SCHOOL OF PUBLIC HEALTH
UNIVERSITY AT ALBANY State University of New York

Mary Applegate, MD MPH
Associate Dean for Academic Affairs

A joint venture with the
New York State Department of Health
In affiliation with Albany Medical College

TO: University at Albany Graduate Academic Council

FROM: Mary Applegate, MD MPH,
Associate Dean for Academic Affairs Mary Applegate

SUBJECT: **Online Master of Public Health** Program Proposal
SED Program Code: 90104; HEGIS Code: 1214.00

DATE: February 15, 2011

Attached is a proposal for a fully online version of the School of Public Health's MPH program.

The mission of the University at Albany's MPH degree program is to improve the educational background of professionals in the public health workforce. Until now, we have pursued this goal primarily by preparing full-time students in Albany for professional positions in public health practice. Another critical need is to provide high-quality education for people who are already working in such positions, most of whom currently have no formal training in public health. To address that need, we are proposing to expand our online offerings. For many years, we have offered some of our courses in an online format or as blended courses combining in-class and online learning. Five of the six core courses of our MPH degree and an assortment of MPH electives are currently offered online, and we offer a fully online Graduate Certificate in Public Health Fundamentals & Principles. A new online track in the MPH program will enable public health practitioners throughout New York State to pursue a full master's degree while continuing to fulfill their important roles in public health.

The academic content of this program will be the same as in the in-class version of the MPH program, and it will follow the requirements of the existing Public Health Practice track in that program. Courses will be taught by existing SPH faculty whenever possible – both full-time SUNY-paid faculty and faculty from the NYS Department of Health and our other partners. If additional faculty are needed for online teaching, they will be vetted with the same scrutiny as our current faculty. Funding for additional faculty will come from program revenues.

APPROVED:

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University at Albany School of Public Health

ONLINE MASTER OF PUBLIC HEALTH (MPH)

HEGIS code: 1214.00
SED Program code: 90104

Proposal for updated program registration to include a fully-online MPH degree track

MPH Mission

The mission of the University at Albany's MPH degree program is to improve the educational background of professionals in the public health workforce. Until now, we have pursued this goal primarily by preparing full-time students in Albany for professional positions in public health practice. Another critical need is to provide high-quality education for people who are already working in such positions, most of whom currently have no formal training in public health. To address that need, we are proposing to expand our online offerings. We now offer five of the six core courses of our MPH degree online, and we offer a fully online Graduate Certificate in Public Health Fundamentals & Principles, using those courses. A new online track in the MPH program will enable public health practitioners throughout New York State to pursue a graduate degree while continuing to fulfill their important roles in public health.

Students will build on the practical knowledge and skills they have acquired in the workplace, gaining a broad-based understanding of the scientific, political, social, cultural, ethical, organizational, and economic contexts within which health-related issues occur and are addressed. The University at Albany's School of Public Health, because of its strong partnership with the New York State Department of Health, and its relationships with local health departments, community-based organizations and the local healthcare industry, is uniquely positioned to offer this education to public health practitioners. As with our regular MPH program, this degree track will combine a strong academic background in the core disciplines of public health with multiple opportunities to apply that knowledge to public health practice.

In addition to educating students in the competencies established by the Association of Schools of Public Health (see attached), the University at Albany's MPH degree program aims to:

- Create ethically responsible decision makers
- Emphasize applied education and academically grounded practice experiences
- Educate a diverse student body consistent with our mission as a public institution of higher learning
- Expose students to learning from a blend of faculty who are leaders in public health practice and scholarship

Background

A primary goal of the University at Albany School of Public Health is to educate the current and future public health workforce. Nationwide and in New York State, there is a significant shortage of well-trained public health professionals with skills needed to assess the health of communities, to mobilize community partnerships, and to develop and implement appropriate policies and programs addressing public health needs.

The Master of Public Health (MPH) degree provides broad-based preparation for professional practice in the field of public health. It includes coursework in all of the core public health disciplines: epidemiology, biostatistics, health policy & management, behavioral science, and environmental health. Since the online MPH program will only admit experienced public health practitioners, the internship component of this program will focus on providing students with opportunities to reflect on how their MPH studies are contributing to their public health practice, rather than introducing them to public health practice as the internship component of our standard MPH does.

Addressing a Need

National and statewide studies have demonstrated significant deficiencies in the educational preparation of the public health workforce. The following estimates are from a recent study of projected future shortages of well-trained public health professionals (Rosenstock L et al. On Linkages: Confronting the Public Health Workforce Crisis: ASPH Statement on the Public Health Workforce. Public Health Reports. 2008 May-Jun; 123(3): 395-8.):

- By 2020, the nation will be facing a shortfall of more than 250,000 public health workers, according to ASPH estimates. Shortages of public health physicians, public health nurses, epidemiologists, health care educators, and administrators are anticipated.
- The public health workforce is diminishing over time even as the U.S. population increases. In 2000, the total workforce was 448,000, or 50,000 less than in 1980.
- More than 100,000 government public health workers – approximately one-quarter of the current public sector workforce – will be eligible to retire by 2012.
- Over the next 11 years, existing schools of public health would have to educate three times the current number of graduates to meet projected needs.

By making public health education more widely accessible, the new online MPH program will contribute directly to our mission of strengthening the public health workforce. The online program will follow the Public Health Practice curriculum that was approved in 2008, providing flexibility to meet the needs of current public health practitioners. From the inception of the Public Health Practice track, it has been our plan to increase the number of distance learning courses offered in the track. The fully online MPH program is the culmination of that effort.

Accreditation

The UAlbany School of Public Health is one of only 50 schools in the country accredited by the Council on Education for Public Health. As an accredited school, we are required to provide our students with didactic and hands-on learning experiences that will help them develop competencies in the core fields listed above as well as in cross-cutting areas such as public health biology, ethics, and systems thinking. The MPH must include at least 42 credit hours of instruction.

Resources

The proposed creation of a fully online MPH program will not require development of new courses since it consists of courses that are already offered in the school. We have already converted many of those courses to an online format, supported by the School's Public Health Leaders of Tomorrow program which provides extra-service pay for regular or adjunct faculty to do those one-time conversions.

Because this track will add an entirely new cadre of students that UAlbany has been unable to serve previously, it will be designed as a self-supporting program, with all necessary resources covered by the additional tuition revenue.

Table 1. Summary of Proposed MPH Program Changes

Proposed Change	Rationale for Change	Resource Implications
Add fully online MPH program in Public Health Practice	An online MPH with a focus on public health practice will make a UAlbany MPH more accessible and relevant for current full-time public health staff, contributing to our core goal to strengthen the public health workforce in NYS.	Resource additive (conversion of courses to online format; paying adjunct or extra-service faculty to teach)

Impact on combined/dual degree programs

The School of Public Health sponsors an MD/MPH program, in collaboration with the Albany Medical College and an MPH/MSW program in collaboration with the University at Albany School of Social Welfare. Students enrolled in the combined/dual degrees will not be eligible to join the online MPH program; the addition of this new option to the MPH curriculum will have no impact on the combined/dual degrees.

Program Requirements

The need for well-trained public health professionals has never been greater, as the field of public health is increasingly called upon to address a wide range of issues impacting the public's health. Many individuals working in state and local public health agencies and in related parts of the healthcare sector, even in high-level positions, have no formal education in public health. To improve the capability of the health workforce, this School is committed to making public health education as directly relevant and as widely accessible as possible to those working in the field.

The new online MPH program is designed to achieve both goals by increasing the flexibility of course selection to match the student's particular needs and by offering courses online (or in other distance-learning formats) to enable students from outside the Albany area to earn a UAlbany MPH. The School has offered online courses in all of the core disciplines of public health for many years. All our online courses are held to the same high standards of rigor and quality as the in-class sections of the courses, in keeping with our own values and the requirements of the Council on Education for Public Health, the school's accrediting body.

The focus of the online MPH will be on the practical application of the principles, methods and concepts required to carry out public health's goal of protecting and improving the health of communities. The target audiences for this program include practicing public health workers in state and local health departments, healthcare professionals, and private sector public health workers in non-profit agencies. All of the Online MPH students will follow the Public Health Practice track, which was approved in 2008. Course requirements for that track (listed below) are identical for all students in the track, whether in the online program or taking classes in person. The internship requirement is also the same for all students in that track, but because Online MPH students are required to have significant prior public health experience, most of the online students will waive 6 credits of internship, whereas in-class students will do so less often.

Prerequisites Beyond Standard MPH Admission Requirements

The online MPH program will be open to individuals with <u>at least three years of experience in public health practice or a closely related field</u>, e.g. infection control or health care administration. The program is designed to improve the skills of the current public health workforce. Students with significant experience will be better served by and better suited to the less structured curriculum of this track. (In-class students in the Public Health Practice track need to have extensive experience as well OR be pursuing the Peace Corps Masters International program.)

Course Requirements (42 course credits and 9 internship credits)

Core Courses – 21 credits

EPI 500/501	[Basic] Principles and Methods of Epidemiology
EPI 551/552	[Basic] Principles of Statistical Inference
HPM 500	Health Care Organization, Delivery, and Financing
EHT 590	Introduction to Environmental Health
HPM 525	Social and Behavioral Aspects of Public Health
BMS 505	Biological Basis of Public Health
SPH 680	MPH First Year Seminar (2 credits)
SPH 685	MPH Capstone Seminar (1 credit)

Track Requirements – 3 credits

EPI 503	Principles of Public Health

Electives – 18 credits

6 graduate level courses selected with approval of the faculty advisor

Internships – 9 credits

Students in this track who are experienced public health professionals may apply to waive internship credits based on past experience in public health. Except in extraordinary circumstances, students will waive no more than 6 internship credits. Internship credits not waived will be earned through appropriately mentored projects at their current practice site, providing the student with an opportunity to reflect on how the MPH competencies they are acquiring in classes can be applied to their own practice setting.

ASPH

ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH

ASPH Education Committee

Master's Degree in Public Health Core Competency Development Project

Version 2.3

Word Format—Domains and Competencies Only
May 2007

Discipline-specific Competencies

A. BIOSTATISTICS

Biostatistics is the development and application of statistical reasoning and methods in addressing, analyzing and solving problems in public health; health care; and biomedical, clinical and population-based research.

Competencies: Upon graduation a student with an MPH should be able to…

A. 1.	Describe the roles biostatistics serves in the discipline of public health.
A. 2.	Describe basic concepts of probability, random variation and commonly used statistical probability distributions.
A. 3.	Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met.
A. 4.	Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions.
A. 5.	Apply descriptive techniques commonly used to summarize public health data.
A. 6.	Apply common statistical methods for inference.
A. 7.	Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question.
A. 8.	Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and in public health research and evaluation.
A. 9.	Interpret results of statistical analyses found in public health studies.
A. 10.	Develop written and oral presentations based on statistical analyses for both public health professionals and educated lay audiences.

Discipline-specific Competencies *(continued)*

B. ENVIRONMENTAL HEALTH SCIENCES

Environmental health sciences represent the study of environmental factors including biological, physical and chemical factors that affect the health of a community.

Competencies: Upon graduation a student with an MPH should be able to…

B. 1.	Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents.
B. 2.	Describe genetic, physiologic and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.
B. 3.	Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.
B. 4.	Specify current environmental risk assessment methods.
B. 5.	Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety.
B. 6.	Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.
B. 7.	Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity.
B. 8.	Develop a testable model of environmental insult.

Discipline-specific Competencies *(continued)*

C. EPIDEMIOLOGY

Epidemiology is the study of patterns of disease and injury in human populations and the application of this study to the control of health problems.

Competencies: Upon graduation a student with an MPH should be able to…

C. 1.	Identify key sources of data for epidemiologic purposes.
C. 2.	Identify the principles and limitations of public health screening programs.
C. 3.	Describe a public health problem in terms of magnitude, person, time and place.
C. 4.	Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.
C. 5.	Comprehend basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.
C. 6.	Apply the basic terminology and definitions of epidemiology.
C. 7.	Calculate basic epidemiology measures.
C. 8.	Communicate epidemiologic information to lay and professional audiences.
C. 9.	Draw appropriate inferences from epidemiologic data.
C. 10.	Evaluate the strengths and limitations of epidemiologic reports.

Discipline-specific Competencies *(continued)*

D. HEALTH POLICY AND MANAGEMENT

Health policy and management is a multidisciplinary field of inquiry and practice concerned with the delivery, quality and costs of health care for individuals and populations. This definition assumes both a managerial and a policy concern with the structure, process and outcomes of health services including the costs, financing, organization, outcomes and accessibility of care.

Competencies: Upon graduation a student with an MPH should be able to…

D. 1.	Identify the main components and issues of the organization, financing and delivery of health services and public health systems in the US.
D. 2.	Describe the legal and ethical bases for public health and health services.
D. 3.	Explain methods of ensuring community health safety and preparedness.
D. 4.	Discuss the policy process for improving the health status of populations.
D. 5.	Apply the principles of program planning, development, budgeting, management and evaluation in organizational and community initiatives.
D. 6.	Apply principles of strategic planning and marketing to public health.
D. 7.	Apply quality and performance improvement concepts to address organizational performance issues.
D. 8.	Apply "systems thinking" for resolving organizational problems.
D. 9.	Communicate health policy and management issues using appropriate channels and technologies.
D. 10.	Demonstrate leadership skills for building partnerships.

Discipline-specific Competencies *(continued)*

E. SOCIAL AND BEHAVIORAL SCIENCES

The social and behavioral sciences in public health address the behavioral, social and cultural factors related to individual and population health and health disparities over the life course. Research and practice in this area contributes to the development, administration and evaluation of programs and policies in public health and health services to promote and sustain healthy environments and healthy lives for individuals and populations.

Competencies: Upon graduation a student with an MPH should be able to…

E. 1.	Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice.
E. 2.	Identify the causes of social and behavioral factors that affect health of individuals and populations.
E. 3.	Identify individual, organizational and community concerns, assets, resources and deficits for social and behavioral science interventions.
E. 4.	Identify critical stakeholders for the planning, implementation and evaluation of public health programs, policies and interventions.
E. 5.	Describe steps and procedures for the planning, implementation and evaluation of public health programs, policies and interventions.
E. 6.	Describe the role of social and community factors in both the onset and solution of public health problems.
E. 7.	Describe the merits of social and behavioral science interventions and policies.
E. 8.	Apply evidence-based approaches in the development and evaluation of social and behavioral science interventions.
E. 9.	Apply ethical principles to public health program planning, implementation and evaluation.
E. 10.	Specify multiple targets and levels of intervention for social and behavioral science programs and/or policies.

Interdisciplinary/Cross-cutting Competencies

F. COMMUNICATION AND INFORMATICS

The ability to collect, manage and organize data to produce information and meaning that is exchanged by use of signs and symbols; to gather, process, and present information to different audiences in-person, through information technologies, or through media channels; and to strategically design the information and knowledge exchange process to achieve specific objectives.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to…

F. 1.	Describe how the public health information infrastructure is used to collect, process, maintain, and disseminate data.
F. 2.	Describe how societal, organizational, and individual factors influence and are influenced by public health communications.
F. 3.	Discuss the influences of social, organizational and individual factors on the use of information technology by end users.
F. 4.	Apply theory and strategy-based communication principles across different settings and audiences.
F. 5.	Apply legal and ethical principles to the use of information technology and resources in public health settings.
F. 6.	Collaborate with communication and informatics specialists in the process of design, implementation, and evaluation of public health programs.
F. 7.	Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities.
F. 8.	Use information technology to access, evaluate, and interpret public health data.
F. 9.	Use informatics methods and resources as strategic tools to promote public health.
F. 10.	Use informatics and communication methods to advocate for community public health programs and policies.

Interdisciplinary/Cross-cutting Competencies (continued)

G. DIVERSITY AND CULTURE

The ability to interact with both diverse individuals and communities to produce or impact an intended public health outcome.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to…

- G. 1. Describe the roles of, history, power, privilege and structural inequality in producing health disparities.
- G. 2. Explain how professional ethics and practices relate to equity and accountability in diverse community settings.
- G. 3. Explain why cultural competence alone cannot address health disparity.
- G. 4. Discuss the importance and characteristics of a sustainable diverse public health workforce.
- G. 5. Use the basic concepts and skills involved in culturally appropriate community engagement and empowerment with diverse communities.
- G. 6. Apply the principles of community-based participatory research to improve health in diverse populations.
- G. 7. Differentiate among availability, acceptability, and accessibility of health care across diverse populations.
- G. 8. Differentiate between linguistic competence, cultural competency, and health literacy in public health practice.
- G. 9. Cite examples of situations where consideration of culture-specific needs resulted in a more effective modification or adaptation of a health intervention.
- G. 10. Develop public health programs and strategies responsive to the diverse cultural values and traditions of the communities being served.

Interdisciplinary/Cross-cutting Competencies (continued)

H. LEADERSHIP

The ability to create and communicate a shared vision for a changing future; champion solutions to organizational and community challenges; and energize commitment to goals.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to…

- H. 1. Describe the attributes of leadership in public health.
- H. 2. Describe alternative strategies for collaboration and partnership among organizations, focused on public health goals.
- H. 3. Articulate an achievable mission, set of core values, and vision.
- H. 4. Engage in dialogue and learning from others to advance public health goals.
- H. 5. Demonstrate team building, negotiation, and conflict management skills.
- H. 6. Demonstrate transparency, integrity, and honesty in all actions.
- H. 7. Use collaborative methods for achieving organizational and community health goals.
- H. 8. Apply social justice and human rights principles when addressing community needs.
- H. 9. Develop strategies to motivate others for collaborative problem solving, decision-making, and evaluation.

Interdisciplinary/Cross-cutting Competencies (continued)

I. PUBLIC HEALTH BIOLOGY

The ability to incorporate public health biology – the biological and molecular context of public health – into public health practice.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to…

- I. 1. Specify the role of the immune system in population health.
- I. 2. Describe how behavior alters human biology.
- I. 3. Identify the ethical, social and legal issues implied by public health biology.
- I. 4. Explain the biological and molecular basis of public health.
- I. 5. Explain the role of biology in the ecological model of population-based health.
- I. 6. Explain how genetics and genomics affect disease processes and public health policy and practice.
- I. 7. Articulate how biological, chemical and physical agents affect human health.
- I. 8. Apply biological principles to development and implementation of disease prevention, control, or management programs.
- I. 9. Apply evidence-based biological and molecular concepts to inform public health laws, policies, and regulations.
- I. 10. Integrate general biological and molecular concepts into public health.

Public Health Biology Illustrative Sub-competencies are available at http://www.asph.org/document.cfm?page=928.

Interdisciplinary/Cross-cutting Competencies (continued)

J. PROFESSIONALISM

The ability to demonstrate ethical choices, values and professional practices implicit in public health decisions; consider the effect of choices on community stewardship, equity, social justice and accountability; and to commit to personal and institutional development.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to…

J. 1.	Discuss sentinel events in the history and development of the public health profession and their relevance for practice in the field.
J. 2.	Apply basic principles of ethical analysis (e.g. the Public Health Code of Ethics, human rights framework, other moral theories) to issues of public health practice and policy.
J. 3.	Apply evidence-based principles and the scientific knowledge base to critical evaluation and decision-making in public health.
J. 4.	Apply the core functions of assessment, policy development, and assurance in the analysis of public health problems and their solutions.
J. 5.	Promote high standards of personal and organizational integrity, compassion, honesty and respect for all people.
J. 6.	Analyze determinants of health and disease using an ecological framework.
J. 7.	Analyze the potential impacts of legal and regulatory environments on the conduct of ethical public health research and practice.
J. 8.	Distinguish between population and individual ethical considerations in relation to the benefits, costs, and burdens of public health programs.
J. 9.	Embrace a definition of public health that captures the unique characteristics of the field (e.g., population-focused, community-oriented, prevention-motivated and rooted in social justice) and how these contribute to professional practice.
J. 10.	Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g. researchers, practitioners, agencies and organizations).
J. 11.	Value commitment to lifelong learning and professional service including active participation in professional organizations.

Interdisciplinary/Cross-cutting Competencies (continued)

K. PROGRAM PLANNING

The ability to plan for the design, development, implementation, and evaluation of strategies to improve individual and community health.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to…

K. 1	Describe how social, behavioral, environmental, and biological factors contribute to specific individual and community health outcomes.
K. 2.	Describe the tasks necessary to assure that program implementation occurs as intended.
K. 3.	Explain how the findings of a program evaluation can be used.
K. 4.	Explain the contribution of logic models in program development, implementation, and evaluation.
K. 5.	Differentiate among goals, measurable objectives, related activities, and expected outcomes for a public health program.
K. 6.	Differentiate the purposes of formative, process, and outcome evaluation.
K. 7.	Differentiate between qualitative and quantitative evaluation methods in relation to their strengths, limitations, and appropriate uses, and emphases on reliability and validity.
K. 8.	Prepare a program budget with justification.
K. 9.	In collaboration with others, prioritize individual, organizational, and community concerns and resources for public health programs.
K. 10.	Assess evaluation reports in relation to their quality, utility, and impact on public health.

Interdisciplinary/Cross-cutting Competencies (continued)

L. SYSTEMS THINKING

The ability to recognize system level properties that result from dynamic interactions among human and social systems and how they affect the relationships among individuals, groups, organizations, communities, and environments.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to…

L. 1.	Identify characteristics of a system.
L. 2.	Identify unintended consequences produced by changes made to a public health system.
L. 3.	Provide examples of feedback loops and "stocks and flows" within a public health system.
L. 4.	Explain how systems (e.g. individuals, social networks, organizations, and communities) may be viewed as systems within systems in the analysis of public health problems.
L. 5.	Explain how systems models can be tested and validated.
L. 6.	Explain how the contexts of gender, race, poverty, history, migration, and culture are important in the design of interventions within public health systems.
L. 7.	Illustrate how changes in public health systems (including input, processes, and output) can be measured.
L. 8.	Analyze inter-relationships among systems that influence the quality of life of people in their communities.
L. 9.	Analyze the effects of political, social and economic policies on public health systems at the local, state, national and international levels.
L. 10.	Analyze the impact of global trends and interdependencies on public health related problems and systems.
L. 11.	Assess strengths and weaknesses of applying the systems approach to public health problems.

More information about Systems Thinking is available at http://www.asph.org/document.cfm?page=898.