term career objectives.

Course Number	Course Title	Credit Hours
AEPI 598D	Special Studies Project–Applied Epidemiology	4
or HCO 598D	Special Studies Project–Healthcare Outcomes	4
or PRS 598D	Special Studies Project–Prevention Science	4

Practicum

A practicum is a unique opportunity for Career MPH students to integrate and apply practical skills and training learned through course work and prior experiences in a professional public health work environment. A practicum is a significant educational experience that generally requires 200 to 400 clock hours in a public health agency, institution, or community under the supervision of site administrators and the guidance of the Career MPH program, the Office of Applied Public Health, and/or Career Services.

Course Number	Course Title	Credit Hours
PRS 595R	Practicum	2

Areas of Concentration

Applied Epidemiology Track

The Applied Epidemiology track is geared to meeting the needs of the student who anticipates working as an epidemiologist in a practice-based setting. While the practice setting envisioned in developing this curriculum is a national, state/regional, or local government public health agency, practice settings also may include health care institutions, pharmaceutical or other health care industry companies, international agencies, or foundations where epidemiologists are employed. In addition to addressing the core competencies that are part of all CMPH training at the Rollins School of Public Health, the curriculum also addresses the applied epidemiology competencies developed by the Council of State and Territorial Epidemiologists. In addition to core courses, applied epidemiology students take the following courses:

Course Number	Course Title	Credit Hours
AEPI 534D	Applied Epidemiology II	2
AEPI 536D	Epidemiological Modeling	2
AEPI 538D	Applied Data Analysis	2
AEPI 540D	Case Studies in Infectious Disease	2
AEPI 545D	Maternal and Child Health Epidemiology	2
AEPI 555D	Chronic Disease Epidemiology	2
BIOS 517D	Applied Biostatistics II	2
BIOS 518D	Applied Biostatistics III	2
HCO 537D	Applied Regression and Cost Effectiveness Analysis	2
Electives	Choose topic of interest from CMPH course offerings; approval of ADAP required.	2

Healthcare Outcomes Track

The Healthcare Outcomes track provides the CMPH student with the opportunity to learn state-of-the-art techniques for evaluating health care outcomes. The learning is predicated on understanding the creation of value, i.e., understanding relationships between cost and quality. The track focuses on measurement tools, evidence-based medicine, and cost analysis. In addition to core courses, healthcare outcomes students take the following courses:

Course Number	Course Title	Credit Hours
AEPI 534D	Applied Epidemiology II	2
AEPI 536D	Epidemiological Modeling	2
BIOS 517D	Applied Biostatistics II	2
BIOS 518D	Applied Biostatistics III	2
HCO 535D	Population-based Outcomes Research	2
HCO 536D	Managing Healthcare Databases	2
HCO 537D	Applied Regression and Cost Effectiveness Analysis	2
HCO 538D	Evidence Based Medicine Concepts	2

HCO 539D	Outcomes Based Process Improvement	2
PRS 540D	Conduct of Evaluation Research	2

Prevention Science Track

The Prevention Science track provides the CMPH student with the foundations of behavioral theories, program planning, research design, evaluation, and health communication through traditional and emerging technologies. Students will acquire the skills necessary to plan, implement, and evaluate community programs, and to communicate health and behavioral information. The prevention science curriculum prepares students in the essential public health services and competencies. The courses place a strong emphasis on application of prevention science knowledge, behavioral theories, and models to real-life public health situation and settings. In addition to core courses, prevention science students take the following courses:

Course Number	Course Title	Credit Hours
GH 500D	Addressing Key Issues in Global Health	2
PRS 501D	Technology Tools for Public Health	2
PRS 505D	Integrated Communication Strategies	2
PRS 535D	Questionnaire Design and Analysis	2
PRS 538D	Community Needs Assessment	2
PRS 554D	Prevention Effectiveness	2
PRS 575D	Planning and Performance Measures	2
PRS 580D	Research Design and Grant Preparation	2
Electives	Choose a topic of interest from PRS course offerings; approval from ADAP required.	2

Career Master of Public Health Faculty and Instructors

Melissa (Moose) Alperin, Director of Career MPH Program and Senior Associate. BA, Brown University, 1988; MPH, Emory University, 1991. Applied evaluation of community-based public health programs, training public health professionals, workforce development, distance education.

Greg Anderson, Instructor. BS, University of Tennessee, 1995; MS, 1998; MPH, Emory University, 2004. Infectious disease surveillance, resource allocation, quality improvement methodologies, bioterrorism preparedness and response, and molecular genetics of antimicrobial resistance.

Grant T. Baldwin, Adjunct Assistant Professor. BA, University of Michigan, 1994; MPH, Emory University, 1996; PhD, University of Michigan, 2003. Partnerships; community assessment; community-based participatory research; environmental health promotion; use of technology in health education and health promotion; behavioral and social science research methods

Nancy Barker, Instructor. BS, Wheeling Jesuit University, 1984; MS, West Virginia University, 1990. Applied biostatistics and epidemiology.

Ayanna Buckner, Instructor. BSC, Xavier University of Louisiana, 1997; MD, Meharry Medical College, 2001; MPH, Yale University, 2005. Health Management, health literacy, evidence-based medicine, community education, service learning.

Walter M. Burnett, Visiting Professor. BA, Wesleyan University, 1959; MA, University of Iowa, 1964; PhD, 1965. Strategic management, medical care organizations, health policy analysis.

James Buehler, Research Professor. BA, University of California, Berkeley; 1973; MD, University of California, San Francisco, 1977. Surveillance, public health practice and preparedness, bioterrorism and emerging infectious diseases.

Claudine V. Carnevale, Associate. BBA, College of William and Mary, 1992; MS, Medical College of Virginia, 1998. Disease surveillance, maternal and child health, nutrition, obesity prevention, vaccines.

Lisa M. Carlson, Adjunct Associate Professor, CHES. BA, Yale University, 1992; MPH, Emory University, 1993. Ethics, qualitative methods, partnership building and collaboration.

Cam Escoffery, Assistant Professor, CHES. BS, Emory University, 1992; MPH, 1995; PhD, University of Georgia, 2002. Training public health professionals, curriculum development and instructional design, design and evaluation of community health education programs.

Rebecca Tomlin Filipowicz, Instructor, CHES. BS, Angelo State University, 1994; MS, University of North Texas–Denton, 1996; MPH, Emory University, 2001. Health promotion, health communication, tobacco control, surveillance, program evaluation, community-based health programs.

Carlos Franco-Paredes, Associate Professor. MD, Universidad La Salle (México). Department of Medicine, Emory University School of Medicine, and Travel Well International Travelers' Clinic, Emory University Hospital Midtown.

Robert E. Gross, Instructor. BA, University of Maryland, 1971; MBA, Loyola College, 1977. Databases in health care, health care revenue cycle, and IT.

Michael Kramer, Research Assistant Professor. BA, Earlham College, 1991; MMSc, Emory University, 1997; MS, Alderson-Broaddus College, 2004; PhD, Emory University, 2009. Maternal and child health epidemiology, social epidemiology, geographic and spatial methods in epidemiology.

Jonathan M. Liff, Associate Professor. BA, University of Chicago, 1973; MS, University of Illinois, 1979; PhD, University of Washington, 1985. Cancer epidemiology and surveillance.

William M. McClellan, Professor. MD, University of Alabama, 1972; MPH, Emory University, 1992. Epidemiology of chronic and cardiovascular disease.

John E. McGowan Jr., Professor. BMS, Dartmouth Medical School, 1965; MD, Harvard University, 1967. Infectious disease epidemiology.

Kathleen R. Miner, Associate Professor and Associate Dean for Applied Public Health. BA, California State University (Long Beach), 1968; MEd, Georgia State University, 1979; MPH, Emory University, 1979; PhD, Georgia State University, 1984. Design and evaluation of domestic and international community-based interventions related to adolescent health, maternal and child health, and HIV/AIDS.

Rita Noonan, Instructor. BS, University of Connecticut, 1986; MA, 1989; PhD, Indiana University, 1998. Injury and violence prevention, evaluation, and translation research.

Jean O'Connor, Adjunct Assistant Professor. BS, Emory University, 1998; MPH, 2001; JD, 2001; DrPH, University of North Carolina at Chapel Hill, 2009. Public health law, tobacco and other drugs, obesity, health care access, policy development and evaluation, public health advocacy.

Robert C. Osburne, Instructor. BSc, Emory University, 1970; MD/MS, University of Alabama, 1974; MBA, 1996. Utilization management, case/disease state management, pharmacy benefit management and cost control.

Marc Overcash, Chief Information Officer. BA, Davidson College, 1992. Public health informatics, project management, information system design, enterprise architecture, and information technology management.

Anne Riederer, Research Assistant Professor. BSc, Brown University, 1989; MSc, Georgetown University, 1991; ScD, Harvard University, 2004. Biomarker validation, exposure assessment, global environmental health.

Dan Rutz, Visiting Instructor. BS, University of Wisconsin, Platteville, 1971; MPH, Emory University, 2001. Health medical and risk communication, planning, preparation and response for severe public health emergencies, communication strategies development.

Iris Smith, Clinical Associate Professor. BA, Fordham University, 1971; MPH Emory University, 1979; PhD, Georgia State University, 2000. Substance abuse, program evaluation, behavioral research.

Kevin Sullivan, Research Associate Professor. BS/BA, Franklin University, 1981; MHA, Ohio State University, 1983; MPH, University of Michigan, 1984; PhD, 1990. Bioinformatics, disease surveillance, global health, HIV/AIDS, infectious disease, nutrition, statistical modeling.

Patrick Sullivan, Associate Professor. BS, Emory University, 1988; DVM, University of Tennessee, 1992; PhD, 1994. Infectious disease, surveillance, animal models for infectious diseases, zoonotic diseases, HIV vaccine development.

P. Dean Surbey, Associate Dean for Finance and Administration. BA, Washington University, 1977; MA, University of Minnesota, 1979; MBA, 1983. Administration and financial accounting, operations management.

Florence Tangka, Instructor. BS, University of Reading, 1989; MS, Rutgers-State University of New Jersey, 1994; PhD, University of Florida-Gainesville, 2001. Economic evaluation of public health cancer programs, analysis of costs and efficiency of resource utilization in cancer prevention and control.

Zhou Yang, Assistant Professor. MB (internal medicine), Beijing University of Chinese Medicine, 1996; MPH, University of California, Los Angeles, 1999; PhD, University of North Carolina at Chapel Hill, 2003. Cost and efficacy of prescription drugs, economic burden of chronic diseases.

Ying Zhou, Assistant Research Professor. BS, Tsinghua University (China), 1997; DSc, Harvard University, 2002. Air pollution risk assessment and risk-based prioritization among air pollution control strategies in Yangtze River Delta in China.

Career Master of Public Health Course Descriptions

AEPI 530D (2) Applied Epidemiology I

This class will provide an introduction to the principles of epidemiology, including 1) the use of descriptive measures to describe the health of populations or groups of people, 2) approaches to assessing potential associations between personal characteristics, behaviors, or exposures and the occurrence of disease or other adverse health outcomes, 3) the basics of study design, including case-control studies and cohort studies and attendant approaches to defining case or exposure status.

AEPI 515D (2) Introduction to Public Health Surveillance

Teaches the basic principles of public health surveillance, including the establishment of a public health surveillance program, the collation and analysis of data, and the preparation and distribution of a report. Helps students recognize the importance of a direct association between a public health surveillance program and a public health action.

AEPI 534D (2) Applied Epidemiology II

Continuing from Applied Epidemiology I, further insight into confounding is explored as well as effect modification. Methods of hypothesis formulation and analysis of 2x2 tables (point estimation and confidence levels) are described in detail as well as sample size calculations. Different approaches to control for extraneous variables in the design of studies are presented, such as randomization, matching, and restriction. The use of stratification for assessing effect modification and confounding is provided followed by an introduction to mathematical modeling. Different issues in the use of matching in case-control studies are presented. Statistical packages such as SAS, Epi Info, and OpenEpi are used.

AEPI 536D (2) Epidemiological Modeling

Methods for analyzing multivariable data sets in order to evaluate epidemiological research relationships between exposure and disease variables. Will include logistic regression (conditional and unconditional) and survival analysis.

AEPI 538D (2) Applied Data Analysis

The purpose of this course is to prepare the student for actual analysis of epidemiologic data from case-control or cohort studies. It demonstrates and gives the student an opportunity to explore the methods taught in the epidemiology methods sequence. The student (working alone or in groups of two to three) will develop a hypothesis and test it using an epidemiologic database and stratified and logistic regression techniques. The student also will use conditional logistic regression.

AEPI 540D (2) Case Studies in Infectious Disease

Provides training in the investigation, control, and prevention of infectious diseases by both descriptive and analytic epidemiological techniques. Students work with infectious diseases of national and international interest.

AEPI 545D (2) Maternal and Child Health Epidemiology

Reviews current knowledge concerning factors related to maternal and child health. Epidemiologic methodologies specific to maternal and child health issues will be addressed.

AEPI 555D (2) Chronic Disease Epidemiology

Emphasis is placed on the distribution and determinants of chronic disease within the population. Research design and analysis are not the primary focus of the course, but methodological issues are considered when pertinent to the interpretation of findings.

AEPI 598D (4) Special Study Project

Provides an opportunity to participate at advanced levels on specific scholarly research and developmental projects.

APHI 501D (2) Applied Public Health Informatics

Enables participants to apply the technologies and methodologies available to improve the use and management of information for problem solving and decision making. Topics include types of data resources available, evaluating data in its context, and ways that the data may be used to affect outcomes.

BIOS 503D (2) Introduction to Biostatistics

Introduces the most basic statistical concepts and methods: descriptive statistics, graphical display of data, probability, z-tests, t-tests, chi-square tests, and a brief introduction to linear regression. The course does not concentrate on teaching statistical packages, but some computer work might be assigned. Prerequisite: college algebra.

BIOS 516D (2) Applied Biostatistics I

This course covers many of the introductory methods of biostatistical analysis used in public health, particularly in the field of epidemiology. Discussion includes methods of describing data, general probability axioms (including total probability and Bayes' rule), random variables, and the binomial and normal binomial probability distributions. SAS, the widely-used statistical programming language, is taught in conjunction with the topics presented. Due to the nature of the material, some mathematical ability is assumed, with facility in algebra and some familiarity with some pre-calculus concepts.

BIOS 517D (2) Applied Biostatistics II

This course will build on material introduced in Applied Biostatistics I, and continue with sampling distributions and the Central Limit Theorem. Inferential methods will be introduced

focusing on estimation, one and two-sample t-tests, chi-squared tests, and one-way ANOVA with multiple computations.

BIOS 518D (2) Applied Biostatistics III

This course is a continuation of Applied Biostatistics II, and will include two-way Analysis of Variance, nonparametric methods, correlation, and simple/multiple linear regression. SAS will be utilized for statistical computations, and multiple linear regression methods will include basic model-building and diagnostics.

BSHE 504D (2) Social Behavior in Public Health

Introduces the basic principles and functional areas of health promotion and education. Explores considerations for incorporating health promotion and education activities into the design of local, regional, national, and international public health programs. Provides the fundamental language, concepts, and constructs associated with the scientific approach used in behavioral research.

EH 500D (2) Perspectives in Environmental Health

Presents the ecological paradigm as applied to public health and introduces various aspects of environmental health, including air, surface water and ground water contamination, food safety, occupational health, radiation, chemical and physical hazards, vector control, and injuries.

EPI 504D (2) Fundamentals of Epidemiology

Emphasizes the underlying concepts of the epidemiological approach. Stresses the design of studies. Introduces quantitative measures to determine risk association and procedures for standardization of rates.

GH 500D (2) Addressing Key Issues in Global Health

Introduces the students to global public health issues, such as population growth, maternal mortality, and HIV. Presents how public health data are interpreted from a global perspective. Describes future public health trends, relevant in domestic public health deliberations.

HCO 535D (2) Population-Based Outcomes Research

Enables participants to apply and critique methods of outcomes and satisfaction assessment.

HCO 536D (2) Managing Healthcare Databases

This course will present the aspects of defining, acquiring, loading, quality assuring, and maintaining a database for research purposes within an environment of computer technology and technologists, and within a framework of complex legal and privacy issues. Preferably a database built during the course will be related to the student's anticipated SSP.

HCO 537D (2) Applied Regression and Cost-Effectiveness Analysis

Enables participants to apply linear regression and discrete dependent variable regression analysis to health care outcomes analysis. Completes curriculum in regression analysis and covers C-E analysis.

HCO 538D (2) Evidence-Based Medicine Concepts

Enables participants to formulate a clinical question, critically appraise research literature, and evaluate the evidence. Topics include: current data synthesis techniques used for population management of a given clinical question.

HCO 539D (2) Outcomes-Based Process Improvement

Enables participants to apply state-of-the-art concepts and methods for measuring and evaluating clinical outcomes.

HCO 598D (4) Special Studies Project

Provides an opportunity to participate at advanced levels on specific scholarly research and developmental projects.

HPM 500D (2) Introduction to the U.S. Health Care System

Introduces students to the United States health care system, both public and private sector. Examines the structure of the health system, current topics in health care reform, the policy process, and advocacy for public health.

PRS 500D (0) Strategies and Resources for Online Learning

This course provides students with an introduction to the Career MPH online course format, the Blackboard learning platform, and Emory University resources. Students will participate in simulated academic course activities to assist in preparing for the first semester in CMPH.

PRS 501D (2) Technology Tools for Public Health

Provides an overview of technology tools used to facilitate and enhance collaboration, communication, instruction, productivity, and social networking. Students become familiar with each of these resources through hands-on practice and evaluate the tools' usefulness for the practice of health education and behavioral sciences.

PRS 505D (2) Integrated Communication Strategies

Explores methods of applying behavioral and cognitive theories to communicating health and behavioral change information. Illustrates communication strategies using a variety of approaches including face-to-face instruction, technology-mediated strategies, and print-based products. Provides students with an overview of concepts and strategies used in data presentation, social marketing, and public health information campaigns. Emphasis is placed on developing skills that enable practitioners to create consumer-oriented public health intervention, advocacy, and professional development efforts. Skills include formative research, audience segmentation, and channel analysis, and multidimensional data presentation.

PRS 530D (1) Quantitative Analysis

Provides students with an introduction to measurement methods and basic knowledge of quantitative applications using SPSS software. Content will stress specific skills and knowledge of working with data sets using basic SPSS functions to analyze research questions and hypotheses, perform appropriate data analysis procedures, and interpret data outputs.

PRS 532D (1) Qualitative Methods

Introduces students to qualitative research methods used in public health and applied settings. Content covers relevant aspects of qualitative research including research design, sampling, construction of data collection instruments, data collection techniques including observation, interviewing and focus groups, validity and reliability in qualitative research, analysis, and ethical issues.

PRS 535D (2) Questionnaire Design and Analysis

Presents the basics of questionnaire development and data analysis, as well as the interpretation of reporting of findings. The course introduces students to both quantitative and qualitative data methods. Students develop proficiency in the windows version of Epi info—an analytic computer package commonly used in the analyses of public health data.

PRS 538D (2) Community Needs Assessment

Encompasses the development of systematic plans for collecting data about the health status, knowledge, perceptions, attitudes, motivation, and health practices of a population or community and its socioeconomic environment.

PRS 540D (2) Conduct of Evaluation Research

Covers all aspects of evaluation research, including formative process, outcome evaluation, and issues related to collection and analysis of both quantitative and qualitative data.

PRS 554D (2) Prevention Effectiveness

Describes the basic methods used in assessing the community benefits derived from population-based interventions. Critiques the utility of various sources of primary and secondary data that are applied to determining the political accountability, program management, and social contributions made by behavioral and education interventions. Provides an overview of decision analysis and economic algorithms used to select those strategies with the most effect in a population such as cost benefit, cost effectiveness, cost utility, meta-analysis, ethical and legal consequences, and social benefit.

PRS 560D (1) Prevention Science Seminar

Explores and analyzes selected topics in public health. Topics may include public-private partnerships, coalition building, conflict resolution, negotiation skills, and principles of leadership.

PRS 561D (2) Public Health Advocacy

Introduces students to the systems of law and policy that influence health and public health in the United States and globally. Prepares students to lead the transformation of laws and policies to meet the health challenges of the twenty-first century. Addresses basic legal concepts such as sources of law, ethical foundations of law, constitutional law, the tension between individual rights and public health, the law-making process, police powers, the courts, and the relationship between the federal government and states. Draws from legal, political science, and behavioral science theory and applies theories for creating change to real-world public health issues and covers practical techniques and approaches to policy formulation, strategic policy communications, legislative advocacy, and program development.

PRS 565D (2) Public Health Ethics

Examines ethical rules, principles, and theories as they relate to public health practice and the delivery of health services through individual and institutional providers.

PRS 575D (2) Planning and Performance Measures for Nonprofits and Other Local Agencies

Introduces the basic concepts and vocabulary needed to operate, make decisions, and evaluate a nonprofit organization or other local agency. The course focuses on large and small

nonprofits and other agencies that provide health education and interventions to improve the health of the public. Attention is given to the flow of funds to and from organizations with consideration given to adherence and compliance to a variety of regulatory requirements. Assignments are a combination of case studies and interactions with actual organizations. The course is designed to provide the learner with practical knowledge and tools to succeed within the nonprofit world.

PRS 580D (2) Research Design and Grant Preparation

Explores the basics of the scientific methods used in public health research. Covers how to state hypotheses, critique the scientific literature, develop a research design to test stated hypotheses, and write a research proposal. Compares and contrasts proposal writing and grant writing.

PRS 595R (2) Practicum

Enables students to apply skills and knowledge in an applied setting through a supervised field training experience in a public health setting that complements the student's interests and career goals.

PRS 598D (4) Special Studies Project

Provides an opportunity to participate at advanced levels on specific scholarly research and developmental projects.



Interdepartmental Programs

The Rollins School of Public Health offers three interdepartmental programs. They are:

- MPH in Global Environmental Health (Environmental Health and Global Health)
- MSPH in Environmental Health and Epidemiology
- MPH and MSPH in Global Epidemiology (Epidemiology and Global Health).

More detailed information about this program can be found on the RSPH website. Those interested in any of these programs should contact the assistant director of academic programs.

Global Environmental Health (GEH)

Population, growth, demographic shifts, and increasing resource demands have direct and indirect impacts on climate and biodiversity, affecting the availability of food, clean air, and clean water. On a local and regional scale, patterns of resource extraction, agriculture, manufacturing, transportation, land use, and urbanization affect health through their effect on food, water, air, wastes, and risks of injury, toxic exposures, and infectious diseases. All of these relations are dynamic and rapidly evolving, and all take place against a background of increasing globalization. Some of the major determinants of health in developing nations, now and in coming years, relate to the environment.

The GEH program is a collaborative curriculum sponsored by the Department of Environmental Health and the Hubert Department of Global Health. A two-year program with a minimum of forty-two semester hours, it is designed for students interested in working for governmental or nongovernmental entities developing policy, implementing local interventions, or carrying out research on environmental health issues in a global context. Workplace organizations may be health-based and work to promote environmental health, and/or to understand the impact of environmental/natural resource issues on other health programs and policies. Settings may also focus on development, environment, or conservation, and work to improve the impact of their programs on public health. A practicum and a final thesis or culminating experience project are required.

Graduates of the GEH program will be trained in broad, contextual issues that frame environmental health problems, and in the technical, social and policy aspects of the problems. The curriculum is designed to provide students with the basic skills required to address global environmental health issues. Each student is encouraged to take additional elective courses to create an area of specialization based on his/her interests. Students are also encouraged to take advantage of opportunities such as the courses and speakers in the departments of environmental studies, sociology, anthropology, and political science, as well as development studies seminars.

To be considered for admission to the GEH program, applicants should have completed courses in college-level biology and chemistry (general and organic strongly recommended), and college-level statistics and mathematics (calculus recommended). International experience and foreign language skills are also highly recommended. In addition, applicants should demonstrate a commitment to global health and an appreciation of cultural diversity. GRE or MCAT scores are required.

Program Requirements

Course Number	Course Title	Credit Hours
BIOS 500	Statistical Methods I with lab	4
EPI 530	Epidemiologic Methods I with lab	4
BSHE 500	Behavioral Sciences in Public Health	2
<i>or</i> BSHE 504	Social Behavior in Public Health	2
EOH 590R	EH Seminar: Journal Club	1
EOH 520	Human Toxicology	3
EOH 530	Environmental and Occupational Epidemiology	2
<i>or</i> EOH 537/ EPI 747	Methods in Environmental Epidemiology (requires permission)	2
EOH 540	Recognition, Assessment and Control of Environmental Hazards I	2
EOH 546/GH 580	Environmental Microbiology/ Control of Food and Waterborne Disease	1–3
GH 501	Policies in Global Health	3
GH 542	Evidence-Based Strategies	3
GH 555	Proposal Development	2
<i>or</i> EOH 596	Research Design	1
EOH 595	Practicum	0
EOH/GH 599R	Thesis	3–4
<i>or</i> EOH 594	Skills for Environmental Health Professionals	3

GEH students must take a minimum of 6 credit hours from the following list of elective classes. Other electives may be substituted with permission of faculty advisor and a GEH co-director.

Course Number	Course Title	Credit Hours
BIOS 501*	Statistical Methods II with lab	4
EOH 515	Air Quality in the Urban Environment	2
EOH 524	Risk Assessment I	2
EOH 525	Risk Assessment II	2
EOH 527	Biomarkers & Environmental Public Health	2
EOH 537/EPI 747	Methods in Environmental Epidemiology	2
EOH 541	Environmental Hazards II	2
EOH 547/GH 506	Introduction to Microbial Risk Assessment	1
EOH 582/GH582	Global Climate Change; Health Impacts and Response	2
EOH 583/ ENVS 485	Spatial Analysis in Disease Ecology	4
EOH 584	Built Environment and Public Health	2
EOH 585	Public Health Ecology: The Environmental Determinants of Infectious Disease	2
EOH 586	Advanced Seminar in Climate Change and Health	2
INFO 530	Geographic Information Systems	2
GH 502	Global Health Survey Research Methods	2
GH 522	Qualitative Research Methods	3
GH 529	Water and Sanitation in Developing Countries	2

GH 560	Monitoring and Evaluating Global Public Health Programs	2
EPI 536	Applied Data Analysis	2
BIOS 550	Computer Analysis of Complex Survey Data	2
* Strongly recommended for GEH students		
Total credits required for MPH Program		42

Joint EH/EPI MSPH Program

The joint MSPH program in EH/EPI prepares students for research careers in environmental epidemiology through specialized training in epidemiologic methods and skills applied to occupational and environmental health. It is a two-year program with a minimum of forty-eight semester hours and a practicum and final thesis are required. All applicants should have completed both college-level biology and chemistry and a college-level math course; calculus, college-level statistics, and organic chemistry are recommended.

Program Requirements:

Course Number	Course Title	Credit Hours
BIOS 500	Statistical Methods I with lab	4
BIOS 591P	Statistical Methods II (Epi students only)	3
EPI 530	Epidemiologic Methods I with lab	4
EPI 534	Epidemiologic Methods II with lab	3
EPI 533	Programming in SAS	1
EPI 591U	Application of Epi Concepts	3
EPI 538	Advanced Epidemiologic Methods I	2
EPI 740	Epidemiologic Modeling	3
EOH 520	Human Toxicology	3
EOH 537/EPI 747	Methods in Environmental Epidemiology	2
EOH 540	Environmental Hazards I	2
EOH 570	Environmental and Occupational Health Policy	3
EOH 580	Injury Prevention and Control	2
EOH 595	Practicum	0
EOH/EPI 599R	Thesis	4
BSHE 500	Behavioral Sciences in Public Health	2
or BSHE 504	Social Behavior in Public Health	2

Complete a minimum of 2 courses from the following list of electives. Other electives may be substituted with permission of faculty adviser and EH/EPI co-director.

Course Number	Course Title	Credit Hours
EOH 515	Air Quality in the Urban Environment	2
EOH 524	Risk Assessment I	2
EOH 525	Risk Assessment II	2
EOH 527	Biomarkers and Environmental Public Health	2
EOH 541	Environmental Hazards II (prerequisite: EOH 540)	2
EOH 546/ GH 580	Environmental Microbiology: Control of Food and Waterborne Disease	2
EOH 550	Environmental and Occupational Health Practice	2

EOH 581	National Security and Public Health	2
EOH 582	Global Climate Change: Health Impacts and Response	2
EOH 583/ ENVS 485	Spatial Analysis in Disease Ecology	4
EOH 584	Built Environment and Public Health	2
EOH 590R	EH Seminar: Journal Club	1
EOH 596	Research Design in Environmental Health	1
INFO 530	Geographic Information Systems	2
EPI 537	Epidemiology of Chronic Disease	2
EPI 552	Genetic Epidemiology	2
EPI 591S	Social Epidemiology	2
EPI 743	Epidemiology of Cancer	2
EPI 744	Pediatric and Perinatal Epidemiology	2
EPI 746	Reproductive Epidemiology	2
EPI 750	Analysis of Longitudinal Data in Epidemiological Research	3
Total credits required for EH/EPI MSPH Program		48

Global Epidemiology

The departments of Epidemiology and Global Health work collaboratively to offer an MPH and MSPH in Global Epidemiology. The program is designed to provide students with qualitative and quantitative research methodologies that enable graduates to contribute to global health. The MPH requires 42 hours of course work, the MSPH requires 48 hours of course work.

Program Requirements

Required Public Health Breadth Courses (7 hours for MPH and MSPH)

Course Number	Course Title	Credit Hours
GH 501	Policies in Global Health	3

Choose one:

BSHE 500	Behavioral Sciences in Public Health	2
or BSHE 504	Social Behavior in Public Health	2
EOH 500	Perspectives in Environmental Health	2

Required Research Methods Courses (22–23 hours)

Course Number	Course Title	Credit Hours
EPI 530	Epidemiologic Methods I with lab	4
EPI 533	Programming in SAS	1
EPI 534	Epidemiologic Methods II with lab	3
EPI 591U	Application of Epidemiologic Concepts	3
EPI 740	Epidemiologic Modeling	3
BIOS 500	Statistical Methods I with lab	4

BIOS 591P Statistical Methods II with lab 3
 Global Health Methods (choose 2–3 hours)

Required Global Context Courses (7 hours)
GH 542 Evidence-Based Strategies 3
GH 595R Global Health Practicum 0
GH/EPI 599R Thesis 4

Additional Courses Required for MSPH (5 hours)
EPI 538 Advanced Epi Methods 2
EPI 750 Analysis of Longitudinal Data 3

Elective Global Context Courses (4–5 hours for MPH, 5–6 hours for MSPH)



The Rollins School of Public Health offers dual-degree programs with the business school, the medical school, the nursing school, the theology school, the law school, the physician's assistant program, and the physical therapy program. Those in the dual-degree program are required to enroll in the RSPH (i.e., to register in the University as a student in the School of Public Health) for no fewer than thirty to thirty-five hours, depending on the requirements of the degree program. Students enrolled in dual-degree programs receive both degrees simultaneously upon completion of all degree requirements for both programs. For specific dual-degree courses, please refer to the departmental web sites, www.sph.emory.edu/departments_centers.php.

MBA/MPH Degree

Goizueta Business School and the RSPH collaborate in a program granting the master of business administration and the master of public health degrees. Students can complete this program in five semesters, which does not include summer enrollment. Students are encouraged to participate in summer internships to complement their course work. Two of the five semesters are full-time in the RSPH. Candidates for this program must apply to both Goizueta Business School and the RSPH separately. Evaluation criteria for admission to the School of Public Health for students in the dual-degree program are the same as those for the MPH program alone. The scores from the GMAT may substitute for the GRE requirement.

Students accepted into the dual-degree program will be notified of acceptance by both schools. If students are accepted into one school but not the other, they may enroll in the school that has accepted them, but not as a dual-degree student. Upon admission to the dual-degree program, students consult with the appropriate program director of each school to plan their courses of study. Candidates begin the program in the fall with two semesters in the business school. The following fall and spring, the candidates enroll in the RSPH Department of Health Policy and Management in the Policy Track, or Department of Global Health for thirty hours of credit. During the final fall semester, the candidate takes electives in both schools but enrolls in the business school.

A minimum of thirty hours of course work while in residence in the RSPH is required. Fifty-one credit hours are taken in the business school.

MD/MPH Degree with Emory University School of Medicine

Emory University School of Medicine and the Rollins School of Public Health collaborate in a dual-degree doctor of medicine/master of public health program to prepare physicians for leadership roles in public health. This program is intended for students with a baccalaureate degree who wish to enhance their medical training with further study in public health. This program is designed to be completed within five years, four of which are spent primarily in the medical school. It is recommended, but not required, that the year spent in the School of Public Health follow the third year of medical school. Entry to the MPH year is contingent on satisfactory evaluation of academic standing and professional conduct in the School of Medicine.

Between thirty-two and thirty-five credit hours, depending on the department, are required to achieve the MPH degree. This includes core courses in biostatistics, epidemiology, global health, public policy, management, environmental health, and behavioral sciences, plus additional hours of electives/directed studies/thesis. A thesis project rep-

resenting original analytic work concerning a public health problem is required for the MPH degree, except in the Department of Health Policy and Management. Candidates for the MD/MPH Program must apply to the School of Medicine and submit a one-page essay describing their interest in public health.

The minimum requirements for admission to the MD/MPH dual degree program are identical to those for the School of Medicine. A copy of the School of Medicine application and the essay will be forwarded to the School of Public Health.

Students applying to the MD/MPH dual degree program will have the opportunity to visit the School of Public Health and meet with faculty at the time of their medical school interview, and will be interviewed in the year prior to enrolling in the School of Public Health. Applicants will be notified of acceptance into the dual degree program after they are accepted by the School of Medicine.

Those who are not accepted into the dual degree program may complete a separate application for the MPH program. The schools of medicine and public health will defray the cost of tuition and fees for the MPH degree for three students per year. The students who receive this tuition deferment will be chosen in the academic year prior to their planned MPH year through interview and competitive review of their medical school application and performance. In addition, other scholarship opportunities for the MPH year are available to MD/MPH students through the School of Public Health. Application forms and submission deadlines can be obtained from the School of Medicine.

MD/MPH for Non-Emory Medical School Students

Emory University also offers a MD/MPH program for non-Emory medical school students. Students in good standing at any fully-accredited US medical school are welcome to apply to the Rollins School of Public Health for an MPH year. It is strongly recommended that the MPH year follow the clinical year of the medical school, usually the third year in conventional medical school curricula. Admission to this program and the curriculum to be pursued is considered on an individual basis. However, the program is generally structured around 32-35 credit hours over two semesters Fall and Spring.

The non-Emory medical school students may pursue the same course of study as those students from Emory while at RSPH. These programs are abbreviated from those usually required on the basis of work completed in the medical school that allows waiver of similar material at RSPH. This work in the medical school typically takes place both before and after the year spent at RSPH. Therefore, the MPH degree is awarded by the RSPH after the student presents evidence of completion of all medical school requirements at the home medical school.

Requirements:

To apply for admission to the MD/MPH program from a non-Emory medical school:

1. Follow the MD/MPH Application Instructions for creating an account and completing the online application at this site: www.sph.emory.edu/dualdegree_mdmph/dualdegree_mdmph_nonemory.php
2. Arrange for the Medical School that you now attend to send the following items to the RSPH Office of Admissions:
 - a. Copy of the AMCAS application and original transcripts from all post-secondary institutions.
 - b. Recommendations used for medical school application

- c. Official transcript from current institution in signed/sealed envelope
 - d. A letter from the appropriate dean or administrator in the Medical School that you now attend which attests that you have successfully completed the courses to date and that you are a student in good standing at the time of application to RSPH and eligible to return to home institution after completion of the Master of Public Health degree.
 - e. A list of courses intended to take when returning to the home school.
- Additional information regarding the curriculum for the MD/MPH program may be found in the previous section of this catalogue, as well as on the website at www.sph.emory.edu/dualdegree_programs.php.

MSN/MPH Degree

The Nell Hodgson Woodruff School of Nursing and the RSPH collaborate in a dual-degree master of science in nursing/master of public health program to prepare professional nurses for leadership roles in health care. This program is intended for baccalaureate-prepared nurses who desire to enhance their knowledge and skills in the interdisciplinary field of public health as well as in a specific nursing specialty.

Dual-degree students are required to choose a specialty in the nursing school as well as a department in the RSPH. The total number of credit hours for the program may vary by specialty/ department. Dual-degree students must take a minimum of thirty-two credit hours while enrolled in the School of Public Health.

Nursing specialties include adult and elder health, gerontology, family nurse practitioner, nurse-midwifery, family nurse-midwife, pediatric advanced nursing practice, psychosocial nurse practitioner, health care leadership, and women's health care. Public health departments are behavioral sciences and health education, biostatistics, environmental and occupational health, epidemiology, health policy and management, and global health.

In most of the dual degree combinations, students enroll in the School of Nursing for one calendar year and complete requirements for the MPH degree during the second calendar year while enrolled in the School of Public Health.

Candidates for the MSN/MPH program must apply to and be accepted by each school separately. In the Nell Hodgson Woodruff School of Nursing, applicants must have completed a college-level statistics course, health assessment course, BSN degree from a National Leagues for Nursing-accredited school, have a minimum of one year of work experience as a registered nurse, and satisfactory performance on the GRE.

In the RSPH, the dual-degree candidate is expected to designate a department at the time of application. Evaluation of applicants for admission to the RSPH is based on prior academic performance in postsecondary education, abilities as assessed by standardized tests, and a commitment to working in public health. Competence in college-level algebra is evaluated either by courses taken or by the GRE. Applicants must comply with the admission requirements of the RSPH as well as any additional requirements of the department to which they are applying.

Each dual-degree student is assigned an academic adviser from the nursing specialty and from the RSPH department. The assigned academic advisers in each school will work with the student to develop the program of study consistent with the degree requirements from the respective school and specialty/department.

The RSPH requires all of its master's degree students to complete a thesis, a special study project, or a comprehensive examination, depending on the department in which they are enrolled. For the dual-degree candidate, this scholarly work represents a synthesis of both nursing and public health course work. A committee to advise the student normally will be composed of a least three faculty members, with representatives from each school. The choice of committee chair and the format for the thesis/project will be guided by the nature of the thesis/project and decided collaboratively by the faculty advisers, the student, and the committee, when appropriate.

JD/MPH Degree

This program offers students the opportunity to pursue JD and MPH degrees simultaneously. By combining the programs, students are able to develop a special expertise in public health-related legal issues.

The graduate of the dual-degree program will be equipped to work either as a public health professional having an acute awareness of legal and policy issues or as a lawyer specializing in health care issues who may practice law in a public health or quasi-public health setting. For example, a graduate might work for a government or nongovernment organization developing policy or drafting legislation and regulations for food fortification, population planning and control, improving the status of women, protecting the human rights of refugees, or other similar domestic or global public health matters. Alternatively, the graduate might work as a lawyer specializing in protecting the rights of disabled individuals, as general counsel in a public or private hospital, as a lawyer or legal adviser for a state or federal public health agency, or in a similar capacity.

Persons possessing the knowledge and skills that flow from the dual degree will have a special ability to solve public health problems using legal tools, a concrete understanding of how public health policies are expressed in laws and regulations, an ability to analyze the legal environment and carry out public health programs and activities in compliance with legal requirements, special skills to advocate for sound public health policy, and the ability to comprehend the legal ramifications of proposals for health care and social welfare reform. A graduate of the dual-degree program will have a unique ability to deal with policy issues related to public health.

Students are required to complete seventy-seven credit hours for the JD degree and thirty-two credit hours for the MPH degree. Students must enroll for a minimum of thirty-two hours while in residency in the School of Public Health. While pursuing course work in the RSPH, students will concentrate in the Department of Health Policy and Management, the Department of Global Health, or the Department of Environmental Health. Students must establish a cumulative grade point average of not less than a 2.7 in the RSPH and a seventy-two in the School of Law.

Students must complete all courses prescribed for the JD program, with not fewer than five semesters of residence in the School of Law. Enrollment in at least two semesters in the RSPH is also required. Candidates for the JD/MPH program must apply separately to each school. LSAT scores may be substituted for GRE scores as part of the public health application. Other evaluation criteria remain the same for public health applicants.

MMSC in Physician Assistant/MPH Degree

This dual-degree program offers students the opportunity to earn an MPH degree in conjunction with training in the Emory University School of Medicine Physician Assistant Program. The PA program, within the Department of Family and Preventive Medicine, recruits, educates, and mentors a diverse group of students to become physician assistants providing quality health care.

The PA program emphasizes primary health care and preventive medicine and seeks to interest students in working in medically underserved areas. The program uses didactic and clinical training, promotes physician/PA team care, fosters an appreciation for research, leadership, and the need to be flexible in meeting the changing needs of the health care climate, and empowers faculty and students to become advocates for the physician assistant profession and for the delivery of primary health care. Students may apply their combined PA/PH skills in such areas as population or clinical research, health administration leadership, and community health promotion.

Students must apply to and be accepted by both the PA and MPH programs. Students apply to a specific department in the School of Public Health. Students enroll in the School of Public Health for one calendar year (fall, spring, summer) and complete 32 semester hours of courses. They include the required MPH core courses, required departmental courses and, in most instances, a thesis. Students must also complete a practicum, a structured field experience of relevance to public health.

Students generally complete the MPH program before enrolling in PA program courses. Students who complete the MPH requirements prior to entering the PA course of study may wish to combine their MPH thesis with the required research project for the PA program. Students may engage in a public health-related practicum during the time they are enrolled in the PA program.

As 10 semester hours of PA courses count towards the MPH degree (i.e., students must complete 32 rather than 42 semester hours), the MPH degree is awarded when the requirements for the PA program are completed.

The PA program requires twenty-eight months of training, including courses and clinical rotations. During enrollment in the MPH program, the student will be charged the rate of tuition established by the School of Public Health. When enrolled in the PA program, the student will be charged the rate of tuition approved by the School of Medicine for the PA program. For a description of requirements for the PA program, see www.EmoryPA.org.

DPT/MPH Degree

The DPT/MPH dual-degree program offers students the opportunity to earn an MPH in conjunction with training in the Division of Physical Therapy, Department of Rehabilitation Medicine, School of Medicine. The Doctor of Physical Therapy (DPT) degree is a professional doctorate in physical therapy. Physical therapy practice has traditionally been seen as rehabilitation or tertiary prevention. In the evolving healthcare environment, physical therapy practice is expanding into primary and secondary prevention activities. Physical therapists maximize physical abilities and functioning by working with groups as well as individuals. In addition to evaluating and treating individual patients, physical therapists also spend time educating the public. As physical therapists' roles and responsibilities have increased, so have their educational needs and desires.

The combined DPT-MPH degree enables future physical therapists to become leaders in health care policy and impact healthcare and public health in innovative ways.

Applicants who are interested in the DPT-MPH dual degree program must apply to and be admitted by both of the programs within the first year of the DPT program or earlier. The Doctor of Physical Therapy/ Masters of Public Health program is four years in length consisting of 144 credits. Students will spend their first two years in the DPT program, developing a strong foundation in the basic and clinical science with emphasis on movement and movement dysfunction. Students begin clinical education experiences in the third semester of the program and complete 36 weeks of full time-clinical internships.

In the third academic year (Fall and Spring) students will focus on the MPH degree. Within the MPH program, students will select a program concentration, such as Behavioral Sciences, Health Policy and Management, Global Health, Epidemiology, or Environmental Occupational Health. They will complete 32 credits including core coursework, departmental requirements, as well as a 200-400 hour practicum experience. Depending on the area of concentration, there may be a thesis requirement. The DPT degree will be completed in the fourth year.

Because 10 semester hours of DPT courses count towards the MPH degree (i.e., student must complete 32 rather than 42 semester hours), the MPH degree is awarded when the requirements for the DPT are completed. THE DPT program requires nine semesters of training including courses and clinical rotations. During enrollment in the MPH program (two semesters), the student will be charged the rate of tuition established by the School of Public Health. When enrolled in the DPT program, the student will be charged the rate of tuition approved by the School of Medicine for the DPT program.

For additional description of requirements for the MPH and DPT programs, see their websites at www.sph.emory.edu and www.emory.dpt.org respectively.

MDiv/MPH

A joint Master of Divinity and Master of Public Health (MDiv/MPH) is offered in cooperation with the Rollins School of Public Health. This program allows the MDiv and MPH degrees to be earned in four years (instead of the usual five to attain the degrees separately). Candidates for the joint-degree program must apply to and be accepted by both Candler and Rollins. The schools maintain independent application procedures.

Typically, the first year is spent at Candler, the second year is spent at Rollins, and the third and fourth years are spent at Candler. The student must register and pay tuition for six semesters in Candler and two semesters in Rollins, but may take courses in either school. Candler scholarships and grants are applicable only to those semesters in which the student is in residency in the School of Theology.

In order to meet degree requirements for the MDiv, the student must complete a minimum of 86 hours at Candler. All requirements are the same as a traditional MDiv student. In order to meet degree requirements for the MPH, the student must complete a minimum of 32-35 hours at Rollins, which includes the practicum and special studies project or thesis. Specific MPH degree requirements depend on the department. Rollins offers the dual-degree program in seven departments (Behavioral Sciences and Health Education, Environmental and Occupational Health, Epidemiology, Global Environmental Health, Global Epidemiology, Global Health, and Health Policy and

Management). MDiv/MPH dual-degree students may complete the MPH practicum requirement through completion of a clinical Contextual Education placement.

For additional information about the MPH portion of the MDiv/MPH, contact Kathy Wollenzien at kwollen@sph.emory.edu. For information on the MDiv portion of the MDiv/MPH, contact the Candler Registrar's Office at candlerregistrar@emory.edu.

MTS/MPH

A joint Master of Theological Studies and Master of Public Health (MTS/MPH) is offered in cooperation with the Rollins School of Public Health. This program allows the MTS and MPH degrees to be earned in three years (instead of the usual four to attain the degrees separately). Candidates for the joint-degree program must apply to and be accepted by both Candler and Rollins. The schools maintain independent application procedures.

Typically, the first year is spent at Candler, the second year at Rollins, and the third year at Candler. The student must register and pay tuition for four semesters in Candler and two semesters in Rollins, but may take courses in either school. Candler scholarships and grants are applicable only to those semesters in which the student is in residency in the School of Theology.

In order to meet degree requirements for the MTS, the student must complete a minimum of 51 hours at Candler. All requirements are the same as a traditional MTS student. In order to meet degree requirements for the MPH, the student must complete a minimum of 32-35 hours at Rollins, which includes the practicum and special studies project or thesis. Specific MPH degree requirements depend on the department. Rollins offers the dual-degree program in seven departments (Behavioral Sciences and Health Education, Environmental and Occupational Health, Epidemiology, Global Environmental Health, Global Epidemiology, Global Health, and Health Policy and Management). MTS/MPH dual-degree students may complete the MPH special studies project or thesis in conjunction with the MTS integrative paper or thesis.

For additional information about the MPH portion of the MDiv/MPH, contact Kathy Wollenzien at kwollen@sph.emory.edu. For information on the MDiv portion of the MDiv/MPH, contact the Candler Registrar's Office at candlerregistrar@emory.edu.

Five-year Bachelor/Master's Program with Emory College

BA/MSPH Program—Biostatistics

Emory College and the Rollins School of Public Health (RSPH) jointly offer a five-year bachelor's/master's degree program. Students have an opportunity to complete a bachelor of arts (BA) in Emory College, most likely with a major concentration in mathematics and computer sciences, and a master of science in public health (MSPH) in biostatistics within five years. Emory College students will apply and be admitted to the program during their third (junior) year and enroll in eight to twelve semester hours of credit in MSPH courses during their fourth (senior) year. Course credits taken by Emory College students in the Rollins School of Public Health during their fourth (senior) year count toward the required 132 hours of credit for the bachelor of arts as well as for the required forty-eight hours for the MSPH in biostatistics. Two undergraduate courses

(totaling eight semester hours) offered by the Department of Mathematics and Computer Science will also count toward the MSPH in biostatistics. Students graduating from Emory College with a BA will then take courses during their fifth year as MSPH students in the Rollins School of Public Health. Some students may enroll in MSPH courses during the summer semester immediately following graduation from Emory College, and some may complete work (e.g., thesis and practicum) during the summer semester following the fall and spring semesters in the Rollins School of Public Health.

BA/MSPH Required Course Work

Course Number	Course Title	Credit Hours
Math 361	Probability and Statistics I	4
Math 362	Probability and Statistics II	4
BIOS 506	Biostatistical Methods I	4
BIOS 507	Applied Linear Models	4
BIOS 508	Introduction to Categorical Data Analysis	2
BIOS 522	Survival Analysis Methods	2
BIOS 531	SAS/Plus Programming	2
BIOS 595R	Practicum	0
BIOS 599R	Thesis	6
EPI 530	Epidemiological Methods I	4
EPI 750	Analysis of Longitudinal Data in Epidemiological Research	3
EOH 500	Perspectives in Environmental Health	2
BSHE 500	Behavioral Sciences in Public Health	2
<i>or</i>		
BSHE 504	Social Behavior in Public Health	2
HPM 500	Introduction to the U.S. Health Care System	2
<i>or</i> HPM 502	Introduction to Healthcare Systems	2
	Elective hours are required of which at least 2 are in Biostatistics	7

BS/MPH Five-year Program—Environmental Health

A five-year bachelor's/master's degree (BS/MPH) is offered through the Emory College Environmental Studies (ENVS) Department and the Rollins School of Public Health (RSPH) Environmental Health (EH) program. Students can earn a Bachelor of Science and Master of Public Health in five years. Students in their Junior year of the ENVS BS program with a minimum of 3.5 cumulative GPA may apply.

BS/MPH Required Courses (for the MPH portion)

Course Number	Course Title	Credit Hours
BIOS 500	Statistical Methods I with lab	4
EPI 530	Epidemiologic Methods I with lab	4
BSHE 500	Behavioral Sciences in Public Health	2
<i>or</i> BSHE 504	Social Behavior in Public Health	2

HPM 500	Introduction to the U.S. Health Care System	2
EOH 500	Perspectives in Environmental Health	2
EOH 590R	EH Seminar: Journal Club	1
EOH 520	Human Toxicology	3
EOH 524	Risk Assessment I	2
EOH 530	Environmental and Occupational Epidemiology	2
EOH 540	Environmental Hazards I	2
EOH 550	Environmental and Occupational Health Practice	2
EOH 570	Environmental and Occupational Health Policy	3
EOH 595	Practicum	0
EOH 596	Research Design in Environmental Health	1
or GH 555	Proposal Development	2
EOH 599R	Thesis	4
or EOH 594	Skills for Environmental Health Professionals	3
Total MPH credits required for BS/MPH		33



Master of Science in Clinical Research

www.ACTSI.org/retcd

Henry M. Blumberg, MD, PhD, Director

Thomas R. Ziegler, MD, Co-director

John R. Boring III, PhD, Co-director

John E. McGowan Jr., MD, Co-director

The Atlanta Clinical and Translational Science Institute (ACTSI) (NIH-funded CTSA), presents the Master of Science in Clinical Research (MSCR) degree program through the Emory Graduate School. This program provides didactic and mentored clinical and translational research training. The goal of this degree is to provide the educational background for physicians and other doctoral scientists who need and desire the analytic and related skills for clinical investigation. It teaches modern clinical scientific research methods that involve investigative and evaluative medicine and addresses the national shortage of skilled clinical research physicians. The CTSA has made it possible to expand the program to include predoctoral trainees and award the dual degrees of MD/MSCR and PhD/MSCR.

The program provides training in analytic epidemiology, analytic and statistical reasoning, hypothesis development, data collection and management, scientific writing, clinical trial protocol design for interventional and observational studies, and legal, ethical, social, and regulatory issues related to clinical research.

Requirements

The program requires the completion of twenty-eight semester hours of academic credit. This includes in-class didactic study, grant application, and a research thesis. Although many in this course of study have clinical and other obligations, full-time students normally devote approximately forty hours per week for class-related activities. Most students complete the program in two years. Didactic work is scheduled in late afternoons and early evenings to facilitate those with patient clinical commitments.

Required Courses for the Master of Science in Clinical Research

Fall Semester	Course Title	Credit Hours
EPI 530M	Analytic Methods for Clinical Research I	3
EPI 533M	Data Management for Clinical Research	2
EPI 761M	Introduction to Clinical Research Medicine	2
EPI 591M	Community Engagement and Health Disparities in Clinical Research	2
BIOS 500	Biostatistics for Clinical Research	3
Spring Semester	Course Title	Credit Hours
EPI 534M	Analytic Methods for Clinical Research	2
EPI 536M	Analysis of Clinical Research Data	2

EPI 592M	Clinical Research Colloquium	1
EPI 509M	Fundamentals of Bioinformatics	2
EPI 593M	Ethical, Legal and Social Issues of Responsible Clinical Research	1
Spring Semester	Course Title	Credit Hours
EPI 594M	Scientific and Grant Writing	2
BIOS 520M	Clinical Trial Design and Analysis	2
Summer Semester	Course Title	Credit Hours
EPI 599R	Research	4

Required rotation in the Emory Clinical Interaction Network (CIN)

Required rotation serving on IRB committees

Total Hours for Degree 28

Administration and Application Information

Program co-directors are: Henry M. Blumberg, Professor of Medicine, Division of Infectious Diseases, School of Medicine; Professor of Epidemiology, Rollins School of Public Health; John R. Boring, III, Department of Epidemiology, Rollins School of Public Health, and John E. McGowan, Jr., Professor, Division of Infectious Diseases, School of Medicine, and Professor of Epidemiology, Rollins School of Public Health. The Master of Science in Clinical Research program is supported by the National Institutes of Health Clinical and Translational Science Award.

To learn more about the admission process, contact Cheryl Sroka, program coordinator. Phone 404.727.5096; email: csroka@emory.edu.



Doctoral programs are offered by the Departments of Behavioral Sciences and Health Education, Biostatistics, Epidemiology, and Health Policy and Management through the Graduate School of Arts and Sciences. Information about the programs, requirements for admission, and application procedures are available from the Graduate School of Arts and Sciences, Emory University, Atlanta, GA, 30322, by telephone at 404.727.6028 or on the web at www.graduateschool.emory.edu. Information also is available from the directors of each doctoral program in the Rollins School of Public Health.

Behavioral Sciences and Health Education

Michelle Kegler, PhD, Director of Graduate Studies
Gail Baldwin, Administration and Finance
Cami Dettmer, Academics
404.727.3546
BSHEPhDprogram@sph.emory.edu

Biostatistics

Robert Lyles, PhD, Director of Graduate Studies
Tracy Wachholz, Assistant Director of Academic Programs
404.727.3968
biosadmit@sph.emory.edu

Epidemiology

Michele Marcus, PhD, MPH, Director of Graduate Studies
Deanna Murray, Assistant Director of Academic Programs
404.727.2766
dlmurray@emory.edu

Health Policy and Management

Walter M. Burnett, PhD, Director
Kent Tolleson, Financial Analyst
404.727.3211
ktolles@sph.emory.edu

Program in Nutrition and Health Sciences

The Rollins School of Public Health collaborates with the School of Medicine and the Graduate School of Arts and Sciences, Division of Biological and Biomedical Sciences, in offering the Program in Nutrition and Health Sciences. The goal of the program is to train students to investigate how nutrients, toxins, drugs, and other environmental factors affect human health. The training combines molecular/cellular approaches with population/epidemiological approaches. A catalog describing the program and additional information can be obtained from the director. Contact Aryeh D. Stein, Department of Global Health, Rollins School of Public Health, 750 Grace Crum Rollins Building, Atlanta, Georgia 30322; 404.727.4255, astein2@sph.emory.edu.

Master's International Program with the U.S. Peace Corps

The RSPH offers a master of public health degree in conjunction with the Peace Corps' Master's International (MI) Program. This program is a unique opportunity for students to combine public health theory with practical field experience.

MI students apply to any department at RSPH and will complete all MPH/MSPH course work before they begin two years in the Peace Corps. Completion of the MI program requires a minimum of eighteen months in residence at Emory and two years of Peace Corps volunteer service. MI students will be awarded a grant of approximately \$2,500 during the final semester at RSPH, contingent upon an invitation to serve as a Peace Corps volunteer. Each semester students participating in the Master's International Program will enroll in a special discussion seminar that includes a community service project with local Atlanta community organizations. The program is designed to improve MI Peace Corps volunteers' ability to make positive, sustainable contributions to improving the health and well-being of the international communities in which they serve. For further information, visit the program's website at www.sph.emory.edu/masters_international.

MPH Degree with Certificate in Russian and East European Studies

This fifty credit-hour program offers students an opportunity to earn an MPH degree with certification in Russian and East European studies. Students with appropriate foreign language skills are trained to become proficient in public health and familiar with the political, social, and cultural institutions of eastern Europe.

Students selected for this program are required to complete thirty-four hours of MPH course work in either the Department of Health Policy and Management or the Department of Global Health, including a four-hour thesis based on a field project ideally carried out during a practicum in an east European setting. Students will complete sixteen credit hours through the Graduate School with the Russian and East European Studies (REES) program. Eight of those credit hours will count towards electives/departmental requirements for the forty-two credit hours of the MPH. This interdisciplinary program offers courses in history, economics, law, political science, and culture. Eight of those semester hours are counted toward the forty-two hours required for the MPH degree. A certificate from the Graduate School will reflect completion of program requirements.

Students must apply to both the RSPH and the REES program of the Graduate School, and will be advised by faculty members in both programs. Students should possess strong Russian language proficiency or be proficient in another east European language. No credit will be given toward the MPH or REES requirements for language courses. Students also should have other relevant academic and/or occupational background experiences for the program.

Additional information about the program is available from the Russian and East European Studies Program, 1707 North Decatur Road, Emory University, Atlanta, Georgia 30322, or by telephone at 404.727.6427. Additional information is available on the web at www.emory.edu/REES.

The Emory Graduate Certificate in Human Rights

The Institute of Human Rights at Emory provides an opportunity faculty and students to further their understanding of the theories and issues of human rights. The Emory Graduate Certificate in Human Rights is an integrated, innovative, and cooperative approach to human rights scholarship and training. The certificate combines the teaching and research strength of Emory University with the applied programs of our professional partners, including CARE USA, The Carter Center, and the U.S. Centers for Disease Control and Prevention. Faculty in several schools at Emory, including the Emory College, the Graduate School of Arts and Sciences, the School of Law, the Rollins School of Public Health, the Goizueta Business School, the Nell Hodgson Woodruff School of Nursing and the Candler School of Theology, have been involved in building an academic human rights program at Emory University.

Requirements

Awarding of the certificate requires students to complete the following:

Graduate Certificate Documentation: Students are encouraged to meet with one of the faculty members in order that they might direct your course of study.

Core Seminar – Interdisciplinary Perspectives on Human Rights (POL585/ GH526/ LAW819)

Two additional approved courses: Students in the Rollins School of Public Health are required to take two additional (for a total of six classroom hours) from the approved course listing found on the website at <http://humanrights.emory.edu/sub-educational.htm>.

Research practicum: Students have several options which will fulfill the research practicum requirement. Students may pursue a service-learning internship at a local or international human rights organization. The Institute of Human Rights helps coordinate placements, if requested. Students may also fulfill the research practicum requirement by completing a research paper focusing on human rights or by having a substantive human rights emphasis in their thesis or dissertation.

Additional information about the Institute of Human Rights and the certificate program may be found on their website at <http://humanrights.emory.edu>.

Religion and Health Certificate

The certificate in Religion and Health provides an opportunity for the interdisciplinary study of health and health-promoting practices as they intersect with the various religious or spiritual traditions and practices. Through the integration of perspectives from a variety of disciplines in the health and social sciences, particularly those in nursing, public health, theology and religion, students will develop theories and practices in which the personal, communal, and social dimensions of health intersect.

Key Components of the Certificate

- This is currently a certificate for degree-seeking students and provides a structure to take two courses outside their primary degree school and to tailor existing academic requirements.
- These “requirements” include:
 1. A 3-hour core course titled Faith and Health: Transforming Communities.
 2. An orientation at the beginning of each year and an integrative paper/thesis (1 hour)

3. Elective courses equivalent to 9 credit hours (RSPH thesis credit hours can be used here)
4. Practice component in faith and health that fits the requirements in the discipline which the student is enrolled.
5. Participation in University-wide special lectures and seminars in religion and health.

For additional information, students may contact Mimi Kiser in the Rollins School of Public Health, mkiser@sph.emory.edu, 404.727.5199 or Karen Scheib at Candler School of Theology, kscheib@emory.edu, 404.727.2423

Certificate Program in Public Health Informatics

Through its Department of Biostatistics, the RSPH offers a certificate program in public health informatics. This program offers an opportunity for professionals who already have advanced training in public health to gain further skills in the emerging field of public health informatics.

PHI certificate students will complete 20 hours of training in the courses that form the core curriculum for the PHI MSPH program. The course requirements are listed below.

Courses Required for the Certificate in Public Health Informatics

Principles of Public Health Informatics I	INFO 500 (2)
Principles of Public Health Informatics II	INFO 501 (2)
Database Management Systems	INFO 510 (3)
Artificial Intelligence	INFO 591J (3)
<i>or</i>	
Advanced Database Management Systems	INFO 511 (3)
Management Principles for Informatics	INFO 503 (2)
Introduction to PH Surveillance	IH 515 (3)*
Geographic Information Systems	INFO 530 (2)
Health Outcomes	HPM 564 (3)**

*EPI 530 or equivalent is prerequisite.

**HPM 500 or equivalent is prerequisite.

Two introductory sequences (INFO 500–501 and INFO 510–511) should be taken either before or simultaneously with other courses required for the program. The program can be completed in two semesters of study, although the typical part-time student may take longer.

Global Complex Humanitarian Emergencies Certificate

The Rollins School of Public Health, in partnership with CDC's International Emergency and Refugee Health Branch, offers a Graduate Certificate in Global Complex Humanitarian Emergencies. It is an interdisciplinary program that combines the teaching and research strength of Emory University with the applied technical skills of the CDC's International Emergency and Refugee Health Branch.

This is a rigorous and competitive certificate program intended only for those who meet the below criteria. Ten to fifteen students will be accepted into the certificate program each year. Students are strongly encouraged to apply as early in their first semester as possible.

Criteria for Certificate

The ideal candidates for this graduate certificate are students who:

- Want to work overseas in emergency and post-emergency settings as their career.
- Have international development and/or relevant field experience in resource-poor settings.
- Are committed to building practical field epidemiological methods skills in resource-poor settings.

Certificate Requirements

Awarding the certificate requires students to be accepted into the program and then complete:

- Two core classes
- 6 credit hours of approved electives
- Research or practicum component
- Event or volunteer participation

For more detailed information, please see the GCHE website at http://www.sph.emory.edu/cms/academic_programs/nondegree_programs/globalche.html.

Biostatistics Consulting Center

The Biostatistics Consulting Center (BCC) offers comprehensive statistical consultation and computational services to the University community. Obtaining biostatistical advice early in a project can often improve the chances that the study will meet its objectives. BCC personnel are available for discussion at all stages of research, including preparation of grants and contracts, assistance in analyzing and presenting research data, and statistical review of manuscripts in the publication process .

The BCC has access to a broad range of computer hardware and software, along with personnel with expertise in using major statistical, graphics, and data management packages. Its primary interest is in assuring appropriate use of statistical methodology in research. The BCC also offers a complementary range of services, from database development, implementation, and maintenance, to production of publication-quality graphic and tabular material that supports the presentation and publication of research results.

Emory Center for AIDS Research

Directed by RSPH Dean James W. Curran, the Emory Center for AIDS Research (CFAR) fosters and enhances research efforts designed to prevent and mitigate suffering caused by HIV and AIDS. CFAR is funded by the National Institutes of Health (NIH), and has three goals: (1) Enhance the collaborative interdisciplinary research of HIV investigators by providing administrative support, critical shared core resources, and enhanced communication among investigators through sponsored seminars and training activities; (2) Stimulate the participation of new investigators in HIV research through targeted research mentoring and training, and to direct funding of developmental research projects; (3) Assist in recruiting key faculty and in garnering internal and extramural support for priority HIV-research programs.

CFAR currently serves 110 HIV investigators in thirty-six departments of the University whose 2001 extramural funding for AIDS research totaled more than \$50 million. Center-assisted HIV research at Emory is grouped into four program areas, each supported by one of four CFAR associate directors: the AIDS Vaccine Development Program, the HIV Pathogenesis Program, the AIDS Prevention Science Program, and the HIV Clinical Science Program. Center activities are supported by ten service cores, including three that are administratively located in the RSPH: Administrative, Behavioral, and Biostatistics and Data Analysis. The CFAR welcomes RSPH student involvement. For further information, go to www.sph.emory.edu/CFAR/.

Emory Center on Health Outcomes and Quality

The Emory Center on Health Outcomes and Quality is one of the nation's largest health care research groups formed to measure and evaluate health care quality. Established in 2001, the center combines leading academic researchers at Emory with a team of experienced, hands-on researchers formerly with Aetna. The group collaborates with researchers within Emory and elsewhere on health services research studies toward the goal of improving health outcomes. The Center director is Kimberly Rask, MD, PhD. For more information, go to www.sph.emory.edu/CCHOQ/.

Center for Biomedical Imaging Statistics

The Center for Biomedical Imaging Statistics (CBIS) conducts research on statistical methods for analyzing data from biomedical imaging studies. CBIS research includes brain, heart, breast, and prostate imaging, among others. CBIS currently develops statistical methods for data acquired from various imaging modalities including functional and structural magnetic resonance imaging, positron emission tomography, single photon emission computed tomography, and digital mammography. For further information go to <http://www.sph.emory.edu/bios/CBIS>

Center for Public Health Preparedness and Research

The Center for Public Health Preparedness and Research (CPHPR) provides resources and expertise to train public health students and professionals in Georgia to address the threats posed by emerging infectious diseases, including bioterrorism. Faculty and students affiliated with the CPHPR conduct research and develop policy to enhance public health preparedness in Georgia and beyond. For more information, go to www.sph.emory.edu/CPHR/.

Center for Health, Culture, and Society

The Center for Health, Culture, and Society is based at the RSPH, and sponsors academic programs around the interdisciplinary study of health and health care. Among other projects, the center offers a fellowship program that furnishes tuition, fees, and a stipend to enable two MPH students to undertake a year of interdisciplinary studies in Emory's graduate school programs, and two doctoral students in the graduate school to undertake a year of public health studies. The Center also administers an undergraduate minor in Global Health, Culture and Society. For more information, go to www.emory.edu/CHCS/.

Center for Injury Control

Jointly sponsored by RSPH and the School of Medicine, the Center for Injury Control is dedicated to the reduction of death and disability due to injury through a comprehensive program of research, education, and service. Injuries account for more years of potential life lost before age sixty-five than heart disease and cancer combined. Effective injury prevention and control require the resources and expertise of many disciplines. The activities of the center span a number of departments and schools within the University.

The Center also works in partnership with state and local governments and with grassroots organizations. It is nationally recognized for its expertise in firearm and violence prevention, helmet promotion, motor vehicle trauma, and trauma care systems, and is further recognized by the World Health Organization as a "Collaborating Center" for injury control and emergency health services. The Center director is Debra Houry, MD, MPH. For additional information, go to www.sph.emory.edu/CIC.

Center for Public Health Practice

The goal of the Center for Public Health Practice is to improve the performance of preventive health systems at the community level through the transfer and translation of theory to the practice setting. The study of preventive health systems requires integration

of traditional and nontraditional public health disciplines as well as the development of multi-sector partnerships, especially the collaboration of academic institutions with public agencies and community constituencies. Faculty and students explore the key forces and future trends affecting the design of preventive health systems and the future of public health, prevention systems within the broader health system context through preventive health systems research, the core functions required to support population-based health promotion and disease prevention interventions and the linkages and relationships between the required components of the preventive health system and the competencies required to enhance population-based health goals. The Center director is Joyce Essien, MD, MBA. For further information go to www.sph.emory.edu/cphp.

Faculty Affiliated with the Center for Public Health Practice

Fleda M. Jackson, Affiliated Professor. BA, Spelman College, 1973; MS, University of Illinois, 1977; PhD, 1991. Consultant.

Maureen Y. Lichtveld, Affiliated Professor. MPH, Johns Hopkins University, 1986; MD, University of Suriname, Faculty of Medicine, Paramaribo, Suriname; University of Leyden, the Netherlands, 1981. Tulane University, School of Public Health and Tropical Medicine, Department of Environmental Health Sciences.

Florence K. L. Tangka, Affiliated Professor. BS, University of Reading, England, 1989; MS, Rutgers University, 1994; PhD, University of Florida, 2001. Centers for Disease Control and Prevention.

Jean O'Connor, Affiliated Professor. BS, Emory University, 1998; MPH, 2001; JD, 2001. Consultant.

Lymphatic Filariasis Support Center

The Lymphatic Filariasis Support Center is a member of a global alliance fighting the debilitating parasitic disease known as Lymphatic Filariasis (LF). Transmitted by mosquitoes, LF is a principal cause of disability in more than eighty endemic countries and territories. More than one billion people live at risk of infection, and 120 million individuals are infected. In 1997, the 50th World Health Assembly unanimously approved a resolution to eliminate LF as a public health problem. Created in 1998, the center is based in the Department of Global Health. Its mission is to provide technical assistance and problem-solving research to ensure a strong scientific base for the effort to eliminate LF. The center coordinates its technical assistance and research with targeted advocacy and fund-raising activities.

Emory Prevention Research Center

Founded in 2004 through the CDC's Prevention Research Centers program, the Emory Prevention Research Center (EPRC) focuses on community-based cancer prevention and the reduction of health disparities in Southwest Georgia. Its mission is to become a hub of interdisciplinary chronic disease prevention, research, training, and practice at Emory; to strengthen community partnerships; to implement a research agenda to understand and improve healthy socio-environmental contexts; and to extend collaborative training, education, communication, and dissemination activities in an underserved area. For additional information go to www.sph.emory.edu/EPRC/.

Georgia Center for Cancer Statistics

The Georgia Center for Cancer Statistics (GCCS), located within the RSPH Department of Epidemiology, is a research unit devoted to cancer surveillance, epidemiology, and registry training. Its activities include operation of the Metropolitan Atlanta and Rural Georgia Surveillance Epidemiology and End Results (SEER) Program, funded by the National Cancer Institute; the Georgia Comprehensive Cancer Registry, funded by the Georgia Department of Human Resources; and the National Program for Cancer Registries at the U.S. Centers for Disease Control and Prevention, which is the customary source of public information about cancer incidence and survival in Georgia.

Cancer epidemiology research includes population-based studies of cancer. Past and present work has included studies of the causes of various cancers and predictors of survival. Some recent studies have investigated racial disparities in both incidence and survival, the relationship of oral contraceptives and breast cancer risk, and quality of life following the diagnosis of prostate cancer. The GCCS also conducts cancer registry training programs for hospital and central cancer registry staff and investigators. Courses are held at Emory, throughout the United States and abroad. For additional information, go to www.sph.emory.edu/GCCS/.

Interfaith Health Program

The Interfaith Health Program collaborates with faith groups in the U.S. and abroad on projects to advance health. IHP projects focus on adolescent health, population growth, violence, human rights, justice for the poor, and other issues that challenge both faith and health structures. The IHP maintains a lively website, publishes reports, offers expertise to community groups, and conducts workshops in building collaborative programs. Students may participate in IHP activities as interns or employees. Staff members are experienced in community health and ministry. For further information go to www.sph.emory.edu/center_ihp.php.

Southeast Institute for Training and Evaluation

The Southeast Institute for Training and Evaluation (SITE) serves as a resource for public health agencies and programs in the state and region. It provides educational outreach, needs assessment, curriculum development, and evaluation expertise to public health communities and the RSPH. Students and faculty often join SITE staff in various projects. SITE enables students to learn health promotion and education through public health practice in community settings.

Tobacco Technical Assistance Consortium

The Tobacco Technical Assistance Consortium (TTAC) provides technical assistance and support to agencies and organizations across the country in designing, implementing, and evaluating programs to prevent tobacco use. TTAC works with states applying tobacco settlement funds to this goal. Housed in the RSPH, TTAC collaborates with faculty and students, and develops resources such as a web-based training program. It is funded by grants from the Robert Wood Johnson Foundation, the American Cancer Society, and the American Legacy Foundation.

Women's and Children's Center

Directed by Carol J.R. Hogue, PhD, Jules and Deen Terry Professor of Maternal and Child Health and Professor of Epidemiology, the mission of the Women's and Children's Center (WCC) is to promote the health and well-being of women and children through instruction, research, and practice. The WCC serves as a focal point at the RSPH for training and research in maternal and child health and women's health. Since its founding in 1992, the WCC has collaborated with the departments of epidemiology, health policy and management, behavioral sciences and health education, and international health.

Research conducted by core faculty of the WCC is designed to develop the knowledge base for better understanding the particular health risks experienced by vulnerable populations of women and children, and ways to provide health promotion and disease prevention care for these populations. This research requires collaboration of a multidisciplinary team of epidemiologists, social scientists, health services researchers, and clinicians. Collaborators include public and private health providers in several states, including Georgia, Michigan, and South Carolina. RSPH students gain experience through participating as research assistants in projects like these, funded primarily by federal agencies and nonprofit foundations.

The WCC seeks also to translate its research findings into improved public health services through providing educational experiences for practicing health care practitioners. With funding from federal grants and health foundations, the WCC writes state-of-the-art training packages, manuals, and other training materials to disseminate both research findings and new methodologies. For further information go to www.sph.emory.edu/wcc.

Faculty Affiliated with the Women's and Children's Center

E. Kathleen Adams, Professor. BS, Florida State University, 1970; MS, 1972; PhD, University of Colorado, 1979. Department of Health Policy and Management.

Susan A. Ashford, RN, Grady Memorial Hospital, 1971; BSN, Medical College of Georgia, 1977; MN, Emory University, 1979; PhD, Emory University, 2005. Emory University School of Nursing.

Hani Atrash, Adjunct Associate Professor. BS, American University of Beirut, 1972; MD, 1976; MPH, Emory University, 1985. Centers for Disease Control and Prevention.

Sarah C. Blake, Senior Associate. BA, University of South Carolina, 1992; MA, The George Washington University, 1996; PhD, 2007. Department of Health Policy and Management.

John T. Carter, Research Assistant Professor. BA, University of Virginia, 1963; PhD, Rice University, 1967; MPH, Emory University, 1991. Department of Epidemiology.

Carolyn Drews-Botsch, Associate Professor. BA, University of California, San Diego, 1981; MPH, University of California, Los Angeles, 1983; PhD, 1988. Department of Epidemiology.

Karen Glanz, Professor. BA, University of Michigan, Ann Arbor, 1974; MPH, 1977; PhD, 1979. University of Pennsylvania.

Diane C. Green, Adjunct Assistant Professor. BS, University of Georgia, 1974; MPH, Emory University, 1991; PhD, 1994. Division of Reproductive Health, Centers of Disease Control and Prevention.

Vicki S. Hertzberg, Associate Professor. BS, Miami University, 1976; PhD, University of Washington, Seattle, 1980; Department of Biostatistics.

Carol J. R. Hogue, Director and Jules and Deen Terry Professor of Maternal and Child Health. AB, William Jewell College, 1966; MPH, University of North Carolina, 1971; PhD, 1973. Department of Epidemiology.

L. Lynn Hogue, Adjunct Professor. AB, William Jewell College, 1966; PhD, University of Tennessee, 1971; JD, Duke University, 1974. College of Law, Georgia State University.

Chinaro Kennedy, Adjunct Assistant Professor. BA, Colgate University, 1991; MPH, Yale University School of Medicine, 1993; PhD, Columbia University, 2000. Georgia Department of Human Resources, Division of Public Health.

Michele Marcus, Professor. BS, Brooklyn College of the City University of New York, 1974; MPH, Columbia University, 1981; PhD, 1986; Department of Epidemiology.

Godfrey P. Oakley Jr., Research Professor. MSPM, University of Washington, 1972; MD, Bowman Gray School of Medicine, 1965; Department of Epidemiology.

Usha Ramakrishnan, Associate Professor. BS, University of Madras, 1983; MS, University of Madras, 1985; PhD, Cornell University 1993. Department of Global Health.

Roger W. RoCHAT, Research Professor. BA, University of Rochester, 1962; MD, University of Washington, 1966; Certificate in Demography, Office of Population Research, Princeton, 1972; Department of Global Health.

Stephanie Sherman, Professor; BS, North Carolina State University, 1975; PhD, Indiana University, 1981; Emory University, Department of Human Genetics.

Chanley M. Small, Research Assistant Professor. BA, Brown University, 1991; MS, Stanford University, 1995; PhD, Emory University, 2005; Department of Epidemiology.

Iris E. Smith, Clinical Associate Professor. BA, Fordham University, 1971; MPH, Emory University, 1979; PhD, Community Psychology, Georgia State University, 2000. Department of Behavioral Sciences and Health Education.

Claire Sterk, Candler Professor; PhD, University of Utrecht, 1983; PhD, Erasmus University, Rotterdam/City University of New York, 1990. Department of Behavioral Sciences and Health Education.

Nancy J. Thompson, Associate Professor. BA, Emory University, 1971; MPH, Emory University, 1977; PhD, Georgia State University, 1989. Department of Behavioral Sciences and Health Education.

Kathleen E. Toomey, Adjunct Professor of Epidemiology. AB, Smith College, 1973; MPH, Harvard University, 1979; MD, 1979. Centers for Disease Control and Prevention.

Additional Resources

The U.S. Centers for Disease Control and Prevention

The U.S. Centers for Disease Control and Prevention (CDC) is the federal government's premier agency devoted to disease prevention and control, with emphasis in epidemiology, environmental health, health safety, and health education. CDC headquarters is located less than one block from RSPH. More than one hundred CDC scientists hold adjunct faculty appointments in the RSPH. Many students work at CDC in paid internships through various ongoing programs, find opportunities for thesis research with CDC scientists, and use the libraries and data sets resulting from CDC's national surveys.

American Cancer Society

The American Cancer Society (ACS) is the world's largest volunteer disease prevention agency dedicated specifically to cancer prevention and health promotion. It is headquartered in downtown Atlanta. The ACS hosts research units in epidemiology and behavioral sciences. Several collaborative research projects with a shared common interest in early cancer detection and prevention make the ACS a valuable resource to the RSPH.

The Carter Center

The Carter Center addresses national and international issues of public policy, and provides leadership in global health programs such as disease eradication, child survival, and world hunger. In doing so, it draws on the resources of virtually the entire Emory community, including former President Jimmy Carter (now a University distinguished professor) and former CDC Director William Foege (a professor in the RSPH's Department of Global Health), and brings to campus a wide range of international scholars, government leaders, business executives, and other professionals. The associated Jimmy Carter Library, with more than 27 million documents, photographs, films, and mementos of the Carter presidency, serves scholarly researchers and, through its museum, the general public.

CARE USA

Headquartered in Atlanta, CARE's mission is to serve individuals and families in the poorest communities in the world. Drawing from internationally diverse employees, volunteers, resources, and experience, CARE promotes innovative solutions and advocates global responsibility. Worldwide collaborations with a range of RSPH faculty make CARE an important resource partner for students as well.

Georgia Department of Human Resources

The Georgia Department of Human Resources is nationally recognized for innovative and successful health programs. It offers the possibility of on-site experience for students in health promotion and disease prevention.

Surveillance, Epidemiology, and End Results Program

The Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute is an authoritative source of information on cancer incidence and survival in the United States. The SEER program for Atlanta, the state of Georgia, and the geographic region is housed in the Department of Epidemiology. The SEER program currently collects and publishes cancer incidence and survival data from eleven population-based cancer

registries and three supplemental registries covering approximately 14 percent of the U.S. population. The expansion registries increase the coverage to approximately 26 percent. Information on more than 3 million in situ and invasive cancer cases is included in the SEER database, and approximately 170,000 new cases are accessioned each year within the SEER areas. The SEER registries routinely collect data on patient demographics, primary tumor site, morphology, stage at diagnosis, first course of treatment, and follow up for vital status. The SEER program is the only comprehensive source of population-based information in the United States that includes stage of cancer at the time of diagnosis and survival rates within each stage. Faculty and students participate in the gathering of data and its analysis for epidemiologic papers on cancer etiology, prevention and control.

Task Force for Global Health

Since its formation in 1984, the Task Force for Global Health has worked to improve the lives of children and families around the world through public health programs.

The Task Force was formed after a meeting of thirty-four world health leaders in Ballagio, Italy, called together by The Rockefeller Foundation at the request of Jonas Salk and Robert McNamara. Five of the participating organizations—The World Health Organization, the United Nations Children’s Fund (UNICEF), The World Bank, the United Nations Development Programme, and The Rockefeller Foundation—asked the Task Force to serve as the executive secretariat of this group. The United Nations Population Fund joined as the sixth official sponsor in 1995.

The Task Force acted as a vehicle to bring the sponsors together on a regular basis to work collaboratively toward raising immunization rates of the world’s children from 20 percent to 80 percent by 1990. James Grant, former executive director of UNICEF, described this effort at its peak as the single largest peacetime program in the history of the world. The goal was reached and led to the World Summit for Children.

The Task Force also operates the Mectizan® Donation Program and the Malarone Donation Program. The Mectizan Donation Program, a joint public-private partnership with the pharmaceutical company Merck and Company, facilitates distribution of the drug Mectizan to treat people for river blindness (onchocerciasis) in Africa and Latin America. The Malarone Donation Program, a partnership with GlaxoSmithKline, is a targeted donation program that provides a new anti-malarial drug to people in endemic regions who have malaria resistance to other medications.

The Collaborative Center employs fifty staff members, including several adjunct faculty members, and is led by Executive Director Mark Rosenberg, adjunct professor of behavioral sciences and health education and global health.

Health Services

Student Health Service

The Student Health Service, a section of The Emory Clinic, provides both outpatient and inpatient care to students. Regularly enrolled, fully registered Emory students with ID. Cards validated for the current term are eligible for health care at the Student Health Service.

Outpatient Clinic

The University's Outpatient Clinic provides a variety of medical services, including care for acute illnesses and injuries, and follow-up of short-term continuing health problems. Students may be seen on a walk-in basis or by appointment. In addition, appointments may be scheduled for specialty services, including gynecology, family planning, immunizations, allergy injections, and psychiatric or mental health services.

Inpatient Department

Hospitalization for students requiring inpatient care is provided by the Inpatient Department. Students with critical illnesses requiring full hospital services may be admitted to Emory University Hospital.

Mental Health Services

Students may see the consultant psychiatrist on self-referral or referral from the Student Health Service. The psychiatrist will provide evaluation, counseling, and limited treatments for students with problems related to their emotional well-being. If further treatment is indicated, the psychiatrist will refer the student appropriately.

Medical Emergencies

Emergency medical services are available to students on a twenty-four-hour basis through the Student Health Service. Students with urgent medical problems occurring after hours may be seen in the Inpatient Department by a registered nurse. An on-call physician is available for consultation whenever necessary. In the event of a serious or life-threatening emergency requiring immediate treatment and emergency room service, the student should go directly to a hospital that has an emergency department or call DeKalb County Emergency Service at 911 (dial direct).

Faculty-Staff Clinic

Students' dependents are not eligible for care through the Student Health Service but may be seen by appointment on a fee-for-service basis at the University Health Service's Faculty-Staff Clinic. Children under twelve are not eligible for care at the University Health Service. Certain services that are not provided by the Student Health Service, such as complete physical examinations, may be obtained in the Faculty-Staff Clinic on a fee-for-service basis.

Health Insurance

Effective fall semester 2005, all new and continuing full-time RSPH students (enrolled in 9 or more credit hours) will be required to have health insurance. Under this requirement, students must either purchase the Emory University Student Health Insurance Plan (offered by Aetna/The Chickering Group) or provide documentation of enrollment in a comparable United States domiciled health insurance plan. For more information, visit the website www.emory.edu/UHS.

Libraries

All five campus libraries are available for use by public health students. The University library system comprises more than 2.7 million volumes, 4 million microforms, 14,000 linear feet of manuscripts, and a growing inventory of electronic resources. The libraries maintain 39,000 subscriptions to serials and periodicals. Students also have access to the library of the U.S. Centers for Disease Control and Prevention.

Health Sciences Center Library

The Health Sciences Center Library is located at 1462 Clifton Road, next to the RSPH. Clinical branch libraries are maintained in Emory University Hospital and in the Glenn Memorial Building opposite Grady Memorial Hospital. A specialized research branch library is located at the Yerkes National Primate Research Center. The Health Sciences Center Library serves public health students, faculty, and other eligible users with a collection of more than 220,000 volumes, 2,400 current periodicals, a computer laboratory, and audiovisual materials and facilities. The library is open seven days a week with a schedule of 105 hours per week. Reference help is available daily. In addition to traditional reference services, the library conducts information retrieval seminars and teaches library users to perform their own online literature searches. Databases included MEDLINE, Psychinfo, and others such as CD+ full text file. The library participates in the National Network of Libraries of Medicine and obtains loans of books and photocopies of articles from health science libraries across the country.

Robert W. Woodruff Library for Advanced Studies

The Woodruff Library provides excellent facilities and services for study and research, with accommodations for assigned graduate student carrels and faculty studies. The Special Collections Department houses rare books, University archives, manuscripts, and notable collections. Reference staff members cooperate with faculty to provide bibliographical assistance to individuals and groups in connection with specific courses, subjects, or research projects. Reference services include computerized database searching.

University Student Counseling Service

The Emory University Student Counseling Service provides a broad range of services for students and staff of the University. These services include educational and vocational counseling, individual and group counseling for personal problems, self-help groups in areas such as study and social skills, and consultation concerning various agencies of the University community. These services are provided free of charge to students and at a reduced rate to staff. The center is located at 1462 Clifton Road, Suite 235.

Campus Ministry

Campus Ministry at Emory encompasses a rich variety of programs and activities coordinated by the Office of the University Chaplain. Among the religious staff members assigned to work at Emory are representatives of the United Methodist, Episcopal, Presbyterian, Jewish, Roman Catholic, Baptist, and Lutheran traditions. Communities of the Greek Orthodox, Muslim, and Ba'hai traditions also offer regular study and worship opportunities. In addition to programs designed for these particular groups, there are several organizations that are ecumenical or interfaith in character. University Worship is an ecumenical service held in Cannon Chapel each Sunday morning, featuring a variety of clergy and offering liturgies that incorporate differing musical styles along with dance and the visual arts. Roman Catholic, Jewish, and Episcopal services also are held weekly and on the various holy days.



Atlanta is a city with a global health focus because of the proximity of some of the world's most prominent health organizations, including the U.S. Centers for Disease Control and Prevention, The Carter Center, the international headquarters of CARE, the national headquarters of the American Cancer Society, and the patient care, teaching, and health-related research programs of Emory University's Robert W. Woodruff Health Sciences Center.

As a thriving cultural, educational, and business center, Atlanta is consistently ranked as one of the nation's most livable cities. With a metropolitan-area population of nearly five million, Atlanta is home to offices of more than 5,000 of the nation's leading businesses. Atlanta is ranked fifth in the United States in the number of Fortune 500 headquarters located here.

Host of the 1996 Summer Olympics, Atlanta's reputation as an international city continues to grow. It has flourishing ethnic communities including African, Asian, European, Latin American, and Middle Eastern residents, as well as religious and cultural organizations ranging from the Alliance Française to a Hindu temple. A verdant and pleasant city, Atlanta possesses the vigor and open space that accommodates entrepreneurs and established corporations, opera companies and rock concerts, first-run movies and film classics. Thriving theater companies offer a variety of productions. Both the traditional and the trendy find a home here.

Atlanta is large enough to have a well-traveled rapid rail system, yet small enough to retain older, well-kept neighborhoods within minutes of the downtown skyline. Atlanta is a city where the history of the past and the technology of the future blend to create a vital and growing global center of excellence.

The largest city in the Southeast, Atlanta is a major U.S. government center: site of the southeastern regional offices of the Department of Health and Human Services, the Environmental Protection Agency, the Department of the Interior, the Department of Labor, and numerous others. The Public Health Service's U.S. Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry are headquartered in Atlanta. As the state capital, Atlanta houses state government services as well.

And there's more: the High Museum; the Atlanta Symphony Orchestra; the Atlanta Ballet; the Georgia Aquarium; professional sports teams (the Braves, the Hawks, the Thrashers, the Falcons); restaurants; rock, jazz, and blues clubs; frequent concerts; and celebrated annual outdoor events, such as the Piedmont Arts Festival, the Atlanta Dogwood Festival, the Atlanta Jazz Festival, and the Peachtree Road Race. Farther afield, there's sailing, waterskiing, fishing, and camping at nearby Lake Lanier. For weekend trips (a half-day's drive north or south), there's backpacking on the Appalachian Trail, snow skiing in the Carolina mountains, or sunning on the beaches of the Atlantic Ocean or the Gulf of Mexico.

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and Student Affairs*

Mark Condé
Director of Information Services

Department of Student Services

Kara Brown-Robinson
Director of Admissions

Catherine Strate
Director of Enrollment Services/Registrar

Claudia Paez Ellett
Director of Career Services

Fall Term 2010

August 26	Registration Day Special standing students register in Student Services
August 27	Classes Begin
August 27– September 3	Schedule Change Period
September 6	Labor Day (No classes)
September 10	Deadline to submit degree applications for fall graduation
October 11–12	Fall Break
October 29	Preregistration for spring 2009 semester
November 25–28	Thanksgiving Recess
December 7	Classes End
December 8–15	Exam Period
December 15	End of Term

Spring Term 2011

January 12	Special standing students register in Student Services
January 13	Classes Begin
January 13–20	Schedule Change Period
January 17	Martin Luther King Jr. Day (No classes)
February 4	Deadline to submit degree application for spring graduation Preregistration for summer semester classes
March 7–11	Spring Break
March 25	Preregistration for fall 2010 semester
April 25	Classes End
April 26–May 3	Exam Period
May 9	End of Term Commencement

Summer Term 2011 (projected)

May 16	Registration for first session
May 17	Classes begin for first session
May 30	Memorial Day (No classes)
June 23–24	Exam Period
June 27	Registration for second session
June 28	Classes begin for second session
July 4	Independence Day (No classes)
July 8	Deadline to submit degree application for summer graduation
August 4–5	Exam Period

Rollins School of Public Health

Rollins School of Public Health Information	404.727.5481
Admission	404.727.3956
Center for Injury Control	404.616.6010
Center for Public Health Practice	404.727.7835
Continuing Education	404.727.3035
Development and External Relations	404.727.3739
Department of Behavioral Sciences and Health Education	404.727.9868
Department of Biostatistics	404.727.7697
Department of Environmental Health	404.727.3697
Department of Epidemiology	404.727.8710
Department of Health Policy and Management	404.727.3211
Hubert Department of Global Health	404.727.8804
Student Services	404.712.8481
Women's and Children's Center	404.727.8095

Emory University

Student Financial Services	404.727.6089
Police Department	404.727.6115
Graduate and Family Housing	404.727.8830
Graduate School of Arts and Sciences	404.727.6028
University Financial Aid	404.727.6039
University Registrar	404.727.6042
Student Health Service	404.727.7551