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May Applogate

TO: Members of the Undergraduate Academic Council

FROM: Mary S. Applegate, MD MPH, Interim Dean

SUBJECT: Undergraduate Major in Public Health

DATE: April 10, 2007

The School of Public Health is pleased to submit this proposed faculty-initiated, interdisciplinary undergraduate major in public health. The major expands upon the public health minor, which we implemented in Fall 2006. The new public health courses which we launched as part of the minor have been well-received by both students and faculty, and we are looking forward to their continued success with the initiation of the major.

The School of Public Health's Academic Committee has unanimously approved the planned major, and I endorse this program with great enthusiasm. It is sure to add breadth to the high quality majors available to undergraduate students at the University at Albany.

Should you have any questions, please feel free to contact me by phone at 402-0281 or via email at mapplegate@uamail.albany.edu.

# PROPOSAL FOR A FACULTY-INITIATED INTERDISCIPLINARY UNDERGRADUATE MAJOR IN PUBLIC HEALTH

"...all undergraduates should have access to education in public health"
-Institute of Medicine's 2003 report "Who Will Keep the Public Healthy?"

The University at Albany is uniquely positioned to answer the Institute of Medicine's call to action. UAlbany is the only SUNY campus with an accredited School of Public Health. Building upon the graduate degree programs in the School of Public Health, and the successful creation of an undergraduate public health minor, a Bachelor of Science in Public Health is proposed. The Institute of Medicine reported that "public health is an essential part of training citizens, and that it is immediately pertinent to a number of professions." The report goes on to say that although specialized interdisciplinary training programs on the graduate level are important, "more is needed: public health literacy, entailing a recognition and basic understanding of how health is shaped by the social and physical environment, is an appropriate and worthy social goal. Further, education directed at improving health literacy at the undergraduate level could also serve to introduce persons to possible careers in public health and, in so doing, increase the cultural diversity of the future public health professional workforce." (Who Will Keep the Public Healthy?: Educating Public Health Professionals for the 21<sup>st</sup> Century, Institute of Medicine, 2003)

The University at Albany has set a goal to enhance undergraduate education by increasing enrollment and improving the quality of undergraduate applicants. Other universities have recognized that a Public Health major attracts applicants who are interested in graduate public health education, as well as those interested in pre-med, pre-law, and science. James Goodyear, Associate Director of Public Health Studies, at Johns Hopkins University referred to the "quality and passion of the program's students". He commented, "We always seem to have excellent, dedicated students." Public health majors at Johns Hopkins account for 15 to 20 percent of Phi Beta Kappa awards annually, compared to 10 percent across the rest of the University. Offering undergraduate Public Health programs will enhance UAlbany's recruitment efforts, resulting in higher caliber applicants. More choices for majors will attract prospective students, to take advantage of the wide opportunities offered here. Adding a new major should not be viewed as competitive with existing majors; but should be considered as enhancing undergraduate program opportunities. In addition, an undergraduate degree in Public Health can serve as a pipeline into graduate programs in Public Health, producing a well-qualified applicant pool and expanding graduate enrollment.

#### **Vision Statement**

The undergraduate programs based from the School of Public Health will be recognized within and outside UAlbany for their excellence in educational content and their curricular design, and for their unique and outstanding contribution to the undergraduate experience at UAlbany.

## **Mission Statement**

The Mission of the undergraduate program in the School of Public Health is to instill in a diverse group of educated individuals the awareness, values and knowledge of the various disciplines within public health.

#### Goals

- To attract and provide limited technical training to students who intend to pursue entry-level jobs in specific sectors of public health, health services, or public policy for which bachelor's training is appropriate.
- To attract and provide greater depth of background to students who have identified public health as their intended career, and who plan to pursue higher education in public health.
- To increase awareness and understanding of public health principles among students
  who are destined for professional careers in fields other than public health, including
  medicine, dentistry, social work, allied health professions, pharmacy, public policy,
  law, business, engineering and journalism.

The undergraduate major in Public Health will lead to a Bachelor of Science degree. As such, it is intended to convey technical information and analytic skills, but with a liberal arts philosophical base. Therefore, it will have educational objectives of nurturing critical thinking, analysis, and synthesis of information, and recognizing the historical and societal associations of current trends in public health and health care delivery, including an introduction to disease control and health promotion interventions, and determinants of health from a global perspective.

"Epidemiology (the science of public health) has features that resemble those of traditional liberal arts...it emphasizes method rather than arcane knowledge and illustrates the approaches to problems and the kinds of thinking that liberal education should cultivate: the scientific method, analogic thinking, deductive reasoning, problem solving within constraints, and concern for aesthetic values." (Fraser, David W., M.D., "Epidemiology as a Liberal Art", N Engl J Med 1987; 316:309-14). Please see Appendix C for the complete article.

## **Market Analysis**

- Undergraduate programs in public health/community health have been gaining popularity
  on the national scene, and represent a current priority area for the Association of Schools
  of Public Health, of which the UAlbany School of Public Health is an accredited
  member.
- Over 40 undergraduate programs in public health/community health were accessed through a limited investigation over the Internet.
- The experience of existing undergraduate programs in public health at Johns Hopkins University, University of California Berkeley, and Temple University illustrates that there is a latent interest among current undergraduates for public health curriculum offerings, and that the demand is more than sufficient to populate the major.
- Tulane, Yale, Columbia and Boston University all recently announced undergraduate majors and minors in Public Health; their initial enrollments have been very promising and suggest that this is a competitive major.
- Given the growing national interest in undergraduate public health education and the recent launching of undergraduate programs at many other schools of public health, the development of an undergraduate major will help UAlbany remain competitive with its peer schools.

- Other universities such as the Brown University, University of North Carolina, University of Washington, Brigham Young University, Rutgers, University of Wyoming, and San Diego State have Bachelor of Science in Public Health programs in Community Health, Public Health Administration, Public Health and Health Education. Some schools have these areas as separate tracks in their programs.
- Since its launch in September 2006, the UAlbany public health minor has met its enrollment target. There are 22 students enrolled to date, from a wide variety of disciplines including psychology, anthropology, sociology, human biology, biology, communications, Spanish and women's studies.

## **Market for Graduates**

"Public health holds a natural attraction for intelligent men and women who want to make a difference in the world"

—Jeff Johnson

Director of Graduate Admissions for the School of Public Health and Tropical Medicine
Director of Undergraduate Public Health Studies
Tulane University

Many students have a genuine interest in helping people and want to enter professions that allow them to make meaningful contributions to society. Studying public health is an effective way to enable students to fulfill this goal. Public Health is the science and art of preventing disease, prolonging life, and promoting wellness through organized community efforts to ensure everyone a standard of living adequate for the maintenance of well-being.

A Bachelors degree in Public Health provides a useful foundation for further graduate-level study in public health, as well as in areas such as medicine, social work, health policy, health administration, business, health law and international affairs. It will provide relevant background and skills required to perform effectively in these, and other, advanced degree settings. Although there are some entry-level public health jobs available for graduates in academic, governmental and non-profit agencies, the major truly is "Public Health as a liberal art", and is therefore especially suited to offer a unique undergraduate program for high achieving science and social science students who wish to pursue graduate education.

## Addressing a Need

In recent years, the public health workforce has been increasingly called upon to take on emerging and complex issues such as bioterrorism preparedness, West Nile Virus, Anthrax, SARS, planning for pandemic influenza, obesity, cardiovascular disease, diabetes, tobacco control, and cancer screening. Addressing these requires a well-trained workforce with the educational background and skills to systematically approach and manage complex details and problem solving.

"At no time in the history of this nation has the public health mission of promoting the public's health and safety resonated more clearly with the public and the government than now. The events of September 11, 2001, brought public health glaringly into the limelight. All citizens now have reason to understand what public health is and how the public health system interacts and shares responsibility for managing public health risks with national, regional, and local

levels of government and with the health care system." (Who Will Keep the Public Healthy?: Educating Public Health Professionals for the 21<sup>st</sup> Century, Institute of Medicine, 2003)

A recent survey by the Association of State and Territorial Health Officials found that, in the next 5-10 years, there will be chronic shortages of public health professionals in a majority of states. Accredited undergraduate environmental health programs graduate only about 300 students each year, too few to meet the current need (Association of State and Territorial Health Officials (ASTHO) and the Council of State Governments. April 2004. *Health Employee Worker Shortage Report, A Civil Service Recruitment and Retention Crisis*).

The educational pipeline into public health to meet the on-going education and training needs of the public health workforce have been viewed as inadequate and require additional attention (Salinsky, E. 2002. Will the Nation Be Ready for the Next Bioterrorism Attack? Mending Gaps in the Public Health Infrastructure. *National Health Policy Forum Issue Brief, George Washington University*, #776, 1-19.)

"Public health professionals' education and preparedness should be of concern to everyone, for it is well-educated public health professionals who will be able to effectively shape the programs and policies needed to improve population health during the coming century. If we want high quality public health professionals, then we must be willing to provide the support necessary to educate those professionals." (Who Will Keep the Public Healthy?: Educating Public Health Professionals for the 21<sup>st</sup> Century, Institute of Medicine, 2003)

The ultimate goal of the UAlbany undergraduate public health program is not to train students to enter the workforce directly upon graduation, although this is an option. The expectation is that the program will give a public health grounding for those who wish to go onto further schooling in public health, medicine, social work, health policy, health administration, business, health law and international affairs.

## **Local/Regional Competition**

The University at Albany has an opportunity to stand out, not only from universities in the SUNY system, but also from colleges and universities in all of Upstate New York and surrounding areas.

No other colleges/universities in the local area offer an undergraduate Public Health degree. From an internet search, it was found that the only college in the SUNY system that offers an undergraduate minor in Public Health is SUNY Fredonia. It appears that no colleges in the SUNY system offer an undergraduate major in Public Health. An undergraduate Public Health major will be a unique addition to the SUNY system.

### Resources

With current resources, the School of Public Health can mount a high quality undergraduate major for a select number of students who are interested in pursuing undergraduate study in public health. As detailed in the school's 05-06 funded selective investment proposal, the enrollment projections for both the public health minor and major are as follows:

AY05-06: 0 baseline undergraduate public health minors

AY06-07: 20 undergraduate public health minors

AY07-08: 40 undergraduate public health minors &

20 undergraduate public health majors

AY08-09: 60 undergraduate public health minors &

40 undergraduate public health majors

AY09-10 80 undergraduate public health minors &

60 undergraduate public health majors

Therefore, the number of students declaring an undergraduate public health major will be limited to approximately 20 new students each year, up to a total of 60 students in the major. The School's limited experience with enrollment levels in the public health minor validates these targets.

An application will be required for students interested in declaring the public health major. The application will serve as a mechanism to limit the number of enrolled students. A personal essay will be required as part of the application, in which students are to describe their reasons for pursuing the major. In addition, two letters of reference will be required and students must submit a transcript release form allowing the School of Public Health to obtain copies of all transcripts filed with the University's Office of the Registrar. Students must be admitted to the University at Albany prior to applying to the public health major. Applications will be reviewed by the School of Public Health's Undergraduate Committee.

Restricting the major in this way will allow the school to balance its existing resources across the demands of a new undergraduate program and existing graduate programs which are currently experiencing enrollment growth. The School of Public Health's graduate programs are accredited by the Council on Education for Public Health. As such, the School must undergo a rigorous accreditation process and meet strict guidelines, including demonstrating appropriate resource levels to provide high quality graduate instruction. The School must continue to meet these accreditation guidelines pertaining to the available resources for the graduate programs in order to maintain accreditation.

In addition, since the school has traditionally been a graduate school, several faculty members have never taught or advised on the undergraduate-level. By limiting the number of students in the major, School of Public Health faculty will have an opportunity to acclimate to teaching and advising undergraduate students. In addition, this will give the school an opportunity to successfully work out the logistics involved in mounting a brand new undergraduate major and delivering it on a separate campus.

The success of the program is dependent on the initial years; therefore, it is important to judiciously lay the appropriate groundwork to build upon for a high-quality undergraduate program. As the major develops and opportunities for additional resources open up, it is intended that the number of new students allowed to enroll will increase incrementally.

## Personnel

Through the University's first round of the selective investment process, financial resources to hire 2 full-time faculty members to better enable the school to mount an undergraduate major in public health were awarded. Searches for these two faculty positions, which will be in the departments of Epidemiology and Biostatistics and Environmental Health Sciences, are currently underway. In the second round of the selective investment process, the School requested two additional faculty lines for the School of Public Health (one in the Department of Health Policy, Management and Behavior and one in the Department of Biomedical Sciences), as well as a faculty line for the Biology department. All of these lines are to be used to meet any additional demand on faculty resources due to the implementation of the public health major.

The School of Public Health is in the process of creating an Undergraduate Program Coordinator position. As part of the second round of the University's selective investment process, the School requested the first-year salary of an Undergraduate Program Coordinator. The School can also utilize salary savings from the recent retirement of the Director of Interdisciplinary Programs to supplement the salary of this new position. The Associate Dean for Academic Affairs at the School of Public Health will provide general oversight of the program. The Undergraduate Program Coordinator will coordinate the program on a day-to-day basis, field questions from prospective students, and provide initial advisement to students in the major. Students will transition to a faculty advisor for more detailed academic advisement. The Coordinator will assist in identifying an appropriate faculty member to serve as advisor to each student, and will continue to provide administrative support to both the faculty and the students.

Through the University's first round of the selective investment process, financial resources to compensate four Teaching Assistants was approved to assist with the undergraduate program. Hiring Teaching Assistants will alleviate additional faculty workload associated with an increase in the number of students in classes due to the initiation of the major.

### Courses

The courses in the curriculum are new or existing courses in the School and in various programs across the University. These courses will be part of the normal teaching load for faculty members. Adjunct and clinical faculty members will also teach on the undergraduate-level.

There is room in the graduate Public Health program for select seniors with superior academic records to take existing graduate-level courses in the School of Public Health, with prior approval. This will provide an enriching experience for both students and instructors.

Other universities which mix undergraduates and graduates in classes have witnessed positive outcomes from doing so. In the public health undergraduate program at Johns Hopkins, all undergraduate Public Health students spend their fourth year at the School of Public Health campus, taking courses with graduate students. "These are often considered the most popular courses and offer the undergraduates the opportunity to interact with M.P.H. students and participate in research and service opportunities both

locally and abroad", stated Greg Rienzi in his article "Undergrads Drawn to Public Health" in *The Gazette Online*, a publication of the Johns Hopkins University (Appendix D). The Assistant Dean for Undergraduate Education in Public Health at Boston University, where they recently implemented a Public Health minor, commented that they have had "very good success mixing undergraduates and graduate students in our public health courses. So far the undergraduates who are interested in the minor are highly motivated and extremely enthusiastic about the public health courses and the minor." Also, the Public Health Undergraduate program at the University of North Carolina at Chapel Hill cites, "Undergraduates are held to very high standards in mixed courses, and we have found that they perform very well." UCLA and Berkeley have also found that undergraduate public health students do very well in graduate courses.

## Office and Classroom Space

One immediate need would be office and classroom space on the Uptown campus in order for faculty to be readily accessible to students in the program. The School had been notified by the University's Office of Space and Capital Resources Management that a stop-in center, complete with a suite of nine offices, will be available on the Uptown campus in Spring 2007. This center is intended for programs located on remote campuses to schedule office hours. Undergraduate students should not be expected to commute to the East Campus to seek advisement or to attend required undergraduate courses. In an e-mail dated February 27, 2007, we have received word from the University's Office of Space and Capital Resources Management that the School of Public Health can utilize this space for a permanent office for a full-time staff member. The Undergraduate Program Coordinator should be easily accessible to undergraduate students; therefore, he or she must have a presence on the Uptown campus. For students interested in taking graduate courses in-class at the School of Public Health, they may commute to the East Campus by the University bus.

## **Program Administration**

In addition to the Undergraduate Program Coordinator, with oversight from the Associate Dean for Academic Programs, the program will also be managed by an Undergraduate Steering Committee. The Committee will be comprised of representatives from all four academic departments within the School of Public Health and will regularly review the curriculum, evaluate the program, and assist in all policy-related issues that may arise as part of the undergraduate major.

#### Advisement

Advisement for the public health major will be based on a tiered system:

1) Upon acceptance to the University at Albany, and prior to declaring a major, students are advised through the University at Albany Academic Advisement Center. The School of Public Health has been in contact with this office in relation to the public health minor and will continue to work closely with the staff to educate them about the major so they will be well-informed when speaking with potential public health majors. The intent is to prepare these advisors to answer general questions students may have about opportunities within the School of Public Health.

- 2) As per University policy, once students declare the public health major, the School of Public Health will be responsible for advisement. The Undergraduate Program Coordinator will provide initial advisement to all enrolled students. Students will follow a M.A.P. (Major Academic Pathway) which lays out a route for completing the required courses within four years. If not completed prior to enrolling in the major, students will be advised to complete A Bio 110 General Biology; A Mat 108 Elementary Statistics; and A Phi 115 Moral Choices prior to beginning the core public health courses.
- 3) All declared majors will also be assigned a faculty advisor at the School of Public Health who will oversee their academic progress, provide ongoing advisement, and assist them in identifying appropriate electives to match their interests. Initially, there will be a small number of designated faculty advisors (2-4 advisors) within the School to provide this advisement. Keeping the advisement centralized in the first few years of the program will assist in its management as well as ensuring that students receive proper advisement from a core set of individuals who are very familiar with the requirements. In addition, this will facilitate these advisors' ability to hold office hours on the uptown campus during key registration periods for undergraduates. It is anticipated that the base of faculty advisors will broaden as faculty become acclimated to interacting with undergraduate students and more familiar with the minor and major. The Undergraduate Program Coordinator will continue to be available to assist with logistical aspects of enrolling in courses, such as obtaining Advisor Verification Numbers. Because the Undergraduate Program Coordinator will be located on the uptown campus, this will minimize logistical difficulties for students whose primary faculty advisor will be located on the East Campus.

#### **Outcomes**

Graduates of the Bachelor of Science in Public Health degree will be able to:

- Explain the historical perspective of the contributions and roles of public health
- Apply epidemiological and biostatistical principles to appropriately analyze and interpret data
- Identify environmental, social, behavioral and biological determinants of health from a global perspective
- Describe the multidisciplinary/ecological aspects of disease causation and prevention
- Understand quality, cost and access issues of health care delivery from a population perspective effect
- Explain how varied health promotion strategies are employed to achieve healthy behaviors, healthy people, and healthy communities

The academically rigorous nature of the undergraduate major in Public Health will have many additional positive outcomes. Some of these include:

- Obtain a high caliber of student applicants who may not have otherwise applied to the University at Albany
- Enhance the quality of the student population in each of the courses taken by students in the major
- Provide students with a solid knowledge base that can carry across a variety of disciplines
- Establish direct pipeline into graduate Public Health program
- Assist in developing a workforce prepared to think critically, analyze complex issues, and solve problems

• Assist students in fulfilling the admission requirement of some health professions schools which require students to have some knowledge of public health principles

There are a variety of careers that would benefit from the knowledge and skills obtained from the completion of the interdisciplinary public health major. *Note: Prior to entering the workforce, it is expected that students in the program will pursue graduate study either immediately upon graduation or within a couple of years from the time they graduate.* Possible career paths include:

- Government agencies
- Non-profit organizations
- Hospitals

- Healthcare corporations
- Advocacy organizations
- Academic institutions

The public health major would be most relevant for graduate public health education, but would also be relevant for post-baccalaureate study in a variety of fields as indicated below:

- Medicine
- Law
- Pharmacy
- Veterinary medicine
- Education
- Biostatisics
- Epidemiology
- Environmental health

- International health
- Maternal and child health
- Bioethics
- Social work
- Public policy
- Business
- Economics

## **Relevant Minors**

Given the interdisciplinary nature of public health, the public health major is complemented by a variety of other disciplinary fields. Therefore, possible minors that might be particularly appropriate for students majoring in Public Health include:

- Anthropology
- Bioethics
- Biology
- Business
- Computer Science
- Economics
- Educational Studies
- Geography
- International Perspectives
- Journalism

- Latin American and Caribbean Studies
- Mathematics
- Medical Anthropology
- Political Science
- Psychology
- Public Policy
- Sociology
- Statistics
- Women's Studies

#### **Evaluation**

The Undergraduate Steering Committee will be responsible for the ongoing evaluation of the program. This ongoing evaluation will be based on periodic surveys administered to enrolled

students and graduates of the major, interviews with students and faculty, and assessment of student progress.

## **Special Notes**

Course exemption: Students who have completed public health graduate-level courses while fulfilling the requirements of the B.S. in Public Health, and wish to pursue a graduate-level degree at the School of Public Health, will be able to waive those courses, provided they have received a B or higher in the respective course. Students will still be required to fulfill the minimum credit requirements of the graduate degree; however, this will allow them the opportunity to take additional electives in their area of concentration.

Accreditation: The graduate programs at UAlbany's School of Public Health are accredited by the Council on Education for Public Health (CEPH), an independent agency recognized by the U.S. Department of Education. Undergraduate Public Health education is not yet accredited by CEPH and, therefore, will not be a factor at this time. The proposed undergraduate Public Health major will enjoy the established accrediting privileges of UAlbany.

## **General Education Requirements**

The School of Public Health will work with the University's Office of Undergraduate Studies to identify public health courses which can fulfill general education requirements.

## Requirements for Major in Public Health (40 credits)

- a) A Bio 110 General Biology I (4 credits): First course in a two semester sequence which offers a comprehensive survey of the structures and functions common to all living systems at the molecular, cellular, organismal, and population levels. This course emphasizes evolutionary principles, ecology, and behavior. Three class periods and one laboratory per week.
- b) A Mat 108 Elementary Statistics (3 credits): Frequency distributions, measures of central tendency and dispersion, probability and sampling, estimation, testing of hypotheses, linear regression and correlation. Note: Students must receive a "B" or higher grade in this course to be considered for the public health major.
- c) A Phi 115 Moral Choices (3 credits): Critical examination of contemporary moral problems in the light of the most influential moral theories. The problems discussed vary with semesters, but they typically include such topics as abortion, affirmative action, animals and the environment, capital punishment, euthanasia, free speech and censorship, liberty and paternalism, sex and love, terrorism, and world hunger.

Letters of support for the inclusion of these courses in the major can be found in the Appendix.

## **Public Health Major Core Requirements**

Note: It is strongly suggested that students complete the above course requirements prior to enrolling in the public health major core courses.

These courses provide students with a solid introduction to the core components of public health, which include biostatistics, environmental health sciences, epidemiology, health policy and management, and social and behavioral sciences, culminating in a 400-level course in which students work on a project tying all of the principles together.

Required core courses (21 credits) ~Course descriptions can be found in Appendix A~			
Course # (Credits)	Course Title	Course Frequency	
H Sph 201 (3)	Introduction to Public Health	Every semester	
H Sph/Epi 231 (3)	Concepts in Epidemiology (Pre-req: Mat 108)	Once per year	
H Sph/Eht 321 (3)	Global Environmental Issues and their Effect on Human Health	Once per year	
H Sph/Epi 332 (3)	Introduction to Biostatistics: Collection, Analysis & Interpretation of Public Health Data	Once per year, beginning Fall 2009	
H Sph/Hpm 341 (3)	Promoting Healthy People and Communities	Once per year	
H Sph/Hpm 342 (3)	How U.S. Health Care Works: Myths and Realities	Once per year	
H Sph/Epi 460 (3)	Participatory Action Research	At least once per year	

## Electives within the major (9 credits)

Students must complete at least 9 credits (three courses) of elective coursework, approved by the advisor. Suggested courses are included on the following pages. Of these 9 credits, 6 credits must be at the 300-level or above.

Suggested electives are grouped into areas of emphasis that correspond to the disciplinary boundaries within public health. Because the undergraduate major is designed to give students broad interdisciplinary exposure to public health, students are advised to choose one elective from each of three areas of emphasis. In rare circumstances, and with the approval of their advisor, a student who wishes to focus on a single discipline in greater depth can choose all of their electives from a single area of emphasis

## **Areas of Emphasis**

Note: Students may select other courses as part of their area of emphasis with approval from their advisor. All elective courses in departments outside of the School of Public Health, including those listed below, will be available to public health majors on a space-available basis.

~Letters of Support from applicable Department Chairs outside the School of Public Health can be found in Appendix B indicating support for the inclusion of the department's course(s) in the public health major~

## **Policy and Management Emphasis**

H Sph 202 (3)	From Cholera to Cancer: History, Challenges and Achievements in Public
	Health
H Sph 310 (3)	Key Health Policy Issues of the U.S.: A Comparative Approach^ (Pre-req: A
	Eco 110 or permission of instructor)
H Sph 381/A	Economics of Health Care^ (Pre-req: A Eco 300 or permission of instructor)
Eco 381 (3)	
A Com 465 (3)	Communication in Health Care Organizations
H Sph 490 (3)	Public Health Field Placement (Policy/Management focus)
H Hpm 500 (3)	Health Care Organization, Delivery and Finance
	(Need approval of major department chair and course instructor to enroll)
H Hpm 550 (3)	Financial Management of Healthcare Institutions (Need approval of major
	department chair and course instructor to enroll)

<sup>^</sup>Course may not be offered every year

## Social Behavior and Community Health Emphasis

H Sph 202 (3)	From Cholera to Cancer: History, Challenges and Achievements in Public
	Health
A Psy 329 (3)	Health Psychology (Pre-req: A Psy 101)
A Com 340 (3)	Health Communication
A Com 465 (3)	Health Communication: Doctor-Patient Interaction
H Sph 343 (3)	Mass Media and Health Behavior^
H Sph 490 (3)	Public Health Field Placement (Social Behavior focus)
H Hpm 525 (3)	Social and Behavioral Aspects of Public Health
	(Need approval of major department chair and course instructor to enroll)
H Hpm 521 (3)	Introduction to Family and Community Health (Need approval of major
	department chair and course instructor to enroll)
H Hpm 531 (3)	Childhood Obesity from a Public Health Perspective^ (Need approval of major
	department chair and course instructor to enroll)

<sup>^</sup>Course may not be offered every year

## **Epidemiology Emphasis**

A Ant 119 (3)	The City and Human Health
H Sph 202 (3)	From Cholera to Cancer: History, Challenges and Achievements in Public
	Health
A Ant 418 (3)	Culture, Environment and Health (Pre-req: Consent of instructor)
H Sph 490 (3)	Public Health Field Placement (Epidemiology focus)
H Epi 501 (3)	Principles and Methods of Epidemiology I (Need approval of major
	department chair and course instructor to enroll)
H Epi 502 (3)	Principles and Methods of Epidemiology II (Pre-req: Epi 501, Sta 552 or their
	equivalents) (Need approval of major department chair and course instructor to
	enroll)
H Epi 503 (3)	Principles of Public Health (Need approval of major department chair and
	course instructor to enroll)
H Epi 514 (3)	Computer Programming for Data Management and Analysis in Public Health
	(Need approval of major department chair and course instructor to enroll)

## **Biomedical and Environmental Health Sciences Emphasis**

A Ant 119 (3)	The City and Human Health	
A Ant 418 (3)	Culture, Environment and Health (Pre-req: Consent of instructor)	
A Chm 425 (2)	Introduction to Undergraduate Research in Chemistry (Pre-req: Junior or	
	senior class standing and permission of instructor; Corequisite or pre-req: A	
	Chm 424)	
H Sph 490 (3)	Public Health Field Placement (Biomedical and/or Environmental Health	
	Sciences focus)	
H Bms 505 (3)	Biological Basis of Public Health (Need approval of major department chair	
	and course instructor to enroll)	
H Bms	Cancer Biology (Need approval of major department chair and course	
522/622 (3)	instructor to enroll)	
H Eht 590 (3)	Introduction to Environmental Health Sciences (Need approval of major	
	department chair and course instructor to enroll)	

#### Field Placement

During their senior year, a limited number of students with superior academic records may complete a field placement in a public health organization to gain real-world experience in the field. Our ability to accommodate students is limited by the availability of field placement opportunities. The student will work under the supervision of a mentor at the organization. Field Placements can be tailored to fit the needs of the organization and the interests of the student. Students will receive assistance in finding an appropriate placement from their advisor in consultation with the Director of Internships and Career Services at the School of Public Health. The graduate programs within the School have an extensive internship requirement and have existing relationships with a wide variety of placement organizations.

Evaluations of the field placement will be submitted by the student and the mentor at the conclusion of the field placement. The advisor and Undergraduate Program Coordinator will be readily accessible throughout the placement to intervene if the student runs into any difficulty.

In addition, every effort will be made for the advisor to have a meeting with the student and mentor to assess how things are progressing.

## **Course Scheduling**

Required courses for the major will be offered on a yearly basis in order for students to complete their undergraduate coursework on time. Priority will be given to public health majors and minor for enrollment in these courses. Advisement is based on eight semesters of full-time study. Students will work closely with their academic advisor to keep on track.

## APPENDIX A

## **Course Descriptions for Public Health Major Core Courses**

#### SCHOOL OF PUBLIC HEALTH

## Sph 201 Introduction to Public Health (3)

A general introduction to what public health is, its importance for everybody's health, and how it functions as a combination of science and politics. The role of the public health system will be illustrated by describing issues confronting New York State and what is being done about them.

## Sph/Epi 231 Concepts in Epidemiology (3)

This course is designed to introduce students to the science of epidemiology. Specific subjects will include causal thinking, the epidemiologic framework, and study designs utilized in epidemiologic studies. Examples of famous studies will be discussed, including outbreak investigations and major studies that have identified risk factors for the more common diseases in the country and world today. Prerequisite: A Mat 108 or equivalent

## Sph/Eht 321 Global Environmental Issues and their Effect on Human Health (3)

The environment affects our health, economics, and our quality of life. Globalization has made the earth a much smaller place so that we no longer can focus merely on issues in the United States. This course will address global environmental issues such as atmospheric change, air pollution, global warming, water and noise pollution and its impact on human health. Students will discuss these important issues within the context of its impact on populations throughout the world. Environmental researchers from the Wadsworth Center in the New York State Department of Health will be guest lecturers on specific topics.

# Sph/Epi 332 Introduction to Biostatistics: Collection, Analysis & Interpretation of Public Health Data (3)

This course will be a basic introduction to statistics as used in the field of Public Health. Students will learn basic descriptive statistics, measures of central tendency and dispersion, basic rules of probability spaces, binomial and normal probability distributions, sampling distributions, estimation and hypothesis testing. In addition, students will learn how to use a computer program to analyze data.

## Sph/Hpm 341 Promoting Healthy People and Communities (3)

This course focuses on how health promotion strategies influence healthy behaviors, healthy people, and healthy communities. Current public health issues will guide us in examining key health promotion concepts, health concerns at different ages, and the causes of different health behaviors. Health inequalities and mass media's role will also be highlighted.

## Sph/Hpm 342 How U.S. Health Care Works: Myths and Realities (3)

This course will introduce students to everyday realities of the US health care system related to current issues like health care quality, access to care, the uninsured, patient safety, health care inflation, prescription drugs, physician-patient interaction, use of health care technology, and end-of-life care. The course is intended to provide students with an understanding of the various actors, stakeholder interactions, and functions of the US health care system, through a case-based approach interweaving real world events, practice experience, and research about those events. It will provide a baseline understanding of both the myths and realities of important

concepts such as "the patient experience", "dying with dignity", "continuous quality improvement", "medical errors", and "managed care".

## H Sph/Epi 460 Participatory Action Research (3)

Theory, methods, and practice of Participatory Action Research (PAR), for identifying collective social problems, negotiating, implementing and evaluating possible solutions. Issues of power; principles of equity/democracy; politics of the conduct/products of sciences; university-community partnerships, with applications in public health, education, social welfare, ecology, community planning, labor and business development are discussed.

# Appendix B Letters of Support



Telephone Numbers: (518) 402-0283 (Voice) (518) 402-0329(Fax)

TO: Mary Applegate, MD, MPH

Interim Dean

FROM: Liaquat Husain, PhD

Chair, Academic Committee

DATE: March 21, 2007

RE: Approval of Undergraduate Major Proposal and accompanying

courses

The Academic Committee considered today the Proposal for a Faculty Initiated Interdisciplinary Undergraduate Major in Public Health along with three courses EPI 332, SPH 490, and HPM 531. The Committee approved the proposal. The Committee is very enthusiastic and feels that this is an idea whose time has come. The proposal is well written. Submission of the above-mentioned courses along with the proposal clearly establishes that the program is well thought out and the needed courses will be offered in a timely fashion to meet students' needs.



TO: Interim Dean Mary Applegate

School of Public Health

FROM: John T. Welch, Chair

Department of Chemistry

DATE: April 7, 2007

RE: Undergraduate major in public health

It is our pleasure to support your application for an Undergraduate major in public health.

Please feel free to include Chem 425 (Introduction to Undergraduate Research in Chemistry) as a potential elective for your major, for undergraduates who would like to gain some experience in research in our lab departments (Environmental Health Sciences and Biomedical Sciences).

We will do our best to accommodate those students who express an interest in doing research. Involvement of students with diverse interests in research can only improve the quality of the experience for everyone.



## ALBERT JT MILLIS, PH.D. **Professor and Chair**

Department of Biological Sciences millis@albany.edu

To: Mary Applegate, Interim Dean, School of Public Health

From: Albert Millis, Chair-Biological Sciences

Date: April 3, 2007

Regarding: Bio 110

albert Nulis

The Chair of the Department of Biological Sciences supports your intention to list Bio 110 as a requirement for the undergraduate major in Public Health. As you know this is a very high enrollment course that is integrated with a laboratory. As such it is resource intensive both on the instructional side and the consumable supply side. I am pleased to see that you have requested an additional faculty person for Biological Sciences to help buffer the effects of this new major on my department.

Best wishes on this new and exciting endeavor.

Department of Mathematics and Statistics

## **MEMORANDUM**

**To:** Mary Gallant, PhD, MPH

From: Ted Turner, Chair, Department of Mathematics and Statistics

**Date:** April 9, 2007

**Re:** Undergraduate major in Public Health

On Feb 23, 2006 Tim Lance (then chair of the Department of Mathematics and Statistics) wrote: "I have reviewed the course proposal for Epi 231, Concepts in Epidemiology, and found the discussion compelling and view the course as an exciting addition to the Epidemiology curriculum. I also concur with the prerequisite of Math 108 or an equivalent. The Dept of Mathematics and Statistics can easily accommodate these students. The biggest possible logistical challenge for the students, taking Math 108 on the main campus and other Epi and SPH courses on the East Campus is probably alleviated by the large number of sections of Math 108 offered, given in many different time slot options. If this course moves forward, I would also be interested in exploring this in the reverse, using EPI 231 as a window into a new area that might be of interest to students from Mathematics and Statistics. This course has my strong endorsement."

As current chair of the Department of Mathematics and Statistics, I agree completely with the assessment above and I support the inclusion of Math 108 in your undergraduate major.



Feb. 13, 2006

Dr. Nancy Persily Dean's Office School of Public Health E. Campus – GEC 100 One University Place Rensselaer, NY 12144

Dear Dr. Persily:

I support requiring Phi 115L, Moral Choices, for the proposed undergraduate major in Public Health, and recommending it for the proposed minor. I teach Phi 115L regularly, as do others in the department, and at least one section of it is offered every semester.

Sincerely,

Bonnie Steinbock Professor



James Collins Anthropology AS 242 University at Albany Albany NY 12222 518-442-4708 Collins@albany.edu

To: Mary Applegate, Interim Dean, School of Public Health

From: James Collins, Chair, Anthropology

Date: March 22, 2007

Regarding: Ant 119 & 418

This is to inform you that the Anthropology is happy for Ant 119 and 418 to be listed as electives in the proposal for a new undergraduate major in public health. Dr. Schell is affiliated with the School of Public Health and both courses are popular with our students.





April 10, 2007

Dr. Mary Applegate, Interim Dean School of Public Health University at Albany, SUNY

Dear Dean Applegate,

On behalf of the Department of Communication, I'm writing in support of the new undergraduate major in Public Health and to convey our good wishes for its success. I understand that the School of Public Health wishes to make three of our department's courses electives in the major. These courses are: Health Communication, ACOM340; and two of our topics courses (ACOM 465) Communication in Health Care Organizations, and Health Communication: Doctor-Patient Interaction.

We are happy to admit Public Health majors to these courses when space is available. Please note that access to all of our upper level courses is by permission number only. If Public Health majors wish to enroll, they will need to contact administrative support personnel in the Department to obtain the relevant permission number.

Best wishes for the success of your new major!

Regards,

Teresa M. Harrison Professor and Chair



Department of Psychology College of Arts and Sciences

> Social Sciences 369 Telephone: 518 442.4820 FAX: 518 442.4867

April 2, 2007

Dr. Mary M. Applegate Interim Dean School of Public Health

Dear Mary,

Interim Assistant Dean Mary Gallant, SPH, has informed us of your intentions to create an undergraduate major in public health. She asked for our consent for you to list our course APSY 329 (Health Psychology) as one of 20+ possible electives your students could take to fulfill the requirements for the major.

I have discussed this issue with my faculty, including our director of undergraduate advisement and the faculty members who offer the APSY 329 course. We have, in principle, no objections to your listing this course as an elective for your major. However, as I pointed out in an email to Mary Gallant, this course is very popular with our psychology majors and we need to give them priority registration. While we typically have a few seats open for non-majors, we *cannot guarantee* that we will be able to accommodate your majors. It is my understanding that your major will be small and that you do not expect more than a handful of students per semester who would be interested in enrolling in our APSY 329 course. If this number is correct, I do not foresee much difficulty and we even can make arrangements to reserve five spaces for you. However, if the numbers were larger, unfortunately we would not be able to accommodate them.

I hope this information is useful to you. Once your major has been approved, please let my assistant, Cathy Murray, know if you want us to reserve five seats for your students in our course.

Sincerely,

Edelgard Wulfert

Professor & Chair, Psychology

cc: Cathy Murray, Psychology

Mary Gallant, SPH