



November 21, 2017

James D. Fielder, Jr., PhD  
Secretary  
Maryland Higher Education Commission  
6 N. Liberty Street, 10th Floor  
Baltimore, MD 21201

Dear Dr. Fielder:

On behalf of Provost Sunil Kumar, Dean Ellen MacKenzie, and our Bloomberg School of Public Health, I write to request your review and endorsement of the enclosed proposal. The Bloomberg School proposes a new **Master of Applied Science in Global Health Planning and Management**.

The program is primarily intended for early to mid-career professionals practicing or planning to practice in developing countries and interested in expanding their global health skills and knowledge. The program can be completed entirely with online courses, allowing greater educational access to a wider range of students. The program will provide an opportunity for education and training for mid-career health professionals in the public, private and NGO sectors working in low and middle income countries. Delivering the degree in a fully online format will allow greater accessibility for participants from the U.S. and around the world.

The proposed program is consistent with the Johns Hopkins mission and the State of Maryland's Plan for Postsecondary Education. The proposal is fully endorsed by The Johns Hopkins University.

A business check for the review of this proposal has been sent to the Commission. Should you have any questions or need further information, please do not hesitate to contact Natalie Lopez at (410) 516- 6430 or alo@jhu.edu. Thank you for your continuing support of Johns Hopkins.

Sincerely,

Janet Simon Schreck, PhD  
Assistant Vice Provost for Education

cc: Dr. Sunil Kumar  
Dr. Ellen MacKenzie  
Dr. Ratna Sarkar  
Mr. James Brailer  
Mr. Thomas Black  
Ms. Natalie Lopez  
Mr. Tom McDermott

Enclosures



MARYLAND HIGHER EDUCATION COMMISSION  
ACADEMIC PROGRAM PROPOSAL

PROPOSAL  
FOR:

- NEW INSTRUCTIONAL PROGRAM
- SUBSTANTIAL EXPANSION/MAJOR MODIFICATION
- COOPERATIVE DEGREE PROGRAM
- WITHIN EXISTING RESOURCES or  REQUIRING NEW RESOURCES

Johns Hopkins University

Institution Submitting Proposal

2018

Projected Implementation Date

Master of Applied Science

Award to be Offered

Global Health Planning and Management

Title of Proposed Program

Suggested HEGIS Code

51.2210

Suggested CIP Code

Bloomberg School of Public Health

Department of Proposed Program

Ellen MacKenzie, Dean

Name of Department Head

Natalie Lopez

Contact Name

nlopez13@jhu.edu

Contact E-mail Address

410-516-6430

Contact Phone Number

Signature and Date

11/16/2017

President/Chief Executive Approval

n/a

Date

Date Endorsed/Approved by Governing Board

**The Johns Hopkins University  
Bloomberg School of Public Health  
Proposal for New Academic Program**

**Master of Applied Science in Global Health Planning and Management**

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**A. Centrality to institutional mission statement and planning priorities**

**1. Program description and alignment with mission**

The Johns Hopkins University Bloomberg School of Public Health (JHSPH) proposes a new Master of Applied Science (MAS) in Global Health Planning and Management. Offered by the Online Programs for Applied Learning (OPAL), in collaboration with the Department of International Health, the newly proposed program will be delivered entirely online and is intended for part-time students. Global health is the study of the health of populations in a global context, considering its political, social, and economic impact.

The MAS program is primarily intended for early to mid-career professionals practicing or planning to practice in developing countries and interested in expanding their global health skills and knowledge. The MAS program can be completed entirely with online courses, allowing greater educational access to a wider range of students. The MAS in Global Health Planning and Management will provide an opportunity for education and training for mid-career health professionals in the public, private and NGO sectors working in low and middle income countries. Delivering the degree in a fully online format will allow greater accessibility for participants from the U.S. and around the world.

The proposed program to commence in fall 2018, will require successful completion of a minimum of 51 credits. Students may complete the degree over a minimum of eight 8-week terms or two years, to a maximum of four years.

The mission of The Johns Hopkins University is to educate its students and cultivate their capacity for life-long learning, to foster independent and original research, and to bring the benefits of discovery to the world. In addition, the mission of the Bloomberg School of Public Health is to improve health “through discovery, dissemination, and translation of knowledge and the education of a diverse global community of research scientists and public health professionals.” The proposed degree program aligns with both of these missions as discussed below.

**2. Alignment with institutional strategic goals**

*Johns Hopkins University Strategic Goals*

The proposed program advances the university’s [\*Ten by Twenty\*](#) vision, and related strategic goals for Johns Hopkins University, in a number of core ways. The program seeks to enhance access to a graduate education via a part-time format that allows students to continue working, making the program more affordable and preventing students from

having to take time away from current careers in public health. The program is also global in nature: its part-time basis will better facilitate the participation of international students, and the content is designed to reflect a rapidly globalizing world. The university's Ten by Twenty vision emphasizes interdisciplinary collaboration, which is also a core tenet program, helping students to effectively lead and work in interdisciplinary teams.

### *Johns Hopkins Bloomberg School of Public Health Strategic Goals*

The mission of The Johns Hopkins University is to educate its students and cultivate their capacity for life-long learning, to foster independent and original research, and to bring the benefits of discovery to the world. The mission of the Johns Hopkins Bloomberg School of Public Health is to improve health through discovery, dissemination, and translation of knowledge and the education of a diverse global community of research scientists and public health professionals. The proposed program is consistent with both missions and is well aligned with many of the School's strategic goals:

- Prepare leaders in public health science and practice to address current and future public health challenges. It is a goal of the proposed program to provide skills-based education in global health planning and management to the global public health workforce.
- Promote, value, and achieve excellence in teaching and learning. The Bloomberg School aims to combine technology with modern-day pedagogy to retain the same high standards that it incorporates into all of its academic programs.
- Advance the evidence base for the practice of public health and strengthen local, national, and global partnerships with public health practitioners. Through the proposed degree program, the Bloomberg School will offer advanced training in global health practice relevant to addressing public health problems. The part-time, online structure of the program will allow the School to reach a global constituency of learners.
- Raise awareness of public health in the global community. The proposed curriculum includes courses introducing learners to the breadth of public health.

The department of International Health is committed to develop innovative and accessible ways to build the capacity of the health workforce in low and middle-income countries and in underserved communities in the United States. This commitment is the drive that makes faculty and staff develop education and training that is attainable for health workers around the globe. Online learning is one of the innovative options for people who otherwise would not have the opportunity to benefit from the resources that our department and school has to offer.

The proposed Master of Applied Science program in Global Health Planning and Management builds on the strength of the Bloomberg School, which provides unmatched opportunities for advanced training, focuses on both local and global issues, and prepares students to address public health problems through multidisciplinary approaches that apply the latest scientific knowledge.

The program will provide students with the skills to plan and manage public health programs and services in countries throughout the world. The proposed program is primarily intended for early to mid-career health professionals practicing or planning to practice in developing countries and interested in expanding their global health skills and knowledge. Students will have an opportunity to learn from and interact with faculty who have both research and practical experience in global health policy making, program design and evaluation and advocacy. The program will equip students with the necessary tools to anticipate and directly engage in the critical role of the global health professional and organization in public health advocacy and practice.

## **B. Adequacy of curriculum design and delivery to related learning outcomes**

### **1. Program outline and requirements**

A full course listing, with course titles and descriptions, is provided in Appendix A.

#### *Admissions Requirements*

Admission standards will be as rigorous as those established for other degree programs at the School. Academic transcripts, TOEFL or IELTS (where applicable), letters of recommendation, and statements of purpose will all be carefully considered in the admissions process. Specifically, the admissions requirements for the degree program are:

- (i) A baccalaureate-level degree from an accredited college or university – preferably in social, behavioral, management or biological sciences– as evidenced by a foreign transcript certified by a credentialing agency, or by an official US or Canadian transcript sent directly to the School;
- (ii) Three letters of recommendation;
- (iii) A statement of purpose that demonstrates compatibility of the applicant’s skills and career goals with the educational objectives of the program;
- (iv) A current résumé or CV;
- (v) A minimum of two years of post-baccalaureate health related work experience in or focusing on low and middle-income countries or under-served populations; and
- (vi) English language proficiency as demonstrated by the TOEFL (minimum of 100 iBT) or IELTS (minimum score of 7).

#### *Program Requirements*

The proposed program requires students to successfully complete 51 term credits. The program will consist of required core courses in ethics, biostatistics, epidemiology and global health. The program can be completed over a minimum of eight 8-week terms to a maximum of four years.

Most courses must be taken for credit and a letter grade. To maintain satisfactory academic performance and good academic standing, students in this program must maintain a minimum grade point average of 2.75.

The OPAL Program Manager will track progress and ensure that each student has completed all degree requirements. The OPAL Program Director will be responsible for writing to the School's Office of Registration and Records to attest to the fulfillment of these requirements for each enrolled student.

The courses included in the degree program are listed in Table 1 below. Appendix A provides course descriptions and credit hours for each course.

*Table 1: Core Courses for the Master of Applied Science in Global Health Planning and Management*

Course Number	Course Title	Credits	Term
<b>Year 1</b>			
	Introduction to Online Learning	0	1,2,3,4,Su
550.860	Academic and Research Ethics at JHSPH	0	1,2,3,4,Su
600.601	Seminars in Public Health	2	1
	Fundamentals of Global Health Practice	4	1
	Ethics in Global Health Practice	2	2
	Design and Planning of Primary Health Care Projects	4	2
600.701	Introduction to Epidemiology	4	3
	Global Epidemiology Policies and Programs	3	3
600.709	Statistical Concepts in Public Health I	3	4
602.771	Social & Cultural Basis for Community and Primary Health Programs	3	4
<b>Year 2</b>			
	Health and Safety Preparation for Global Health Assignments	1	1
	Pharmaceutical Policy and Management in Low and Middle-Income Countries	3	1
	Frameworks and Tools for Health Systems in Global Settings	3	1
602.721	Organizing for Public Health: A Systems Approach	2	2
	Quality Management of Health Service Delivery in Low and Middle-Income Countries	4	2
600.612	Professional Development Workshop: Writing for Results	2	3
	Strengthening Health Information in Low and Middle-Income Countries	4	3
	Non-Government Organizations and the Administration of Global Health Programs	3	4
6xx.810	Integrative Activity	4	4

## 2. Educational objectives and student learning outcomes

The goal of this program is to prepare students from diverse individual and professional backgrounds with the technical skills necessary to develop and effectively communicate the evidence that is required to support effective global health planning and management. The specific educational objectives are below.

Competencies for this degree build on the Association of Schools of Public Health (ASPH) Global Health Competency Model. Upon completion of the Master of Applied Science in Global Health Planning and Management, students will be able to:

#### A. Core Global Health Practice Competencies

1. Apply capacity building processes to global health programming in low and middle-income countries.
2. Identify and collaborate with a wide range of stakeholders whose active participation is required for successful global health programming at community, sub-national, national and regional levels.
3. Apply ethical reasoning to the policy and programming decisions needed for designing and implementing global health programs in low and middle-income countries.
4. Exhibit a health equity and social justice lens in the design and conduct of global health programs.
5. Apply appropriate management processes in the design, implementation and evaluation of global health programs.
6. Demonstrate social, cultural and political awareness of the context in which global health programming takes place.
7. Conduct strategic analysis of factors that influence the success of global health programming.

#### B. Global Health Planning and Management Competencies

1. Examines approaches to improve health systems performance using frameworks, tools, and strategies to plan, implement, and evaluate changes in health systems in LMIC's.
2. Identify and apply principles and practices of total quality management methods for health systems in developing countries.
3. Utilize systems thinking to determine how societies organize themselves to achieve collective health goals and contribute to policy outcomes.
4. Demonstrate skills for managing non-governmental organizations in the health sector in LMICs.
5. Utilize appropriate evaluate designs and approaches for public health programs in LMICs and advocate the uptake of program results by policymakers.

### **3. General education requirements**

Not applicable

#### **4. Specialized accreditation/certification requirements**

Not applicable

#### **5. Contractual agreements with other institutions**

Not applicable

### **C. Critical and compelling regional or statewide need as identified in the State Plan**

#### **1. Demand and need for program**

A 2013 survey of leaders of local health departments across the U.S. assessed data needs among the public health workforce. The survey asked about challenges to advancing a public health workforce agenda. Among the top five challenges, respondents identified the need for improved content, structural and delivery mechanisms for distance-based learning.<sup>1</sup>

Online education in global health practice will provide the public health workforce with the skills to plan, evaluate and manage programs that will facilitate addressing important public health issues, while enabling learners to remain in the workforce while obtaining that training.

The Master of Applied Science program in Global Health Planning and Management will prepare current and future health practitioners, policymakers, and scholars to take on global health issues and interventions and highly complex public health, science, and health care challenges that emerge daily. Curriculum for this degree will be adapted from existing course content within the International Health department, includes existing OPAL courses and will also include newly developed courses. Delivering the degree in a fully online format will allow greater accessibility for participants from the U.S. and around the world.

Graduates of the Master of Applied Science program in Global Health Planning and Management will be equipped to drive the responsible development of new knowledge and new ways of saving lives and improving health to further progress across core disciplines in science and technology, and public health and medicine in Maryland, and beyond.

#### **2. Alignment with Maryland State Plan for Postsecondary Education**

The 2013–2017 Maryland State Plan for Postsecondary Education articulates six goals for postsecondary education: 1) quality and effectiveness; 2) access, affordability and completion; 3) diversity; 4) innovation; 5) economic growth and vitality; and 6) data use and distribution. The Master of Applied Science program in Global Health Planning and Management addresses many of these goals.

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<sup>1</sup> Kaufman NJ, Castrucci BC, Pearsol J, et al. Thinking beyond the silos: Emerging priorities in workforce development for state and local government public health agencies. *J Public Health Management Practice* 2014;20(6):557-565.



The Bloomberg School of Public Health aims to prepare highly trained scientists and healthcare professionals to work in organizations where they can contribute to the public health needs of society. The Master of Applied Science program in Global Health Planning and Management is intended to meet the growing need for skilled professionals in international health in the State, across the country, and around the globe. This is consistent with the Goal 1 (quality and effectiveness) of the State Plan.

By leveraging technology in innovative ways, the School makes Global Health Planning and Management more accessible and interactive so that students can pursue “anytime, anywhere” learning opportunities. The online format allows students to pursue a degree in Global Health Planning and Management even if their work schedules do not permit onsite class attendance. Additionally, students who move away from the Maryland region will still be able to complete the program, thus supporting the State Plan’s innovation and completion goals (Goals 4 & 2).

Typically, part-time students with full-time jobs who enroll in JHSPH certificate and degree programs represent a broader range of diversity than students in full-time programs. In targeting these part-time students, this program addresses the diversity goal (Goal 3) in the State Plan.

Similarly, the proposed program is consistent with (Goal 4), innovation, which articulates Maryland’s aspiration to be “a national leader in the exploration, development, and implementation of creative and diverse education and training opportunities that will align with State goals, increase student engagement, and improve learning outcomes...”

Additionally, the program, through the preparation of highly qualified experts in global health, contributes to the economic growth and vitality goal (Goal 5) by providing life-long learning to scientists and healthcare professionals so they can maintain the skills they need to succeed in the workforce.

#### **D. Quantifiable and reliable evidence and documentation of market supply and demand in the region and State**

##### **1. Market demand**

In recent years the demand for public health professionals with international health knowledge and expertise has been increasing. The Bloomberg School of Public Health receives dozens of inquiries each month from professionals interested in seeking education in international health. The Master of Applied Science program in Global Health Planning and Management provides students with a pathway to career opportunities in academic, policy, research, clinical, government, and non-profits. These and similar employment opportunities are available nationwide and throughout the world. A recent search for employment on the job site LinkedIn.com revealed 2,814 active job postings where a background or training in global public health is relevant. Adding “planning” to the search results in 1,010 jobs, and “management” shows 2,071 jobs. A search conducted on Indeed.com produced similar results, and showed 3,850 jobs related to “international public health”, with 2,400 of those including “management” and 1,000 including “planning” in the posting. A search of “global

public health” produced 4,727 jobs and 1,338 of those included “planning and management” in their description. In addition to a general pool of job opportunities, The Bloomberg School is already aware of, or has established relationships with many organizations, through which the degree program and its alumni can be promoted, including: The World Bank, Clinton Health Access Initiative, GAVI, International Rescue Committee, Save the Children, World Health Organization, Center for Disease Control and Prevention, FHI 360 (Family Health International), JHPIEGO, other Health and Development NGOs (e.g. Catholic Relief Services, Management Sciences for Health, Population Services International) and various United Nations agencies (e.g. UNICEF, WHO).

The Department of International Health has created free, non-accredited, online courses through Coursera.org. The six courses on global health have attracted over 16,000 enrolled students. This is another metric to the large demand for a fully online degree in global health.

## 2. Educational and training needs in the region

The Bloomberg School of Public Health receives over 20 inquiries each month from professionals interested in seeking master’s level training in international health. These people inquire about online training of specific skill sets, and programs that can be done part-time while working all across the globe.

Projected admissions for the degree program are as follows

Year 1: 35 students

Year 2: 35 students

Year 3: 35 students

Year 4: 35 students

Year 5: 35 students

## 3. Prospective graduates

The average part-time student admitted for the fall 2018 semester will complete the program in 2020. Twenty-eight students are expected to graduate in 2020, and each year thereafter.

Table 2: Count of Graduates from Relevant Master’s Degree Programs under CIP 51.2210 in the state of Maryland

School Name	Program Name	Graduate count by Year				
		2012	2013	2014	2015	2016
Johns Hopkins University (Bloomberg School of Public Health)	MSPH in International Health*	79	78	73	73	86

\*concentrations options: Global Disease Epidemiology and Control, Health Systems, Human Nutrition and Social and Behavioral Interventions

## **E. Reasonableness of program duplication**

### **1. Similar programs**

In Maryland, there are five other Master's programs in International Health approved or endorsed by MHEC under CIP code 51.2210.

Under the 51.2210 CIP code, there are five active Master's programs. The Bloomberg School offers the Master of Science in Public Health in International Health, and there are four concentration options within the program; Global Disease Epidemiology and Control, Health Systems, Human Nutrition and Social and Behavioral Interventions. None of these programs are expected to significantly impact or compete with this new degree program, given that the focus of each concentration is different than that of the proposed program.

### **2. Program justification**

The overall aim of this program is to provide formal education accessible to public health professionals working in various organizations both in the United States and beyond that equips them with the technical skills necessary to effectively communicate the evidence that is required to support effective global health policy development and implementation.

The MAS program in Global Health Planning and Management will provide concrete training in global health strategies, policies and practices with particular focus on policy development, design and implementation of communication programs, as well as research methods and planning of strategic global health interventions.

The program will be grounded in real-world challenges and informed by leading edge scholarship, with a diverse faculty of the leading experts in the field and a student body bringing lived experiences to the classroom.

## **F. Relevance to Historically Black Institutions (HBIs)**

By definition, an appropriate student for the Master of Applied Science program in Global Health Planning and Management would apply after attending and completing a baccalaureate degree at any undergraduate institution, including any of Maryland's Historically Black Institutions. The proposed program would not directly affect the implementation, maintenance, uniqueness, identity or mission of these institutions.

There are no known Master's programs in Community-based Primary Healthcare, or similar Master's programs in Global Health in any of the Historically Black Institutions in Maryland.

## **G. Evidence of compliance with the [Principles of Good Practice](#)**

See Appendix B for the evidence that this program complies with the Principles of Good Practice noted above.

## **H. Adequacy of faculty resources**

The Sponsoring Faculty and Director of the MAS in Global Health Planning and Management is Dr. William Brieger. Dr. Brieger has a full time Professor appointment in the Health Systems Program in the Department of International Health, Johns Hopkins Bloomberg School of Public Health. Dr. Brieger is a leading expert in the social, cultural and behavioral aspects of health and illness, especially in tropical contexts with an emphasis on programs designed around primary health care, community participation and health education. He develops communication bridges between consumers and providers, to learn appropriate community participation mechanisms and to strengthen community capacity during intervention research. Some projects include 1) community directed malaria control in Nigeria and Burkina Faso, 2) Strategies to eradicate guinea worm and 3) factors associated with annual compliance with ivermectin treatment for the control of onchocerciasis. Dr. Brieger has served on various technical advisory committees dealing with child health and tropical diseases. Dr. Brieger has been one of the pioneers in online education at JHSPH, teaching in the school's internet-based MPH program since its first cohort in 1996, and currently offers four courses in the online program. He runs four MOOC-based courses under Coursera, developed by the school, and is the Director of the Department's fully online certificate program.

### *Sponsoring Faculty*

William Brieger, DrPH  
Professor  
Department of International Health  
443-287-4042  
[wbriegel@jhu.edu](mailto:wbriegel@jhu.edu)

See Appendix C for a representative list of faculty who will teach courses, and advise students in the proposed program.

Program faculty hold full-time, or adjunct appointments in the Johns Hopkins School of Public Health. Program faculty have been recognized for their excellence in teaching and have produced leading public health research while continuing to generate path-breaking scholarship.

## **I. Adequacy of library resources**

The book collections at the Johns Hopkins University number almost two and one-half million volumes, selected to support the studies of all departments and divisions of the University. The William H. Welch Medical Library collects current scholarly information, primarily electronic, which supports the research, clinical, administrative, and educational needs of its clients. The collection covers health, the practice of medicine and related biomedical and allied health care disciplines, public health and related disciplines, nursing, research literature, methodological literature, reviews or state-of-the-art reports, and in-depth, authoritative analyses of areas influencing biomedicine and health care. The library's emphasis is on providing materials at point of need. As a result, the collection includes more than 7,200 electronic journals, more than 400 databases, and more than 13,000 e-books. The library has staff members assigned to each department to aid in research and best practices for library services.

## **J. Adequacy of physical facilities, infrastructure and instructional equipment**

All courses in the proposed program will be offered online. The program will have no discernible impact on the use of existing facilities and equipment beyond the standard requirements already in place; primarily, faculty office space in an existing university facility location.

The central computing resource for the School, the Office of Information Technology (IT), provides students with reliable computing infrastructure, location, and device independence, and critical software tools. Additionally, an enterprise service desk offers support for faculty, staff, and students. Assistance is provided over various channels, including phone, desktop, and FIPS 140-2 compliant remote-control support. Customer satisfaction is monitored and benchmarked against other higher educational institutions and industries.

No additional facilities, infrastructures or laboratory or computer resources will be required.

## **K. Adequacy of financial resources with documentation**

See Appendix D for detailed financial information.

## **L. Adequacy of provisions for evaluation of program**

As part of the program design and approval process, student learning outcomes and assessments have been aligned with the academic goals of the School and approved by the School's Committee on Academic Standards. Student course evaluations, conducted at the end of each term, provide feedback about both courses and faculty. The evaluations include questions addressing the course overall, the instructor and the assessments of learning.

Program level evaluation activities will include an annual assessment of program inputs, processes and outputs to generate a report on program applicants and admitted students, course enrollment, faculty participation, pedagogical innovations and program accomplishments/recognition.

Evaluation of student learning and achievement will focus on the early identification of students' goals/objectives and individualized learning outcomes; students' acquisition of knowledge and skills and the degree to which the program is fostering students' achievement of the degree competencies as demonstrated by assessments administered in each course. Post-program professional and academic accomplishments of graduates will also be tracked.

## **M. Consistency with the State's minority student achievement goals**

Any student meeting the admissions requirements can apply to the MAS program in Global Health Planning and Management. The program will work to help all accepted students improve their workplace competitiveness and reach their professional goals, an aim consistent with the State's minority student achievement goals.

## **N. Relationship to low productivity programs identified by the Commission**

Not applicable

## Appendix A

### Course List and Descriptions

#### **Introduction to Online Learning (0 credits)**

Introduction to Online Learning (IOL) will prepare a student for taking both online and on-campus courses offered through CoursePlus, a course management system at Johns Hopkins University. The course is designed to give students clear examples of the fundamental design principles for courses across schools at the University: time-boxed, cohort-based, and highly collaborative. Attention is focused on learner responsibilities and communication/collaboration strategies in both online and face-to-face courses. While ensuring that an individual computer and network connection is compatible with the tools used in CoursePlus is an important part of the course, the primary focus is on the digital course experience and not on teaching basic computer and Web browsing skills.

*Prerequisite: None*

#### **550.860 Academic & Research Ethics (0 credits)**

Examines academic and research ethics at JHSPH in a series of online interactive modules. Focuses on information about the academic ethics code and responsible conduct of research at the School. Explores issues of academic integrity such as proper ethical conduct and referencing, and discusses violations such as plagiarism and cheating, relative to case studies that illustrate situations faced by students and faculty in the academic setting. Addresses topics that include responsible conduct of research, authorship, data management, data ownership, guidelines for professional conduct, research fraud or scientific misconduct, federal and institutional guidelines related to research using human and animal subjects and ethical issues involving vulnerable subjects in research.

*Prerequisite: None*

#### **6xx.xxx Fundamentals of Global Health Practice (4 credits)**

Global health requires practitioners to be well versed in understanding health systems, the controlling disease, and improving the health of mothers and children, and vulnerable populations. This course provides an introduction these issues. Students will have an opportunity to apply these skills by analyzing the health situation in select low and middle-income countries.

*Prerequisite: None*

#### **6xx.xxx Ethics in Global Health Practice (2 credits)**

Equips students to identify and analyze critical ethical issues in global health practice. It provides a forum for discussion of and deliberation about these issues, enabling students to explore a range of possible solutions. Students will practice using central concepts and frameworks of public health ethics to consider systematically the responsibilities of public health professionals in real-world global health cases.

*Prerequisite: None*

#### **600.601 Seminars in Public Health (2 credits)**

Uncovers current public health topics through presentations by faculty experts from the School. Focuses on current perspectives and research findings about problems important to the health of

individuals and communities. Covers a broad spectrum of population-based, prevention-oriented issues relevant to public health in the private and public sectors of both domestic and international communities, including global health promotion, disease prevention, health care delivery systems, environmental issues, and the spectrum of factors influencing the health status of populations and communities. Topics covered vary by term so as to provide exposure to a broad diversity of public health topics.

*Prerequisite: None*

**6xx.xxx Design and Planning of Primary Health Care Projects (4 credit)**

Provides students an opportunity to learn the components for developing a proposal for primary health care program. This includes elements of costing human resources, financial management, training and supervision, and other basic components of primary health care management. Students practice developing the typical components of a project proposal.

*Prerequisite: None*

**600.701 Introduction to Epidemiology (4 credits)**

Introduces principles and methods of epidemiologic investigation of diseases. Illustrates methods by which studies of the distribution and transmission of diseases in populations (including disease outbreaks and epidemics) can contribute to an understanding of etiologic factors and modes of transmission. Covers various study designs, including randomized trials, case-control and cohort studies, as well as risk estimation and causal inference. Discusses applications of epidemiology to solving public health problems, such as identifying sources and strategies for control of disease outbreaks, applying research findings to policy and practice, and program evaluation. Explores quantitative and analytic methods including life tables, disease surveillance, measures of morbidity and mortality, and measures of diagnostic test accuracy.

*Prerequisite: None*

**6xx.xxx Global Epidemiology Policies and Programs (3 credits)**

Provides an overview of the origins and current state of major global disease control programs, and the policy frameworks which enable (and hinder) their implementation. Beginning with the origins of global health programs, the course reviews several major paradigms in Global Disease Control - from the major infectious disease programs (HIV, TB, Immunizations), to emerging global programs around NCD prevention and control. Broad sector-wide programs are also introduced, ranging from reproductive to neonatal health to nutrition. The course examines ways in which each program generates and maintains financial and political support at national, regional and global levels.

*Prerequisite: None*

**600.709 Statistical Concepts in Public Health 1 (3 credits)**

Provides students with a broad overview of biostatistical methods and concepts used in the public health sciences. Emphasizes the interpretation and conceptual foundations of statistical estimation and inference. Covers summary measures, measures of association, confidence intervals, p-values, and statistical power.

*Prerequisite: None*

**602.771 Social & Cultural Basis for Community and Primary Health Programs (3 credits)**

Provides students with the knowledge and skills needed to understand individual, community, and organizational behaviors and change processes in cross-cultural and developing countries settings as a foundation for planning appropriate Primary Health Care (PHC) programs. Students learn to outline the contributions of social and behavioral science theory in the planning and implementation of culturally relevant PHC programs; will utilize social and behavioral theories to understand individual, social network, organizational, community, and policy maker health related behaviors; and identify the factors that promote and inhibit community involvement in PHC program development and implementation.

*Prerequisite: None*

**6xx.xxx Health and Safety Preparation for Global Health Assignments (1 credit)**

Prepares students who aim to work and live overseas. Examines key prevention, safety, and travel medicine principles and services to contextualize risks and maintain wellness. Reviews applicable interventions, appropriate vaccines, and personal protection methods to prepare students to respond to expected and unexpected situations. Assists students with personal preparations for travel through country-specific assignments.

*Prerequisite: None*

**6xx.xxx Pharmaceutical Policy and Management in Low and Middle-Income Countries (3 credits)**

Analyzes problems and develop strategies based on real world drug management issues, such as regulations, manufacture, procurement, distribution, safety, policy, financing and the unique aspects of international pharmaceutical trade, the role government, NGOs and individuals in the selection and use of pharmaceutical products. Course materials are drawn from both high income, and low and middle-income countries, so that the student will be knowledgeable about the role of Essential Medicines and their management. A multidisciplinary approach provides students with an operational understanding of factors influencing access to and use of pharmaceuticals and their related services. Collectively, these materials and approaches are intended to stimulate critical thinking on how to improve access to and the use of pharmaceutical.

*Prerequisite: Fundamentals in Global Health Practice*

**6xx.xxx Frameworks and Tools for Health Systems in Global Settings (3 credit)**

Explores health systems in low and middle-income countries (LMICs), and examines approaches to improving the performance of health systems. Focuses on frameworks, tools, skills, and strategies to understand, influence, and evaluate health systems in LMICs. By using frameworks and tools, students gain experience in systematically analyzing health systems and methods to plan, implement, and evaluate changes in a variety of settings, including countries in various levels of demographic, epidemiologic and economic transitions. Covers key issues related to health system performance, including monitoring performance, the role of the public sector, dealing with unregulated private health markets, linking priority health programs and health systems, and raising accountability in the health system.

*Prerequisite: Fundamentals in Global Health Practice*



**602.721 Organizing for Public Health: A Systems Approach (2 credits)**

Systems thinking, (ST), is a holistic approach to analyzing how components of complex systems interact and adapt. Through systems thinking we can understand how societies organize themselves to achieve collective health goals and how different actors contribute to policy outcomes. The practice of systems thinking includes the ability to integrate multiple perspectives and synthesize them into a framework or model that encompasses the various ways in which a system might react to policy choices. Provides students with an understanding of how to apply ST in public health. Trains students on the fundamentals of ST theory and offers an opportunity to apply key methods and approaches to health policy and health questions. Prepares students to ask relevant research questions and apply a ST lens to describe, understand, and anticipate complex behavior. Examines how systems models can be critically appraised and communicated with others so public health policy makers can exercise a greater degree of wisdom and insight.

*Prerequisite: None*

**6xx.xxx Quality Management of Health Service Delivery in Low and Middle-Income Countries (4 credit)**

Examines quality improvement approaches to enhance the management of health systems and delivery of health services with attention to improving employee capacity and performance and enhancing client satisfaction. The process considers performance standards, equity, and evidence-based approach to problem solving. Operational and implementation research is an integral component to improving management systems in low and middle-income countries.

*Prerequisite: None*

**600.612 Professional Development Workshop: Writing for Results (2 credits)**

Introduces a systematic approach to writing— from planning and organization to revision and completion. Emphasizes the importance of defining the message and understanding the audience and purpose. Examines the basic elements of good writing. Focuses on clarity, concision and style. Explores the use of rhetoric and storytelling to maximize a piece of writing's impact. Emphasizes best practices in various forms of writing, including emails, memos, reports, proposals and op-eds.

*Prerequisite: None*

**6xx.xxx Strengthening Health Information in Low and Middle-Income Countries (4 credits)**

Introduces health information systems and their relevance to health system strengthening in low and middle-income countries. Presents major health information systems and how information related to the health are captured, stored, and managed. Discusses how data are used for planning, management, and decision making in health facilities and health organizations to strengthen health systems and to improve population health.

*Prerequisite: None*

**6xx.xxx Non-Government Organizations and the Administration of Global Health Programs (3 credit)**

Familiarizes students with the practical challenges and philosophical dilemmas faced by NGOs operating in low- and middle-income countries, and with basic concepts in the administration of global health programs. Topics address real-world issues faced by NGO managers and leaders.

The first half of the course focuses on the role of NGOs in the health sector, situating a manager's responsibilities in the broader context of the development and humanitarian environment. The second half focuses on the internal workings of an NGO and the day-to-day challenges of managing strategy, finances, human resources, and accountability. Lectures offer personal experiences and perspectives, guidelines, best practices, and management tools.

*Prerequisite: None*

**6XX.810 Integrative Activity (4 credits)**

The integrative Activity will synthesize skills and knowledge derived from the course in a service-learning project addressing a current problem or issue in the global health field.

*Prerequisite: None*

## Appendix B

### Evidence of Compliance with the Principles of Good Practice (as outlined in COMAR 13B02.03.22C)

#### (a) Curriculum and instruction

- (i) **A distance education program shall be established and overseen by qualified faculty.**

The proposed program will be supported by the School's Center for Teaching and Learning (CTL), which offers an array of evidence-based programs and services that support innovative teaching methods. JHPSH faculty experts will lead and support the development of online courses. Several program faculty members are experienced in developing and supporting online learning. New instructors are required to meet the same qualifications as those teaching in the traditional onsite program.

- (ii) **A program's curriculum shall be coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats.**

All online courses adhere to CTL's course development process with support from experienced instructional designers. Online coursework follows well-established curriculum development standards, tailoring delivery methods, content, and assessments to learning objectives. Each term the School compares student course evaluations for onsite and online courses; these comparisons consistently yield very similar results.

- (iii) **A program shall result in learning outcomes appropriate to the rigor and breadth of the program.**

The program learning outcomes (competencies) are derived with input from professionals within the discipline, the program faculty, program leadership, and other program stakeholders, and are reviewed by the School's Committee on Academic Standards.

- (iv) **A program shall provide for appropriate real-time or delayed interaction between faculty and students.**

The proposed MAS in Global Health Planning and Management program will be delivered via the School's course delivery and management system—CoursePlus. This platform supports both synchronous and asynchronous interaction between faculty and students. Students and faculty may also participate in "real-time" interaction through weekly web-conference office hours, supported by Adobe Connect, and pre-scheduled LiveTalks.

- (v) **Faculty members in appropriate disciplines in collaboration with other institutional personnel shall participate in the design of courses offered through a distance education program.**

Faculty members are selected based on domain expertise, program-related teaching experience and completion of required course development training. Faculty will be fully supported by CTL experts.

**(b) Role and mission**

- (i) **A distance education program shall be consistent with the institution's mission.**

Refer to Section A.1 in the main body of the proposal.

- (ii) **Review and approval processes shall ensure the appropriateness of the technology being used to meet a program's objectives.**

All courses offered online are designed in conjunction with CTL and with the support of an instructional designer, multimedia producers, and web specialists. These individuals assist in identifying and recommending the most effective learning technologies for achieving the course learning objectives. The course instructor(s) consults with an instructional designer during the course design process to determine the most effective learning technologies and strategies needed to meet the course learning objectives. The course design goes through multiple reviews by the instructional designer and program directors. Program directors ensure that the course design meets the program's expectations for online courses and that the course learning objectives reflect what the program expects students to achieve after completing the course. The CTL design team continually monitors courses and consults with the instructors to make adjustments, if needed. All new online courses participate in a midterm and end-of-term course evaluation process. Midterm feedback is used to determine if any midterm adjustments are needed and the end-of-term feedback is used to assess whether further course refinements are needed prior to the next time the course is offered.

**(c) Faculty support**

- (i) **An institution shall provide for training for faculty who teach with the use of technology in a distance education format, including training in the learning management system and the pedagogy of distance education.**

Online programs are supported by CTL, which offers a number of opportunities and resources for faculty instructors and teaching assistants to become more familiar with online teaching and best pedagogical practices. In addition to maintaining an extensive catalog of resources on teaching and learning via an online Teaching Toolkit, CTL regularly offers events, workshops, and one-on-one office hours to introduce and provide updates on the latest advances in teaching technology and pedagogy.

**Principles of best practice for teaching in a distance education format shall be developed and maintained by the faculty.**

Prior to teaching their first courses, all new online instructors are required to participate in training that conveys, among other things, principles of best practices for online education.

**(ii) An institution shall provide faculty support services specifically related to teaching through a distance education format.**

The Bloomberg School, through CTL, maintains an innovative course management system and provides faculty support and training for online education through a staff of more than 30 individuals who specialize in instructional design, audio production, technical writing, web development, production management and quality control.

**(d) An institution shall ensure that appropriate learning resources are available to students including appropriate and adequate library services and resources.**

The Johns Hopkins University library system includes the William H. Welch Medical Library on the East Baltimore campus and the Milton S. Eisenhower Library on the Homewood campus. The Welch Library collects current scholarly information that supports the research and educational needs of the Johns Hopkins Medical Institutions as well as the Bloomberg School. Because the library's emphasis is on providing materials at point of need, the collection is primarily in electronic format. The electronic collection includes more than 7,200 electronic journals, more than 400 databases, and more than 13,000 e-books. The WelDoc Service provides access to materials not in the Hopkins collections. The library offers a variety of instructional services, including classes and online tutorials designed to explain the library resources available for research and scholarship. Students have access to all libraries and library informationists.

**(e) Students and student services**

**(i) A distance education program shall provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services and financial aid resources, and costs and payment policies.**

The Bloomberg School maintains numerous web-based resources to inform prospective students on the information they may need as an online student. These resources include the JHSPH website [www.jhsph.edu](http://www.jhsph.edu) and the [Course Catalog](#). These resources offer detailed programmatic information, academic support services, financial aid, costs, policies, etc. and specific information for online learning. As new online students are admitted and enrolled, they receive timely emails with important information to help them prepare to become an online student. These emails include

information on technical requirements, available academic support services, and a required orientation course (IOL) for new online students.

**(ii) Enrolled students shall have reasonable and adequate access to the range of student services to support their distance education activities.**

JHSPH online students have access to the following academic support services:

**Academic advising.** Students are assigned an advisor when accepted. Students and advisors will be in regular email communication to check on progress and answer questions. Courses that deviate from the program plan and have not been approved by an adviser may not count toward degree requirements.

**Library services.** Students have online access to the William H. Welch Medical Library and the Milton S. Eisenhower Library on the Homewood campus. The interlibrary loan department allows students access to resources at any other university in the nation. The University's library system provides easy access to a wide selection of electronic information resources, including an online catalog, and numerous electronic abstracting and indexing tools. Many of the databases are accessible remotely. Librarians are available to assist students remotely and the library maintains an extensive web site to take visitors through all its services and materials.

**Disability Support Services.** The Johns Hopkins University is committed to making all academic programs, support services, and facilities accessible to qualified individuals. Students with disabilities who require reasonable accommodations can contact the JHSPH Disability Services' Senior Director.

**Career Services.** The Career Services Office at the Bloomberg School helps students, alumni, faculty, staff, and employers navigate the world of public health jobs.

**Johns Hopkins Student Assistance Program.** The Johns Hopkins Student Assistance Program (JHSAP) is a professional counseling service that can assist students with managing problems of daily living. Stress, personal problems, family conflict, and life challenges can affect the academic progress of students. JHSAP focuses on problem solving through short-term counseling. Accessing the service is a simple matter of a phone call to arrange an appointment with a counselor. Online students contact the service by phone for consultation and are directed to the appropriate resource or office. JHSAP services are completely confidential. The program operates under State and federal confidentiality legislation and is HIPAA compliant.

**Transcript Access.** Students may view and print unofficial transcripts at any time. Official transcripts will be mailed to students upon completion of the program; additional official transcripts will be mailed upon request of the student at minimal charge.

**Student Login IDs.** The University issues each student a Johns Hopkins Enterprise ID (JHED ID) and the School issues a JHSPH ID. The JHED ID grants students a JHU email address and secure access to many online services including course registration, bill payment, official grades, library services, and the online learning platform CoursePlus. Students are also issued a JHSPH ID that provides access to the School's intranet (My JHSPH) where students can locate additional resources including research and administrative tools as well as the School's policy and procedures manual.

- (iii) **Accepted students shall have the background, knowledge, and technical skills needed to undertake a distance education program.**

All accepted online students are required to have met the admission requirements stated for the Master of Applied Science in Global Health Planning and Management program. New online students are required to complete the Introduction to Online Learning (IOL) course prior to beginning their first online courses. IOL covers a broad range of topics on how to be a successful online student such as learning expectations for online students and how to participate in online discussions.

- (iv) **Advertising, recruiting, and admissions materials shall clearly and accurately represent the program and the services available.**

All relevant program information is available on the JHSPH web site. All recruiting information includes the URL for the JHSPH website, which contains information available to prospective and current students. The School's Prospectus and Guidebook are posted online, as are school-wide student handbooks and all program-specific handbooks. The School's website contains links to all student-relevant information including admissions requirements, online application and instructions, online registration, student funding resources and financial aid, and other student support services.

**(f) Commitment to Support**

- (i) **Policies for faculty evaluation shall include appropriate consideration of teaching and scholarly activities related to distance education programs.**

Faculty who teach online courses are strongly encouraged to participate in one or two professional development opportunities annually to improve their online teaching skills. Teaching online is viewed no differently than teaching onsite for promotion purposes.

- (ii) **An institution shall demonstrate a commitment to ongoing support, both financial and technical, and to continuation of a program for a period sufficient to enable students to complete a degree or certificate.**

JHSPH has a commitment to online teaching as demonstrated by the resources of its Center for Teaching and Learning, which provides course development, instructional, and technical support to new and current faculty. See Appendix D for detailed financial information regarding the proposed program.

**(g) Evaluation and Assessment**

- (i) An institution shall evaluate a distance education program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.**

Please see Section L of the main body of the proposal.

- (ii) An institution shall demonstrate an evidence-based approach to best online teaching practices.**

CTL continually participates in professional development activities to keep abreast of evidence-based approaches to online teaching practices. These online teaching practices are then incorporated into faculty workshops and training sessions.

- (iii) An institution shall provide for assessment and documentation of student achievement of learning outcomes in a distance education program.**

As part of the online course design process, course assessments are required to be aligned with stated courses learning objectives. The proposed program will incorporate authentic assessments that demonstrate students' application of learned skills. Program faculty have experience with developing individual and collaborative assessments for measuring the acquisition of relevant knowledge and skills through online learning.



## Appendix C

### Faculty

<b>Name</b>	<b>Terminal Degree</b>	<b>Field</b>	<b>Academic Title/Rank</b>	<b>Status</b>	<b>Courses Taught</b>
Abdullah Baqui	DrPH	International Health	Professor	Full-time	<ul style="list-style-type: none"> <li>• Strengthening Health Information in Low and Middle-Income Countries</li> </ul>
William Brieger	DrPH	International Health	Professor	Full-time	<ul style="list-style-type: none"> <li>• Fundamentals of Global Health Practice</li> <li>• Social &amp; Cultural Basis for Community and Primary Health Programs</li> <li>• Urban Health in Developing Countries</li> </ul>
Gilbert Burnham	MD	International Health	Professor	Full-time	<ul style="list-style-type: none"> <li>• Quality Management of Health Service Delivery in Low and Middle-Income Countries</li> <li>• Design and Planning of Primary Health Care Projects</li> </ul>
Aruna Chandran	MD	Epidemiology	Associate Scientist	Full-time	<ul style="list-style-type: none"> <li>• Seminars in Public Health</li> </ul>
Anbrasi Edward	PhD	International Health	Associate Scientist	Full-time	<ul style="list-style-type: none"> <li>• Quality Management of Health Service Delivery in Low and Middle-Income Countries</li> <li>• Project Development for Primary Health Care</li> </ul>
Anna Kalbarczyk	MPH	International Health	Research Associate	Full-time	<ul style="list-style-type: none"> <li>• Fundamentals of Global Health Practice</li> <li>• Health and Safety Preparation for Global Health Assignments</li> </ul>

					<ul style="list-style-type: none"> <li>• Global Epidemiology Policies and Programs</li> </ul>
Alain Labrique	PhD	International Health	Associate Professor	Full-time	<ul style="list-style-type: none"> <li>• Global Epidemiology Policies and Programs</li> </ul>
Maria Eng	DrPH	International Health	Associate	Full-time	<ul style="list-style-type: none"> <li>• Pharmaceutical Policy and Management in Low and Middle-Income Countries</li> </ul>
Maria Merritt	PhD	International Health	Associate Professor	Full-time	<ul style="list-style-type: none"> <li>• Ethics in Global Health Practice</li> </ul>
John McGready	PhD	Biostatistics	Associate Scientist	Full-time	<ul style="list-style-type: none"> <li>• Statistical Concepts in Public Health I</li> </ul>
Rosemary Morgan	PhD	International Health	Assistant Scientist	Full-time	<ul style="list-style-type: none"> <li>• Frameworks and Tools for Health Systems in Low and Middle-Income Countries</li> </ul>
Derek Ng	PhD	Epidemiology	Assistant Scientist	Full-time	<ul style="list-style-type: none"> <li>• Introduction to Epidemiology</li> </ul>
Ligia Paina	PhD	International Health	Assistant Professor	Full-time	<ul style="list-style-type: none"> <li>• Organizing for Public Health: A Systems Approach</li> </ul>
Timothy Roberton	DrPH	International Health	Assistant Scientist	Full-time	<ul style="list-style-type: none"> <li>• Non-Government Organizations and the Administration of Global Health Programs</li> </ul>
Summer Rosenstock	PhD	International Health	Assistant Scientist	Full-time	<ul style="list-style-type: none"> <li>• Global Epidemiology Policies and Programs</li> </ul>

## Appendix D

### Finance Information

**TABLE 1: RESOURCES:**

Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	0	0	0	0	0
2. Tuition/Fee Revenue (c + g below)	0	0	0	0	0
a. Number of F/T Students	0	0	0	0	0
b. Annual Tuition/Fee Rate	0	0	0	0	0
c. Total F/T Revenue (a x b)	0	0	0	0	0
d. Number of P/T Students	35	70	70	70	70
e. Credit Hour Rate	\$1123	\$1157	\$1192	\$1227	\$1264
f. Annual Credit Hour Rate	25.5	25.5	25.5	25.5	25.5
g. Total P/T Revenue (d x e x f)	0	0	0	0	0
3. Grants, Contracts & Other External Sources	0	0	0	0	0
4. Other Sources	0	0	0	0	0
<b>TOTAL (Add 1 – 4)</b>	<b>\$1,002,276</b>	<b>\$2,065,245</b>	<b>\$2,127,720</b>	<b>\$2,190,195</b>	<b>\$2,256,240</b>

2. Resources are part time tuition revenues. The expectation is that we will start with thirty five students and increase to seventy students. The cost of the per credit tuition cost subject to a 3% increase each year. Tuition revenue will be the only resource to support this program.

<b>TABLE 2: EXPENDITURES:</b>					
<b>Expenditure Categories</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
1. Faculty (b + c below)	\$331,248	\$341,185	\$351,421	\$361,964	\$372,823
a. # FTE	2	2	2	2	2
b. Total Salary	\$247,200	\$254,616	\$262,254	\$270,122	\$278,226
c. Total Benefits	\$84,048	\$86,569	\$89,167	\$91,842	\$94,597
2. Admin. Staff (b + c below)	\$132,813	\$136,798	\$140,901	\$145,130	\$149,485
a. # FTE	1	1	1	1	1
b. Total Salary	\$99,114	\$102,088	\$105,150	\$108,306	\$111,556
c. Total Benefits	\$33,699	\$34,710	\$35,751	\$36,824	\$37,929
3. Support Staff (b + c below)	\$80,400	\$82,812	\$85,296	\$87,856	\$90,492
a. # FTE	1	1	1	1	1
b. Total Salary	\$60,000	\$61,800	\$63,654	\$65,564	\$67,531
c. Total Benefits	\$20,400	\$21,012	\$21,642	\$22,292	\$22,961
4. Equipment	0	0	0	0	0
5. Library	0	0	0	0	0
6. New or Renovated Space	0	0	0	0	0
7. Other Expenses	\$1,193,860	\$1,222,266	\$1,252,116	\$1,282,313	\$1,320,782
<b>TOTAL (Add 1 – 7)</b>	<b>\$1,738,321</b>	<b>\$1,783,061</b>	<b>\$1,829,734</b>	<b>1,877,260</b>	<b>\$1,933,582</b>

1. Two Full-time faculty salaries with a 3% increase in salary each year. Fringe benefit rate of 34%.
2. Program Director effort in coordinating the program with a 3% increase in salary each year. Fringe benefit rate of 34%.
3. One full time administrative Support staff position to monitor program and students efforts as enrollment increases. Fringe benefit rate of 34%.
7. Cost for converting and upgrading course material to on-line format as well as cost for faculty advisers to the program. The school will give partial scholarships to all matriculated students in the program.