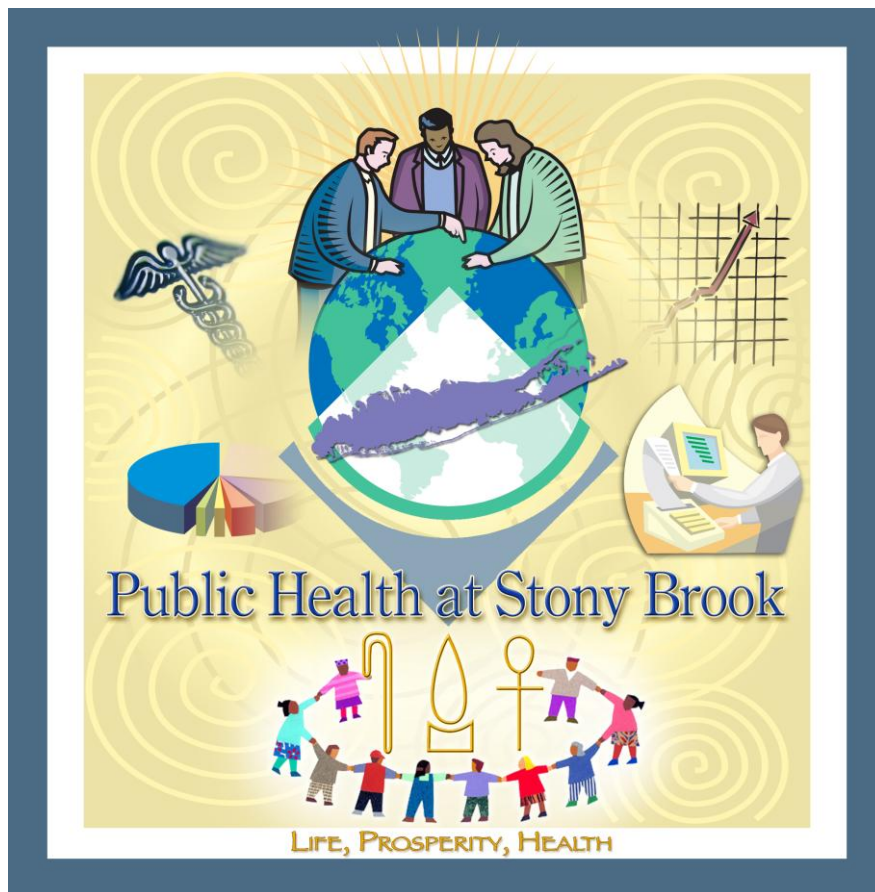


STONY BROOK UNIVERSITY MEDICAL CENTER

# GRADUATE PROGRAM IN PUBLIC HEALTH BULLETIN

ACADEMIC YEAR 2011-2012



## CONTACT INFORMATION

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## GRADUATE PROGRAM IN PUBLIC HEALTH

Thank you for your interest in the *Graduate Program in Public Health* at Stony Brook. We are committed to ensuring that the educational experience of our students is intellectually challenging and provides the skills needed to become a leader in public health. We are very proud that the Program is accredited by the Council on Education for Public Health (CEPH), the only accrediting body for public health programs and schools in the United States.

The *Graduate Program in Public Health* is located in the Stony Brook University Medical Center, the only academic medical center on Long Island. The Medical Center includes the School of Medicine and the University Hospital. Together, they generate more than half of the \$125 million that the University receives in external support and have contributed to an improved quality of life for many Americans through discoveries made by basic and clinical science researchers. The Medical Center is also a partner in scientific research with the Brookhaven National Laboratory.

A unique feature of the Medical Center at Stony Brook is its emphasis on multidisciplinary education and research. The *Graduate Program in Public Health* shares this emphasis. The Program's educational, service, and research initiatives stress an ecological understanding of health problems and approach to developing innovative solutions for them. In keeping with this orientation, our Program draws its faculty from many disciplines representing the clinical, social, and behavioral sciences, as well as the humanities. We believe our graduates have the skills to develop sound public health research and translate research into beneficial programs and policies.

The *Graduate Program in Public Health* is seeking inquisitive, talented students who want to make a difference. If you can picture yourself in this very selective environment, I hope you will apply. It will take the best and brightest minds to protect and improve the public's health!

Raymond L. Goldsteen, DrPH  
Director

## PUBLIC HEALTH FACULTY & STAFF

### Core Public Health Faculty

#### *Professors*

Raymond L. Goldsteen, Director; Dr.P.H., Columbia University. Fairness and effectiveness of allocation policies for healthcare resources.

John D. Shanley, Associate Director; M.D., University of California, Los Angeles; M.P.H. University of Connecticut. Immunology and pathogenesis of viral infections.

Norman H. Edelman, M.D., New York University. Pulmonary medicine; health policy.

Steven Jonas, M.D., Harvard University; M.P.H., Yale University. Health Policy; exercise as medicine.

#### *Research Associate Professor*

Karen Goldsteen, M.P.H., Columbia University; Ph.D., University of Illinois, Urbana. Social determinants of child health and well-being.

#### *Associate Professor*

Lauren E. Hale, Ph.D., Princeton University. Social determinants of sleep; demography.

#### *Assistant Professors*

Amy Hammock, Ph.D., University of Michigan. Community-based participatory research; qualitative research methods; family violence.

Jaymie Meliker, Ph.D., University of Michigan. Environmental health; exposure assessment; environmental epidemiology; GIS; spatial analysis.

Tia Palermo, Ph.D., University of North Carolina at Chapel Hill. Health disparities; reproductive health; biodemography; social policy; gender equity; research methods; program evaluation.

#### *Research Assistant Professor*

Evonne Kaplan-Liss, M.D., Mount Sinai School of Medicine; M.P.H., Columbia University. Pediatrics; health communications; pediatric environmental health.

### Affiliated Public Health Faculty

#### *Professors*

Evelyn Bromet, Psychiatry and Behavioral Science; Ph.D., Yale University. Psychiatric epidemiology; psychiatric sequelae of disasters in adults and children; longitudinal studies of mental disorders.

Christopher W. Cutler, Periodontics and Implantology; D.D.S. and Ph.D., Emory University. Inflammation/immunology; host-parasite interactions.

David L. Ferguson, Technology and Society; Ph.D., University of California, Berkeley. Quantitative reasoning; problem solving; educational technologies; decision-making.

David Krause, Anatomical Sciences; Ph.D., University of Michigan. Evolutionary history and paleobiology of Mesozoic and Early Cenozoic vertebrates.

Paul L. Ogburn, Jr., Obstetrics and Gynecology; M.D., University of North Carolina, Chapel Hill. Maternal-fetal medicine.

John A. Rizzo, Preventive Medicine; Ph.D., Brown University. Health economics; clinical outcomes research.

Charles L. Robbins, Social Welfare; D.S.W., Yeshiva University. Health, violence, and ethics; social justice; gender issues.

Warren Sanderson, Economics; Ph.D., Stanford University. Economic demography; economics of HIV.

Nancy J. Tomes, History; Ph.D., University of Pennsylvania. History of medicine and public health.

Arthur Grollman, Pharmacology; M.D., Johns Hopkins University. Molecular carcinogenesis: mechanisms of DNA repair and mutagenesis in mammalian cells.

Steven London, Oral Biology and Pathology; D.D.S., Emory University; Ph.D., University of Pennsylvania. Oral Microbiology; immunology; and immunopathogenesis.

Peter D. Salins, Political Science; Ph.D., Syracuse University. Housing and economic development; immigration; urban and regional planning.

Christopher Sellers, History; Ph.D., Yale University; M.D., University of North Carolina, Chapel Hill. U.S. environmental and cultural history; transnational industrial and urban history.

Arthur Stone, Psychiatry and Behavioral Science; Ph.D., State University of New York at Stony Brook. Social and behavioral science measurement.

#### ***Associate Professors***

Lisa A. Benzscott, Health Care Policy and Management; Ph.D., Johns Hopkins University. Cardiovascular outcomes.

Debra Dwyer, Health Care Policy and Management; M.S., Ph.D., Cornell University. Labor and health markets policy; Social Security policies.

Aldustus Jordan, School of Medicine; Ed.D., University of Massachusetts-Amherst. Community development; cultural competence; health disparities.

Marci Lobel, Psychology; Ph.D., University of California, Los Angeles. Stress, coping, and their effects on health, with an emphasis on pregnancy.

Debra Cinotti, General Dentistry; D.D.S., State University of New York at Stony Brook. Oral health of persons with developmental disabilities.

S. Van McCrary, Preventive Medicine; Ph.D., University of Texas Medical Branch; M.P.H., Johns Hopkins University; J.D., University of Tennessee. Bioethics; health law.

Anne E. McElroy, Marine and Atmospheric Sciences; Ph.D., Massachusetts Institute of Technology. Aquatic organisms and their interaction with toxic chemicals in the environment.

Henry Thode, Emergency Medicine; Ph.D., State University of New York at Stony Brook. Emergency medicine; trauma; quality assurance.

Joan Broderick, Psychiatry and Behavioral Science; Ph.D., State University of New York at Stony Brook. Behavioral medicine; pain.

#### ***Assistant Professors***

Dolores Cannella, General Dentistry; Ph.D., State University of New York at Stony Brook. Women's health; health psychology.

#### ***Clinical Associate Professor***

Feroza Daroowalla, Pulmonary Medicine; M.D., State University of New York at Syracuse; M.P.H., University of Washington. Work-related lung diseases and asthma.

#### ***Clinical Assistant Professors***

Jeannette O. Coane, Nursing; R.N., M.A., Teacher's College, Columbia University. Clinical practice in end-of-life care; hospice and palliative care nursing.

Breena R. Taira, Emergency Medicine; M.D., M.P.H., State University of New York at Stony Brook. Burns, trauma, and other injuries; injury prevention.

#### ***Instructor***

Suzanne A. Mendelson, School of Medicine; M.A., Hofstra University. Health communications

#### ***Adjunct Professors***

Donald A. Brand, Ph.D., Director, Office of Health Outcomes Research, Winthrop University Hospital.

David G. Graham, M.D., M.P.H., Chief Surgeon, Suffolk County Police Department.

Alan M. Jacobson, MD, Chief Research Officer, Winthrop University Hospital.

Gregson H. Pigott, M.D., M.P.H., Director, Office of Minority Health, Suffolk County Department of Health Services.

James L. Tomarken, M.D., M.P.H. M.S.W., M.B.A., Commissioner, Suffolk County Department of Health Services.

Jason Winslow, M.D., M.P.H., Associate Professor of Clinical Medicine, New York College of Osteopathic Medicine.

Kathleen Flynn-Bisson, M.A., C.H.E.S., Director, Prevention Through the Arts.

#### **Staff**

Jonathan Ragone, M.A., MPH Academic Coordinator.

Mary Vogelle-Buscemi, M.A., Office Administrator.

Eileen Zappia, Program Secretary.

### **ABOUT THE PROGRAM**

The *Graduate Program in Public Health* was established at Stony Brook to train people who wish to integrate the knowledge, skills, vision, and values of public health into their careers and provide leadership in the field. The Program leads to the Master of Public Health (MPH) degree as well as a variety of combined and concurrent programs

The Program advocates a population health approach to public health. The hallmarks of population health include ecological understanding of the determinants of health and a systems approach to solving health problems; emphasis on proactively stabilizing and improving health among all populations; and insistence on accountability, evidence-based practice, and continuous performance improvement. The population health approach requires multi-disciplinary collaboration among scholars in the social, behavioral, clinical, and basic sciences and humanities. Furthermore, it incorporates the development of comprehensive health information systems, and the use of advanced analytical tools to examine health problems and evaluate responses.

The population health orientation is consistent with the traditions of public health and with recent Institute of Medicine (IOM) recommendations for public health education, although it expands upon them. The IOM recommends that public health:

*"Adopt a population health approach that builds on evidence of multiple determinants of health. ... (Develop) appropriate systems of accountability at all levels to ensure that population health goals are met; ... Assure that action is based on evidence;"*

The population health orientation of the Program is also compatible with the educational philosophy of the Medical Center (originally part of the Health Sciences Center). The Health Sciences Center, opened in 1971, emphasizes the need for interdisciplinary education and collaboration, and recognizes the need for health professions to work together. The *Graduate Program in Public Health* values the importance of a collegial atmosphere at an early stage in an MPH student's education in order for the student to gain

respect for the diverse backgrounds and competencies of fellow students.

The emphasis of the *Graduate Program in Public Health* reflects the changing environment in which public health practice occurs, and recent thinking about how to respond to these changes. Public health retains its distinct role as the specialty emphasizing prevention, with the object of its work being populations, in contrast to the historical role of medicine, dentistry, and other clinical disciplines that focus on healing, with the object of their work being individuals. "The public health professional is a person educated in public health or a related discipline who is employed to improve health through a population focus."

Since the 1980s, the three main functions of public health have been identified as assessment, policy development, and assurance. However, the knowledge and skills needed to perform these functions optimally has changed radically in light of advances in information technology and increased knowledge about the determinants of health and disease. These changes are occurring at all levels of inquiry - from the micro (genetics and microbiology) through the macro (the social sciences). Changing political, economic, demographic, and social conditions in the United States and the world make the application of new knowledge and technologies all the more important.

As one recent Institute of Medicine report states,

*"The beginning of the twenty first century provided an early preview of the health challenges the United States will confront in the coming decades. The system and entities that protect and promote the public health, already challenged by problems like obesity, toxic environments, a large uninsured population and health disparities, must also face emerging threats, such as antimicrobial resistance and bio-terrorism. The social, cultural, and global context of the nation's health is also undergoing rapid and dramatic change. Scientific and technical advances, such as genomics and informatics, extend the limit of knowledge and human potential more rapidly than their implications can be absorbed and acted upon. At the same time, people, products, and germs migrate, and the Nation's demographics shift in ways that challenge public and private resources."*

Recent, influential reports regarding public health education suggest ways to address the evolving training needs of public health professionals. These publications include one report issued by the Centers for Disease Control and Prevention - Public Health's Infrastructure - and three reports from the Institute of Medicine - Who Will Keep the Public Healthy?; The Future of Public Health in the 21st Century; and Crossing the Quality Chasm. The recommendations in these reports challenge new public health programs to train public health leaders to be boundary spanners - able to use the new tools and knowledge available in order to formulate solutions to the complex public health problems facing us. "Public health professionals have a major role to play in addressing these complex health challenges, but in order to do so effectively,

they must have a framework for action and an understanding of the ways in which they do affect the health of individuals and populations."

These recent recommendations regarding public health can be synthesized as follows. In addition to the traditional knowledge, including epidemiology and biostatistics, public health leaders need:

1. An ecological understanding of the causes of poor health including, social, behavioral, environmental, occupational, demographic, policy, economic, and genetic factors as well as the interrelationship of these factors;
2. A thorough understanding and appreciation of the cultural heterogeneity of populations, its impact on public health initiatives, and tools to deal with issues arising from cultural heterogeneity;
3. A thorough understanding of the current system of addressing poor health - medical, dental, and public health - including organization, financing, regulation, accessibility, quality, effectiveness, and efficiency;
4. An orientation toward policy, as well as programmatic, solutions to public health problems and the skills to assess, develop, implement, and evaluate policies;
5. An orientation favoring evidence-based decision-making and the skills to develop evidence for public health decision-making including study design and analysis of data;
6. An orientation favoring accountability and continuous quality improvement in public health and the skills needed to measure accountability and assess performance;
7. Informatics skills including application of information technology to obtain, organize, and maintain useful data for public health decision-making;
8. Leadership skills including the conceptual and analytical tools to prioritize problems and make sound decisions.

Instilling a population health orientation and fostering the skills necessary to act upon it provide the Program's graduates with the ability to meet the basic needs of public health today – defined as provision of the Essential Public Health Services and the three core public health functions (assessment and monitoring; formulating public policies; and assuring access to appropriate and cost-effective care) - as well as to expand the work of public health to achieve its broad mission "to fulfill society's interest in assuring conditions in which people can be healthy."<sup>1</sup>

#### **Vision, Mission & Goals**

The vision of the *Graduate Program in Public Health* is to improve the health of populations on Long Island and in the

region, State, and nation through education, research, and community service that utilizes all of the scholarly resources of Stony Brook University in a collaborative and boundary-spanning manner.

The mission of the Program is to develop among students and professionals the values, commitment, knowledge, and technical skills necessary to advance the field of public health through application of population health principles.

The general goals of the *Graduate Program in Public Health* are to:

1. Develop a nationally recognized, accredited, graduate educational program in public health (see Goals 1-4 in Table 1).
2. Advance knowledge in the public health field by developing an active program of population health research among faculty and students in the Program and other health-related professionals at Stony Brook University (see Goals 5 & 6 in Table 1).
3. Provide community partnerships of the highest quality that benefit the health of local, regional, and State populations (see Goals 7 & 8 in Table 1).

The specific goals and measurable objectives developed by the faculty of the *Graduate Program in Public Health* are contained in Table 1 of this bulletin. The Program website also contains this table with the targets for each measurable objective.

To achieve its general educational, research, and community benefit goals, the Program trains public health professionals who:

1. Understand the multiple determinants of health and illness including the social, behavioral, environmental, demographic, occupational, policy, economic, genetic, and health care determinants; and
2. Appreciate the need for interdisciplinary collaboration in order to understand population health problems and develop optimal strategies to address them; and
3. Have the strongest analytical, conceptual, and communication skills in order to facilitate development and implementation of optimal strategies for addressing population health problems.

#### **Program Values**

The *Graduate Program in Public Health* embraces as a core value adherence to all ethical standards of conduct and academic integrity. The Program's culture inherently values: beneficence, diversity, reduction of health disparities, protection of vulnerable populations, and the balance of public health with human rights. In support of the mission statement, the Program values the training of students as public health problem solvers with a population health orientation by a multi-faceted team of faculty and staff members. The Program operationalizes its values through the following pillars upon which the Program stands: education, research, and service.

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<sup>1</sup> Institute of Medicine. *The Future of Public Health*. Washington, DC: National Academy Press, 1988.

### **Education**

The *Graduate Program in Public Health* values high-quality education that moves beyond the simple transmission of information to production of creative and critical thinkers who will be able to maintain public health's value to society in the future. This value is operationalized through provision of the MPH Core and Concentration curricula leading to the MPH degree, which have as their cornerstones the development of analytical and critical thinking skills and an ecological approach to health improvement and disease prevention that will produce public health problem solvers with a population health perspective.

### **Research**

The *Graduate Program in Public Health* values research that contributes to the health improvement of all populations and the elimination of health disparities. This value is operationalized by facilitating interdisciplinary and collaborative research by the faculty and students in the Program's Center for Public Health and Health Policy Research (CPHHPR), which emphasizes health improvement through community-based participatory research (CBPR) and service; and the Center for Health Services and Outcomes Research (CHSCOR), which focuses on the effective, efficient, and equitable provision of health and medical care; prevention; and environmental health for children.

### **Service**

The *Graduate Program in Public Health* values three types of service: Community; Professional; and University.

1. Community: The Program values direct service to communities. This value is operationalized as advocating for improving population health and eliminating health disparities; and providing needs assessments and guidance for solutions to community health problems. The Program's three centers facilitate these activities.
2. Professional: The Program values faculty members' contributions to organizations that advance their professional fields. This value is operationalized by the faculty promotion and tenure criteria and by expectations for annual performance evaluations.
3. University: The Program values service to the University, which is operationalized as mentoring other faculty and serving as members or leaders on committees that advance the mission and goals of the University and the *Graduate Program in Public Health*.

### **ACCREDITATION**

The *Graduate Program in Public Health* actively sought accreditation from the Council on Education for Public Health (CEPH) by planning from our inception to meet CEPH standards and criteria. The Program hosted a successful Site Visit in March 2008 and was officially accredited in October 2008. Yippee!

Because the *Graduate Program in Public Health* is accredited, our alumni are eligible to be certified in public health by the National Board of Public Health Examiners (NBPHE). This organization was established in September 2005 for the purpose of ensuring that students and graduates from schools and programs of public health accredited by CEPH have mastered the knowledge and skills relevant to contemporary public health. The certification exam serves this purpose. More information about NBPHE and the certification exam can be found at: <http://www.publichealthexam.org/about.cfm>

### **RESEARCH CENTERS**

#### **The Center for Health Services and Outcomes Research**

Cost control and quality enhancement remain elusive goals in the U.S. health care system. More and better evidence is required to help direct scarce health care resources to many competing uses, and to evaluate alternative strategies for promoting more cost effective care. In recognition of this need, the Graduate Program in Public Health has established the Center for Health Services and Outcomes Research (CHSOR). The Center is a multidisciplinary research unit that combines expertise in economics, statistics, epidemiology, medicine, and other clinical disciplines to address substantive issues in health care delivery. As part of its research mission, the Center seeks to develop joint projects with researchers at Stony Brook University and with health organizations throughout Long Island. The Center has two divisions: (1) Children's Environmental Health; and (2) Long Island Prevention Research. The Children's Environmental Health division is part of the New York State, regionalized children's environmental health system, which includes eight Children's Environmental Health Centers in New York State (CEHCNY). The mission of CEHCNY is to be a clinical, research, educational, and community referral center for pediatric environmental diseases on Long Island, working in collaboration with the other seven statewide CEHCNY centers. The Long Island Prevention Research division develops research and innovative strategies to prevent disease and promote healthy communities. The focus is on collaboration with communities, as both participants and partners, and other organizations on Long Island including the Suffolk County Department of Health Services and Winthrop University Hospital's Office of Health Outcomes Research.

#### **Center for Public Health and Health Policy Research**

Health promotion and disease prevention, particularly primary prevention through community engagement and community-based interventions, is the central mission of public health, and therefore, an essential component of an academic public health program such as the *Graduate Program in Public Health*. The Center for Public Health and Health Policy Research (CPHHPR) is collaboration between the Graduate Program in Public Health and the Suffolk County Department of Health Services (SCDHS) created through a Memorandum of Understanding in January 2006. The CPHHPR seeks to develop joint projects with researchers at Stony Brook University and with health and human services agencies and community-based organizations throughout Long Island. With a special emphasis on suburban health, the CPHHPR will

focus on and provide expertise on issues including health disparities, family violence, youth and gang violence, nutrition, needs assessment, reproductive health, health communications, health literacy, workforce development, and sustainability and capacity building for health-related community-based organizations. The CPHHPR will bridge the gap between community health needs and research by working directly with communities to understand their health issues and the problems they experience and to develop research for prevention and interventions, particularly policy and environmental interventions, to address those needs. As partners with the Center for Communicating Science within the Stony Brook University's School of Journalism, CPHHPR researchers and community-based organizations will participate in and provide interdisciplinary workshops aimed at enhancing and understanding of science by helping train the next generation of scientists and health professionals to communicate more effectively with the community, public officials, the media, and others outside their own discipline. Our goal is to create an infrastructure that fosters communication among researchers engaging in community-based research and enhances interdisciplinary relationships between and among the five SBU Health Sciences Schools. CPHHPR is committed to improving the health and well being of the residents of Long Island through public health policy analysis and rigorous public health research on the most critical public health issues.

#### **ADMISSION TO THE MPH DEGREE PROGRAM**

Although admission requirements are rigorous, the *Graduate Program in Public Health* aims to develop camaraderie, cooperation, and cohesiveness among students in each cohort. For this reason, admission to the Program is during the fall semester only.

We are seeking intellectually inquisitive people from different socioeconomic, educational, racial, and ethnic backgrounds who can provide special contributions to the field of public health and the Program. The Program considers the potential contribution of each applicant to the student body and the public health field. Applicants are evaluated on academic achievement, leadership potential, professional accomplishment, and personal attributes. Excellent written and oral communication skills are expected. Fluency in more than one language is not required for admission, but it is becoming increasingly desirable for the practice of public health. The Program reserves the right to limit class size in order to maintain a faculty/student ratio that ensures a high quality academic program. Therefore, Program admission is highly selective, and all qualified applicants may not be accepted.

The MPH program is open to students from all academic disciplines. Students can select from one of three concentrations: Community Health, Evaluative Sciences, and Public Health Practice. With the exception of applicants to the combined MBA/MPH and MPH/MAPP program, the Public Health Practice concentration is open only to persons with a clinical degree or studying for a clinical degree such as

medicine, nursing, dentistry, physical therapy, or physician assistant.

The MPH admission requirements for the Program are:

1. Bachelor's degree from an accredited college or university with a 3.0 GPA or better. Admitted students usually have GPAs that are higher than 3.0. The major must have an equivalent at the State University of New York (SUNY).
2. Official transcripts from all post-secondary schools. Transcripts for all degrees earned in schools outside the U.S. or Canada must be evaluated by an agency accredited by the National Association of Credential Evaluation Services. See section on International Students for more information about this process. The requirement for evaluation of transcripts is waived for graduates of foreign medical schools with a current license to practice in the U.S.
3. Official GRE (verbal, quantitative, and analytical) scores are required. This requirement is waived for applicants who have been awarded a doctoral degree from an accredited U.S. or Canadian university. Applicants to the MD/MPH program may substitute MCAT scores for the GRE. Applicants to the MBA/MPH program may substitute GMAT scores. Applicants to the DDS/MPH may substitute DAT scores. A request to substitute any other standardized test scores for the GRE needs to be submitted in writing to the MPH Academic Coordinator. *PLEASE NOTE: Admitted applicants may be required to take preparatory courses prior to enrolling in classes if they score below a 500 in the Qualitative and/or Verbal sections of the exam, as well as below a 4.0 in the Analytical section.*
4. Three references from persons who can address the applicant's capacity to provide leadership in public health and complete a course of graduate study. If the applicant is a student or has graduated within the last two years, at least one letter must be from a college or university faculty member with whom the applicant has studied. If the applicant is a member of the public health workforce, at least one letter must be from a senior administrator in the organization who is familiar with his/her work.
5. Two essays, no more than 500 words each:
  - *Essay 1:* How do your background, training, and experience prepare you for a leadership role in Public Health?
  - *Essay 2:* Select one of the following topics: (a) Explain how the *Graduate Program in Public Health* and the concentration chosen will help you achieve your short-term and long-term goals; (b) Define a time in your own life when you have identified and captured an opportunity; (c) Define a unique quality you possess; or (d) How do you expect to contribute to the improvement of health in your community?



6. A personal interview, if requested by the MPH Admissions Committee.
7. A non-refundable application fee made payable to Stony Brook University.
8. Completion of the on-line application.
9. Any other requirements of the Graduate School not stated here.

**For international students:**

1. International students who trained in non-English speaking schools and do not reside in an English speaking country are required to take the TOEFL exam. The expected minimum score is 213 for the Computer-Based Test, 90 for the Internet-Based Test, and 550 for the Paper-Based Test. In addition to the minimum score of 90 on the internet-based exam, each subsection score must be at least a 22.
2. International students are required to have a course-by-course educational credential evaluation completed by an agency accredited by the National Association of Credential Evaluation Services (<http://www.naces.org>). We require using World Education Services (<http://www.wes.org>). This evaluation provides a U.S. course equivalent including semester hours earned, course content, and corresponding letter grade for all courses listed on the international applicant's transcript. This evaluation must be completed before the application can be considered.

For more information about the requirements for international students, see: <http://www.grad.sunysb.edu/International/>

The MPH Admissions Committee considers all factors including grades, standardized test scores, recommendation letters, essays, prior training, and professional experience. It is a goal of the s Committee to select applicants who have the academic capability, aptitude, character, personal qualities, and commitment to provide future value to society through leadership and creative contributions to the field of public health.

The MPH Admissions Committee encourages applications from persons in the public health workforce and weighs their professional experience heavily in s decisions.

**ADMITTED STUDENTS**

Once admitted, the Program has the following requirements that must be completed by orientation:

1. Entering students without a clinical background must provide certificates of completion for the following two online courses: Anatomy and Physiology 101 and Medical Terminology 101, available at <http://www.universalclass.com>. Students are admitted to the Program on the condition that these courses will be completed by the end of the first semester.
2. All entering students must complete the online HIPPA training before the MPH Orientation. The instructions for completing this training are found on

the website of the Office of the Vice President for Research:

<http://ws.cc.stonybrook.edu/research/orc/humans/training.shtml>

3. All entering students must complete the online Protection of Human Subject training before the MPH Orientation. The course is offered by the Collaborative Institutional Training Initiative (CITI) at: <http://www.citiprogram.org>. Information about how to complete this training program is available on the website of the Office of the Vice President for Research: <http://ws.cc.stonybrook.edu/research/orc/humans/training.shtml>

Also, it is expected that incoming students will be computer literate and email capable, and have library skills sufficient for graduate work. For students with deficiencies in these areas, resources are available through the Health Sciences Center Library to acquire or update them.

**MPH DEGREE CURRICULUM**

The curriculum for the MPH degree is competency-based in order to comply with current national efforts to improve the quality and accountability of public health training programs. The *Graduate Program in Public Health* faculty developed the required MPH Core Competencies, using the Association of Schools of Public Health (ASPH), Master's of Public Health Core Competency Development Project as the starting point.

To ensure that all students have a broad understanding of the basic areas of public health, every student is required to complete all MPH Core courses. Students receive training in the five basic, discipline-specific, competency areas of public health: biostatistics, environmental health, epidemiology, health policy and management, and the social and behavioral sciences. Students also receive core competency education in informatics and communication, professionalism, systems thinking, research methods, and problem solving. The Evaluative Sciences, Public Health Practice, and Community Health concentrations have concentration-specific competencies. The Program's success in transmitting the competencies to students is measured before and after completion of the Program (Orientation and Graduation Competency Assessments), as well as before and after each Core course (Pre/Post Course Competency Assessments). A table with the complete list of MPH Core and Concentration Competencies is on the *Graduate Program in Public Health* website.

**Curriculum Overview**

**MPH Core (24 Credits)**

HPH 500 Contemporary Issues in Public Health (2 credits)

- HPH 501 Introduction to the Research Process (2 credits)
- HPH 506 Biostatistics I (2 credits)
- HPH 507 Biostatistics II (3 credits)
- HPH 508 Health Systems Performance (3 credits)
- HPH 514 Epidemiology for Public Health (3 credits)
- HPH 516 Environmental & Occupational Health (3 credits)
- HPH 523 Social & Behavioral Determinants of Health (2 credits)
- HPH 562 Data Management & Informatics (2 credits)
- HPH 563 Cost Benefit & Cost Effectiveness Analysis (2 credits)

***MPH Culminating Experience (6 Credits)***

- HPH 580 Practicum (3 credits)
- HPH 581 Capstone Seminar: Population Health Issues (3 credits)

***MPH Concentration (15 Credits)***

***Total Credit Hours for MPH Program (45 Credits)***

**Evaluative Sciences Concentration**

The mission of this concentration is to prepare public health professionals with the analytical, research, and statistical skills necessary to benchmark and evaluate health improvement initiatives in community and health care settings. Increasingly, the health field is challenged to adopt an evidence-based approach to preventing and treating disease and disability. The concentration in Evaluative Sciences will play a critical role in meeting this challenge. There is a special emphasis on integrating cost effectiveness and cost benefit concepts into the curriculum so that resource allocation issues are considered.

The faculty has training in research design, implementation of research projects, and analysis of data as well as expertise in evaluating the performance of specific areas of the health system. Faculty members study a variety of health issues including health care quality improvement, patient decision-making, and determinants of health and disease. Some faculty members work with physicians to improve clinical outcomes for patients with heart disease, cancer, asthma, and other conditions. Others work with health care administrators to increase efficiency in the use of health care resources in hospitals and other medical care settings. Others work with organizations to improve health in communities.

***Required Courses***

- HPH 555 Demographic Theory & Methods (3 credits)
- HPH 560 Advanced Biostatistics (3 credits)
- HPH 559 Advanced Research Methods (3 credits)
- HPH 564 Qualitative Methods (3 credits)
- HPH 534 Spatial Analysis: Health Application (3 credits)

**Community Health Concentration**

The mission of this concentration is to prepare students for community-based work in public health. Students will acquire

skills and knowledge related to planning, implementing, and evaluating community health improvement projects and interventions, as well as learn the principles of community-based participatory research.

***Required Courses***

- HPH 550 Theories of Social and Behavior Change (3 credits)
- HPH 551 Introduction to Health Communications (3 credits)
- HPH 552 Planning & Implementing Community Health Initiatives (3 credits)

*Student will be required to take one of the following courses:*

- HPH 553 Evaluating Community Health Initiatives (3 credits)
- HPH 564 Qualitative Methods (3 credits)

***Selectives***

Choose one 3-credit course from the list below. Each course may not be offered every year.

- HPH 504 Surveillance & Control of Infectious Diseases (3 credits)
- HPH 505 Topics in Population Health (credits vary)
- HPH 519 Independent Study (credits vary)
- HPH 534 Spatial Analysis: Health Applications (3 credits)
- HPH 542 Introduction to Global Health (3 credits)
- HPH 546 Introduction to Global Health - II (3 credits)
- HPH 549 Public Health Law (3 credits)
- HPH 550 Theories of Social & Behavior Change (3 credits)
- HPH 551 Introduction to Health Communications (3 credits)
- HPH 552 Planning & Implementing Community Health Initiatives (3 credits)
- HPH 553 Evaluating Community Health Initiatives (3 credits)
- HPH 554 Principles of Health Education and Promotion (3 credits)
- HPH 560 Advanced Biostatistics (3 credits)
- HPH 564 Qualitative Methods (3 credits)
- HPH 575 Public Health Internship (credits vary)

Or, with approval of faculty advisor, other courses in the University related to the student's goals may be substituted.

**Public Health Practice Concentration**

The mission of this concentration is to prepare students with a clinical background for positions in public health organizations or to incorporate public health knowledge, skills, and values into their clinical practice. With the exception of students in the combined MBA/MPH and MPH/MAPP programs, only persons with a clinical degree or studying for a clinical degree such as medicine, nursing, dentistry, physical therapy, or physician assistant can select the Public Health Practice concentration.

***Required Courses***

Required for all student in the Public Health Practice Concentration:

HPH 530 History of Public Health & Medicine (3 credits)  
 HPH 555 Demographic Theory & Methods (3 credits)  
*Required for all student in the Public Health Practice Concentration- Global Health Focus:*  
 HPH 542 Introduction to Global Health 1 (3 credits)  
 HPH 546 Introduction to Global Health 2 (3 credits)

*Choose two courses from the following list required for all students in the Public Health Practice Concentration- Management Focus:*

HPH 660 Management Accounting & Financial Decision Analysis (3 credits)  
 MBA 501 Managerial Economics (3 credits)  
 MBA 502 Finance (3 credits)  
 MBA 505 Marketing (3 credits)  
 MBA 506 Leadership, Team Effectiveness and Communication (3 credits)  
 MBA 589 Operations Management (3 credits)  
 MBA 592 Organizational Behavior (3 credits)

#### **Selectives**

Choose one 3-credit course from the list below. Each course may not be offered every year.

HPH 504 Surveillance & Control of Infectious Diseases (3 credits)  
 HPH 505 Topics in Population Health (credits vary)  
 HPH 519 Independent Study (credits vary)  
 HPH 534 Spatial Analysis: Health Applications (3 credits)  
 HPH 542 Introduction to Global Health (3 credits)  
 HPH 546 Introduction to Global Health - II (3 credits)  
 HPH 549 Public Health Law (3 credits)  
 HPH 550 Theories of Social & Behavior Change (3 credits)  
 HPH 551 Introduction to Health Communications (3 credits)  
 HPH 552 Planning & Implementing Community Health Initiatives (3 credits)  
 HPH 553 Evaluating Community Health Initiatives (3 credits)  
 HPH 554 Principles of Health Education and Promotion (3 credits)  
 HPH 560 Advanced Biostatistics (3 credits)  
 HPH 564 Qualitative Methods (3 credits)  
 HPH 575 Public Health Internship (credits vary)

Or, with approval of faculty advisor, other courses in the University related to the student's goals may be substituted.

### **COMBINED AND CONCURRENT DEGREE PROGRAMS**

The Graduate Program in Public Health offers a variety of combined degree programs with the Master in Public Health (MPH) degree.

#### **Five-Year Combined Undergraduate Programs**

The *Graduate Program in Public Health* offers several five-year combined undergraduate degree programs including a

Bachelor of Science (BS) in Applied Mathematics and Statistics/ MPH; a Bachelor of Science (BS) in Pharmacology/MPH; a Bachelor of Arts (BA) in Women's Studies/MPH; and a Bachelor of Arts (BA) in Earth and Space Sciences/ MPH.

Students in these combined degree programs can complete both degrees in 10 semesters. For the first two or three years, students complete undergraduate coursework including General Education and undergraduate major requirements. During either their third or fourth year (once a majority of their undergraduate degree requirements are completed), students begin taking graduate courses as outlined by the plan of study. In their fifth and final year, students complete the remaining graduate requirements for the MPH degree.

#### **Admission Requirements**

Under Stony Brook policy, students must complete 60 credits of undergraduate course work (Junior Status) with a minimum GPA of 3.0 in all college work before being admitted into any combined Bachelor/Masters degree program. Additional entry requirements for the MPH combined degree consist of:

1. GPA of at least 3.3 for courses required in undergraduate major
2. Two letters of recommendation from faculty members in the undergraduate major
3. Completion of the MPH online application for review by the MPH Admissions Committee

#### **Combined Graduate Programs**

The *Graduate Program in Public Health* offers two combined graduate degree programs with the Master of Public Health degree:

1. Master in Business Administration (MBA), and
2. Master of Arts in Public Policy (MAPP)

#### **MBA/MPH**

In collaboration with the College of Business, we offer a combined MBA/MPH degree which prepares students for a management career in the health field. The MBA/MPH program includes about 20 credits of overlap, which reduces the total number of credits in the combined program to 73. Students select a MPH concentration in either Evaluative Sciences or Public Health Practice. Students receive both degrees upon completion of the entire program.

*Special Note:* Students in the combined MBA/MPH program pay the graduate MBA tuition rate. For more information visit: <http://www.stonybrook.edu/bursar/tuition/mba.shtml>.

#### **MPH/MAPP**

In collaboration with the Political Science Department, we offer a combined MPH/MAPP degree that prepares students for a career in public health administration and policy-making. The MPH/MAPP program includes about 24 credits of overlap, which reduces the total number of credits in the combined program to 51. Students can only select the Public

Health Practice concentration within the MPH program. Students receive both degrees upon completion of the entire program.

### **Admission Requirements**

Students who wish to be considered for admission into the combined MBA/MPH or MPH/MAPP degree program must comply with all admission requirements for the MPH degree alone. The MPH Admissions Committee reviews completed applications initially and recommends eligible applicants to the College of Business Admissions Committee or Political Science Department, respectively, for final approval.

- *MBA/MPH applicants may submit GMAT scores in lieu of GRE scores.*

For more information about this program, contact the MPH Academic Coordinator at (631) 444-2074.

### **MD/MPH & DDS/MPH Degree Programs**

The combined MD/MPH and concurrent DDS/MPH are two programs in which Stony Brook University medical and dental students complete their MPH degree during medical or dental school (4 year program) or during medical or dental school and an additional year (5 year program). All requirements of the MPH and MD or DDS degrees are met. Up to four medical students and two dental students each year are awarded full MPH tuition scholarships for their four year MD or DDS programs. These tuition scholarships do not cover a fifth year of MPH study.

### **Admission Requirements**

Applicants applying for admission to both the *Graduate Program in Public Health* (GPPH) and the School of Medicine (SOM) or School of Dental Medicine (SDM) need the following information:

1. The application process for the GPPH is separate from the application to the SOM or SDM. Admission to one program is determined independently from admission to the other; and admission to one program does not guarantee admission to the other.
2. To avoid the need to send support documents to both programs, SOM or SDM applicants who also apply to the GPPH can request in writing that the SOM or SDM provide to the MPH Admissions Committee a copy of their support documents including MCAT or DAT scores, official transcripts from all post-secondary schools, and letters of recommendation for their application for admission to the GPPH.
3. SOM and SDM applicants who apply to the GPPH must provide one additional reference that addresses the applicant's public health leadership potential.

### **ADVANCED GRADUATE CERTIFICATE IN HEALTH COMMUNICATIONS**

The Advanced Graduate Certificate in Health Communications is as collaboration between the *Graduate*

*Program in Public Health* and the School of Journalism. This 18 credit program is designed for members of the public health workforce, healthcare professionals, master's and doctoral candidates, and media professionals in journalism, marketing, public relations, and communications. The program prepares students to be effective communicators, bridging the gap between medicine and public health and the world-at-large and providing the skills necessary to communicate health-related issues to the public, directly or through the press. Graduates will find employment in academic settings, research facilities, public health organizations, and healthcare institutions. Graduate may also serve as health communications experts in media, consulting, and public relations settings. Working professionals will gain communication skills that help them advance within their respective public health, healthcare, or media professions. The Coordinator of the Advanced Graduate Certificate in Health Communications is Evonne Kaplan-Liss, MD, MPH, a physician and journalist with joint appointments in the School of Medicine and the School of Journalism.

For more information, visit our website: <http://www.stonybrookmedicalcenter.org/publichealth/>

### **COURSE DESCRIPTIONS**

#### **HPH 500 Contemporary Issues in Public Health**

This course provides an introduction to the field of public health that aims to develop an appreciation of the unique and important mission of public health; an understanding of the history, values, ethics, mission, and goals of public health; and knowledge about how public health functions today including the organization, financing, policies, and practices of public health. Students will be expected to think critically about whether public health has achieved its mission in today's world and how the profession might develop in the future.

*2 credits, fall term, Professor R. Goldsteen*

#### **HPH 501 Introduction to the Research Process**

This course provides an overview of the research process including formulation of a research problem, conceptualization of the research design, construction of the instrument for data collection, selection of the sample, collection of data, processing of data, and writing the research report. Topics include how to identify a research question and, correspondingly, how to formulate a clear, concise hypothesis or set of hypotheses; reasons and procedures for reviewing the literature; overview of observational and interventional research designs; review of measurement theory, types of scales, and commonly used measures in public health-related research; data collection methods including survey and qualitative methods; and the ethical conduct of research. Through the introduction of these topics, the course provides a general background for individuals who are interested in learning the fundamentals of how to prepare a research proposal.

*2 credits, spring term, Professor K. Goldsteen*

#### **HPH 504 Surveillance & Control of Infectious Diseases**

This course introduces the methods of surveillance and control of infectious diseases in the community and in health care

organizations including the design, implementation, and evaluation of surveillance systems and the analysis of surveillance system data. The course focuses on infectious diseases common in the United States, but also discusses the global situation. Bioterrorism will be discussed.

*3 credits, term varies, Public Health Faculty*

#### **HPH 505 Topics in Population Health Studies**

This course presents current topics and issues in population health studies.

*1-3 credits, term varies, instructor varies*

#### **HPH 506 Biostatistics I**

This is part 1 of a 2-term course and is intended to provide students and researchers in public health with an introduction to the principles of statistical methods and their application in biomedical and public health research. Students are expected to enroll in parts 1 and 2 sequentially within the same academic year. This course includes introductions to the use of computers for statistical analysis, summarizing and exploring data, probability theory, discrete and continuous probability distributions, populations and samples, sampling distributions and statistical inference, hypothesis testing, sample size and power, two-sample comparisons, analysis of variance, association and correlation, simple linear regression and simple logistic regression. *Prerequisite: Math placement exam score of 3 or higher.*

*2 credits, fall term, Public Health Faculty*

#### **HPH 507 Biostatistics II**

This is part 2 of a 2-term course and is intended to provide students and researchers in public health with an introduction to the principles of statistical methods and their application in biomedical and public health research. Students are expected to enroll in parts 1 and 2 sequentially within the same academic year. This course includes introductions to the use of computers for statistical analysis, summarizing and exploring data, probability theory, discrete and continuous probability distributions, populations and samples, sampling distributions and statistical inference, hypothesis testing, sample size and power, two-sample comparisons, analysis of variance, association and correlation, simple linear regression and simple logistic regression. *Prerequisite: HPH 506.*

*3 credits, spring term, Public Health Faculty*

#### **HPH 508 Health Systems Performance**

This course introduces students to the system that we have developed to deliver health care in the United States, with international comparisons. The topics include the organization and financing of health care systems, access to health care including health insurance, regulation and policy issues, and the health care workforce.

*3 credits, fall term, Professor Edelman*

#### **HPH 514 Epidemiology for Public Health**

This course presents basic epidemiologic concepts used to study health and disease in populations. It provides an overview of the major causes of morbidity and mortality,

including methods of measurement (e.g., incidence, prevalence). Observational and experimental epidemiologic studies will be described and their advantages and disadvantages compared. The course aims for students to begin developing the skills needed to evaluate data, interpret reports, design and conduct studies. Students will be introduced to the various areas of epidemiologic study including cancer, molecular/genetic, environmental, occupational, social and behavioral, and infectious disease/surveillance. The course comprises both lectures and small group seminars for in-depth discussions of previously assigned topics. *Prerequisite: HPH 506 and HPH 562.*

*3 credits, spring term, Professor Meliker*

#### **HPH 516 Environmental & Occupational Health**

This course is designed to provide the fundamentals of environmental and occupational health and to educate students on issues related to major environmental and occupational concerns. It will provide a forum for the discussion of local and national environmental and occupational public health issues. The content of the course will focus on major pollutants, their detection, impact on health, and principles of remediation. Using various teaching techniques, students will be exposed to current environmental and occupational topics and approaches to prevention and treatment. The course will emphasize the most recent research in the field.

*3 credits, summer term, Professor Meliker*

#### **HPH 519 Independent Study**

Intensive reading, under supervision of one or more instructors, of material not covered in the formal curriculum, or execution of a research project under the supervision of one or more faculty members. *Instructor consent required.*

*1-6 credits, term varies, Public Health Faculty*

#### **HPH 523 Social & Behavioral Determinants of Health**

This course introduces students to population health as one of the organizing concepts in public health and the orientation that differentiates public health from medicine. Consistent with public health tradition, health is discussed from an ecological perspective, and the course presents current knowledge about the multiple determinants of population health including socioeconomic status, the physical environment, medical care, individual behavior, and genetics and the interaction of these factors. Also covered is the measurement of population health, sources of data, and methods for assessing population health improvements.

*2 credits, spring term, Professor Hale*

#### **HPH 530 History of Public Health & Medicine**

This course explores major themes and interpretations in the history of public health and medicine since the 18th century. Particular emphasis is placed on the influence of social and

cultural developments on medicine and public health, and vice versa. American developments will be placed in a broad comparative perspective including both Western and non-Western nations.

*3 credits, summer term, Professor Tomes or Sellers*

#### **HPH 534 Spatial Analysis: Health Applications**

This course is an intermediate level graduate course in the application of spatial methods for analyzing environmental exposure and disease data. Students with backgrounds in epidemiology, public health, environmental health, biostatistics, community health, biology, sociology, psychology, marine and atmospheric sciences, geosciences, demography, and geography are particularly encouraged to participate. Although the course will focus on examples related to human health, graduate students in other disciplines will find the course useful for specific and appropriately defined research purposes. Techniques for spatially analyzing point patterns and aggregated data in polygons will be introduced, including autocorrelation, clustering analysis, geostatistical smoothing, and approaches for spatial regression. Consideration of space-time variability will also be covered. This course includes theoretical elements so that the student will learn to appreciate strengths and weaknesses of different spatial approaches.

**NOTE:** Students need a foundational knowledge of Geographic Information Systems (GIS) software. This requirement can be met by completing SBC 313: GIS Design and Application (if available), by completing other Introduction to GIS courses at Stony Brook or elsewhere, or by self-teaching using the following book: *Getting to Know ArcGIS Desktop* by Tim Ormsby, Eileen Napoleon, and Robert Burke. *Prerequisite: Course in GIS or equivalent, as determined by consent from the instructor.*

*3 credits, term varies, Professor Meliker*

#### **HPH 542 Introduction to Global Health 1**

This course will provide health personnel with a basic awareness of the problems of the worlds' population with special focus on the poorest. To promote these objectives, this course has been designed to introduce medical and public health students to key population health topics from a global perspective, with special emphasis placed on the health and welfare of women and young children in low-income countries. The health impact of emergent and re-emergent infectious diseases will be reviewed, including HIV, tuberculosis, malaria and sexually transmitted infections. Malnutrition will be discussed. Students will be introduced to demography and the impact of population increases on the global environment. There will be discussions of the health problems of immigrants to the U.S. from tropical countries.

*3 credits, term varies, Professor Shanley*

#### **HPH 546 Introduction to Global Health 2**

This course will provide health personnel with a basic awareness of the problems of the worlds' population with special focus on the poorest. To promote these objectives,

this course has been designed to introduce medical and public health students to key population health topics from a global perspective, with special emphasis placed on trends in morbidity and mortality, maternal and perinatal mortality in low-income countries, and war, catastrophe and displaced persons. The health impact of emergent infectious diseases will be reviewed including water-borne diseases, emerging antibiotic resistance, bioterrorism, and parasitic disease. The design and effectiveness of foreign aid programs will be discussed. Students will be introduced to demography and the impact of population increases on the global environment. There will be discussions of the health problems of immigrants to the U.S. from tropical countries. Finally, students will learn about vaccination and other safety issues related to traveling and working in the tropics.

*3 credits, term varies, Professor Shanley*

#### **HPH 550 Theories of Social & Behavior Change**

In this survey course, students learn about the major social and behavioral theories used in health promotion. Rather than simply cataloguing each theory in turn, this course takes a 'constant comparative' approach to the learning of theories, in which theories are dissected to their core elements and compared to each other in order to understand the points of convergence and divergence among them. The goal in taking this comparative approach is application: by knowing the core elements of various theories, students will more easily be able to choose appropriate theories to explain community health problems of interest. In addition to covering traditional individual-level behavior change theories, this course will focus on community and social change theories, challenging students to think about the role of social context on health behavior and community health promotion. After learning about commonly-used social and behavioral theories, students will learn about and critique theories that are less-commonly used but have important implications for health promotion.

*3 Credits, Summer Term, Professor Hammock*

#### **HPH 551 Introduction to Health Communications**

This course provides an overview of health communications. It is designed to be a skills-building rather than theory-based course. Therefore, assignments are hands-on, often requiring students to reach beyond their comfort zone. As this is a survey course, topics provide an introduction to health communications as it relates to providers and patients, healthcare organizations, community groups, and public health and other government agencies. The course introduces health communications topics including health literacy, social marketing, and new communications technologies. Through the introduction of these topics, the course provides a general background in health communications in the context of a current public health communications issue such as pandemic influenza. Students will be expected to be abreast of health care news in all forms of media and be prepared to participate in weekly discussions about how stories have been covered. Students will also be interviewed by a journalism student in the Stony Brook School of Medicine's Clinical Skills Center, write a news profile, write a press release, write an op-ed

article, and develop a social marketing tool for a current public health. As this is a communications course, class participation is essential.

*3 Credits, Fall Term, Professor Kaplan-Liss*

### **HPH 552 Planning & Implementing Community Health Initiatives**

In this course, students learn how to develop theoretically-informed and evidence-based community health initiatives. Over the course of the semester, students work on developing their own culturally-competent community health initiatives, each of which is targeted at a particular population with a specific health need. Each student learns how to assess community needs and assets using a variety of methods, elaborate an initiative's theory of change through use of logic model, design theoretically-informed intervention activities appropriate to the needs/assets identified, create a budget and organizational structure, and engage key stakeholders at every facet of development and implementation of the community health initiative. Students work together in the same small group over the course of the semester to get/give feedback and hone their individual projects. Through this intense group work, students both (1) learn how to apply course concepts to several particular community health problems and (2) gain skills for working in teams on community health initiative planning and implementation. *Prerequisite: HPH 550.*

*3 Credits, Fall Term, Professor Hammock*

### **HPH 553 Evaluating Community Health Initiatives**

This course prepares students to plan, implement, and utilize an evaluation of a community health initiative. Basic principles and practices of evaluation are addressed, including identifying the goals of a community health initiative; designing an evaluation plan that can determine if the initiative's goals are achieved; implementing an evaluation plan; interacting with stakeholders; and using evaluation results to improve performance.

*3 Credits, Spring Term, Professor K. Goldstein*

### **HPH 555 Demographic Theory & Methods**

This course introduces students to the basic theory and methods employed in the study of demography. The students will understand life table methodology, population projection, sources of demographic data, patterns in global fertility and mortality, the demographic transition, current patterns in fertility, marriage and work, abortion and contraception, and fertility/mortality interrelationships.

*3 credits, summer term, Professor Hale*

### **HPH 559 Advanced Research Methods**

This course will provide students with an in-depth review of principles of public health research methods. Emphasis will be placed on conceptualization of research questions, evaluation of research design, sample size, and issues related to potential threats to validity within a public/applied setting. Additionally, students will become familiar with how to evaluate methods used in published literature and to design their own research projects. Course topics will include how to obtain secondary data, sample size calculation, risk adjustment, bias,

confounding, and interaction. The instructor will work with students as they develop their own analytic project proposals. Students will be expected to implement their proposed research in HPH 560 Advanced Biostatistics in the following semester.

*3 Credits, Summer Term, Professor Palermo*

### **HPH 560 Advanced Biostatistics**

Students learn to formulate a scientific question in terms of a statistical model, leading to objective and quantitative answers. Topics may include analysis of variance, regression, including details of data-analytic techniques and implications for study design, measures of association, 2x2 tables, stratification, matched pairs, logistic regression, model building, analysis of rates, and survival data analysis using proportional hazards models. The course stresses applications in epidemiology, and other areas of public health research.

*Prerequisite: HPH 507 and HPH 559.*

*3 credits, fall term, Professor Palermo*

### **HPH 562 Data Management & Informatics**

This course provides students with an introduction to the principles of public health informatics and data management using the SAS systems. Lectures and labs will be aimed at developing hands-on skills about how to create, maintain, and manage databases using the SAS Systems for Windows, a major software package used frequently in public health and clinical research. In addition, the student will learn how to retrieve and summarize information about population health from major public health information systems in the U.S.

*2 credits, fall term, Public Health Faculty*

### **HPH 563 Cost Benefit & Cost Effectiveness Analysis**

The course will introduce the uses and conduct of cost benefit and cost effectiveness analyses as decision-making aids in the health care research. It will provide students with an understanding of the roles and limitations of cost benefit and cost effectiveness analyses and criteria for evaluating those studies. Critical issues regarding measuring cost and effectiveness, evaluating outcomes, discounting, and dealing with uncertainty will be discussed.

*Prerequisite: HPH 507 and HPH 562*

*2 credits, fall term, Professor Rizzo*

### **HPH 564 Qualitative Methods**

In this course, students learn about the logic, theory, and methods of qualitative research within population health and related fields (e.g., social welfare, nursing, medicine, sociology, and psychology). The course begins with an introduction to the epistemological and ontological underpinnings of qualitative inquiry, with special attention to how these factors affect the types of research questions often asked (and answered) by qualitative researchers. Students then learn the nuts-and-bolts of qualitative research design and data collection through review of existing qualitative studies and hands-on application. Homework and in-class exercises over the course of the semester give students practice in (a) designing a feasible qualitative research study, and (b) collecting three kinds of qualitative data: participant



observation, in-depth interviews, and focus groups. The course concludes with an overview of steps for data analysis, including coding, memo-writing, and triangulation. Emphasized throughout the course are methodological issues germane to qualitative (and quantitative) research: reflexivity of the researcher, appropriate treatment of human subjects, and obtaining quality data.

*3 Credits, Fall Term, Professor Hammock*

### **HPH 575 Public Health Internship**

This course is an applied internship in a public, not-for-profit, or private sector organization that provides a public health service. Students will gain practical public health skills through a semester long internship. The student will work in the organization and prepares a weekly journal of activities, as well as a paper at the conclusion of the course, applying program knowledge to the internship activities.

*MPH Academic Coordinator consent required.*

*1-12 credits, fall, spring, summer, and winter*

*Graduate graded and may be repeated for credit*

### **HPH 580 Practicum**

The Practicum is a practical public health experience conducted with a Faculty Advisor and a Preceptor from a public health-related organization. Students will be expected to demonstrate their “capacity to organize, analyze, interpret and communicate knowledge in an applied manner.” Health departments, as well as a variety of other local organizations, offer a wide array of potential sites for the Practicum experience. *Instructor consent required.*

*3 credits, fall, winter, spring, & summer terms, Public Health Faculty*

### **HPH 581 Capstone Seminar: Population Health Issues**

This course will assist students in synthesizing the basic public health knowledge through completion of a Capstone Project. Most core and concentration course work must be complete before the student can participate in the Capstone Seminar. *Instructor consent required.*

*3 credits, satisfactory/fail, term varies, Public Health Faculty*

### **HPH 585 Introduction to Biostatistics & Epidemiology**

This course is an introduction to the principles of statistical methods and epidemiology and their application in the health sciences. The student will develop a basic understanding of statistics, epidemiology, and interpretation of research studies in order to communicate risk and scientific evidence to colleagues and the public, directly or through the press. *NOTE: This class cannot be counted towards the MPH degree.*

*4 Credits, Various Terms, Professor Varies*

Health Sciences Center Bulletin, as well as the *Graduate Program in Public Health* Bulletin, website, and handouts. Students should keep all bulletins, as well as any correspondence with Program and University personnel for reference.

### **ORGANIZATION OF PUBLIC HEALTH STUDENTS & ALUMNI OF STONY BROOK UNIVERSITY (OPHSA)**

The *Graduate Program in Public Health* graduated its first class in May 2006. Since that time, the alumni of the Program have organized with students to create an association that serves both groups: Organization of Public Health Students & Alumni (OPHSA). The purpose of OPHSA is to achieve the following goals:

1. To promote the general welfare and professional image of Stony Brook University and the GPPH.
2. To foster a strong relationship between the school, faculty and members of the organization.
3. To foster and sustain collegial relationships between members of the student body and alumni of the GPPH.
4. To promote participation between alumni and students in educational, scientific and public health research activities.
5. To identify and develop resources to assist students, alumni and faculty in their careers.
6. To maintain student and alumni representatives who will advocate for the needs of the student population on standing committees of the GPPH.
7. To promote educational activities necessary for the maintenance and promotion of certification in the public health professions.
8. To promote public participation and advocacy for public health issues.

The *Graduate Program in Public Health* strongly supports OPHSA and encourages alumni and student participation. OPHSA is very important step in furthering the vision, mission, and goals of the Program.

### **STATEMENT OF STUDENT RESPONSIBILITY**

Students themselves are responsible for reviewing, understanding, and abiding by the University's regulations, procedures, requirements, and deadlines as described in all official publications. These include the Graduate Bulletin, the



**TABLE 1. GRADUATE PROGRAM IN PUBLIC HEALTH GOALS AND MEASURABLE OBJECTIVES**

<b>GOALS</b>	<b>MEASURABLE OBJECTIVES</b>
<p><b>GOAL 1:</b> (Education) Admit and retain a high quality, diverse MPH student body.</p>	1a) Require a Bachelor's degree from an accredited U.S. or Canadian college or university for admission to the Program.
	1b) Require a national standardized test (e.g., GRE, MCAT) score demonstrating high academic potential, with an exception for those with a doctorate degree, for admission to the Program.
	1c) Require international students to demonstrate high English language proficiency based upon the TOEFL exam score prior to admission to the Program.
	1d) Require all students with an international degree to validate transcripts by completing an official course-by-course educational credential evaluation for admission to the Program.
	1e) Admit a diverse student body in terms of ethnicity/race, gender, and clinical/non-clinical professional experience.
	1f) Monitor student performance to encourage optimum achievement.
<p><b>GOAL 2:</b> (Education) Ensure a program that instills in our students the values, commitment, knowledge, and skills necessary to advance public health through application of population health principles.</p>	2a). Require completion of a comprehensive set of courses through which students obtain skill and knowledge-based competencies to advance public health through application of population health principles.
	2b) Ensure that students have an integrative culminating experience in population health.
	2c) Require that students maintain an acceptable standard of professionalism and academic integrity.
	2d) Ensure that students have an integrative practical experience within the field of public health.
	2e) Instill awareness and sensitivity to the cultural differences between populations, especially underserved populations.
	2f) Integrate important emergent public health issues into the Program through the Public Health Grand Rounds lecture series.
<p><b>GOAL 3:</b> (Education) Monitor and refine the curriculum to ensure that our students are prepared to meet the needs of the evolving public health field.</p>	3a) Evaluate student perceptions of course content, instructors, and learning experiences. This information will be used by the Program to revise the curriculum appropriately.
	3b). Involve students directly in the curriculum evaluation process.
	3c) Conduct an annual Alumni Survey to elicit perceptions about how well the Program prepares graduates for work in the evolving public health field.
	3d) Revise as necessary the MPH curriculum to meet the changing needs of the field.
	3e. Conduct a Regional Employer Survey bi-annually to elicit perceptions about how well the Program meets the evolving needs of regional public health-related employers.
<p><b>GOAL 4:</b> (Program) Maintain a high quality MPH program.</p>	4a) Obtain and maintain CEPH accreditation status to facilitate a quality MPH program.
	4b) Achieve a reputation of quality among regional public health-related employers.
	4c). Achieve a reputation of quality among Program alumni.
	4d). Continue to improve the quality of the Program applicant pool.
<p><b>GOAL 5:</b> (Research) Advance knowledge in public health through MPH faculty research in population health, clinical outcomes, and health policy research</p>	5a) Maintain faculty research productivity.
	5b) Encourage scholarly activities among the faculty in national and international scholarly organizations related to public health.
	5c) Encourage extramural funded research among the faculty.

<b>GOAL 6:</b> (Research) Actively involve students in scholarly endeavors.	6a) Encourage students to participate in a scholarly experience.
	6b) Advance hypothesis-driven research for Evaluative Sciences students.
	6c) Support student participation in community-based participatory research.
<b>GOAL 7:</b> (Service) Participate in service activities, and develop and maintain community partnerships of the highest quality that benefit the field of public health.	7a) Serve the needs of public health organizations through high-quality partnership experiences with students.
	7b) Facilitate communication and collaboration between community organizations and students.
	7c) Develop and maintain community health improvement projects, community-based participatory research projects, and partnerships related to population health improvement, particularly through the Center for Public Health and Health Policy Research.
<b>GOAL 8:</b> (Service) Serve the continuing education needs of the public health workforce in Suffolk County.	8a) Educate the current public health workforce, including employees of the Suffolk County Department of Health Services and public health-related non-governmental organizations (NGOs).
	8b) Invite the public health workforce to attend the Public Health Grand Rounds lecture series.
	8c) Develop offsite educational opportunities for the regional public health workforce.