

April 7, 2020

James D. Fielder, PhD
Secretary
Maryland Higher Education Commission
6 North Liberty Street
Baltimore, MD 21201

Dear Secretary Fielder:

The University of Maryland Graduate School is seeking authorization from the Maryland Commission on Higher Education to offer a Master of Science (M.S.) in Global Health program. The program will be organized around a completely online core curriculum global health coursework and one of three areas of concentration. The areas of concentration include: 1) Global Health Epidemiology and Research; 2) Global Health Delivery and Practice; and 3) Global Health Innovation, a 10-week study abroad experience in Costa Rica. Unfortunately, the Global Health Innovation program is on hold due to the COVID-19 pandemic, however, we plan to launch it when it becomes prudent to do so.

UMB's mission is to improve the human condition, and we have long been engaged in global health to further this cause. Last year, more than 700 students, faculty, and staff made 1,537 visits to 62 countries. They worked on global health projects with impact including vital initiatives of health, well-being, and justice. UMB is home to the premier Center for Vaccine Development and Global Health, which has made profound advances in vaccinology over the past 40 years. Another of our global health successes is the Institute of Human Virology, an international pioneer in combating HIV/AIDS and other infectious diseases like Ebola. UMB employs approximately 1,200 program staff and community health workers at our international sites, along with 86 support staff. These UMB global health practitioners train, treat, and serve some of the most vulnerable people on the planet. Graduate School now aims to augment its deep global health engagement by offering graduate-level training in the discipline.

Thank you for giving consideration to our proposal. Please contact me if you need further information.

Sincerely,



Dr. Roger J. Ward, JD, MSL, MPA
Interim Provost and Executive Vice President
Dean, Graduate School



Cover Sheet for In-State Institutions

New Program or Substantial Modification to Existing Program

Institution Submitting Proposal	
---------------------------------	--

Each action below requires a separate proposal and cover sheet.

New Academic Program	Substantial Change to a Degree Program
New Area of Concentration	Substantial Change to an Area of Concentration
New Degree Level Approval	Substantial Change to a Certificate Program
New Stand-Alone Certificate	Cooperative Degree Program
Off Campus Program	Offer Program at Regional Higher Education Center

Payment Submitted:	Yes No	Payment Type:	R*STARS Check	Payment Amount:	Date Submitted:
Department Proposing Program					
Degree Level and Degree Type					
Title of Proposed Program					
Total Number of Credits					
Suggested Codes			HEGIS:	CIP:	
Program Modality			On-campus	Distance Education (<i>fully online</i>)	Both
Program Resources			Using Existing Resources	Requiring New Resources	
Projected Implementation Date			Fall	Spring	Summer Year:
Provide Link to Most Recent Academic Catalog			URL:		
Preferred Contact for this Proposal			Name:		
			Title:		
			Phone:		
			Email:		
President/Chief Executive			Type Name:		
			Signature:		Date:
			Date of Approval/Endorsement by Governing Board:		

Revised 12/2018

**A PROPOSAL FOR A NEW ACADEMIC PROGRAM at THE UNIVERSITY OF
MARYLAND, BALTIMORE FOR A MASTER OF SCIENCE IN GLOBAL HEALTH**

TABLE OF CONTENTS

A. Centrality to Institutional Mission and Planning Priorities.....	2
B. Critical and Compelling Need.....	4
C. Market Supply and Demand.....	4
D. Reasonableness of Program Duplication.....	7
E. Relevance to High-Demand Programs at HBIs.....	9
F. Relevance to the Identity of HBIs.....	9
G. Curriculum Design, Modality, and Learning Outcomes.....	9
H. Adequacy of Articulation.....	22
I. Adequacy of Faculty Resources.....	22
J. Adequacy of Library Resources.....	24
K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment.....	24
L. Adequacy of Financial Resources with Documentation.....	25
M. Adequacy of Provisions for Evaluation of Program.....	25
N. Consistency with the State’s Minority Student Achievement Goals.....	25
O. Relationship to Low Productivity Programs Identified by the Commission.....	25
P. Adequacy of Distance Education Programs.....	25
Appendix A: Budget	31
Appendix B: MOU between UMB and CISG.....	33
Appendix C: Plan of Study	42

A. Centrality to Institutional Mission and Planning Priorities:

1. Provide a description of the program, including each area of concentration (if applicable), and how it relates to the institution's approved mission.

The University of Maryland, Baltimore (UMB) submits this proposal to create a Master of Science in Global Health. We intend to offer it as a predominantly online, 31-credit program. The proposed degree will allow students to be trained in best practices of global health education, research, and practice and to specialize in one of three areas of concentration. The M.S. in Global Health program will be organized around a completely online core curriculum (19 credits). The areas of concentration include: 1) Implementation and Dissemination Science (online, existing PBC); 2) Global Health Program Monitoring and Evaluation (online, new curriculum); and 3) Global Health Innovation (10-week study abroad in Costa Rica, existing PBC). We would also like to make available a fourth option of a generalized 31-credit master's with no area of concentration; the curriculum which would consist of the online core and a representative selection of credits from each of the other, existing areas of concentration. Finally, students are required to complete a research seminar (online) followed by a capstone project (online) on a global health topic chosen in cooperation with UMB faculty. Full- and part-time plans of study will be available to students.

The curriculum for the proposed M.S. in Global Health is informed by the Consortium of Universities for Global Health (CUGH) competencies for global health education (www.cugh.org/resources/2063). These competencies are peer-reviewed and were first published in 2017 but continue to be updated by notable global health scholars, researchers, and practitioners. Approximately 75% of the M.S. in Global Health curriculum already exists at the University because of the institution's longstanding work internationally and its commitment to improving health not only in Maryland, but worldwide.

UMB's mission is to improve the human condition, and we have long been engaged in global health to further this cause. Last year, more than 700 students, faculty, and staff made 1,537 visits to 62 countries. They worked on global health projects with impact including vital initiatives of health, well-being, and justice. UMB is home to the premier Center for Vaccine Development and Global Health, which has made profound advances in vaccinology over the past 40 years. Another of our global health successes is the Institute of Human Virology, an international pioneer in combating HIV/AIDS and other infectious diseases like Ebola. UMB employs approximately 1,200 program staff and community health workers at our international sites, along with 86 support staff. These UMB global health practitioners train, treat, and serve some of the most vulnerable people on the planet. Now we aim to augment our deep global health engagement by offering graduate-level training in the discipline.

2. Explain how the proposed program supports the institution's strategic goals and provide evidence that affirms it is an institutional priority.

UMB has a long history of developing a qualified workforce in global health. The M.S. in Global health continues this tradition by recognizing the disciplinary distinctiveness of global health. The new M.S. in Global Health will train students for careers as future leaders prepared to address real-world issues affecting the human condition. The curriculum, which represents the essential orientation to the field of global health; captures the notion of praxis and prepares students for multiple employment opportunities that will positively transform health and well-being of people across the world.

The M.S. in Global Health program directly aligns with the first theme of UMB's strategic plan: "Health, Justice, and Social Impact." The strategic objective of this theme is to "deepen and expand local and **global engagement** by providing health, legal, and social work programs and engaging in research to promote social justice and improve health." The intended outcomes of this work are to leverage "institutional expertise and knowledge to tackle systemic problems impacting local and **global communities**," and position UMB as an "anchor institution at the forefront of finding solutions to local and **global health** disparities and social injustices."

3. Provide a brief narrative of how the proposed program will be adequately funded for at least the first five years of program implementation.

The proposed program will be well-resourced as there is an already existing faculty and coursework to support the proposed M.S. in Global Health. There is a total of 31 credits required to complete the degree and 55 total credits available when factoring in elective courses. Among the sum of 55 credits available in the program only 15 credits (or five courses) need to be developed to align our M.S. in Global Health curriculum with the competencies set forth by the Consortium of Universities for Global Health. In other words, the UMB Graduate School has the capacity to offer the proposed degree program within existing resources and to ensure continued funding to support the program into the foreseeable future even if enrollment should not meet our expectations, which we do not anticipate.

4. Provide a description of the institution's a commitment to ongoing administrative, financial, and technical support of the proposed program and continuation of the program for a period sufficient to allow enrolled students to complete the program:

The UMB Graduate School has an ongoing commitment to sustaining new degree programs it has developed. The Graduate School has committed significant resources in the realm of administrative support including a senior associate dean, assistant dean, and program director who will provide leadership for the quality and sustainability of the M.S. in Global Health. Additionally, the Graduate School plans sufficiently to ensure the financial viability of all new degree programs including the provision of faculty instruction and advisement at a level to ensure a high touch learning experience for students. The Graduate School has also invested in technical assistance through our centralized Center for Information Technology Services and the Faculty Center for Teaching and Learning, which both assist our faculty and students in their success as

teachers and learners, respectively. If for some unforeseeable reason the Graduate School discontinues the M.S. in Global Health, then we are committed to a teach-out plan for all enrolled students so they may complete the program and earn their degree.

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan:

Secretary of Education, Dr. James Fielder in his opening letter in the 2017-2021 Maryland State Plan explains that Maryland's students are "entering an economy that is challenging, innovative, **global**, and diverse." The Secretary's sentiments are reflected in a growing interest in global education and in global health as an academic discipline. Students at all levels – sometimes as early as high school – are participating in projects and programs related to addressing health disparities outside of their home countries. The best of these programs help students use the transformative experience of international immersion to approach domestic social challenges with new ideas and enhanced problem-solving skills. These skills earned by Maryland students will undoubtedly benefit the state. More American students are entering undergraduate, graduate, professional school, and even residency programs having amassed international experiences and are seeking advanced training in the budding field of global health.

The 2017-2021 Maryland State Plan articulates three primary goals for postsecondary education: access (ensure equitable access to affordable and quality postsecondary education all Maryland residents); success (promote and implement practices and policies that will ensure student success); and innovation (foster innovation in all aspects of Maryland higher education to improve access and student success). The proposed M.S. in Global Health aligns well with the State Plan.

Relative to "Access," placing the bulk of the program online offers non-traditional students a pathway to earning their M.S. in Global Health in a format that allows them to balance their educational objectives with competing demands of family and work. The curriculum itself also focuses on innovation with one area of concentration focused on "global health innovation" in which students have a multi-sectoral immersion experience in Costa Rica. Finally, regarding "Success," programs such as UMB's M.S. in Global Health are expected to attract students from diverse backgrounds originating both locally and internationally. UMB has a full-service student support model to ensure early identification of students who may be struggling academically and to intervene to improve the likelihood of graduate school completion.

C. Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State:

At UMB, we find that many applicants inquire about institutional global health opportunities during their interviews for nursing, pharmacy, social work, medical and dental school – a clear indication that global health offerings are an important factor in their school selection process. Beyond UMB's existing students who may elect to complete a dual degree in professional education (RN, PharmD, MD, MSW, DDS) and a M.S. in Global Health, we expect interest from adult learners in the fields of health

administration, research, non-governmental organizations, multi-sectorial development agencies, government, and policy-makers.

Now more than ever, practitioners require preparation in the field of global health. In addition to understanding the grand health challenges that face populations across the world, success in the field of global health requires a body of skills that are tailored to the essential work of the field – engaging with communities, working with partners and stakeholders, implementing programs, and evaluating outcomes. Interdisciplinary in nature, UMB’s proposed M.S. in Global Health seeks to address health issues that have global impact such as the spread of infectious disease, migrant health, child and maternal health, health equity, and nutrition. In addition, the new degree will teach students how to practice global health with transferable program and evaluation skills that can be adapted to the multitude of settings where global health is carried out. As global health emerges as its own academic and clinical discipline, UMB must lead by offering specialized curricular training and co-curricular opportunities. The University is uniquely positioned to deliver this new degree program by leveraging its existing global network, global centers of excellence, coursework, and extensive infrastructure that extends across the world.

Global health spending is expected to increase by an annual average of 6% from 2013 through 2019. In the United States private companies like pharmaceutical producers, hospital systems, non-governmental agencies, and the U.S. government have increased their global investments. To realize these investments, a health workforce is needed that is familiar with the discipline of global health and who can support the development of other nation’s health workforces. A relatively recent (2014) Deloitte report states that, “workforce shortages are a major contributor to health care access problems around the world.” The World Health Organization (WHO) estimates a shortage of approximately 9 million global health workers and that this shortage will grow to 12.9 million workers by 2035.

WHO and other international reports specifically cite the need for clinical practitioners who are familiar with global and country health systems and their challenges and who have managerial skills. They state that the health clinical workforce must be sensitive to country cultures, health regulations, and health delivery structures. (A Universal Truth: No Health without a Workforce, 2014.) Global Health training and education are essential for managerial and health services practice positions in the developing world.

The U.S. plays a leadership role in training and supporting a global health workforce and that leadership role begins with educating our domestic health workforce on global education. UMB graduates professional students in many health disciplines. The proposed M.S. in Global Health will enable students and other health workers to contribute to global health services, either through short-term projects or through longer term employment.

The Washington DC / Maryland corridor is the center for agencies and organizations involved in Global Health, being the home to the largest concentration of different global health related institutions and funding sources in the world. These include:

- bi-lateral and multi-lateral government supported agencies,
- philanthropic foundations and organizations,
- legislative bodies formulating health services priorities,
- policy and research think tanks,
- and most importantly, a significant number of NGOs and consulting firms working in collaboration with funders and with national governments.

These companies work throughout the world to strengthen health care systems and their own delivery of health services. Some of the best known of these organizations include Family Health International (FHI), Population Services International (PSI), and John Snow International. Non-profit associations such as Catholic Relief Services (CRS), Save the Children, and World Learning, as well as health care organizations such as The University of Maryland School of Medicine and Johns Hopkins University work globally. In addition, a number of foundations, such as The Gates Foundation, and pharmaceutical companies have offices in this area.

Enrollment for the proposed M.S. in Global Health will likely originate from four sources:

- Those working in health care policies, systems, practices who are interested in furthering their global health skills.
- Staff working for companies with a global health presence.
- Clinicians and health administrators interested in increasing their knowledge and skills in the global arena.
- Current students from UMB interested in working globally.

To enroll in the M.S. in Global Health individuals must have a Bachelors' Degree or Master's Degree, with a strong interest in global health. Graduates with a M.S. in Global Health may pursue global assignments through their current workplace or go to work for:

- In-country field consultants
- Disaster relief organizations
- Immigrant/refugee health organizations
- Research and academic institutions
- International agencies
- Other non-governmental agencies (NGOs)
- Lending agencies that do work in developing countries
- Multi-lateral agencies (such as WHO)
- Governmental agencies (USAID, in-country ministry of health, etc.)

Given increasing investments in global health, demand for trained staff is expected to remain high. The proposed M.S. in Global Health will build upon participants domestic health skills and provide courses in the different health managerial skills and national health delivery systems needed to operate in the global arena.

D. Reasonableness of Program Duplication

Master's Degrees in Global Health Offered in the Region

We are aware of only one other M.S. in Global Health in our region, which is offered by the **Georgetown University** in Washington D.C. Their program is like the one proposed by UMB as it also aligns with the Consortium of Universities for Global Health (CUGH) competencies for global health education. However, we propose an online pedagogical approach to increase access for post-traditional students who are already in their professional careers. Additionally, UMB must add a M.S. in Global Health to its academic portfolio to continue to be competitive with Georgetown University in proposals for federal extramural funding related to global health work, particularly in the African continent.

We are also aware that Johns Hopkins University offers a Masters of Health Sciences in Global Health Economics in which students study issues related to health care cost and quality and economic evaluations of health programs both domestically and in developed nations. The focus of Johns Hopkins' program in the realm of economics is vastly different than the proposed M.S. in Global Health at UMB.

1. .

E. Relevance to High-demand Programs at Historically Black Institutions (HBIs)

The proposed MS in Global Health does not have relevance to the uniqueness and/or institutional identities and missions of HBIs.

F. Relevance to the identity of Historically Black Institutions (HBIs)

The proposed M.S. in Global Health does not have relevance to the identity of HBIs in Maryland. Any student who has attended a regionally accredited institution and completed a baccalaureate degree, including those from HBIs, and meets the admissions requirements is eligible to apply to the program. Graduates of HBIs could improve their competitiveness in the marketplace and reach their professional goals by enrolling in and completing this degree program.

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes

1. Describe how the proposed program was established, and also describe the faculty who will oversee the program.

The M.S. in Global Health was proposed by the UMB faculty and approved by the faculty shared-governance body, the Graduate Council, in recognition of the compelling need for specific education and training in global health. UMB's global health enterprise is vast with a presence in over 60 countries in which prevention work is carried out, clinical care is delivered, and research is conducted to improve population health.

The faculty realized that the bulk of the coursework required to offer a M.S. in Global Health already exists at UMB and that there was considerable expertise to create a world-class educational experience for students. Consequently, 15 existing courses were selected to be part of the proposed M.S. in Global Health, and an additional 5 courses were planned for development to ensure all the global health education competencies are achieved.

The faculty overseeing the program are listed with their credentials in Section I, subsection 1: Adequacy of Faculty Resources.

2. Describe educational objectives and learning outcomes appropriate to the rigor, breadth, and (modality) of the program.

By the completion of the proposed M.S. in Global Health and consistent with the Consortium of Universities for Global Health (CUGH) competencies, students will be able to:

- **Understand the Global Burden of Disease, and**
 - a) Describe the major cause of morbidity and mortality around the world, and how the risk of disease varies with regions
 - b) Analyze major public health efforts to reduce disparities in global health (such as Sustainable Development Goals (SDGs) and Global Fund to Fight AIDS, TB, and Malaria).
 - c) Validate the health status of populations using available data (e.g., public health surveillance data, vital statistics, registries, surveys, electronic health records and health plan claims data).
- **Understand Globalization of Health and Health Care, and**
 - a) Critically evaluate different national models or health systems for provision of healthcare and their respective effects on health and healthcare expenditure.
 - b) Analyze how global trends in healthcare practice, commerce and culture, multinational agreements and multinational organizations

contribute to the quality and availability of health and healthcare locally and internationally.

- c) Describe how travel and trade contribute to the spread of communicable and chronic disease.
- d) Critique general trends and influences in the global availability and movement of health care workers.

- **Understand Social and Environmental Determinants of Health, and**

- a) Describe how cultural context influences perceptions of health and disease.
- b) List major social and economic determinants of health and their impacts on the access to and quality of health services and on differences in morbidity and mortality between and within countries.
- c) Analyze the relationship between access to and quality of water, sanitation, food and air on individual and population health.

- **Understand Capacity Strengthening, and**

- a) Collaborate with a host or partner organization to assess the organization's operational capacity.
- b) Co-create strategies with the community to strengthen community capabilities and contribute to reduction in health disparities and improvement of community health.
- c) Integrate community assets and resources to improve the health of individuals and populations.

- **Understand Collaboration, Partnering and Communication, and**

- a) Include representatives of diverse constituencies in community partnerships and foster interactive learning with these partners.
- b) Demonstrate diplomacy and build trust with community partners.
- c) Communicate joint lessons learned to community partners and global constituencies.
- d) Exhibit interprofessional values and communication skills that demonstrate respect for, and awareness of, the unique cultures, values, roles/responsibilities and expertise represented by other professionals and groups that work in global health.
- e) Acknowledge one's limitations in skills, knowledge, and abilities.
- f) Apply leadership practices that support collaborative practice and team effectiveness.

- **Understand Global Health Ethics, and**
 - a) Demonstrate an understanding of and an ability to resolve common ethical issues and challenges that arise in working within diverse economic, political and cultural contexts as well as working with vulnerable populations and in low resource settings to address global health issues.
 - b) Demonstrate an awareness of local and national codes of ethics relevant to one's working environment.
 - c) Apply the fundamental principles of international standards for the protection of human subjects in diverse cultural settings.
- **Understand Professional Practice, and**
 - a) Exhibit integrity, regard and respect for others in all aspects of professional practice.
 - b) Articulate barriers to health and healthcare in low-resource settings locally and internationally.
 - c) Demonstrate the ability to adapt clinical or discipline-specific skills and practice in a resource-constrained setting.
- **Understand Health Equity and Social Justice, and**
 - a) Apply social justice and human rights principles in addressing global health problems.
 - b) Implement and evaluate strategies to engage marginalized and vulnerable populations in making decisions that affect their health and well-being.
 - c) Demonstrate a basic understanding of the relationship between health, human rights, and global inequities.
 - d) Describe the role of WHO in linking health and human rights, the Universal Declaration of Human Rights, International Ethical Guidelines for Biomedical Research involving human subjects.
 - e) Exhibit a commitment to social responsibility.
 - f) Develop understanding and awareness of the health care workforce crisis in the developing world, the factors that contribute to this, and strategies to address this problem.
- **Understand Program Management, and**
 - a) Plan, implement, and evaluate an evidence-based program.

- b) Apply project management techniques throughout program planning, implementation, and evaluation.
- **Understand Sociocultural and Political Awareness, and**
 - a) Model the roles and relationships of the major entities influencing global health and development.
- **Understand Strategic Analysis, and**
 - a) Identify how demographic and other major factors can influence patterns of morbidity, mortality, and disability in a define population.
 - b) Execute a community needs assessment.
 - c) Conduct a situational analysis across a range of cultural, economic, and health contexts.
 - d) Design context-specific health interventions and evaluations based upon situational analysis.

By the completion of the proposed M.S. in Global Health and consistent with the Consortium of Universities for Global Health (CUGH) competencies, students will be able to:

3. Explain how the institution will provide for assessment of student achievement of learning outcomes in the program and document student achievement of learning outcomes in the program.

Faculty will assess student achievement and mastery of learning outcomes in their courses using a variety of assessments including meaningful and substantive contributions to online course discussions, satisfactory completion of assignments and reflections, scores on quizzes and examinations, scores on team collaboration, scores on written essays and term papers, and evaluation of research and capstone project contribution to the field of Global Health.

Students will also have the opportunity to evaluate courses and faculty through a standard evaluation of every course. Formal assessment planning is already in place throughout UMB Schools including the Graduate School. Our approach includes ensuring that student learning is in alignment with course learning outcomes, alignment of mission at institutional and program levels, alignment of mission with learning outcomes, then program outcomes with curriculum, flowing down to course outcomes and assignments. Assessment activities emphasize analysis of results and feedback loops for continuous improvement. Additional evaluation includes tracking of student retention, grade distributions, and cost-effectiveness, and regular academic program reviews consider these factors.

4. Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements

Students must complete all the following core courses (19-credits, online), and select one of the three areas of concentration. The fourth option of a generalized 31-credit master's with no area of concentration would consist of the core courses below, and a representative selection of courses within the other areas of concentration. The determined representative selection of the generalized master's with no area of concentration would be at the discretion of the program director.

- **MHS 600**

Introduction to Scholarly Writing and Library Resources (1-credit)

This course is designed to provide graduate-level learners the opportunity to develop skills in both accessing relevant online library resources and engage in scholarly writing. The portion of the course focusing on library resources teach and strengthen lifelong research and information competency skills by introducing student to the nature of research and the role of library in the research process. Students learn the core concepts of information retrieval and essential techniques for finding, evaluating, analyzing, organizing, and presenting information. The topics covered include using online catalogs to locate books and other library resources; developing research strategies; exercising critical thinking to evaluate information; applying critical and search techniques to electronic databases; understanding citation formats and using the internet as a research tool. The scholarly writing of the course will place emphasis on organization, effective conveyance of thoughts through written words, and writing for multiple types of audiences. Students will have the opportunity to improve both their academic writing and their research skills as they write a literature review or a proposal. Emphasis is placed on conventions of scholarly writing and organizational strategies as well as grammar, editing, and usage.

- **MHS 605**

Perspectives on Global Health (3-credits)

The course provides an overview to the field of global health, it introduces students to major global health challenges, programs the determinants of health and disease, current and emerging global health priorities, policies, evidence base intervention, disaster relief, key legal issues, ethics and models of reform. In addition, particular attention is given to building key student competencies in analyzing national public health trends including major communicable and non-communicable disease burdens, key organizations supporting public health and professional opportunities in global health. Student skills are developed in analysis, leadership, team work and communication in a global context.

- **CIPP 960**

Critical Issues in Global Women's and Children's Health (3-credits)

A comprehensive multidisciplinary examination of the complex issues related to women and children's health across the globe. Based on the World Health Organization's 2007 Framework for Action for strengthening health systems and the United Nation's Millennium Development Goals and Universal Declaration of Human Rights. Topics include biological and medical issues, reproductive health, violence against women and children and its impact on health, infectious and chronic disease, and the relationship of environmental and social issues to chronic disease. Analysis also covers current national, regional and global trends; program and policy responses to these trends; and prospects for the future.

- **GH 652**

- Global Health Management and Leadership (3-credits)**

- This course explores key strategy, management, and leadership practices in global health programs and examines the essential components of best practice global health improvement programs. It is designed to train leaders in the application, testing, and refinement of current frameworks in health care delivery. This course will provide an in-depth review of leadership functions to equip students with the knowledge and skills to understand, organize, and manage complex global health delivery organizations. Students will study the theory and practice of health care delivery, various roles within the health system, and how global health delivery organizations function. Students will apply their learning in case-based situations and deploy procedures and processes to effectively improve health outcomes.

- **ETHC 638**

- Issues in International Research Ethics (3-credits)**

- This course will examine the ethical and philosophical issues raised by research involving human subjects that is conducted in international settings and examine issues involved with the standard of care, informed consent, exploitation, post-trial benefits, and a developmental and organizational model of ethics review systems. By the end of the course, students will be able to construct and support valid arguments in the analysis of exploitative research; analyze ethical questions regarding international collaborations in research, describe methods to achieve a culturally valid informed consent; describe the issues involved with tissue sample research performed between international partners, and assess an ethical review an international protocol.

Students must complete the following two courses related to their specific research and capstone project

- **MHS 608**

- Research Seminar I (3-credits)**

This course is designed to give students the basic information regarding health sciences research discoveries, draft a research question, and create a literature review plan and paper. Students will analyze and critique research questions, compare and contrast different quantitative and qualitative study designs, and learn to advance knowledge and research dissemination.

- **GH 700**

- **Capstone Project (3-credits)**

- The capstone is designed to demonstrate the substantive application of the knowledge and skills that have been acquired in the courses taken as part of the M.S. in Global Health Program. The capstone functions as the culminating experience for the program. Through the capstone, students will develop a capstone proposal; present their work; and prepare of a capstone portfolio. To meet the needs of diverse learners, students can either complete their capstone online or participate in an international exchange opportunity.

Students choose from one of three of the following Areas of Concentration, two of which are also PBCs (12 credits)

1) Implementation and Dissemination Science (12-credits, online, existing PBC)

- **MHS 613**

- **Research Implementation and Dissemination I (3-credits)**

- The past several decades has witnessed advances in medical sciences and the discovery of new medicines, vaccines, and diagnostics tools that have the capacity to lead to large improvements in global health. However, the translation of research findings into practice has been slow and uneven. This has led to a widening gap by applying research and evaluation approaches to identify and address the barriers in scale-up evidence-based interventions in local settings. This course provides an introduction to the emerging field of implementations science by reviewing various design and methods, health systems and policy research, and examples in HIV, non-HIV infectious diseases and non-communicable disease.

- **MHS 614**

- **Research Implementation and Dissemination II (3-credits)**

- Dissemination science is the process of distribution of information and intervention materials to a specific public health or clinical practice audience. Translating research into practice is a complex process that involves dissemination science. The purpose of dissemination science research is to translate evidence-based interventions into practice to improve lives. This research seminar provides an introduction to dissemination science. Topics include the vocabulary of dissemination science; distinction between dissemination and implementation research; principles and methods used in dissemination science research; and future issues.

- **MHS 630**

- **Essentials of Chronic and Infectious Disease Epidemiology (3-credits)**

- In the past 15 years, we have seen a rise in chronic disease impacted by behavior and policy, infectious disease outbreaks and new mechanisms of spread never seen before in the US. Clinicians must consider the biosocial impact of globalization and environmental change upon health and disease. In this course we present fundamental concepts of epidemiology to assist the new clinician in their efforts to critically evaluate the health and medical literature, participate in monitoring and surveillance of disease, and interpret data in their individual practice, community and nation to improve care in their practice and professional sphere.

- **MHS 631**

- **Global Non-Communicable Disease Epidemiology (3-credits)**

- Non-communicable diseases (NCDs), such as obesity, diabetes, mental illnesses, injuries, cardiovascular disease and cancer, are responsible for the greatest burden of death and disability globally. NCDs are of critical importance to all countries currently dominate the global health and political agenda. Responding to this epidemic requires interdisciplinary, multi-systems, implementation and dissemination approaches. Researchers, public health specialists and policy makers from around the world working in this field require a critical understanding of the commonalities and differences in perspectives across sectors, which will enable them to work effectively within a 'global' ecological perspective on NCDs. This course will address the current paradigms and controversies in epidemiology. Emphasis will be placed on those NCDs of high prevalence or unique biological characteristics that illustrate interesting epidemiological or etiological characteristics or those that hold greatest promise of control. Comparison of NCD rates across countries and epochs, and the evidence for the causes of these differences will be explored. The goal is to encourage students to think creatively about the NCD problem and explore research opportunities that will contribute meaningfully to reduction in NCD morbidity and mortality throughout the world.

2) Global Health Innovation (12-credits, 10 weeks, study abroad in Costa Rica, existing PBC)

- **INNO 801**

- **Intercultural Communication and Conflict Resolution (1-credit)**

- Intercultural Communication and Conflict Resolution is a growing area of importance in global health considering the pace and volume of global transactions. The ease of global communication using technology, the abundance of cheaper transportation costs, and the frequency of businesses using cross-border talent is fostering millions of interactions a day between

people of different cultures. In this course, students will examine how the process of communication can be further complicated during interactions between people of different cultures. The topics of stereotypes, generalizations, communication styles, communication strategies, and communication orientations will be explored.

- **INNO 802**

Global Health and Social Innovation (2-credits)

There is a need to challenge the status quo in global health theory and practice. In a world in which complex challenges are ever emerging, there is a growing demand for new system-wide approaches. New knowledge and technologies are a gateway of opportunities for innovation. This course will introduce students to the concepts, theory, and practice of complexity science. It will allow students to approach global health as a complex adaptive system and understand how this is useful to solve some of the most challenging issues faced by practitioners when trying to create lasting social change in an effective and ethical way. Students will learn to understand the nature of complex global health issues and how can they better identify potential avenues to generate social innovations and system-level change. The lectures will be co-facilitated by CISG staff and thought leaders and experts in a wide range of fields, including economics, business, public health, social entrepreneurship, political economy, human rights, ethics, gender, sustainability, and sociology. By participating in this course, students will acquire knowledge, practical tools, and experiences to approach global health through a “complexity lens,” learn about the challenges and opportunities for change agents and systems entrepreneurs in the field, and better prepare them to become global health leaders.

- **INNO 803**

Health Systems: Innovations for Universal Health Care (2-credits)

A detailed examination and understanding of modern health systems and their multi-layered structures is needed to achieve the goals set out by the United Nations’ Sustainable Development Goals (SDG) agenda. This course will provide students an introduction to health systems and how the historical, cultural, political and economic context impacts their funding, design and performance. The students will acquire the knowledge and skills to think critically on how health systems operate in middle and low-income countries and how to address the determinants of health of these settings. Special emphasis will be given to the case of Costa Rica and how it developed its social security system and one of the most effective primary health care systems in the world. Focus points will be on innovations for equity in health access, healthier communities through health promotion and the use of IT in health care. The students will participate in discussions with an interdisciplinary faculty and with policymakers involved in the design and development of the health system in Costa Rica.

- **INNO 804**

- **Urban Health and Social Innovation Lab (2-credits)**

- The year 2009 marked the year in which, for the first time in the Earth's history, more people lived in urban settings than in rural settings. It is estimated that by 2050, two-thirds of the world's population will live in an urban environment. This course brings an interdisciplinary approach to provide students the knowledge and skills to address the global health challenges in rapid urbanizing regions of middle and low-income countries. Urban areas present particular health risk factors and complex interactions of issues such as climate change, migration, infectious and chronic diseases, and mental health, which requires practitioners to develop cross-sector collaborations and innovative approaches to public policy. The course will allow students to understand how the social gradient affects populations in urban settings and how to develop health-related interventions that are sensible to the human rights, social and gender disparities in such environments. Students will have the opportunity to learn from representatives of local governments and non-governmental organizations on how projects to improve urban health indicators are designed, executed and evaluated.

- **INNO 805**

- **Global Health and Social Innovation Practicum (5-credits)**

- This course provides students the opportunity to integrate theory and practice to address real world challenges faced by policymakers and communities looking to create lasting change in the global health area. It will provide students the possibility to engage and support public, private and non-governmental organizations to solve complex issues related to global health in Costa Rica, a developing country with unique demographic, epidemiological and urbanization conditions. After completing their foundational course requirements, students will have their practicum experience either in the southern region of Costa Rica or in San José and its vicinities. Students will be partnered mainly with non-governmental organizations, although opportunities exist for partnerships with other stakeholders, such as government institutions. Potential partner organizations facilitated by CISG include:

- La Casona's bicultural clinic
 - Houses of Joy
 - Rio Sereno Border Crossing
 - Hands for Health Oral Health Protection Program
 - ASCONA National and Environmental Service Association
 - Comprehensive development association of Rincon de Osa and Playa Blanca
 - Comprehensive development association of Dos Brazos de Rio Tigre
 - Las Cruces Biological Station
 - Municipality of Curridabat
 - Instituto Mixto de Ayuda Social (IMAS)Ca

- Municipalidad de Coto Brus
- Patronato Nacional de la Infancia
- Seprojovent
- Cen-Cinai
- Hogar de Ancianos

The student's practicum will be based on the student's specific interest expressed during the initial didactic portion of the certificate. During the practicum, students will conduct a case study to evaluate the innovative work of the organization (or a specific component/initiative of the organization), the process that led to the innovation, the iteration cycles to reach impact, and the product/initiative's sustainability.

3) **Global Health Program Monitoring and Evaluation (12-credits, online, new curriculum)**

- **GH T.B.D.**

Global Health Program Monitoring & Evaluation I (3-credits, new course)

Program monitoring and evaluation are essential tools to understanding and judging the impact that global health interventions and policies have in communities. This course introduces students to essential tools and models of both program monitoring and evaluation. Students will understand and analyze the key elements of program monitoring and evaluation: assessing population health needs using qualitative and quantitative information, identifying key program elements and their implementation, monitoring the program's cost and efficiency, and evaluating the success of implementation, including program outcomes. Particular attention is given to Involving key community stakeholders throughout the monitoring and evaluation process. The course emphasizes an interdisciplinary approach to global health program monitoring and evaluation and the skills needed to conduct program evaluations.

- **MHS 610**

National/International Approaches to Healthcare Delivery (3-credits)

This course applies the concepts, theories, and principles of the field of global health presented in the first course to the practical challenges facing global health professionals. Each student will select a specific global health priority for a given national or geo-politically defined population to examine over the duration of the course. The student's selected case will then be their primary focus for applying needs assessment methodologies, including epidemiological methods, mapping local, national, and global policy processes, identifying strategies for building infrastructure and workforce capacity, analyzing financial opportunities and limitations, and assessing the impact of macro changes in the global economy, political environment, and human rights and legal systems. Each student will complete a final summary

project report that will summarize findings regarding scope, options, outcomes, and a recommended action plan for improving the health status of the population group they have studied.

- **GH T.B.D.**

Global Health Program Monitoring & Evaluation II (3-credits, new course)

This course builds upon Program Evaluation and Monitoring 1 by engaging students in using a health program monitoring and evaluation framework to design credible and feasible global health needs assessments, implementation monitoring systems, and outcome evaluations that involve stakeholders as appropriate. There is a more in-depth analysis of qualitative and quantitative methods including study design and question development frequently used in global health program evaluations. Students learn the importance of an ethical approach to involving stakeholders throughout the monitoring and evaluation cycle that demonstrates integrity and respects people from different cultural backgrounds and communities. Through case studies students will evaluate whether program designs, analyses, and evidence are credible and conclusions are justified. They will propose how to communicate and use findings and shared lessons learned to improve the health of global communities.

- **GH T.B.D.**

Global Disease Control (3-credits, new course)

This course provides in-depth knowledge on principles and strategies of disease control and equips students with the necessary skills to successfully establish, strengthen and systematically review disease control programs. The course focuses on disease control in disadvantaged populations of developing countries. It draws on local, regional and global policies and strategies to analyze strengths and weaknesses in disease control. The course places special emphasis on strengthening multi-disciplinary and inter-sectoral collaboration and effectively involving communities and patients in disease control programs.

4. Discuss how general education requirements will be met, if applicable.

Not Applicable.

5. Identify any specialized accreditation or graduate certification requirements for this program and its students.

There are no specialized accreditation or graduate certification requirements for the proposed M.S. in Global Health.

6. If contracting with another institution or non-collegiate organization, provide a copy of the written contract.

The InterAmerican Center for Global Health (CISG) in Costa Rica is our partner in the delivery of the Global Health Innovation area of concentration. Please see Appendix A containing the MOU/contract between UMB and CISG.

7. Provide assurance and any appropriate evidence that the proposed program will 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 Graduate School maintains up-to-date information of its degree programs on the program explorer web site (<https://www.graduate.umaryland.edu/Program-Explorer/>). The web site has information on the curriculum, course descriptions, degree requirements, and cost of education. The website has links to information about the learning management system, support services, and financial aid. We affirm that the same information will be available for prospective and existing students in the proposed M.S. in Global Health.

8. Provide assurance and any appropriate evidence that advertising, recruiting, and admissions materials will clearly and accurately represent the proposed program and the services available.

The Graduate School at UMB affirms that all advertising, recruiting and admissions materials will accurately represent the M.S. in Global Health, as do all materials produced by UMB's Graduate School for programs it offers.

H. Adequacy of Articulation

Not applicable

I. Adequacy of Faculty Resources

1. Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of faculty with appointment type, terminal degree title and field, academic title/rank, status (full-time, part-time, adjunct) and the course(s) each faculty member will teach in the proposed program.

The following table summarizes information about the faculty who will be responsible for designing and instructing coursework in the M.S. in Global Health program:

Name	Terminal Degree and Discipline	Rank and FT/PT Status	Course
Isabell May	Ph.D. American Studies	Senior Lecturer, FT	MHS 600: Introduction to Scholarly Writing and Library Resources
Donald Donahue	D.HEd. Health Education	Senior Lecturer, PT	MHS 605: Perspectives on Global Health
Katherine Marconi	Ph.D. Sociology	Senior Lecturer, PT	CIPP 960: Critical Issues in Global Women's and Children's Health
Katherine Marconi	Ph.D. Sociology	Senior Lecturer, PT	GH T.B.D.: Global Health Program Monitoring and Evaluation I
Flavius Lilly	Ph.D. Gerontology	Senior Lecturer, FT	GH 652: Global Health Management and Leadership
Henry Silverman	M.D. Medicine	Professor, FT	ETHC 638: Issues in International Research Ethics
Man Charurat	Ph.D. International Health	Professor, FT	MHS 613: Research Implementation and Dissemination I
Nadia Sam-Agudu	Sc.D., Epidemiology, Biostatistics M.D., Medicine Surgery	Professor, FT	MHS 614: Research Implementation and Dissemination II
Clement Adebamowo	Ph.D., Sociology	Senior Lecturer, PT	MHS 631: Global Non-Communicable Disease Epidemiology
Niya Werts	Ph.D., Information Systems	Senior Lecturer, FT	MHS 630: Essentials of Chronic and Infectious Disease Epidemiology
Carlos Faerron	M.D., Medicine	Senior Lecturer, PT	INNO 801: Intercultural Communication and Conflict Resolution
Carlos Faerron	M.D., Medicine	Senior Lecturer, PT	INNO 802: Global Health and Social Innovation
Carlos Faerron	M.D., Medicine	Senior Lecturer, PT	INNO 803: Health Systems: Innovations for Universal Health Care
Carlos Faerron	M.D., Medicine	Senior Lecturer, PT	INNO 804: Urban Health and Social Innovation Lab

Carlos Faerron	M.D., Medicine	Senior Lecturer, PT	INNO 805: Global Health and Social Innovation Practicum
Katherine Marconi Bonnie Bissonette	Ph.D., Sociology Ed.D., Higher Education Administration	Senior Lecturer, PT Asst. Professor, FT	MHS 610: National/International Approaches to Healthcare Delivery
Donald Donahue	D.HEd. Health Education	Senior Lecturer, PT	GH T.B.D.: Global Disease Control
Larisa Odessky	PharmD	Senior Lecturer	MHS 608: Research Seminar I
Carlos Faerron	M.D., Medicine	Senior Lecturer, PT	GH 700: Capstone Project

2. Demonstrate how the institution will provide ongoing pedagogy training for faculty in evidenced-based best practices, including training in:

UMB has a robust process for training faculty and ensuring effective instruction. Based on Quality Matters standards, UMB developed a rubric which details the best practices for distance education; this rubric helps faculty and instructional designers create the courses; assesses the readiness of the course and ensures that the online courses are instructionally and pedagogically sound. The best practices are a synthesis of strategies, activities, design techniques, and organizational items that have been successful in higher education. The specific domains of this checklist are as follows:

- Course overview and introduction to the students
- Course organization and design
- Learning Objectives (competencies)
- Instructional Materials
- Learner Communication, Interaction and Collaboration
- Assessment and Evaluation (measurement)
- Course Technology
- Learner Support

The Learning Management Platform UMB utilizes and provides IT support for is the Blackboard Learning Management System for online course delivery. Within Blackboard, is the Collaborate conferencing software that we will use for our synchronous live activities, i.e., orientation and presentation face-to-face class sessions and recurring webinars. Additionally, the Faculty Center for Teaching and Learning which houses expert Instructional and Educational Media Specialists, uses of a video camera to record lectures, integrate webcams, and an interactive smart board. We also use the Camtasia software for screen lecture capture.

J. Adequacy of Library Resources

The University of Maryland, Baltimore's Health Sciences and Humans Services Library (HS/HSL) collection contains more than 30,000 electronic journals, 162 current print journals, approximately 170,000 books, and 6,000 electronic books. Students can access the electronic resources offered on the library web site by logging in with their University ID number. The library serves as the regional medical library for ten southeastern states as part of the national Library of Medicines National network of Libraries of medicine. In addition to the library services and collections, the building also houses the computing services. Faculty librarians are dedicated to providing direct service to students.

K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment

UMB's 71-acre research and technology complex encompasses 67 buildings in west Baltimore near the Inner Harbor. Faculty have offices provided within their respective departments and the Graduate School has identified office space to house the Program Manager Specialist and instructional technology personnel. UMB has adequate facilities, infrastructure and equipment to support any distance learning needs of the Master's Program. Students will have full access to the computing facilities at UMB. Students will be provided with UMB e-mail and library accounts and will have complete journal searching ability via PubMed. UMB possesses computing facilities that includes a networked computing environment for support of a broad range of information technology functions, including basic research, clinical research, patient information and general office management.

L. Adequacy of Financial Resources with Documentation

No new general funds will be required for implementation of the proposed MS which will be coordinated and administered fully through the Graduate School. A budget is included in Appendix A.

M. Adequacy of Provisions for Evaluation of Program

Students will have the opportunity to evaluate courses and faculty through a standard evaluation of every course. Formal assessment planning is already in place throughout UMB Schools including the Graduate School. Our approach includes ensuring that student learning is in alignment with course learning outcomes, alignment of mission at institutional and program levels, alignment of mission with learning outcomes, then program outcomes with curriculum, flowing down to course outcomes and assignments. Assessment activities emphasize analysis of results and feedback loops for continuous improvement. Additional evaluation includes tracking of student retention, grade distributions, and cost-effectiveness, and regular academic program reviews consider these factors.

N. Consistency with the State's Minority Student Achievement Goals

UMB is strongly committed to cultural diversity and the recruitment and retention of underrepresented minority students. Recruitment efforts for the M.S. in Global Health will include specific outreach to Historically Black Institutions to make students aware of the program and related opportunities designed to improve their competitiveness in the job market and reach their professional goals if they are admitted and successfully complete the program.

O. Relationship to Low Productivity Programs Identified by the Commission

The proposed MS is not directly related to an identified low productivity program identified by the Maryland Higher Education Commission.

P. Adequacy of Distance Education Programs

Context of Online Education at UMB

As the State's public health, law, and human services university, the mission of UMB is to excel at professional and graduate education, research, patient care, and public service, and to educate leaders in health care delivery, biomedical science, global health, social work and the law. Also, UMB emphasizes interdisciplinary education in an atmosphere that explicitly values civility, diversity, collaboration, and accountability. UMB expects to achieve its mission in education excellence and to be competitive; the Graduate School has designed and offered online degree programs that respond to the following changes occurring in higher education (Allen, 2010).

1. **Education Pipeline.** The education pipeline includes a highly diverse prospective applicant pool. Prospective students are typically working adults who pursue part-time and non-residential educational opportunities, but who wish to remain in their regional geographic area, while pursuing advanced education. According to the National Center for Education Statistics, National Postsecondary Graduate Student Aid Study (NCES, NPSAS: GR; 2017), between the period of 2008 and 2017, there was a slight increase (3%) in the number of graduate students reporting full-time (FT) enrollment at a single institution. We suspect this may be partially influenced by availability of new online educational programs, where one can work, be considered enrolled FT, yet negotiate academic studies as one's lifestyle permits.
2. **Changing Demographics.** Data indicate a shift from the traditional student (the 18-22-year-old, full-time resident) to older students studying part-time. In 2015-2016, the National Center for education Statistics (NCES, 2017) reported that 37.58% of graduate students were married and the average graduate student was 32 years old ($SD= 9.66$). Nearly 9% of single/unmarried/divorced graduate students reported dependents, and nearly 60% of graduate students were female.

3. **Technology Shift.** Educational research suggests that online education achieves the same as, or better student learning outcomes, than traditional face-to-face delivery models (Tallent-Runnels, et al., 2006; Means et al., 2009). Online delivery is far outpacing traditional forms of educational delivery. Between 2002 to 2008, online enrollments grew at an annual rate of 19% vs. 1.5% versus all of Higher Education. By the fall of 2008, 25% (4.6 million) of all students took at least one online course. In 2019, the top five highest reported college enrollments nationally four were online universities, offering at least some graduate programs (NCES).
4. **Growth of Mobile Technologies.** Mobile technologies and miniaturization are changing the computing environment and the educational delivery paradigm. Technologies like netbooks, e-Readers, iPhones and iPads have revolutionized the delivery space and to provide anywhere, anytime learning.
5. **Web 2.0 Revolution.** Other technologies that are already figuring widely into the future of education are part of the Web 2.0 revolution. The use of a variety of technologies is disaggregating the educational experience into 'the cloud'. Many of the technologies for the future, like blogs, wikis, podcasts, video, social networking and social media, virtual worlds, mobile learning, and Personal Learning environments, will have profound effects on the future learning landscape.

Essentially, online education represents a strategy that can address the restrictions of traditional onsite college courses, opening up accessibility for variety of learners, for a variety of reasons and expanding access to global education opportunities and expertise, beyond the walls of the campus. Major determinants of successful online programs include 1) course design that incorporates best practices (e.g. course alignment, integration of technology and content), 2) quality faculty who can engage students in the material (e.g. provide feedback and relevant expertise), and 3) provide responsible academic oversight. All three of these determinants are present in this proposal.

Instructional Design Team

The following individuals from the Instructional Design team have been assigned to direct the distance education strategy for the four additional certificate programs:

Christina Cestone, PhD | Executive Director, Faculty Center for Teaching and Learning

Dr. Cestone earned a Ph.D. in Educational Psychology from the University of Texas at Austin and a Master's degree in Human and

Organizational Learning from The George Washington University. Dr. Cestone research includes faculty learning communities, instructional methods, motivation, and interprofessional education. Most recently, as Associate Dean of Assessment and Evaluation for Drexel University, College of Medicine, Dr. Cestone directed medical student assessment, and course and curriculum evaluation in an integrated medical curriculum for 1,100 medical students. Her interests are in program evaluation, and curriculum and instructional development involving active learning methods. She presents her work nationally and is active in the American Education Research Association (AERA) and the Professional and Organizational Development Network (POD), a national association of directors of Centers for Teaching and Learning.

Kevin Engler, MA | Instructional and Curriculum Designer

Mr. Engler holds a Masters of Arts degree in Instructional Design. Mr. Engler provides instructional design, audio-visual support, and faculty training in the use of instructional technologies. He is responsible for the overall pedagogy, planning and designing of course content and assessments for distance education courses in the program. Mr. Engler is knowledgeable in adult learning theory, distance education pedagogical techniques, course development planning and process management. Mr. Engler is trained and certified in the Quality Matters methodology and the ADDIE approach to course design. He has experience and background in writing instructional objectives that utilize Bloom's Taxonomy.

Erin Hagar, MA/MFA | Instructional and Curriculum Designer

Ms. Hagar taught Spanish at the college level and has worked in instructional and curriculum design for colleges and universities since 2000. She previously worked at Montgomery Community College and Johns Hopkins University, helping faculty incorporate new pedagogical practices and technologies into their face-to-face and online courses. Her areas of expertise include faculty development and training, online course design using the Quality Matters standards, and authentic activities and assessments. She is responsible for the overall pedagogy, planning and designing of course content and assessments for distance education courses in the program.

Sharon Gillooly | Senior Media Production Specialist

Ms. Gillooly leads media production for the AIDE team. Her main focus is to produce videos that support academic instruction. After a long career in documentary television, she completed a Master's Certificate in Online Instructional Development from Florida State University where her work

focused on instructional design and emerging technologies. Ms. Gillooly is especially interested in the use of media to enhance learning.

Eric Belt, MS| Instructional and Curriculum Designer

Mr. Belt holds a M.A., Distance Education & E-Learning from UMUC and a B.S., Business Administration from Towson University. Prior to joining UMB, Eric was the Director of Learning Technology at the College of Southern Maryland and, formerly, the Assistant Director of eLearning at Howard Community College. Eric has served as an Instructional Designer both virtually and on-campus for various community colleges across the U.S. and is active in the Maryland Online community. Eric brings a skills and interest in advancing the scholarship of teaching and learning through course design, instructional communication, and faculty professional development. Mr. Belt is currently an Educational Technology doctoral student at Boise State University pursuing research in communication, interaction, and engagement in online courses.

Collectively, the distance learning team will provide the following services to ensure that best pedagogical practices are used to train and support the most of effective presentation of their course content.

- Guided tutorials on the online course development process, with open questions and answer session.
- Written instructions accompanied by training videos to guide faculty on how to use the learning management system.
- A manual for the faculty regarding principles of good practice and the pedagogy of distance education.
- Provide timely support to the faculty in the use of the technology and trouble shoot any problems that might arise during the course of instruction.
- Work with faculty to design and develop courses, monitor the delivery of the course, and assess and revise the course for future offerings.

Supporting Students in Distance Education

Most of the courses for the M.S. in Global Health will be online, and others will be in person. We realize that the key to the success of the online courses is dependent on a) students knowing upfront the assumptions, requirements and responsibilities of taking an online course, 2) the ability of students to have the background, knowledge, and technical skills to undertake an online program; and 3) their having access to academic and technical support services to support their online activities.

Accordingly, we will provide the following services to support the students in accessing distance learning technology:

- Communicate to students the nature of online learning, including their requirements, roles and responsibilities, and access to support services. All of our advertising, recruiting, and admissions materials shall clearly and accurately represent the program and the services available.
- Ensure that enrolled students shall have reasonable and adequate access to the range of student services to support their learning.
- Ensure that accepted students will have the background, knowledge, and technical skills needed to undertake the program.
- Make available the library Services to students so that they can have access to research databases, online catalog of books and media, chat with or e-mail a Librarian, electronic interlibrary loan, and more.

Evaluation and Assessment of Online Courses

We will adhere to a quality improvement model for assuring the continuous quality of the online courses. The process will involve the following steps:

1. Assessment of course readiness as measured by our quality indicators of best practices (including assessment of faculty readiness)
2. Monitoring of course delivery as assessed by the instructional designers with use of our “course evaluation” rubric”
3. Obtainment of feedback from the faculty and students and instructional designers.
4. Analysis of feedback as performed by the Distance Learning Committee.
5. Institute course revisions based on comments by the Distance Learning Committee.

Finally, to ensure the sustainability of the distance learning program, the Academic Affairs Office at UMB affirms the following:

- UMB Policies for faculty evaluation includes appropriate consideration of teaching and scholarly activities related to programs offered through distance learning.
- Commitment to ongoing support, both financial and technical, and to a continuation of the program for a period sufficient to enable students to complete a certificate

**APPENDIX A.
BUDGET**

TABLE 1: PROGRAM RESOURCES					
Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds					
2. Tuition/Fee Revenue (c +g below)	\$0	\$57,834	\$73,738	\$105,298	\$122,747
a. Number of F/T Students*	0	4	5	7	8
b. Annual Tuition/Fee Rate	\$14,175	\$14,458	\$14,748	\$15,043	\$15,343
c. Total F/T Revenue (a x b)					
d. Number of P/T Students	10	20	28	30	32
e. Credit Hour Rate	\$668	\$681	\$695	\$709	\$723
f. Annual Credit Hour Rate	13	11	10	10	10
g. Total P/T Revenue (d x e x f)	\$86,853	\$149,922	\$194,626	\$212,698	\$231,415

3. Grants, Contracts & Other External Sources	\$0	\$0	\$0	\$0	\$0
4. Other Sources	\$34,348	\$35,366	\$0	\$0	\$0
TOTAL (Add 1 - 4)	\$86,853	\$207,755	\$268,364	\$317,996	\$354,163

TABLE 2: PROGRAM EXPENDITURES:					
Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c below)	\$66,356	\$121,219	\$111,741	\$115,093	\$118,547
a. Number of FTE	0.55	1.02	0.93	0.93	0.93
b. Total Salary	\$53,000	\$96,820	\$89,250	\$91,928	\$94,686
c. Total Benefits	\$13,356	\$24,399	\$22,491	\$23,166	\$23,861
2. Admin. Staff (b + c below)	\$0	\$39,130	\$6,278	\$6,466	\$6,660
a. Number of FTE	0.00	0.33	0.00	0.00	0.00
b. Total Salary	\$0	\$28,050	\$4,500	\$4,635	\$4,774
c. Total Benefits	\$0	\$11,080	\$1,778	\$1,831	\$1,886
3. Support Staff (b + c below)	\$15,345	\$15,805	\$16,280	\$16,768	\$17,271
a. Number of FTE	0.20	0.20	0.20	0.20	0.20
b. Total Salary	\$11,000	\$11,330	\$11,670	\$12,020	\$12,381
c. Total Benefits	\$4,345	\$4,475	\$4,610	\$4,748	\$4,890
4. Technical Support and Equipment	\$20,000	\$5,000	\$5,000	\$5,000	\$5,000
5. Library	\$0	\$0	\$0	\$0	\$0
6. New or Renovated Space	\$0	\$0	\$0	\$0	\$0
7. Other Expenses	\$19,500	\$61,968	\$73,460	\$95,444	\$107,936
TOTAL (Add 1 - 7)	\$121,201	\$243,122	\$212,758	\$238,771	\$255,413

APPENDIX B.
MOU/CONTRACT WITH CISG



Joint Collaborative Partnership Agreement

between

The University of Maryland, Graduate School, Baltimore, USA

And

The Inter-American Center for Global Health, Coto Brus, Costa Rica

This Agreement is made and entered into on the date of the final signature hereto, by and between University of Maryland, Baltimore (UMB), a public university that is part of the University System of Maryland, a public corporation and an instrumentality of the State of Maryland acting through its academic department the University of Maryland Graduate School hereinafter referred to as UMGS, and the Inter-American Center for Global Health, hereinafter referred CISG.

1. The Agreement and Nature of Collaboration

- 1.1. The purpose of this Joint Collaborative Partnership Agreement (referred to as the "Agreement") is to delineate the collective and individual responsibilities of UMGS and CISG in relation to the provision, management, monitoring, evaluation and development of a Post-Baccalaureate Certificate (PBC) in Global Health Innovation program for UMGS students.
- 1.2. This agreement will commence on October 1, 2019 notwithstanding the date or dates of signature. The parties will review and evaluate the operation of all matters under this Agreement prior to the 2nd anniversary of the commencement date. Any renewal or amendment to this Agreement will be made in writing.
- 1.3. This agreement will be in effect for a period of five (5) years beginning with the commencement date and will be renewed for successive five year periods in writing agreed upon by the parties. Either party giving six (6) months written notice to the other party may terminate the agreement provided that such termination will not affect the completion of any activity underway at the time or any previously advertised activity in which commitments to university students or faculty have been made.

- 1.4. UMGS appoints Senior Associate Dean Dr. Flavius Lilly (flilly@umaryland.edu), and CISG appoints Director Dr. Carlos Faerron (cfaerron@cisgcr.org) to coordinate the development and implementation of this agreement.

2. A Post-Baccalaureate Certificate in Global Health Innovation

- 2.1. Under this Agreement, participating students will be awarded a PBC in Global Health Innovation granted by the University of Maryland, Baltimore for successfully completing the curriculum approved by the Maryland Higher Education Commission and the Board of Regents.
- 2.2. The PBC program will take place in Costa Rica in conjunction with CISG, an educational organization with experiencing facilitating interdisciplinary immersion experiences focused on concepts of global health, innovation, complexity science, social determinants of health, health care disparities, community engagement, and product development.
- 2.3. The PBC will be an in-person course with didactic and experiential components. CISG faculty who have been appointed as adjunct faculty at UMGS will deliver the courses in Costa Rica. The courses in the PBC are:
- INNO 801: Intercultural Communication and Conflict Resolution (1 credit)
 - INNO 802: Global Health and Social Innovation (2 credits)
 - INNO 803: Health Systems: Innovations for Universal Health Care (2 credits)
 - INNO 804: Urban Health and Social Innovation Lab (2 credits)
 - INNO 805: Global Health and Social Innovation Practicum (5 credits)

The curriculum may be altered over time in accordance with UMGS policies and procedures. Students must earn a 3.0 grade point average or greater as a requirement for graduation.

The course descriptions can be found in Appendix A.

- 2.4. UMGS will be responsible for informing students what travel documents and immunizations are required prior to travel.
- 2.5. CISG will facilitate the logistics of students during the Costa Rica experience, including safety and security measures; clean, safe, hospitable housing; in-country transportation; translation services, when needed; potable drinking water or means of purification; and meals as applicable.
- 2.6. CISG will compensate its employees who have received adjunct faculty appointments from UMGS to carry out the PBC.

- 2.7. UMGS will facilitate health care and emergency support should it be needed through the University's Global Medical and Security Assistance program. Students will be responsible for the cost of any health or emergency care or support. Travel arrangements and the cost to and from Costa Rica will be paid for by the students in consultation with the Global Health Innovation program director.
- 2.8. UMGS students will be required to secure travel insurance prior to participation in the PBC in Global Health Innovation..
- 2.9. UMGS will appoint a program director to oversee the curriculum and quality of instruction of the PBC in Global Health Innovation program and to monitor the safety of the student experience. At the commencement of the Agreement, Virginia Rowthorn, J.D., LL.M. will serve in the role of Program Director.
- 2.9.1. The program director will constitute and chair a Collaborative Academic Administrative Committee between UMGS and CISG to develop and to manage all administrative aspects of the PBC and to oversee the academic aspects of the program, including the activities related to assessment and student progression issues. The Academic Administrative Committee will have representation from UMGS and CISG to facilitate the delivery of the innovation track. The academic administrative committee will be composed of the following positions:
- UMGS Program Director of the Global Health Innovation PBC
 - UMGS Senior Associate Dean
 - UMGS Assistant Dean
 - UMGS Program Director for the M.S. in Health and Social Innovation
 - UMGS Assistant Vice President of Administration and Finance
 -
 - UMGS Faculty Member
 - CISG Executive Director
 - CISG Senior Administrator

The UMGS program director will meet with students remotely at least once while they are in Costa Rica. The UMGS program director also will serve as students' point-of-contact at UMGS and will provide them with contact information.

- 2.9.2. The UMGS program director will be responsible for the development, coordination, maintenance of quality assurance, and student advisement. This responsibility will be discharged in accordance with UMGS policies and procedures with input from CISG where required.
- 2.10. CISG members who will be instructing students will be appointed to the UMGS faculty in the rank of adjunct professor. All CISG faculty members will be fluent in written and spoken English. UMGS will ensure that faculty appointed in Costa Rica

hold appropriate credentials and undergo background checks in accordance with UMGS policy.

3. Tuition and Fees

- 3.1. All tuition and fees chargeable in respect to the PBC in Global Health Innovation program will be agreed upon and recommended by the UMGS/CISG Collaborative Academic Administrative Committee, normally no later than December of the year immediately prior to intake. Both UMGS and CISG will provide detailed budgets of expected expenses for review by the Collaborative Academic Administrative Committee and the Dean of the Graduate School.
- 3.2. UMGS will collect tuition and fees from each student according to UMGS policy and procedure. Following receipt of tuition and fees, UMGS will disperse agreed upon revenue to CISG for in-country logistics and instruction, and the UMGS will retain revenue for management, administrative, and faculty costs. All payments will be made by UMGS to CISG no later than 6 weeks following each enrollment of students.
- 3.3. UMGS and CISG agree that the minimum number of students per intake year will be no fewer than 10, and that tuition and fees will be assessed to each individual student.. There is no financial obligation between UMGS and CISG given a failure to intake no fewer than 10 students.
- 3.4. All payments and fees due will be made in U.S. dollars.

4. Student Recruitment and Admissions

- 4.1. UMGS and CISG must agree each year to the minimum and maximum number of students for each year's annual intake, which will normally be agreed to no later than March 1st in the semester immediately prior to intake. The Collaborative Academic Administrative Committee will be required to approve commencement of the program in consideration of recruitment figures, and the approval of the Dean of the UMGS.
- 4.2. All recruitment activity, publicity and marketing of the track may be undertaken by UMGS. UMGS will be responsible for setting up and maintaining any website(s) established for marketing purposes.
- 4.3. Publicity and materials provided to prospective applicants will contain full details of the track, requirements for entry and program tuition and fees. The Collaborative Academic Administrative Committee will be responsible for ensuring accuracy in marketing, publicity, and other related promotional material related to the track.
- 4.4. Applications for admission will be processed by UMGS according to UMB policy and procedure.

- 4.5. All offers of admission will be made by UMGS in compliance with the entry requirements agreed upon by the Collaborative Academic Administrative Committee.
- 4.6. As part of the formal offer of admission, applicants will be informed of the arrangements relating to matriculation and payment of fees.
- 4.7. UMGS will be responsible for providing information or make available to students the following matters upon being admitted into the program:
 - Administration of the program;
 - Aims and objectives of the program;
 - Methods of assessment;
 - Feedback and evaluation;
 - Matriculation;
 - Payment of tuition and fees;
 - Graduation arrangements;
 - UMGS' and CISG's Codes of Discipline and potential sanctions for disciplinary violations;
 - Grievance procedures;
 - Academic appeals procedures;
 - UMB safety and security guidelines including registration into UMB's Global Medical and Security Assistance program; and
 - Other appropriate regulations, policies and procedures

5. Student Matriculation and Registration

- 5.1. Students will be registered/matriculated by UMGS.
- 5.2. UMGS will be responsible for creating and maintaining detailed student records in accordance with its normal procedures and will agree to reasonably share this information with CISG upon request. It is the student's responsibility to execute a FERPA release to permit both programs to monitor any matter of legitimate educational interest to the participating programs.
- 5.3. Students will be required to notify UMGS of withdrawal from the program and/or any changes in the details supplied by them at registration/matriculation. UMGS will be responsible for reporting all such changes to CISG. In turn, CISG will report to UMGS any such changes which are reported directly to it.

6. Assessment and Examination

- 6.1. The Collaborative Academic Administrative Committee will oversee all assessment, examination, and progression issues related to students studying in the program.
- 6.2. All examinations, summative assessments and grading processes will be agreed upon by the Collaborative Academic Administration Committee.

- 6.3. CISG will be responsible for the transfer of all assessment grades and examination results to UMGS.
- 6.4. The Collaborative Academic Administration Committee will establish a mechanism whereby students' progress may be monitored and remedial action taken where appropriate.

7. Graduation

- 7.1. UMGS will oversee all arrangements for graduation ceremonies in accordance with its established processes and procedures. Students will be invited by UMGS to attend the appropriate graduation ceremony which will be organized in accordance with the customs, practice, and academic dress of the institution.
- 7.2. UMGS will be responsible for the conferment of the award as appropriate and for the production of the degree parchment for a student attaining the necessary credits for the award. Degree parchments will be in the format of UMGS and will make reference to the joint nature of the program.
- 7.3. UMGS will provide all graduates with a transcript of grades at the fee normally charged for this service.

8. Student Discipline, Appeals and Grievances

- 8.1. CISG will refer discipline cases of an academic nature, for example concerning program work or examinations, to UMGS, which will process each case in accordance with its own policies and procedures. UMGS will reasonably share information relating to the outcome of any discipline hearing(s) and any decisions taken therein to CISG.
- 8.2. When an alleged offence of a non-academic nature is committed by a student under CISG supervision, the code of discipline of CISG will normally apply. In such cases, there will be consultation between the institutions to ensure a consistent approach to discipline offences wherever possible. Students may appeal CISG discipline to the program director.
- 8.3. A student who wishes to file a grievance regarding general aspects of the program will do so in accordance with complaints procedure of the UMGS, and all complaints will be reviewed, assessed and acted upon with recommendation from the collaborative academic administrative committee.

9. Data Sharing and Data Protection

- 9.1. Both institutions will ensure that, where data is obtained from registered and prospective students, prior FERPA consent is obtained and that those students understand that this data may be shared amongst UMGS and CISG once collected.

- 9.2. Each institution ensures that it will have in place technical and organizational security measures to protect relevant data from unauthorised or unlawful processing and accidental loss or damage.

10. Termination of Agreement

- 10.1. This Agreement may only be terminated by the mutual consent of UMGS and CISG, or by one institution giving no less than 6 months written notice in advance to the other institution
- 10.2. In the event of early termination of this Agreement at the instigation of any of the Institutions, adequate arrangements must be in place to support registered students who wish to continue their studies under the Program/Discipline without any detriment or disadvantage. These arrangements should be detailed in a formal letter between the institutions.

11. Miscellaneous

- 11.1. Neither party shall be responsible for any failure to perform or delay in performing any of its obligations under this Agreement where and to the extent that such failure nor does delay result from causes outside the reasonable control of the party. Such causes shall include, without limitation, Acts of God or of the public enemy, acts of the government in its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, freight embargoes, civil commotion, or the like. Notwithstanding the above, strikes and labour disputes shall not constitute an excusable delay for either party under this Agreement. The Agreement may be terminated without penalty by the part whose performance has not been affected if non-performance continues for more than thirty (30) days.
- 11.2. Headings used in this Agreement are for reference purposes only and shall not be used to modify the meaning of the terms and conditions of this Agreement. This Agreement may be executed in two or more counterparts each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
- 11.3. If any provision contained in this Agreement is held invalid, illegal, or unenforceable, then this Agreement will be construed as if such provision had never been contained herein.
- 11.4. The parties will comply with all applicable laws, ordinances, rules and regulations governing their respective duties or responsibilities under this Agreement
- 11.5. This Agreement shall be only for the benefit of the undersigned parties and their permitted successors and assigns, and no student or other person shall be deemed to be a third party beneficiary of this Agreement.

- 11.6. The Parties agree that no Student shall be discriminated against unlawfully on the basis of age, race, color, creed, sex, sexual orientation, gender identity or expression, religion, national origin and disability.
- 11.7. This Agreement shall be governed by and construed in accordance with the laws of the State of Maryland, without reference to its principles of conflicts of laws.
- 11.8. This Agreement, together with all exhibits attached hereto, represents the entire agreement and understand between the parties with respect to the subject matter hereof, and supersedes any other agreement or understanding, written or oral, that the parties hereto may have had with respect thereof. No statements, representations, promises or inducements with respect to the subject matter by either party or by any agent or representative of either party which is not contained in this Agreement shall be valid or binding between the parties.

12. Acknowledgement of Agreement

Bruce E. Jarrell, MD
Executive Vice President and Provost
Dean, University of Maryland Graduate School

Date

Jay A. Perman, MD
President
University of Maryland, Baltimore

Date

Carlos Faerron, MD
Executive Director
Inter-American Center for Global Health

Date

APPENDIX C: 2.5 YEAR PLAN OF STUDY

AOC	Implementation and Dissemination Science		Global Health Monitoring and Evaluation		Global Health Innovation	
Year 1	Course	Credits	Course	Credits	Course	Credits
Fall A	MHS 600: Introduction to Scholarly Writing and Library Resources	1	MHS 600: Introduction to Scholarly Writing and Library Resources	1	MHS 600: Introduction to Scholarly Writing and Library Resources	1
Fall A	MHS 605 Perspectives on Global Health	3	MHS 605 Perspectives on Global Health	3	MHS 605 Perspectives on Global Health	3
Fall B	ETHC 638 Issues in International Research Ethics	3	ETHC 638 Issues in International Research Ethics	3	ETHC 638 Issues in International Research Ethics	3
Spring A	CIPP 960 Critical Issues in Global Women's and Children's Health	3	CIPP 960 Critical Issues in Global Women's and Children's Health	3	CIPP 960 Critical Issues in Global Women's and Children's Health	3
Spring B	GH 652 Global Health Management and Leadership	3	GH 652 Global Health Management and Leadership	3	GH 652 Global Health Management and Leadership	3
Subtotal		13	Subtotal		13	Subtotal 13

Year 2						
Fall A	MHS 613 Research Implementation and Dissemination I	3	GH 607 Global Health Monitoring and Evaluation I	3	INNO 601 Intercultural Communication and Conflict Resolution	1
					INNO 602 Global Health and Social Innovation	2
					INNO 603 Health Systems: Innovations for Universal Health Care	2
					INNO 604 Urban Health and Social Innovation Lab	2
					INNO 605 Global Health and Social Innovation Practicum	5
Fall B	MHS 631 Global Non-Communicable Disease Epidemiology	3	MHS 610 National/International Approaches to Healthcare Delivery	3	MHS 608 Research Seminar I*	3
Spring A	MHS 630 Essentials of Chronic and Infectious Disease Epidemiology (15 week course)	3	GH 612 Global Health Monitoring and Evaluation I	3		
Spring B	MHS 614 Research Implementation and Dissemination II	3	GH 620 Global Disease Control	3	GH 700 Capstone Project	3
Subtotal		12	Subtotal		12	Subtotal 12

Year 3					
Fall A	MHS 608 Research Seminar I	3	MHS 608 Research Seminar I	3	
Fall B	GH 700 Capstone Project	3	GH 700 Capstone Project	3	
Subtotal		<u>6</u>	Subtotal		<u>6</u>
Total Credits		<u><u>31</u></u>	Total Credits		<u><u>31</u></u>