

**UNIVERSITY SYSTEM OF MARYLAND INSTITUTION PROPOSAL FOR**

- New Instructional Program
- Substantial Expansion/Major Modification
- Cooperative Degree Program

**University of Maryland, Baltimore (UMB)**  
Institution Submitting Proposal

**Post-Baccalaureate Certificates in:**  
Research Administration (Fall 2017)  
Research Implementation & Dissemination (Fall 2017)  
Integrative Health and Wellness (Fall 2017)  
Science Communication (Spring 2018)  
Title of Proposed Programs

**Post-Baccalaureate Certificate (PBC)**  
Degree to be Awarded

**Fall 2017 and Spring 2018**  
Projected Implementation Dates

Proposed HEGIS Code

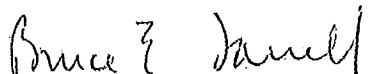
Post-Baccalaureate Certificate	Proposed CIP Code
Research Administration	52.0210
Integrative Health and Wellness	51.0001
<b>Research Implementation &amp; Dissemination</b>	<b>51.2207</b>
Science Communication	23.1303

**UMB Graduate School**  
Department in which program will be located

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**April 27, 2016**  
Date

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PHYSICS 435

CLASSICAL MECHANICS

LECTURE 1

REVIEW OF CLASSICAL MECHANICS

1.1. Kinematics

1.2. Dynamics

1.3. Energy

1.4. Angular momentum

1.5. Hamiltonian mechanics

1.6. Small oscillations

1.7. Coupled oscillations

1.8. Chaos

1.9. Relativity

1.10. Quantum mechanics

1.11. Statistical mechanics

1.12. Thermodynamics

1.13. Electrodynamics

1.14. Optics

1.15. Acoustics

1.16. Fluid mechanics

1.17. Solid state physics

1.18. Atomic physics

1.19. Nuclear physics

1.20. Particle physics

1.21. Cosmology

1.22. Astrophysics

1.23. Geophysics

1.24. Environmental physics

1.25. Biophysics

1.26. Medical physics

1.27. Plasma physics

1.28. Space physics

1.29. Earth and planetary physics

1.30. Interdisciplinary physics

1.31. History of physics

1.32. Philosophy of physics

**UNIVERSITY OF MARYLAND, BALTIMORE (UMB) GRADUATE SCHOOL  
Proposal for Additional Health Sciences Post-Baccalaureate Certificates**

**Health Sciences Post-Baccalaureate Certificates**

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**Table of Contents**

A. Centrality to institutional mission statement and planning priorities.....	2
B. Adequacy of curriculum design and delivery to related learning outcomes .....	3
C. Critical and compelling regional or statewide need.....	10
D. Quantifiable and reliable evidence and documentation of market supply and demand in the region and the state .....	11
E. Reasonableness of program duplication.....	13
F. Relevance to Historically Black Institutions.....	13
G. Distance education principles of good practice .....	14
H. Adequacy of faculty resources.....	18
I. Adequacy of library resources.....	20
J. Adequacy of physical facilities, infrastructure, and instructional equipment.....	20
K. Adequacy of financial resources with documentation .....	20
L. Adequacy of provisions for evaluation of program .....	21
M. Consistency with the State's minority student achievement goals.....	21
N. Relationship to low productivity programs identified by the Commission.....	22
Appendix 1. Distance Education Programs	
Middle States Standard Learning Programmatic Distance Education at UMB .....	23
Appendix 2. Student Readiness Report.....	25
Appendix 3. Graduate School Online Academic Programs Guidelines and Expectations for Adjunct and Affiliate Faculty	
UMB QM Internal Review Worksheet .....	26
Appendix 4. Budgets.....	27
Appendix 5. Faculty .....	29

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

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

The University of Maryland, Baltimore (UMB) Graduate School is pleased to submit a proposal for four new post-baccalaureate certificates.

The intent of the additional certificate programs is to create a more complete offering of credentials in the discipline of health sciences. The four new certificates include:

- Research Administration
- Science Communication
- **Research Implementation and Dissemination**
- Integrative Health and Wellness

The certificates will prepare students from diverse professional backgrounds for careers in the health sciences. The proposed certificate programs are consistent with the mission of the University of Maryland, Baltimore. UMB is the state's public academic health and law university devoted to excellence in professional and graduate education, research, public service and patient care. It educates leaders in health care delivery, biomedical science, social services and the law, and carries out internationally recognized research to cure disease and to improve the health, social functioning and treatment of the people it serves. UMB is committed to ensuring that the knowledge it generates provides maximum benefit to society.

Our new certificate programs are designed for students with related work experience in healthcare, governmental, private, and non-for-profit organizations. The proposed certificate programs emphasize concepts, practices and skills that professionals need to be effective in a wide range of organizations. With the addition of these four new certificates, we will prepare students to achieve the UMB graduate school competencies while specializing in areas of professional interest and experience.

The proposed certificates will require students to take 12 credits of coursework in for successful completion of the certificate. Courses in the programs will be taught predominately online and in hybrid formats. The proposed modifications to the MSHS will commence at staggered intervals by certificate beginning in fall semester 2017 on the following schedule:

### Fall 2017

- Research Administration
- Research Implementation
- Integrative Health and Wellness

### Spring 2018

- Science Communication

## **2. Alignment with institutional strategic goals**

The proposed certificate programs advance UMB's mission "to improve the human condition and serve the public good of Maryland and society at-large through education, research, clinical care, and service." Additionally, the certificate programs contribute to the fulfillment of related strategic goals for UMB, in a number of significant ways:

- One of the university's key strategic themes is to "excel at interdisciplinary research and interprofessional education, clinical care and practice, and public service. The certificates directly responds to this theme by building areas of learning which are focused on interdisciplinary research, interprofessional education, and clinical care and practice.
- The university has recognized the important role the Graduate School plays in creating accessible education for individuals already engaged in their professions. The additional certificates may be completed by a working professional in four 8-week semesters in a predominately online environment.

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

### **1. Provide a list of courses with title, semester credit hours and course descriptions**

#### **Research Administration Concentration (12 credits)**

- MHS 601: *Introduction to Research Administration* (3 Credits)  
Students in this course are provided with an overview of the complex environment that supports the academic research enterprise from a historical and evolutionary perspective, including examples of seminal studies and research controversies. Students consider the partnerships between the federal government, industry, and academic and clinical research institutions. The course explores design and implementation

human research studies and explores a variety of topics, including the components, general principles, and issues in academic research.

- **MHS 618: *Regulatory and Legal Issues in Research* (3 Credits)**  
Research involves many ethical, legal, and regulatory issues related to the treatment of subjects, personal privacy, and institutional compliance, among others. This course examines ethical codes of conduct, regulatory requirements, and existing laws that govern research, recruitment and protection of human subjects; diversity and vulnerable populations in research; informed consent; privacy and confidentiality; the role of independent review committees; and the importance of reporting serious adverse events.
- **MHS 635: *Grant and Contract Management in Research* (3 Credits)**  
This course covers all topics related to Grants Management and Awards. Students will learn how to setup grants proposals and awards, bill and perform cost reimbursement, distribute indirect costs. Students will examine various aspects of maintaining grant and contract awards including increasing or decreasing award funding, adjusting the award budget, updating grant information, updating project status, and closing a grant or contract.
- **MHS 640: *Technology Transfer* (3 Credits)**  
This course introduces the concept of intellectual property in advancing technological innovation and promoting economic development. Students will learn how to safeguard intellectual property and facilitate technology transfer including the legal, licensing, and disclosure. The course will also explore the requirements for issue of a patent including preparation of a patent application. The course explores how research or an invention may be commercialized in the process of technology transfer. Emphasis is placed on the patenting and transfer of technologies pertinent to the biotechnology, pharmaceutical and medical device industries.

### **Science Communication Area of Concentration (12 Credits)**

- **MHS 603: *Technical Writing* (3 Credits)**  
This course will provide a rigorous analysis of scientific writing on the sentence and paragraph level. Students will master the elements of concision and coherence as they learn and employ various strategies for packaging information.

- **MHS 607: *Writing for Scholarly Journals* (3 Credits)**  
This course will provide students with a comprehensive overview of the process of writing for scholarly journals. Students will read and analyze articles from a variety of journals, focusing on both form and content of research articles, case studies, meta-analyses, theoretical articles, and book reviews.
- **MHS 637: *Writing Proposals and Grants* (3 Credits)**  
This course will explore the elements of successful grants and proposals. Students will be required to produce a grant or proposal relating to their capstone project.
- **MHS 627: *Writing for the Public* (3 Credits)**  
This course will prepare students to communicate to lay audiences. Students will analyze the writing in various documents such as press releases, magazine articles, websites, and popular science books.

### **Research Implementation Science Area of Concentration (12 Credits)**

Implementation and Dissemination Science is an emerging field worldwide. It takes an average of 17 years for 14% of research to translate into practice. People may thus experience a significant delay in, or never be offered, interventions that have been proven to improve health. The goal of implementation and dissemination science is to study methods that promote systematic uptake and translate the results of clinical and population research into everyday clinical practice and public health. Additionally, implementation and dissemination science seeks to ensure that the knowledge and materials produced by health research actually lead to improved individual and population health by: 1) reaching the people for whom they are intended; 2) being adapted to local circumstances; and 3) being implemented effectively, safely, equitably, and in a timely and patient-centered manner. The following courses will be offered in the Implementation Science Research area certificate program:

- **MHS 637: *Introduction to Research Ethics* (3 Credits)**  
This course will acquaint students with basic concepts in research ethics, will examine the ethical and philosophical issues raised by involving human subjects in research, review concepts of risks and benefits, vulnerability, privacy and confidentiality, undue inducement, exploitation, equipoise, and therapeutic misconception. By the end of the course, students will be able to analyze research protocols and assess the ethical appropriateness of such protocols.

- *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 633: Clinically Applied Social and Behavioral Health Theory (3 Credits)*  
 This course will discuss the social determinants of health and will go beyond the individual risk factor approach to health and disease, applying multi-disciplinary models and social epidemiology to elucidate the economic, sociocultural, political, and behavioral context and processes underlying health care access and health outcomes. Using a problem based context will explore how nutrition, oral health, addiction and mental illness impact health and disease and explore how social and behavioral health theories can be applied in a clinical context.
- *MHS 613: Research Implementation & Dissemination I (3 Credits)*  
 The past several decades have 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 ST and non-communicable disease.  
 \*this ethics course will be substituted for MHS 608 in the core
- *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 and 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 631: *Global Non-Communicable (NCD) 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.
- **MHS 611: *Observational Epidemiology in Implementation and Dissemination Research* (3 Credits)**  
This course expands upon introduction to epidemiology to build the learners knowledge and skills on the design, conduct, analysis, and interpretation of non-experimental studies of both infectious and non-infectious diseases, with special focus on dissemination and implementation research in global health. During this course, we will discuss application of observational epidemiology methods to the empirically-supported models (e.g., CFIR, RE-AIM, PRECEDE/PROCEED, ISF, KTA) and authoritative research syntheses in the dissemination and implementation of evidence-based interventions and their generalizability. Students will also gain experience and knowledge in designing and analyzing observational studies that provide evidence for support of global health interventions.

### **Integrative Health and Wellness Area of Concentration (12 Credits)**

- **MHS 612: *Introduction to Integrative Health and Biological and Body-Based Interventions* (3 Credits)**

Students will examine the fundamental concepts of integrative health and wellness (IHW), including the history, philosophies, and methods of prominent integrative therapies. Perceived differences between and limitations of traditional “allopathic” medicine and IHW “nontraditional” medicine will be identified. Patients’ motivations and patterns of use of IHW approaches will be explored. Components of the five major areas within IHW as identified by the National Institutes of Health will be introduced. These include alternative medical systems, body-based systems (massage, chiropractic, rolfing), mind-body medicine, biological approaches (herbal medicine, nutritional approaches, pharmacological therapies, Ayurveda), and bioelectromagnetics (energy healing). The state of basic scientific knowledge and data from controlled trials relating to the safety, efficacy, and mechanisms of action of integrative therapies are presented. In the second half of the course, an overview of the scientific evidence for the integrative biological and body-based approaches will be provided. Theories for how these approaches function to affect health are examined, such as psychoneuroimmunology, the role of inflammation, and the gut microbiome. Key practice, legal, and ethical issues facing CAM researchers and practitioners are reviewed.

- **MHS 619: *Clinical Application of Integrative Health and Wellness* (3 Credits)**  
This course will provide students an interprofessional overview of the clinical application of integrative health and wellness approaches. Students will learn the skills necessary for developing an effective therapeutic practitioner-patient relationship and strategies for communicating and educating patients about integrative health and wellness approaches, potential benefits, and possible risks. The factors affecting the utilization, interpretation, and patient understanding of these therapies will be examined. Clinical decision-making and the influence of research on recommendations and evaluation will be examined. Students will learn how the integrative assessment differs from the conventional assessment process and how to develop an integrative treatment plan. Numerous case studies demonstrating the application of integrative approaches for the treatment and prevention of common and chronic diseases will be analyzed. Finally, the challenges in developing research to adequately examine the integrative approach as it is applied in clinical practice will be discussed.
- **MHS 628: *Integrative Health and Wellness Coaching* (3 Credits)**  
Students will learn the fundamentals of health coaching, which is guiding and enabling patients/clients to make and sustain choices to achieve and maintain health. Students will review frameworks and techniques of health coaching from a holistic perspective including assessment, identification of goals and barriers, development of action plans, implementation strategies, and monitoring progress. Students will be introduced to health behavior

change theories and models, as well as interventions from integrative health and wellness. Also explored are personal, social, lifestyle, and medical resources to encourage comprehensive wellness. Students will work to develop strategies appropriate to their patient/client population through research, class discussions, mentored coaching activities, and independent assignments. Students will also complete a behavioral change project with a partner, allowing them to experience the roles of both a health and wellness coach and a client.

- **MHS 636: *Advanced Skills in Integrative Mind-Body Interventions* (3 Credits)**  
In this course, students will learn about the connections between the mind, body, spirit, and energy in relation to health and disease. An overview of the scientific evidence for integrative interventions for health promotion and treatment is provided. Students will learn advanced skills in approaches that promote or rely on the connection between the mind and body. These include meditation, mindfulness, guided imagery, autogenics, hypnosis, spirituality, movement-based, journaling, acupuncture and energy therapies, and art therapies. Students will participate in experiential learning by practicing integrative approaches and interacting with an integrative health provider to increase their self-awareness of the interconnections between emotional, physical, mental, social, and spiritual aspects of health.

## **2. Describe the educational objectives and intended student learning outcomes**

The graduate school recognizes that each certificate must be prepared to apply specialize knowledge of their field, consolidate learning theory from different fields of study to discover and explore concepts and questions related their field of study, demonstrate intellectual skills of analytic inquiry, use of information resources, engage diverse perspective, ethical reasoning, quantitative fluency and communicative fluency. They must be prepared to work in teams to solve the difficulty dilemmas of our time while engaging with and responding to civic, social, environmental and economic challenges at the local, national and global levels.

At the conclusion of their study each student enrolled in the certificate programs will achieve the following outcomes in their respected area of focus:

- Students will be able to search, interpret and evaluate the literature; including qualitative and quantitative studies.
- Examine and critically appraise healthcare delivery, health policy and its impact on the particular focus of the certificate program.
- Apply knowledge to improve; prevention of disease, maintenance of public health and participate in disease surveillance, reporting and intervention.
- Articulate and explain principles and practice of ethics.

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

Not applicable.

**4. Identify any specialized accreditation or graduate certification requirements**

Not applicable.

**5. If contracting with another institution, provide a copy of the contract**

The copy of the MOU with Anne Arundel Community College is attached in *appendix 1*.

### **C. Critical and compelling regional or statewide need**

Our health sciences certificate programs are designed to prepare individuals for emerging leadership roles in the rapidly changing health care and health sciences and to enhance opportunities for advancement in clinical, educational and administrative areas. Emphasis is on independent, self-directed learning and the development of diverse roles. The University of Maryland, Baltimore with its health, human services, and research focus is well-positioned to meet this growing need in the Maryland and in the region.

Our new certificate programs are intended for practicing professionals or those with an undergraduate degree in a health-related area with plans to pursue a career working in health, human services and research settings. Courses are primarily offered online to accommodate the needs of working professionals.

University of Maryland, Baltimore's Graduate Certificate programs provide students with a way to gain knowledge and skills in a specialized area (e.g. Integrative Science and Wellness; Research Administration; etc.). Graduates from our certificate programs will be trained for a number of positions in areas of growth in the state of Maryland and in the region. Graduates will be qualified to fill positions of high demand in Maryland, which has been described in previous sections of this proposal, but may include:

- Research Coordinator
- Research Associate
- Laboratory Researcher
- Grants Analyst
- Grants Program Manager
- Research Assistant
- Research Analyst
- Strategy Analyst
- Research Coordinator
- Medical Liaison
- Services
- Spiritual Care Coordinator
- Care Leader
- Refugee Behavioral Research Manager
- Program Director
- Science Communication
- Program Director
- Project Coordinator
- Clinical Trials Assistant
- Learning Development Specialist
- Program Manager
- Project Manager
- Technical Writer
- Grant Writer
- Medical Writer
- Scientific Writer
- Communications Consultant
- Social Media Specialist
- Policy Editor
- Wellness Consultant
- Life Coach
- Health and Wellness Advisor
- Wellness Support Coach
- Active Life Coordinator

The list of occupations within the health sciences is long because health science professionals work in hospitals, dental offices and laboratories, government and private research centers, pharmaceutical and biotechnology companies, community and public agencies, and large health care organizations, to name just a few. Additionally, there are very few economic sectors that are experiencing growth at the rate of health sciences. Due to the aging population and major changes in the health care market, careers in health sciences are expected to see substantial growth over the next decade and into the future. According to the U.S. Department of Labor's Bureau of Labor Statistics (BLS), a job growth rate of 11 percent is expected between 2012 and 2022 for all occupations combined. Job growth for most health science occupations, however, are expected to double, triple or even quadruple that rate over the same period.

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

To meet the high demands of employers for candidates that are well-trained in the healthcare industry, we have created these health sciences certificate programs. We have strategically aligned the courses in our program to coincide with the current needs of employers in the industry to ensure that our graduates are well prepared for professional success.

The chart below represents the number of positions available for common job titles for people with specialized training offered in the proposed certificate programs based on information provided by [www.indeed.com](http://www.indeed.com).

**Table 1. Job Availability for Selected Careers Relevant to the Certificate programs**

<b>Keyword Search</b>	<b>Number of Jobs Available in Maryland</b>	<b>Number of Jobs Available Nationally</b>
Health Educator	310	16,220
Research Coordinator	856	24,089
Clinical Researcher	2,369	71,003
Scientific Writer	84	1,178
Wellness Consultant	72	449
Grants Manager	448	11,173
Health Science Specialist	435	9,953

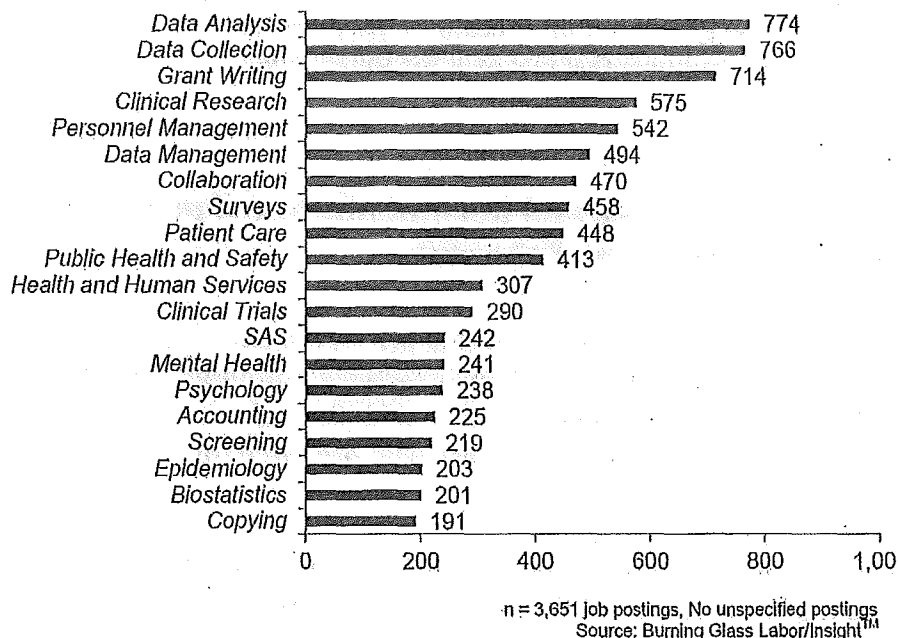
*Data collected March 21, 2016*

The graphics below demonstrates the demand for skills associated with our proposed certificate programs.

**Figure 1. Skills Needed in Research Administration**

Skills in Greatest Demand for 'Research Administration' with Master's-Level Experience

September 2013-September 2014, Regional Data

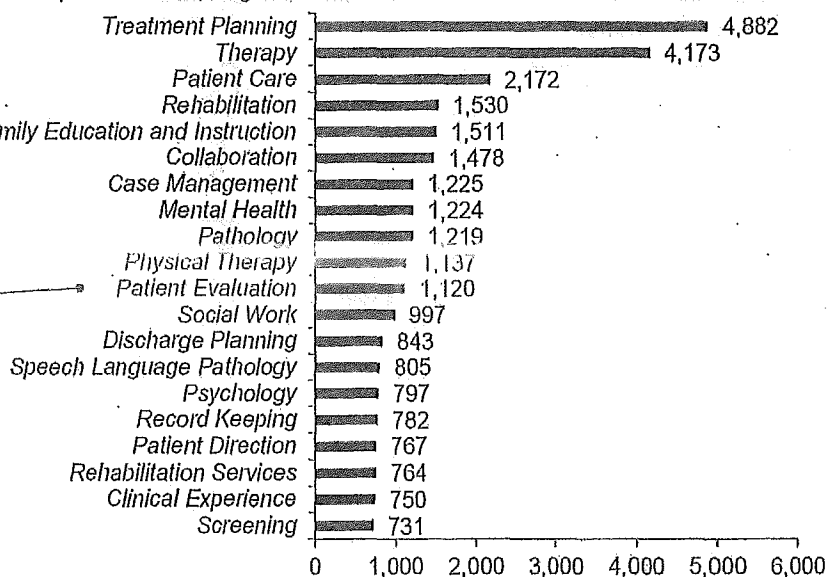


**Figure 2. Skills needed in Integrative Health**

Skills in Greatest Demand for 'Integrative Health' Professionals with Master's-Level Experience

October 2013-September 2014, Regional Data

Other top skills identified by Burning Glass Labor/Insight™ for 'Integrative Health' include 'Collaboration,' 'Mental Health,' 'Physical Therapy,' and 'Social Work.'



n = 7,890 job postings, No unspecified postings  
Source: Burning Glass Labor/Insight™

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

University of Maryland, Baltimore's proposed certificates in Research Administration, Research Implementation, Integrative Health and Wellness, and Science Communications are unlike any other certificate offered under the University System of Maryland. Our certificates provide our students with skills that will allow them to be successful as administrators, researchers, writers, policy makers, etc. within the healthcare industry. University of Baltimore's (UB) Health Systems Management certificate program is most similar to UMB's proposed Research Administration program, however UB's program places heavy emphasis on economic theories and financial principles within the healthcare industry, and UMB's program emphasizes the need for students to understand legal and regulatory policies as they relate to healthcare laws and guidelines for technology transfer.

Maryland University of Integrative Health offers a certificate in Health & Wellness Coaching, which is one of the courses offered in our Integrative Health and Wellness certificate; however our program teaches students how to apply clinical applications along with nontraditional medicines, which are separate certificates in Maryland University of Integrative Health's program.

Johns Hopkins University is the only private school in Maryland that offers certificate programs that are similar to those we are proposing. Hopkins offers certificates in Health Communication, Global Health, Public Health, Community-based Public Health, and Science Writing. While their certificates touch on similar topics addressed in our proposed certificates, none of the certificates offered by Johns Hopkins University are exactly like the certificates we are currently proposing.

## **F. Relevance to Historically Black Institutions**

Bowie State University, Coppin State University, Morgan State University, and University of Maryland Eastern Shore do not offer certificates similar to the proposed certificates. Thus, there is no negative impact on HBIs.

## **G. Distance education principles of good practice**

### 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 is now seeing inputs at every level with a highly diverse prospective student pool. Prospective students are typically working adults who demand part-time and non-residential educational opportunities. Results of the educational experience are becoming ever more outcomes-based.
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.
3. *Technology Shift.* Online delivery is far outpacing traditional forms of delivery. From 2002 to 2008, online enrollments grew at an annual compound rate of 19% vs. 1.5% for all of Higher Education. By the fall of 2008, 25% (4.6 million) of all students took at least one online course. There is a growing acceptance that online education as being as good as or better than traditional face-to-face delivery models. It is estimated that by 2020, half of all learning may be online.
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 the potential to revolutionize 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. Online learning seeks to expand knowledge beyond the walls of the campus and can reach millions of new learners who could



never put their lives on hold to attend college in a traditional manner. Online programs also have the ability to respond to individual student learning needs and styles in ways that cannot be duplicated in the face-to-face classroom. Major determinants of successful online programs include 1) course design that incorporates best practices, 2) quality faculty who can engage students in the material, and 3) responsible academic oversight. All three of these determinants are present in this proposal. For detailed information on Distance Learning Pedagogy and Methods in the Proposed Program, see *Appendix 2*.

### Ensuring Effective Instruction

Based on Quality Matters standards, at UMB we have deployed a rubric which details the best practices for distance education; this rubric helps faculty and instructional designers develop the courses; assess the readiness of the course, and ensure 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 Distance Learning Team has available to them the use of a video cam recorder to tape lectures, webcams, and an interactive smart board. We also use the Camtasia software for screen lecture capture.

### 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:

**Mary Jo Bondy DHEd, PA-C**

Dr. Bondy serves as the Assistant Dean Graduate Academic Programs at the University of Maryland Baltimore (UMB) Graduate School. Currently she administratively oversees three programs, and the office for academic innovation. Dr. Bondy also serves as the UMB representative to the University of Maryland System Academic Transformation Advisory Council. As a practicing clinician and accomplished health educator Dr. Bondy is passionate about elevating health in underserved populations. Dr. Bondy is a recognized master teacher, education leader and innovator. She has expertise in online education policy, curricular design, and program assessment.

**Clancy Clawson, MA**

Clancy Clawson is the, Academic Support Coordinator in the Center for Academic Innovation at the University of Maryland, Baltimore. He earned both his BA and MA in English from Brigham Young University, where he also taught first-year composition. Previously, Clancy was the Associate Director of University Writing and oversaw the UMB Writing Center. Initially hired to revitalize the Writing Center, he built an innovative and dynamic program tailored to meet the specific needs of students in the health sciences and human services. Clancy used a broad range of skills—including writing, photography, videography, and graphic design—to create hundreds of handouts, advertisements, workshops, and videos for the Writing Center. In collaboration with the Center for Academic Innovation, Clancy also helped develop and deliver an online writing course in the UMB Graduate School. Now, Clancy uses his skillset to produce high-quality media and content for the Center for Academic Innovation.

**Kevin Engler, MA: Instructional and Curriculum Designer.** Mr. Engler holds a Masters of Arts degree in Instructional Design. Mr. Engler will be the primary support for the Certificate in Applied Thanatology by providing 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.

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.

- Written instructions accompanied by training videos will be developed to teach the faculty 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**

We realize that the key to the success of an online program 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. We have also prepared a short questionnaire for students that will help them decide whether online learning is right for them (See *Appendix 3*, "2014 Student Readiness Report?"). 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" (see *Appendix 4*)  
Obtainment of feedback from the faculty and students and instructional designers.
3. Analysis of feedback as performed by the Distance Learning Committee.

4. 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.

## H. Adequacy of faculty resources

UMB is committed to providing the best online teaching and learning possible and to excellence in all of its courses. Every effort is made to insure that coherence, cohesiveness, and academic rigor between programs offered in traditional instructional formats and those offered on-line are equivalent. Courses are designed to result in learning outcomes appropriate to the rigor and breadth of the course and all courses assess student achievement of defined learning outcomes through regular and formal assessment planning. Proposed online courses within these certificates are fully aligned around the same learning outcomes and principles, overseen and taught by the same faculty, and held to the same standards as classroom courses.

Course learning outcomes and course descriptions are the same for every section of the course. The learning outcomes for each course are the foundation of the course; the learning activities, assessments and content of the course are in alignment with the outcomes and provide a clear pathway for mastery of the outcomes.

**Table 2. Faculty Resources Available in the New Certificate Programs**

<b>Course Title</b>	<b>Faculty Lead</b>
<b>Research Administration Concentration and Certificate (12 credits)</b>	
MHS 601 Introduction to Research Administration (3)	TBN
MHS 618 Perspectives on Regulatory and Legal Issues (3)	TBN
MHS 635 Grants and Contract Management (3)	TBN
MHS 640 Technology Transfer (3)	TBN
<b>Science Communication Concentration and Certificate (12 credits)</b>	
MHS 603 Technical Writing (3)	Matt Harper PhD
MHS 607 Writing for Scholarly Journals (3)	Noah Siela
MHS 637 Writing Proposals and Grants (3)	Matt Harper PhD
MHS 627 Science Writing for the Public (3)	Clancy Clawson, MA
<b>Research Implementation and Dissemination (12 credits)</b>	
ETHC 637: Introduction to Research Ethics (3)	TBN
MHS 630: Essentials of Chronic and Infectious Disease Epidemiology (3)	TBN
MHS 633: Clinically Applied Social and Behavioral Health Theory (3)	TBN
MHS 613 Research Implementation (3)	TBN
MHS 614 Research Dissemination (3)	TBN
MHS 631 Global Non-Communicable Disease (NCD) Epidemiology (3)	TBN
MHS 611 Observational Epidemiology in Implementation & Dissemination Research (3)	TBN
<b>Integrative Health and Wellness Concentration and Certificate (12 credits)</b>	
MHS 612 Introduction to Integrative Health and Biological and Body-Based Interventions (3)	TBN
MHS 619 Clinical Applications in Integrative Medicine and Wellness (3)	TBN
MHS 628 Integrative Health and Wellness Coaching (3)	TBN
MHS 636 Advanced Skills in Integrative Mind-Body Interventions (3)	TBN

## **I. 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. They use subject expertise to develop online resources and provide in person consultations.

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

UMB's 61-acre research and technology complex encompasses 62 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 the distance learning needs of the Certificate 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.

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

No new general funds will be required for implementation of the proposed modifications to the MSHS program. The MSHS program will be coordinated and administered fully through the Graduate School including identifying program directors for each area of concentration who is directly affiliated with the Graduate School. Tuition will be administered through the Graduate School and student tuition payment is in addition to that required of any individual professional school at UMB. As shown in the following table, the modified MSHS is expected to be self-supporting. Budget Table provided in *Appendix 5*.

## **L. 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.

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

A key feature of UMB's mission and strategic planning involves respecting, valuing and achieving diversity. The Strategic Plan states: diversity represents a core value, which is defined as being "committed to a culture that is enriched by diversity, in the broadest sense, in its thoughts, actions, and leadership." UMB realizes that it must embrace and celebrate diversity and become culturally competent. The State also has a goal of expanding educational opportunities for minority and educationally disadvantaged students.

The proposed new health sciences certificate programs aims to address both UMB's and the State's cultural diversity goals. First, the delivery of the certificate programs by the use of distance learning technology will enhance minority student access, as it expands access and success for learners from diverse communities. Essentially, distance learning is quickly become the educational opportunity for those student who may not or would not be able to participate in a traditional college education. The emergence of the so-called "virtual universities" has had more success in attracting diverse populations compared to traditional colleges. Universities and their missions and Internet-based degree programs embracing core values emphasizing social change and community engagement have been highly attractive to historically underrepresented groups (Ibarra, 1999). For rural and isolated communities, distance learning can be the vehicle that conquers geography and space between teachers and students.

The second manner in which the new certificates addresses diversity goals is that distance learning not only achieves "access," but can also help ensure "success," as the technology of distance learning meets the needs of various learners and allows for differentiated instruction. Increasingly, culture, language, and social factors are being recognized as having an impact on learning styles (Iyer, 2002). To be sure to avoid any chare of stereotyping, we recognize that individuals within a particular culture display the traditional traits and cultural markers of that group to varying degrees and hence, while on one hand, all behaviors are found in all cultural groups, some behaviors are demonstrated

more so in some cultures than in others. These variations can be due to ethnic group differences within the larger culture, socio-economic status, degree of acculturation to the mainstream society, gender, religion, and myriad other factors. Essentially, with the proper use of its varied technology, distance learning can address the needs of all populations, and especially underrepresented groups that can not only attract but can help thrive as well. Also, with its varied types of interactions, distance learning embraces a shift from passive to active learning and from competition to collaboration. Different learning styles and cultures can be accommodated more easily because effective collaborative learning values diversity (Palloff & Pratt, 2005 and Brindley, Walti, and Blaschke, 2009). This contrasts with the traditional university's predominance of a particular and preferred learning environment grounded on outmoded ideas about one-size fits all educational pipelines tends to exclude all the others.

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

The proposed new certificate programs are not directly related to an identified low productivity program identified by the Maryland Higher Education Commission.



## **Appendix 1**

Separate attachment:

- Distance Education Programs
- Middle States Standard Learning Programmatic Distance Education at UMB

## MEMORANDUM OF UNDERSTANDING

Between the Graduate School and  
The Department of Epidemiology and Public Health, School of Medicine

Collaborative Online Master of Health Sciences Degree  
Faculty Services Agreement

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This Faculty Services Agreement ("Agreement") is entered into this 22<sup>nd</sup> day of February 2013, by and between the University of Maryland School of Medicine Department of Epidemiology and Public Health (EPH-SOM) and the University of Maryland, Baltimore ("UMB") Graduate School ("Graduate School"). Through mutual agreement the Graduate School and the EPH-SOM have established the following terms and conditions to clarify their basic understanding regarding various aspects of the Master of Health Sciences ("MHS") degree program including roles and responsibilities and the provision of faculty services.

The online MHS degree program is designed to prepare students to receive a MHS degree from the University of Maryland while concurrently pursuing a Physician Assistant Certificate ("PA Certificate") from Anne Arundel Community College ("AACC"). Students in good standing who have successfully obtained both the PA certificate and the MHS degree will have the necessary credentials to be eligible to sit for the National PA Certifying Exam, starting in the 2015 calendar year. It is also the intent of both parties that if there is interest from other prospective students and resources available, the program may be offered to other admitted students in the future.

Accordingly, Graduate School and EPH-SOM agree to the following:

### A. PROGRAM ORGANIZATION AND DEVELOPMENT

The Graduate School will:

1. Certify student eligibility for enrollment in the MHS degree program and award the MHS degree upon successful completion of degree requirements.
2. Maintain student records pertaining to matriculation and progression toward the MHS degree.
3. Conduct online orientation for students entering the MHS degree program.
4. Be responsible for the academic and administrative standards and accreditation of the MHS degree requirements as stated by the ARC-PA.
5. Maintain accreditation of the MHS program from Middle States Commission on Higher Education.

6. Designate a full-time MHS Administrative Program Director dedicated to the MHS degree program. The Administrative Program Director's office location will be in the Graduate School but will ensure regular contact with faculty from other UMB schools supporting the MHS degree. This position will be an employee of the Graduate School and will oversee the institutional responsibilities and resources for the MHS program, and chair and assume administrative/clerical responsibilities for the MHS admissions, curriculum and student progression committees. The Administrative Program Director will act as a liaison between AACC and the UMB. Additionally, the Administrative Program Director will work closely with a Faculty Program Director identified by EPH-SOM to ensure effective operations of all academic and student affairs functions.
7. Reimburse EPH-SOM for mutually agreed upon costs associated with the provision of faculty services for the MHS program. Reimbursement shall be in accordance with Section E., Financial Obligations, herein.

EPH-SOM will:

1. Designate a Faculty Program Director with appropriate effort to meet the demands of the MHS program. The responsibilities of this position are to:
  - a. Work in conjunction with the Administrative Program Director to develop the EPH-SOM courses that are part of the MHS program curriculum;
  - b. Assist the Administrative Program Director in the initial establishment of the Admissions, Curriculum and Student Progressions committees;
  - c. Serve on an ongoing basis on the Admissions, Curriculum and Student Progressions committees;
  - d. Oversee the delivery of EPH-SOM coursework described herein (Section B5) for students enrolled in the MHS program in accordance with the MHS curriculum;
  - e. Meet regularly with the Administrative Program Director and other leadership in the Office of Academic Affairs and Graduate School to ensure effective coordination, leadership and management of the MHS degree program.
2. Designate EPH-SOM faculty to serve on the Curriculum, Student Progression, and Admissions Committees for the MHS program. The administrative responsibilities for these committees will be the responsibility of the MHS Administrative Program Director described in Section C herein.
3. Designate EPH-SOM faculty who will be responsible for teaching EPH-MHS courses and evaluating students in those courses, and for working with instructional design staff to develop online EPH courses for the MHS program. Coordinate with these designated faculty for release time for training and instructional design associated with the development of online courses.

## B. CURRICULUM

1. Overall curriculum design and direction will come from the joint Curriculum Committee. The Graduate School's Administrative Program Director, EPH-SOM Faculty Program Director, and AACC's Physician Assistant Program Director will be members of the Curriculum Committee and actively participate and advise the committee, including with regard to accreditation standard maintenance and requirements.
2. The Curriculum Committee will meet on a regular basis and will include representative faculty members from EPH-SOM to allow full collaboration, input and discussion. The composition of and number of members on the Curriculum Committee shall be mutually determined by the Graduate School, EPH-SOM and AACC.
3. Curricular changes initiated by the Curriculum Committee will be sponsored by appropriate individuals originating from AACC, the Graduate School, or EPH-SOM to facilitate courses through the curriculum approval process. Should changes of 25% or more of the curriculum be necessary, Maryland Higher Education Commission approval is required.
4. The MHS curriculum will be delivered entirely online to permit AACC PA students to concurrently fulfill program clinical work requirements across the state of Maryland.
5. The MHS curriculum will initiate with the following structure and sequence, which can be modified by mutual agreement of EPH-SOM and the Graduate School prior to convening and charging a curriculum committee, and with the agreement of EPH-SOM and the curriculum committee thereafter:

### Summer Term I

PH/PREV 610	Social & Behavioral Foundations of Public Health	3 credits
MHS 600	Intro to Library Resources & Scholarly Writing	1 credit

### Fall Term I

PH/PREV 600	Principles of Epidemiology	3 credits
PHA 120	Pathophysiological Pharmacotherapeutics I	3 credits

### Spring Term I

PH/PREV 621	Principles of Biostatistics	3 credits
PHA 121	Pathophysiological Pharmacotherapeutics II	3 credits

### Summer Term II

PREV 625	Community-based Participatory Research Methods	3 credits
PH/PREV 623	Public Health Ethics	3 credits

### Fall Term II

MHS 652	Leadership and Communication	3 credits
MHS 608	Research Seminar I	3 credits

Spring Term II

PH/PREV 648	Intro to Health System & Health Policy Management	3 credits
MHS 609	Research Seminar II	3 credits

Summer Term III

MHS 700	Capstone Project	2 credits
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6. EPH-SOM will deliver the following courses in the MHS curriculum, which can be modified by mutual agreement of EPH-SOM and the Graduate School prior to convening and charging a curriculum committee, and with the agreement of EPH-SOM and the curriculum committee thereafter:

PH/PREV 610	Social & Behavioral Foundations of Public Health
PH/PREV 600	Principles of Epidemiology
PH/PREV 620	Principles of Biostatistics
PREV 625	Community Based Participatory Research
PH/PREV 623	Public Health Ethics – 3 credits
PH/PREV 648	Intro to the Health System, Health Policy and Management

7. The Graduate School will deliver the following courses in the MHS curriculum:

MHS 600	Introduction to Library Resources & Scholarly Writing
MHS 652	Leadership and Communication
MHS 608	Research Seminar I
MHS 609	Research Seminar II
MHS 700	Capstone Project

8. AACC will deliver the following courses in the MHS curriculum:

PHA 120	Pathophysiological Pharmacotherapeutics I
PHA 121	Pathophysiological Pharmacotherapeutics II

**C. COMMITTEE ROLES & RESPONSIBILITIES**

The Graduate School, EPH-SOM and AACC recognize that it is with mutual interest that faculty play a meaningful role in the curricular decision-making of the MHS degree program. As such and considering that faculty participation in such decision-making occurs primarily through the work of committees, the Graduate School and EPH-SOM will work collaboratively on the Admissions Committee, Curriculum Committee, and Student Progression Committee.

The Graduate School will:

1. Develop a joint Admissions Committee with AACC and EPH-SOM to establish screening criteria and engage in the selection of applicants. Screening criteria shall include but not be limited to: Total GPA 3.0 or greater, completion of the GRE, TOEFL of 100 or greater (where required), prior BS or BA degree from a regionally accredited post secondary institution or

an equivalent international institution, accomplishment of all prerequisite courses with performance of GPA 3.0 or better. The Admissions Committee will be chaired by the Graduate School's Administrative Program Director. The composition of and number of members on the Admissions Committee shall be mutually determined by the Graduate School, EPH-SOM, and AACC;

2. Develop a joint Curriculum Committee with AACC and EPH-SOM to develop, review and make policy determinations regarding the MHS curriculum, establish degree requirements, determine student educational objectives, monitor content and workload of courses, monitor and propose changes in pedagogy, review proposals for new courses and course reductions, and evaluate the curriculum annually. The Curriculum Committee will also verify and certify that faculty are properly trained to teach online. The Curriculum Committee will be chaired by the Graduate School's Administrative Program Director and shall meet as provided in Section B. Curriculum herein.
3. Develop a joint Student Progressions Committee with AACC and EPH-SOM to review and evaluate the overall achievement and performance records of students pursuing the MHS degree for the purposes of promotion, graduation, program alteration, remediation, retention, repetition, and dismissal. The Student Progression Committee will additionally assist with degree certification. The student progressions committee will be chaired by the Graduate School's Administrative Program Director. The composition of and number of members on the Student Progression Committee shall be mutually determined by the Graduate School, EPH-SOM, and AACC.

EPH-SOM will:

1. Ensure participation of the Faculty Program Director and EPH-SOM faculty members on the Admissions, Curriculum, and Student Progressions Committees. In general, the Faculty Program Director and one additional faculty member will serve on each committee.

#### **D. INSTRUCTIONAL DESIGN AND FACULTY TRAINING**

The MHS degree will be delivered utilizing an online learning pedagogy to accommodate AACC Physician Assistant Students engaged in clerkships and clinical work concurrent with MHS coursework.

The Graduate School will:

1. Initially, through a cooperative agreement with AACC, assist in developing online courses and support systems for MHS students and faculty. These services will include:
  - a. Faculty training for teaching and learning in the online environment;
  - b. Instructional design support to work with EPH-SOM faculty to build courses in the selected online learning management system;

2. Develop Internal supportive infrastructure to build capacity for online learning, course development and teaching.

EPH-SOM will:

1. Ensure release time for the EPH-SOM faculty who have been identified to teach MHS program courses to develop online courses in accordance with the MHS degree curriculum.

**E. FINANCIAL OBLIGATIONS**

1. As a degree program offered by the Graduate School, MHS program tuition will be collected and dispersed by the Graduate School through Project ID accounts controlled by the Graduate School, in accordance to applicable internal policies and procedures, and pursuant to the conditions laid out in this Agreement.
2. The Graduate School agrees to financially support EPH-SOM related to its provision of faculty services for the MHS degree program. Funds for the provision of faculty services will be utilized according to the following guidelines:
  - Courses shall have no more than 25 students per section
  - EPH-SOM full-time faculty must teach at a minimum 50% of the total semester credit hours of EPH-SOM's MHS curricular responsibilities in accordance with the Maryland Higher Education Commission's Code of Regulations<sup>1</sup>
3. The parties have agreed that the Graduate School will provide funding support to EPH-SOM in accordance with the following schedule:

Bridge Support 5/1/13 – 6/30/13	Year One 7/1/13 - 6/30/14	Year Two 7/1/14 - 6/30/15	Year Three 7/1/15 - 6/30/16	Year Four 7/1/16 - 6/30/17	Year Five 7/1/17 - 6/30/18
\$11,460*	\$137,500	\$218,750	\$250,000	\$250,000+ COLA	Year 4 + COLA

\*The Graduate School will provide bridge support to EPH-SOM to assist in funding a faculty position that will support the MHS degree program.

<sup>1</sup> The MHEC's Code of Regulations indicates "adjunct and part-time faculty are an important and necessary component of some programs. Except in circumstances to be determined by the Secretary, at least 50 percent of the total semester credit hours within the proposed program shall be taught by full-time faculty." Source: Maryland Higher Education Commission: Code of Maryland Regulations 13B.02.03, Academic Programs – Degree Granting Institutions. As Amended through April 2, 2012. The official regulations published by the Division of State Documents, Office of the Secretary of State, are found at <http://www.dsd.state.md.us/comar/>

4. For the purpose of cross-funding of positions, EPH-SOM agrees to provide memoranda of commitment (Form PRF-08) to the Office of Academic Affairs where EPH-SOM approves as the Position Owner and the Office of Academic Affairs approves as the Project Owner.

#### F. TERM AND TERMINATION

1. Unless otherwise terminated, this Agreement will run in perpetuity. It may be reviewed and revised at any time by mutual written consent of the Graduate School and EPH-SOM.
2. Either party may terminate this Agreement upon 90 days advance written notice to the other party in the event of a material breach by the other party that is not resolved within 90 days of written notice.
3. Either party may terminate this Agreement without cause upon 365 days advance written notice to the other party. A decision to terminate the agreement must take into consideration a reasonable plan to teach-out or transfer students currently enrolled in the MHS program, in compliance with Middle States accreditation requirements.

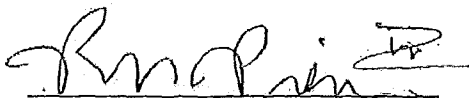
#### G. PROGRAM ANNUAL REVIEW

1. At the end of each academic year, the parties will discuss the effectiveness of this Agreement and make suggestions as to what mutually agreeable programmatic changes or amendments, if any, should be made to the Agreement.

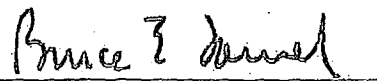
#### READ AND AGREED BY THE PARTIES:

FOR: UNIVERSITY OF MARYLAND,  
BALTIMORE DEPARTMENT OF  
EPIDEMIOLOGY AND PUBLIC HEALTH

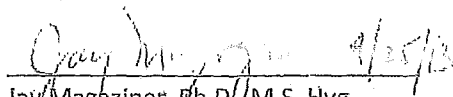
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Chair, Department of Epidemiology  
& Public Health  
School of Medicine



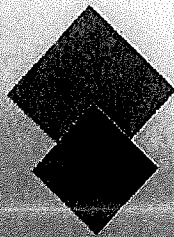
## **Appendix 2**

Separate attachment:

- Distance Education Programs
- Middle States Standard Learning Programmatic Distance Education at UMB

# DISTANCE EDUCATION PROGRAMS

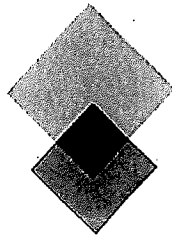
*Interregional Guidelines for  
the Evaluation of Distance  
Education (Online Learning)*



**Middle States Commission on Higher Education**

# DISTANCE EDUCATION PROGRAMS

*Interregional Guidelines for  
the Evaluation of Distance  
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Middle States Commission on Higher Education

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This publication replaces *Distance Learning Programs: Interregional Guidelines for Electronically Offered Degree and Certificate Programs* (2002).

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*Printed in the United States of America*

# Contents

	Page
Overview .....	5
<b>The Nine Hallmarks of Quality</b>	
1. Online learning is appropriate to the institution's mission and purposes .....	6
2. The institution's plans for developing, sustaining, and, if appropriate, expanding online offerings, are integrated into its regular planning and evaluation processes .....	7
3. Online learning is incorporated into the institution's systems of governance and academic oversight .....	8
4. Curricula for the institution's online learning offerings are coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats .....	9
5. The institution evaluates the effectiveness of its online offerings, including the extent to which the online learning goals are achieved, and uses the results of its evaluations to enhance the attainment of the goals .....	10
6. Faculty responsible for delivering online learning curricula and evaluating the students' success in achieving the online learning goals are appropriately qualified and effectively supported .....	11
7. The institution provides effective student and academic services to support students enrolled in online learning offerings .....	12
8. The institution provides sufficient resources to support and, if appropriate, expand its online learning offerings .....	13
9. The institution assures the integrity of its online learning offerings .....	14



## Overview

The *Interregional Guidelines for the Evaluation of Distance Education (Online Learning)* were developed by the Council of Regional Accrediting Commissions (C-RAC) to assist institutions in planning distance education and to provide an assessment framework for institutions already involved in distance education. The *Guidelines* are also intended for use by evaluation teams. They are based on two documents: a 2006 report prepared by the U.S. General Accounting Office, *Evidence of Quality in Distance Education Drawn from Interviews with the Accreditation Community*, and *Best Practice Strategies to Promote Academic Integrity in Online Education*, prepared by the Western Interstate Commission for Higher Education Cooperative for Educational Technologies (WCET). These *Guidelines* replace the C-RAC *Statement of Best Practices for Electronically Offered Degree and Certificate Programs*, published by MSCHE in 2002, and are intended to be used in conjunction with the relevant standards and policies of each accreditor.

While MSCHE institutions should address the requirements of distance education as defined in Standard 13 of *Characteristics of Excellence in Higher Education: Requirements of Affiliation and Standards for Accreditation*, these *Guidelines* provide a further resource by which an institution can evaluate itself. The *Guidelines* comprise nine hallmarks of quality for distance education. In their discussions of how their distance education programming fulfills MSCHE's accreditation standards, institutions are asked to include evidence of the extent to which they meet these hallmarks. Examples of the types of evidence that institutions might use are provided in this booklet. These lists are not meant to be exhaustive; it is likely that institutions will include additional types of evidence in their reports.

## The Hallmarks of Quality

### 1. Online learning is appropriate to the institution's mission and purposes (MSCHE Standard 1).

#### Analysis/Evidence:

- The mission statement explains the role of online learning within the range of the institution's programs and services;
- Institutional and program statements of vision and values inform how the online learning environment is created and supported;
- As appropriate, the institution incorporates into its online learning programs methods of meeting the stated institutional goals for the student experience at the institution;
- The recruitment and admissions programs supporting the online learning courses and programs appropriately target the student populations to be served;
- The students enrolled in the institution's online learning courses and programs fit the admissions requirements for the students the institution intends to serve;
- Senior administrators and staff can articulate how online learning is consonant with the institution's mission and goals.



**2. The institution's plans for developing, sustaining, and, if appropriate, expanding online learning offerings are integrated into its regular planning and evaluation processes (MSCHE Standard 2).**

**Analysis/Evidence:**

- Development and ownership of plans for online learning extend beyond the administrators directly responsible for it and the programs directly using it;
- Planning documents are explicit about any goals to increase numbers of programs provided through online learning courses and programs and/or numbers of students to be enrolled in them;
- Plans for online learning are linked effectively to budget and technology planning to ensure adequate support for current and future offerings;
- Plans for expanding online learning demonstrate the institution's capacity to assure an appropriate level of quality;
- The institution and its online learning programs have a track record of conducting needs analysis and of supporting programs.

**3. Online learning is incorporated into the institution's systems of governance and academic oversight (MSCHE Standard 4).**

**Analysis/Evidence:**

- The institution's faculty have a designated role in the design and implementation of its online learning offerings;
- The institution ensures the rigor of the offerings and the quality of the instruction;
- Approval of online courses and programs follows standard processes used in the college or university;
- Online learning courses and programs are evaluated on a periodic basis;
- Contractual relationships and arrangements with consortial partners, if any, are clear and guarantee that the institution can exercise appropriate responsibility for the academic quality of all online learning offerings provided under its name.

**4. Curricula for the institution's online learning offerings are coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats.**

**Analysis/Evidence:**

- The curricular goals and course objectives show that the institution or program has knowledge of the best uses of online learning in different disciplines and settings;
- Curricula delivered through online learning are benchmarked against on-ground courses and programs, if provided by the institution, or those provided by traditional institutions;
- The curriculum is coherent in its content and sequencing of courses and is effectively defined in easily available documents including course syllabi and program descriptions;
- Scheduling of online learning courses and programs provides students with a dependable pathway to ensure timely completion of degrees;
- The institution or program has established and enforces a policy on online learning course enrollments to ensure faculty capacity to work appropriately with students;
- Expectations for any required face-to-face, on-ground work (e.g., internships, specialized laboratory work) are stated clearly;
- Course design and delivery supports student-student and faculty-student interaction;
- Curriculum design and the course management system enable active faculty contribution to the learning environment;
- Course and program structures provide schedule and support known to be effective in helping online learning students persist and succeed.

**5. The institution evaluates the effectiveness of its online learning offerings, including the extent to which the online learning goals are achieved, and uses the results of its evaluations to enhance the attainment of the goals.**

**Analysis/Evidence:**

- Assessment of student learning follows processes used in onsite courses or programs and/or reflects good practice in assessment methods;
- Student course evaluations are routinely taken and an analysis of them contributes to strategies for course improvements;
- Evaluation strategies ensure effective communication between faculty members who design curriculum, faculty members who interact with students, and faculty members who evaluate student learning;
- The institution regularly evaluates the effectiveness of the academic and support services provided to students in online courses and uses the results for improvement;
- The institution demonstrates the appropriate use of technology to support its assessment strategies;
- The institution documents its successes in implementing changes informed by its programs of assessment and evaluation;
- The institution provides examples of student work and student interactions among themselves and with faculty;
- The institution sets appropriate goals for the retention/persistence of students using online learning, assesses its achievement of these goals, and uses the results for improvement.

**6. Faculty responsible for delivering the online learning curricula and evaluating the students' success in achieving the online learning goals are appropriately qualified and effectively supported.**

**Analysis/Evidence:**

- Online learning faculties are carefully selected, appropriately trained, frequently evaluated, and are marked by an acceptable level of turnover;
- The institution's training program for online learning faculty is periodic, incorporates tested good practices in online learning pedagogy, and ensures competency with the range of software products used by the institution;
- Faculty are proficient and effectively supported in using the course management system;
- The office or persons responsible for online learning training programs are clearly identified and have the competencies to accomplish the tasks, including knowledge of the specialized resources and technical support available to support course development and delivery;
- Faculty members engaged in online learning share in the mission and goals of the institution and its programs and are provided the opportunities to contribute to the broader activities of the institution;
- Students express satisfaction with the quality of the instruction provided by online learning faculty members.

**7. The institution provides effective student and academic services to support students enrolled in online learning offerings.**

**Analysis/Evidence:**

- The institution's admissions program for online learning provides good web-based information to students about the nature of the online learning environment, and assists them in determining if they possess the skills important to success in online learning;
- The institution provides an online learning orientation program;
- The institution provides support services to students in formats appropriate to the delivery of the online learning program;
- Students in online learning programs have adequate access to student services, including financial aid, course registration, and career and placement counseling;
- Students in online learning programs have ready access to 24/7 tech support;
- Students using online learning have adequate access to learning resources, including library, information resources, laboratories, and equipment and tracking systems;
- Students using online learning demonstrate proficiency in the use of electronic forms of learning resources;
- Student complaint processes are clearly defined and can be used electronically;
- Publications and advertising for online learning programs are accurate and contain necessary information such as program goals, requirements, academic calendar, and faculty;
- Students are provided with reasonable and cost-effective ways to participate in the institution's system of student authentication.

8. The institution provides sufficient resources to support and, if appropriate, expand its online learning offerings.

**Analysis/Evidence:**

- The institution prepares a multi-year budget for online learning that includes resources for assessment of program demand, marketing, appropriate levels of faculty and staff, faculty and staff development, library and information resources, and technology infrastructure;
- The institution provides evidence of a multi-year technology plan that addresses its goals for online learning and includes provision for a robust and scalable technical infrastructure.

9. The institution assures the integrity of its online offerings\*.

**Analysis/Evidence:**

- The institution has in place effective procedures through which to ensure that the student who registers in a distance education course or program is the same student who participates in and completes the course or program and receives the academic credit. The institution makes clear in writing that these processes protect student privacy and notifies students at the time of registration or enrollment of any projected additional costs associated with the verification procedures. **(Note: This is a federal requirement. All institutions that offer distance education programs must demonstrate compliance with this requirement.)**;
- The institution's policies on academic integrity include explicit references to online learning;
- Issues of academic integrity are discussed during the orientation for online students;
- Training for faculty members engaged in online learning includes consideration of issues of academic integrity, including ways to reduce cheating.

\*Institutions are encouraged to consult *Best Practice Strategies to Promote Academic Integrity in Online Education*, prepared by WCET and available at <http://www.wcet.wiche.edu>



## Notes

## Notes

## Middle States

### Standard 13

Programmatic distance education at UMB originated at the School of Nursing (SON), to improve educational access while maintaining high academic standards and rigor. Delivering graduate professional instruction online requires comprehensive planning; including instructional design support, faculty training, student readiness assessment and mentoring, attention to academic policy and procedure to achieve parity between face to face and online instruction. The SON initially received grant funds to build such an infrastructure, and UMB has since expanded its number of on/line and distance education programs due to the success of that model. The Quality Matters (QM) framework was chosen as a course design methodology due to its grounding in pedagogical research. All courses of the Doctorate of Nursing Program achieved QM distinction. Currently all online or web enhanced instruction at the SON, School of Pharmacy and Graduate School is supported by the QM design process.

To support growth in distance education UMB provides central institutional support to all schools through membership with the Southern Regional Education Board (SREB), provides a centralized state authorization process, maintains robust digital resources through HSHL, and established an office of academic innovation to foster student and faculty preparedness for distance education. Access to the services provided can be found at the following link: <http://www.umaryland.edu/AIDE/> UMB utilizes Blackboard as its learning management system and the University has a single sign-on authentication to access the Blackboard learning management system, UMB's on-line portal for grades, financial aid and billing (SURFS) and other campus technologies. Students utilizing on line systems must use their secure UMID and UM Password each time they log in and all email communications are sent to the UMB student email account. Additionally, UMB has adopted and implemented an Information Technology Acceptable Use Policy which applies to all students and in all programs of study and covers students who attend in-class instruction as well as those who take distance education and hybrid classes. The policy is available at the following link: <http://www.umaryland.edu/umbcomputingpolicies/it-acceptable-use-policy/> Students taking classes on line are asked to complete an online orientation and strategies to maintain academic integrity in the academic environment are included in faculty training.

In addition to central institutional support, individual school departments, policies and procedures at the School of Nursing, School of Pharmacy and the Graduate School support and articulate with clarity how faculty will be appointed and programs and courses regardless of delivery format will be approved to assure achievement of expected program learning outcomes, meet expectations for instructional rigor, parity of outcomes regardless of delivery format, monitor student success and progression through a robust program review process. At each school offering distance education; initial faculty orientation and training is required to teach online, a formal and informal course review structure based on the Quality Matters rubric exists, course evaluations, student performance and faculty input guide ongoing support to foster continuous improvement as we work collectively toward educational excellence. To learn more about our SON technology center visit: <https://www.nursing.umaryland.edu/technology/>

To assure adequacy of technical, physical plant facilities, human resources, and learning resources to achieve the university mission and vision of a sustainable distance education program, the institution relies upon the \_\_\_\_\_ committee which includes representation from all schools and central administration to perform periodic assessments of the impact of technology on education, inform decision making, budgeting and resource allocation. With the comprehensive approach described above UMB is

poised to be a leader in preparing, producing and promoting quality distance education faculty and learning opportunities to benefit our students, faculty, and partners to improve access to care, quality of care and the health of our communities here and abroad.

## Appendix 3

- Student Readiness Report:

<http://www.smartermeasure.com/smartermeasure/assets/File/2014-Student-Readiness-Report.pdf>

## **Appendix 4**

Separate attachment:

- Graduate School Online Academic Programs Guidelines and Expectations for Adjunct and Affiliate Faculty
- UMB QM Internal Review Worksheet

## GRADUATE SCHOOL ONLINE ACADEMIC PROGRAMS GUIDELINES AND EXPECTATIONS FOR ADJUNCT AND AFFILIATE FACULTY TEACHING

This document provides guidelines and expectations for Graduate School Adjunct and Affiliate Faculty. Graduate School Adjunct Faculty are faculty members who are assigned work activities on an as-needed basis according to the needs of the Graduate School on a semester or term basis. Adjunct Faculty are paid on a fully-variable, activity based model with primary responsibilities for teaching and curriculum development. Graduate School Affiliate Faculty are faculty members, appointed in other UMB Schools, but who provide teaching support for Online Academic Programs offered and administered through the Graduate School. Affiliate Faculty are paid on a variable, activity based model with primary teaching responsibilities for teaching, curriculum development, faculty development and recruitment, program marketing and student recruitment, student mentoring, and committee work. For purposes of this document, Graduate School Adjunct and Affiliate Faculty shall be referred to collectively as "Faculty."

The Graduate School is committed to providing high quality educational experiences to its students and it understands that engaging and effective Faculty teaching is critical to achieving that goal. This document provides general Faculty guidelines, as well as expectations and practices regarding online course development and Faculty expectations for course preparation, classroom management, teaching and grading. Faculty are responsible for upholding the guidelines and expectations outlined in this document.

### General Guidelines and Expectations

- Faculty must participate in the Graduate School Faculty Orientation
- Faculty are expected to become familiar with and adhere to USM, UMB and Graduate School policies, which are available at the following sites:
  - USM and UMB Policies: <http://cf.umaryland.edu/umpolicies/>
  - Graduate School Policies: <http://www.graduate.umaryland.edu/Policies/>
  - USM System-Wide Online learning Plan: <http://www.usmd.edu/usm/onlinelearning/>
- Faculty are expected to keep student information confidential in compliance with the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. §1232g; 34 C.F.R. 99), and to comply with Section III-6.30(A) UMB Policy on Confidentiality and Disclosure of Student Records, available here: <http://cf.umaryland.edu/umpolicies/usmpolicyInfo.cfm?polid=107&section=all>.
- Faculty must develop courses in a timely manner and in accordance to the Graduate School Course Development and Course Materials requirements, as provided in these Guidelines and Expectations. Faculty must comply with USM and UMB policies and procedures regarding intellectual property, copyright and IT acceptable use as they develop courses for and teach courses in the Graduate School.
- Faculty are responsible for demonstrating competence with the UMB online learning management system that is used to deliver Graduate School online courses. Faculty must complete Blackboard training in advance of initial online course delivery. The Blackboard instruction is competency based and uses adaptive learning settings. Faculty may direct questions or issues regarding the online learning management system to the Office of Academic Innovation in the Graduate School.
- Faculty are responsible for establishing a course syllabus and schedule and clearly communicating and making accessible to students all course materials, course requirements, due dates and other

course-related policies to students, as needed. This includes competing textbook adoptions through the UMB Seven Scholars Bookstore Faculty Enlight system.

[www.umb.bncollege.com](http://www.umb.bncollege.com)<<http://www.umb.bncollege.com>

- Faculty are responsible for providing timely and clear written communications to students in response to student inquiries.
- Faculty should contact the Graduate Studies Program Director and students in advance of any emergency or unforeseen circumstances which prevent the Faculty from attending or participating in a scheduled class or course activity.
- Faculty should be aware that qualified students with disabilities may be granted accommodations through the UMB Office of Educational Support and Disability Services (ESDS). ESDS works with the student and the Graduate School to coordinate requests and approvals for reasonable accommodations. Faculty members should follow the approved accommodations as listed on the student's ESDS accommodation notice. If a student approaches a Faculty member and discloses a disability or requests an accommodation based on a disability, the Faculty member should refer the student to ESDS.

### Course Development and Course Materials

The Graduate School has adopted the Quality Matters (QM) model for course development and design to ensure high caliber instruction and student centered learning. To foster this excellence in education the Graduate School recognizes the need to make an investment in faculty to develop, redesign and revise courses for the online environment.

In order to receive payment for online course development through the Graduate School, faculty members must meet the following criteria:

- Faculty members developing the course must work with a curriculum designer assigned by the Graduate School and adhere to Graduate School course structure requirements;
- The course must meet Graduate School quality standards criteria which includes adherence to the Quality Matters Program and other federal and state compliance requirements;
- Faculty members must agree to actively participate and complete training and tutorials for developing and delivering courses in the Graduate School online learning management system; and engage in ongoing course improvement to achieve and maintain QM distinction in a timely manner.
- The course content must be uploaded, delivered and managed through the Graduate School online learning management system.

As a general matter, Faculty retain ownership of copyrights of materials produced by them in the course of research, teaching, and publication efforts. Exceptions to this general rule include materials prepared with special support from UMB, materials prepared with fiscal support from sponsors, or materials prepared for University use in institutional publications. When course materials are developed specifically for use in a Graduate School course with instructional design support provided by the Graduate School using the UMB learning management system, the course materials will be the property of UMB. The Graduate School will have the right to determine whether to grant rights for further use by faculty. Faculty may make requests for



use or other access of UMB owned course materials to the Associate Dean of the Graduate School. To the extent that Faculty own copyright in the course materials developed for the purposes of teaching a Graduate School online course, the University retains a non-exclusive, irrevocable, perpetual, royalty-free worldwide license to reproduce, use, and modify the course materials and content, including creating derivative works, for the purpose of teaching in the Graduate School and for other educational purposes. As such, the University may use the course materials for purposes of teaching and education if the Faculty no longer teaches in the Graduate School or otherwise leaves UMB.

Information about intellectual property and copyrights are described in further detail in the USM and UMB policies and procedures listed below. Faculty must comply with these USM and UMB policies regarding intellectual property, copyright and IT acceptable use as they develop courses for and teach courses in the Graduate School:

- Section IV-3.20 USM Policy on Intellectual Property:  
<http://www.usmd.edu/regents/bylaws/SectionIV/IV320.html>
- Section IV-3.10 Policy on Copyrights: <http://www.usmd.edu/regents/bylaws/SectionIV/IV310.html>
- Section IV-3.10(A) UMB Guidelines on Reproduction of Copyrighted Materials:  
<http://cf.umaryland.edu/umpolicies/usmpolicyInfo.cfm?polid=139&section=all>
- Section X-99.01(A) IT Acceptable Use Policy:  
<http://cf.umaryland.edu/umpolicies/usmpolicyInfo.cfm?polid=398>
- Section X-99.14(A) P2P File Sharing & Copyright Infringement:  
<http://cf.umaryland.edu/umpolicies/usmpolicyInfo.cfm?polid=416>

### Course Requirements

- Each online course or section must have a minimum enrollment of 8 students. Courses or sections with less than 8 students are subject to cancellation at the discretion of the Graduate School with two weeks' notice prior to the start of the semester or term.
- Students taking the course are expected to interact with each other and with the faculty member. It is the responsibility of the faculty to determine the schedule and availability of interactive opportunities, to set up an interactive area in the online classroom, and to clearly communicate to students any guidelines surrounding the use of the interactive area.
- Courses can be offered during the traditional semester/term period or a shorter time period within the semester/term with prior approval of the Graduate School Associate Dean.

### (1-2) Weeks Prior to Teaching Course

- Review Graduate School and UMB policies and procedures
- Faculty will send a letter of introduction and guidance regarding The Office of Academic Innovation - student tutorials and technology preparation.
- Faculty must post the following in the online classroom/platform:
  - a class introduction
  - up-to-date biography

- contact information
- complete syllabus (including course schedule and grading criteria)
- assignment and assessment schedule
- course-related guidelines and rubrics used for grading, assessments, completion of assignments
- any additional course-specific materials or resources that students may need prior to the course.

### Throughout the Semester

- Provide timely and constructive responses and feedback to student assignments, inquiries and questions.
- Engage a variety of student centered teaching methods and strategies in order to engage a diversity of student backgrounds and learning styles. Such teaching tools may include lectures, written exercises, discussion boards, interactive virtual exercises, audiovisual content, etc.
- Promptly post assignments and activities in the online classroom, as needed.
- Actively participate in the online classroom, including but not limited to:
  - Updating class news and announcements
  - Posting course content materials and resources according to the course syllabus
  - Facilitating online discussions to foster critical-thinking and student-centered learning
  - Monitoring student participation, performance and progression in the online classroom

### Grading and Feedback

- Provide course assessments that measure the stated course level and unit level objectives in accordance with the course syllabus to ensure students demonstrate knowledge and skill in the subject area and tested course content.
- Provide students with grading criteria or rubrics of all course assignments and components, including assessments, assignments, projects and class participation.
- Post grades promptly in accordance with Graduate School timelines. Provide feedback and grades in a timely manner so that students have an opportunity to apply feedback to the next assignment.
- Follow the Graduate School grading and academic policies, including those relevant to grade appeals, or suspected academic misconduct.

### End of the Semester

- Submit final grades via in accordance with graduate school timelines
- Contact Graduate Studies Program Director if any questions or issues regarding final grades.

### Faculty Compensation

Affiliated Faculty who are appointed full time in another UMB school will generally be compensated through a **Supplemental Compensation Request** that requires the prior approval of the home school. Developing and teaching online courses in the Graduate School are generally not considered part of the Affiliated Faculty member's regular teaching load and payment will be based upon a teaching overload assignment.

Compensation rates for developing and teaching online courses as an Affiliate Faculty member are included in the attached payment schedule.

Adjunct Faculty are appointed to develop and teach online courses in the Graduate School on a course-by-course basis and are compensated on a fully variable, activity based model. Compensation rates for developing and teaching online courses as an Adjunct Faculty member are included in the attached payment schedule. Adjunct Faculty will be paid via an Adjunct Faculty Contingent Category I Temporary Employment and Payment Agreement.

FACULTY ACKNOWLEDGEMENT

I \_\_\_\_\_ acknowledge that I have received and reviewed the "Graduate School Online Academic Programs, Guidelines and Expectations for Adjunct and Affiliate Faculty Teaching" (Guidelines and Expectations). I understand that as an Adjunct or Affiliate Graduate School Faculty member who is teaching a Graduate School Online Academic Program, I am responsible for complying with USM, UMB and Graduate School policies and procedures and the obligations outlined in the Guidelines and Expectations.

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Signature

Date

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Graduate School Online Course

## UMB Graduate School Quality Matters Internal/Informal Review Worksheet

<b>Course:</b> <b>Semester/Year:</b> <b>Faculty Name:</b> <b>Email Address:</b> <b>Peer Reviewer:</b> <b>Peer Reviewer email:</b>
--

Standard	Faculty Developer Summary	Standard met?	Reviewer Comments
1.1 Instructions make clear how to get started and where to find various course components			
1.2 Students are introduced to the purpose and structure of the course.			
2.1 The course learning objectives describe outcomes that are measureable.			
2.2 The model/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives:			
2.3 All learning objectives are stated clearly and written from the student's perspective.			
2.4 Instructions to students on how to meet the learning objectives are adequate and stated clearly.			
2.5 The learning objectives are appropriately designed for the level of the course.			

## UMB Graduate School Quality Matters Internal/Informal Review Worksheet

<p>3.1 The types of assessments selected measure the stated learning objectives and are consistent with course activities and resources.</p>			
<p>3.2 The course grading policy is stated clearly.</p>			
<p>3.3 Specific and descriptive criteria are provided for the evaluation of students' work and participation and are tied to the course grading policy.</p>			
<p>4.1 The instructional materials contribute to the achievement of the stated course and module/unit learning objectives.</p>			
<p>4.2 The purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.</p>			
<p>5.1 The learning activities promote the achievement of the stated learning objectives.</p>			
<p>5.2 Learning activities provide opportunities for interaction that support active learning.</p>			
<p>5.3 The</p>			

## UMB Graduate School Quality Matters Internal/Informal Review Worksheet

instructor's plan for the classroom response time and feedback on assignments is clearly stated.			
6.1 The tools and media support the course learning objectives.			
6.2 Course tools and media support student engagement and guide the student to become and active learner.			
6.3 Navigation throughout the online components of the course is logical, consistent, and efficient.			
7.1 The course instructions articulate or link to a clear description of the technical support offered and how to access it.			
7.2 Course instructions articulate or link to the institution's accessibility policies and services.			
8.1 The course employs accessible technologies and provides guidance on how to obtain accommodation.			

Reviewer comments:

Please indicate if the course meets QM 21 essential standards:

## Appendix 5

### Budget

#### MSHS Concentrations & Certificate Programs Tuition Revenue Projections

<b>Tuition and Fee Revenue</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
<b><u>Resident Tuition &amp; Fees</u></b>				
Number of Students*	70	165	175	200
Credit Hour Rate	\$ 570.00	\$ 585.00	\$ 595.00	\$ 610.00
Fees per Credit	\$ 21.00	\$ 22.00	\$ 22.00	\$ 23.00
Annual Credit Hours Per Student	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>
<b>Total Resident Tuition &amp; Fees</b>	<b>\$ 601,920</b>	<b>\$1,502,325</b>	<b>\$1,619,625</b>	<b>\$1,899,000</b>
<b><u>Non-Resident Tuition &amp; Fees</u></b>				
Number of Students	15	30	30	40
Credit Hour Rate	\$ 1,005.00	\$ 1,020.00	\$ 1,030.00	\$ 1,045.00
Fees per Credit	\$ 21.00	\$ 22.00	\$ 22.00	\$ 23.00
Annual Credit Hours Per Student	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>
<b>Total Non-Resident Tuition &amp; Fees</b>	<b>\$ 215,310</b>	<b>\$ 468,900</b>	<b>\$ 473,400</b>	<b>\$ 640,800</b>
<b>Total Tuition and Fee Revenue</b>	<b><u>\$ 817,230</u></b>	<b><u>\$1,971,225</u></b>	<b><u>\$2,093,025</u></b>	<b><u>\$2,539,800</u></b>
<b>Other Graduate School Support</b>	<b><u>\$ 222,320</u></b>	<b><u>\$ -</u></b>	<b><u>\$ -</u></b>	<b><u>\$ -</u></b>
<b>Total Revenues</b>	<b><u>\$ 1,039,550</u></b>	<b><u>\$1,971,225</u></b>	<b><u>\$2,093,025</u></b>	<b><u>\$2,539,800</u></b>

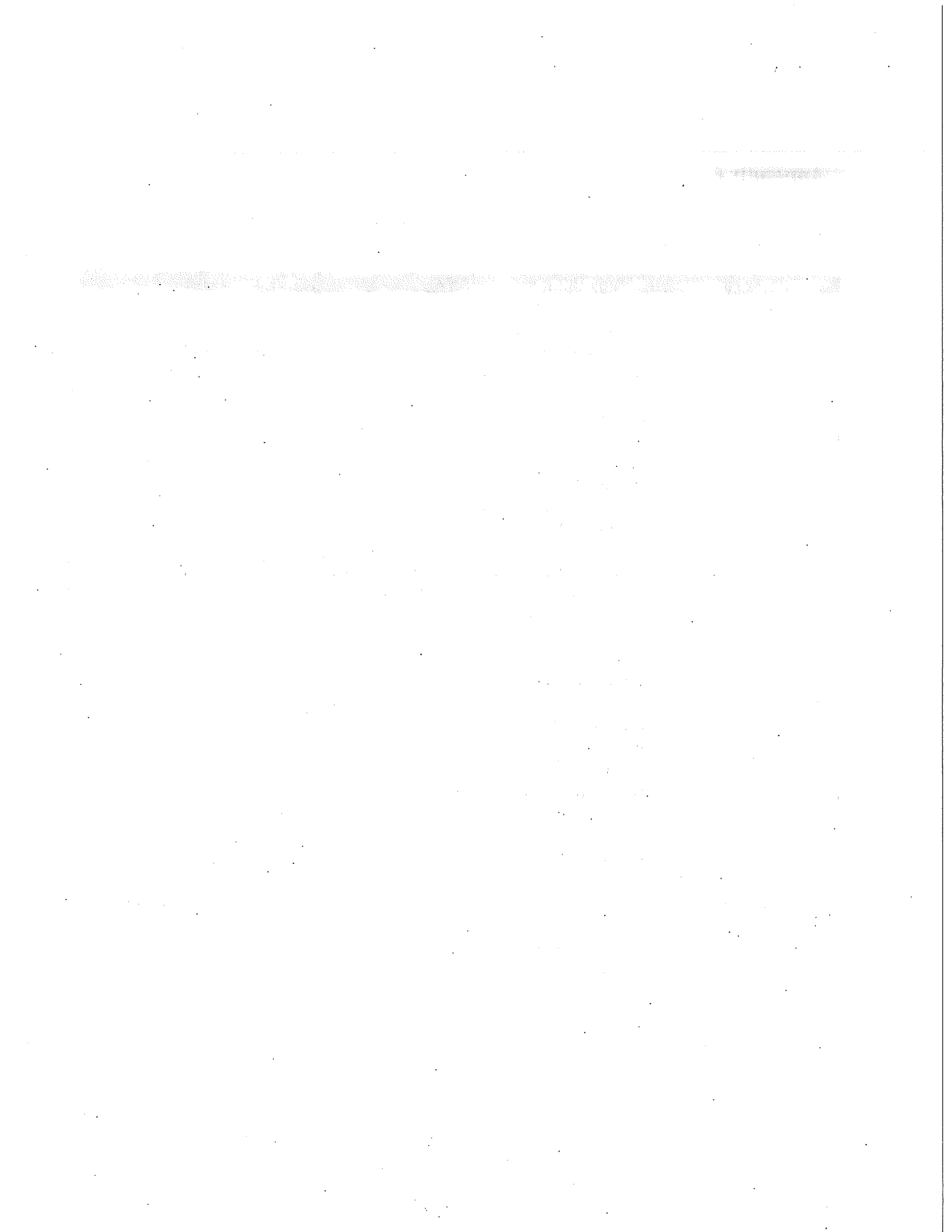
<b>Expense Projections</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
<b>Teaching Faculty</b>				
Salaries	\$ 490,000	\$ 700,000	\$ 717,500	\$ 900,000
Fringes	\$ 114,660	\$ 175,000	\$ 179,375	\$ 183,859
<b>Total Teaching Faculty Costs</b>	<b>\$ 604,660</b>	<b>\$ 875,000</b>	<b>\$ 896,875</b>	<b>\$ 1,083,859</b>
<b>Program Faculty</b>				
Salaries	\$ 86,000	\$ 250,000	\$ 256,250	\$ 350,000
Fringes	\$ 20,200	\$ 62,500	\$ 64,063	\$ 65,664
<b>Total Program Faculty Costs</b>	<b>\$ 106,200</b>	<b>\$ 312,500</b>	<b>\$ 320,313</b>	<b>\$ 415,664</b>
<b>Total Faculty Costs</b>	<b>\$ 710,860</b>	<b>\$ 1,187,500</b>	<b>\$ 1,217,188</b>	<b>\$ 1,499,523</b>
<b>Instructional Design Costs</b>				
Salaries	\$ 120,000	\$ 150,000	\$ 153,750	\$ 159,900
Fringes	\$ 42,120	\$ 60,000	\$ 63,038	\$ 65,559
<b>Total Instructional Design Costs</b>	<b>\$ 162,120</b>	<b>\$ 210,000</b>	<b>\$ 216,788</b>	<b>\$ 225,459</b>
<b>Marketing &amp; Enrollment Costs</b>				
Salaries	\$ 70,000	\$ 140,000	\$ 193,500	\$ 201,240
Fringes	\$ 24,570	\$ 56,000	\$ 77,400	\$ 82,508
<b>Total Marketing and Enrollment Costs</b>	<b>\$ 94,570</b>	<b>\$ 196,000</b>	<b>\$ 270,900</b>	<b>\$ 283,748</b>
<b>Admissions &amp; Academic Enroll Supp</b>				
Salaries	\$ -	\$ 100,000	\$ 102,500	\$ 106,600
Fringes	\$ -	\$ 40,000	\$ 41,000	\$ 43,706
<b>Total Amissions &amp; Acad Enroll Supp</b>	<b>\$ -</b>	<b>\$ 140,000</b>	<b>\$ 143,500</b>	<b>\$ 150,306</b>
<b>Total Direct Salary Costs</b>	<b>\$ 967,550</b>	<b>\$ 1,733,500</b>	<b>\$ 1,848,375</b>	<b>\$ 2,159,037</b>
<b>Direct Operating Costs</b>				
CRM Licensing	\$ 15,000	\$ 30,000	\$ 30,000	\$ 60,000
Instructional Software Licensing	\$ -	\$ 10,000	\$ 10,000	\$ 20,000
Recruitment/Advertising	\$ 50,000	\$ 100,000	\$ 100,000	\$ 150,000
Other Contractual Services	\$ 5,000	\$ 20,000	\$ 20,000	\$ 20,000
IT Supplies	\$ -	\$ 25,000	\$ 25,000	\$ 25,000
Supplies & Materials	\$ 2,000	\$ 50,000	\$ 50,000	\$ 50,000
<b>Total Direct Operating Costs</b>	<b>\$ 72,000</b>	<b>\$ 235,000</b>	<b>\$ 235,000</b>	<b>\$ 325,000</b>
<b>Total Direct Costs</b>	<b>\$ 1,039,550</b>	<b>\$ 1,968,500</b>	<b>\$ 2,083,375</b>	<b>\$ 2,484,037</b>



## Appendix 6

**Table 3.** Faculty Resources Available in the New Certificate Programs and their current titles and assigned courses.

<b>Faculty Lead(s)</b>	<b>Title/Academic Rank</b>	<b>Course(s)</b>
Matt Harper, PhD	Core Faculty and Professional Writing Consultant in the University of Maryland, Baltimore Writing Center.	MHS 603 Technical Writing (3) MHS 637 Writing Proposals and Grants (3)
Clancy Clawson, MA	Core Faculty and Associate Director of University Writing for University of Maryland, Baltimore Writing Center.	MHS 627 Science Writing for the Public (3)
Dennis J. Paffrath, MBA	Core Faculty University of Maryland, Baltimore Assistant Vice-President Sponsored Programs Administration	MHS 601 Introduction to Research Administration (3)
Jim Hughes	Core Faculty University of Maryland, Baltimore Chief Enterprise/ Econ Development Officer	MHS 640 Technology Transfer (3)
Noah Siela	Core Faculty University of Maryland Baltimore, School of Law	MHS 607 Writing for Scholarly Journals (3)
Susan Buskirk, MS	Core Faculty University of Maryland Baltimore Deputy Chief Accountability Officer Assistant Vice President	MHS 618 Perspectives on Regulatory and Legal Issues (3)



<b>Course</b>	<b>Faculty</b>	<b>Title</b>	<b>Status</b>
<b>Master of Science in Health Sciences Core Courses</b>			
MHS 600 Introduction to Library Resources and Scholarly Writing (1)	Paula Raimondo, MLS	Core Faculty and Head of Research, Education and Outreach for the University of Maryland, Baltimore.	Full-Time Faculty
MHS 602 Legal/Ethical Issues for Health, Human Services and Clinical Professionals (2)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty
MHS 652 Communications and Leadership (3)	Mary Jo Bondy, DHEd, MHS, PA-C	Senior Lecturer. Core Faculty and Director of Graduate Studies for the University of Maryland, Baltimore Graduate School.	Full-Time Faculty
MHS 615 Biostatistics for the Health Professional (3)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty
MHS 608 Research Seminar I (3)	Mary Jo Bondy, DHEd, MHS, PA-C	Senior Lecturer. Core Faculty and Director of Graduate Studies for the University of Maryland, Baltimore Graduate School.	Full-Time Faculty
MHS 609 Research Seminar II (3)	Mary Jo Bondy, DHEd, MHS, PA-C	Senior Lecturer. Core Faculty and Director of Graduate Studies for the University of Maryland, Baltimore Graduate School.	Full-Time Faculty
MHS 700 Capstone Project (3)	Mary Jo Bondy, DHEd, MHS, PA-C	Senior Lecturer. Core Faculty and Director of Graduate Studies for the University of Maryland, Baltimore Graduate School.	Full-Time Faculty

<b>Course</b>	<b>Faculty</b>	<b>Title</b>	<b>Status</b>
<b>Research Implementation and Dissemination (12 credits)</b>			
ETHC 637: Introduction to Research Ethics (3)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty
MHS 630: Essentials of Chronic and Infectious Disease Epidemiology (3)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty
MHS 633: Clinically Applied Social and Behavioral Health Theory (3)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty
MHS 613 Research Implementation (3)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty
MHS 614 Research Dissemination (3)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty
MHS 631 Global Non-Communicable Disease (NCD) Epidemiology (3)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty
MHS 611 Observational Epidemiology in Implementation & Dissemination Research (3)	TBN	UMB plans to hire full-time faculty to teach this course.	Full-Time Faculty