

FLORIDA ATLANTIC UNIVERSITY

NEW DEGREE PROGRAM APPROVAL
ROUTING AND SIGNATURE

Doctor of Medicine / Master of Science in
PROPOSED PROGRAM Global Health & Bioethics CIP 51

DEPARTMENT [Signature] August 10, 2011
(Name) Morton H. Lauer, MD (Chair) (Date)

COLLEGE [Signature] 8/11/11
(Name) (Dean) (Date)

PROVOST'S OFFICE
(Assoc. Provost – Academic Budgets) (Date)
[Signature] 8/15/11
(Assoc. Provost – Enrollment Management) (Date)

CHAIR OF GPC/UPC _____
(Circle One) (Date)

CHAIR OF ACADEMIC PLANNING & BUDGET _____
(Date)

DEAN OF UNDERGRADUATE STUDIES _____
(Date)

DEAN OF GRADUATE COLLEGE _____
(Date)

UFS _____
(President) (Date)

PROVOST _____
(Date)

Florida Board of Governors

Request to Offer a New [Dual MD-MS] Degree Program

FAU COM
University Submitting Proposal

Summer 2013-Spring 2016
Proposed Implementation Date

College of Medicine (COM)
Name of College or School

Integrated Medical Science Dept
Name of Department(s)

Global Health and Bioethics

Doctor of Medicine/Master of Science in
Global Health and Bioethics

Academic Specialty or Field

Complete Name of Degree
(Proposed CIP Code-51)

The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.

Date Approved by the University Board of Trustees President Date

Signature of Chair, Board of Trustees Date Vice President for Academic Affairs Date

Provide headcount (HC) and full-time equivalent (FTE) student estimates of majors for Years 1 through 5. HC and FTE estimates should be identical to those in Table 1. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Table 2. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 (Total E&G divided by FTE).

Implementation Timeframe	Projected Student Enrollment (From Table 1)		Projected Program Costs (From Table 2)		
	HC	FTE	Total E&G Funding	Contract & Grants Funding	E&G Cost per FTE
Year 1	8	8	119,650	0	10,404
Year 2	16	16			
Year 3	24	24			
Year 4	32	32			
Year 5	32	32	119,650	0	11,151

Note: This outline and the questions pertaining to each section must be reproduced within the body of the proposal to ensure that all sections have been satisfactorily addressed.

INTRODUCTION

I. Program Description and Relationship to System-Level Goals

- A. Briefly describe within a few paragraphs the degree program under consideration, including (a) level; (b) emphases, including concentrations, tracks, or specializations; (c) total number of credit hours; and (d) overall purpose, including examples of employment or education opportunities that may be available to program graduates.**

(a-c) Level/Emphases/Total Number of Credit Hours: The MD/MS in Global Health and Bioethics is a combined degree – Doctor of Medicine and Master of Science in Global Health and Bioethics. The MD degree is an existing FAU College of Medicine degree program, accredited by the Liaison Committee on Medical Education in February 2011. The MS in Global Health and Bioethics is an interdisciplinary Master’s level degree program. Its curriculum is comprised of required core courses with dual emphasis on: a) global health; and b) global bioethics and international research ethics. There will no concentration, tracks or specializations. The total number of credit hours is 30.

Although there are two new Global Health MS degree programs in the USA (beginning 2008 forward), and two in the UK (beginning 2005 forward), FAU COM’s dual degree program will be the *first combined MD/MS degree* of its kind to be offered anywhere, and the 1st MD-MS & MS in Global Health and Bioethics in Florida. This is notable because many MS graduates in Global Health from elsewhere go on to do an MD degree afterwards. The FAU COM combined MD/MS will uniquely and efficiently allow completion of both degrees in a single four-year period. This will be a unique draw for “the best and brightest” caliber student, and given the emphasis on service to underserved communities, is also a proven interest and draw for underrepresented minorities. The other innovation of our program is more substantive formal coursework in global bioethics and international research ethics. Such ethics training is crucial for research and clinical service involving vulnerable underserved communities in the USA and overseas.

(d) Overall Purpose: The overall purpose of the MS in Global Health and Bioethics is to prepare graduates of the program to:

- Assume leadership, advocacy, research, education and service roles in the emerging fields of global health and global bioethics/international research ethics.
- Implement and evaluate programs and policies focused on improvement of health for both local and global underserved communities.
- Identify social determinants of health, including behavioral, environmental, cultural, economic and political factors.
- Understand how these determinants of health contribute to local and global inequities in health, and work to remedy them in more culturally competent and effective ways.

- Understand and manage ethical issues involved in research, education, policy and clinical service in a global health setting.

The overall purpose of the dual degree MD-MS in Global Health and Bioethics is to prepare graduates of the program to:

- Utilize the above unique knowledge and skills to deliver culturally competent health care to underserved populations in Florida and the United States.
- With their unique training, FAU COM's MD/MS dual degree graduates in particular will: a) likely pursue a residency in a primary care specialty; and b) be especially well suited to remain in South Florida/Florida and improve health services offered to the local/regional community.
- Through such training, FAU COM's MD/MS dual degree graduates will develop: a) longstanding partnerships with local and global underserved communities; and b) the special knowledge, skills and experience - including cultural competency - to improve the effectiveness of their health services for such ethnic and socioeconomic communities.
- This training program can positively impact the economic development of South Florida and Florida in fundamental ways. For example, because our MD/MS graduates will be uniquely well equipped to provide targeted and culturally competent health services to both local and global underserved communities, this can improve Florida's health economics by: a) better attending to low cost preventive care; b) better ensuring compliance with health & wellness regimens tailored to particular ethnic and socioeconomic communities; thus c) lessening reliance on higher cost acute/ emergency room care; and d) otherwise avoiding unwarranted expenditures often associated with Florida's underserved communities.

(d) Examples of Employment or Education Opportunities Available to Graduates:

There are diverse and impressive employment opportunities for such MS graduates at the local, state, national, and/or international level. Some specific examples drawn from existing programs include working as a: Department of Health Director/Clinician; Global/Public Health Specialist; Global/Public Health Manager; Management Consultant; World Health Organization Officer; CDC Policy Analyst; Grant Advisor (e.g., Wellcome Trust); Managing Director of a Technology Company (e.g., PromoVision Ltd); Researcher; Technology Support Manager (e.g., International HIV/AIDS Alliance); Health Promotion/Health Policy Advisor; Global Health Professor (e.g., at CDC); non-governmental organization (NGO, an organization that pursues some wider social aims that has political aspects, but that are not overtly political organizations); Leader; Country Coordinator for International Development; Public Health Agency Analyst; Founder/Director of a National Research Ethics Committee (e.g., Zambia); and International Business Manager.

For some additional examples:

American graduates of the first Master's program in Global Health Sciences (University of Oxford, established 2005) pursued the following national and international job opportunities after completing their MS (full descriptions of all alumni work can be found at <http://www.publichealth.ox.ac.uk/courses/gradstu/globalhealth/alu>):

- Research Associate at the Rudd Center for Food Policy and Obesity at Yale University
- County Coordinator for Population and Development International, Cambodia
- Case Worker and Field Team Leader with the Joint Voluntary Agency, Nairobi, Kenya

In Fall 2011, UCSF hopes to post online an outline of the professional work their alumni have gone on to do after completing their MS in Global Health Sciences. In the meantime, existing Student Biosketches include: 7 students in 2008-2009; 18 students in 2009-2010; and 29 students in 2010-2011: <http://globalhealthsciences.ucsf.edu/education/graduate/students/index.aspx>)

Based on what MS graduates of existing Global Health Sciences programs have gone on to study, graduates of the FAU COM MD/MS Global Health and Bioethics program will be able, if they choose, to pursue further (e.g., doctoral level) training in a wide variety of fields. These include but are not limited to: Medical Anthropology; Bioethics; International Business Management; Epidemiology; Health Policy/Health Policy Management; International Health; and Public Health.

B. Describe how the proposed program is consistent with the current State University System (SUS) Strategic Planning Goals. Identify which goals the program will directly support and which goals the program will indirectly support. (See the SUS Strategic Plan at <http://www.flbog.org/StrategicResources/>)

SUS Strategic Plan 2005 Goals Directly or Indirectly Supported:

Goal I: Access to and production of degrees

- Master's Degrees

- This program aims to establish the first MD/MS Global Health and Bioethics dual degree program in the state, country, and world.
- On this basis, the program will establish FAU COM as a state, national and international leader in Global Health and Bioethics, enabling it to help define and shape this field as an early pioneer.

- Improving/Enriching URM Access

- The targeted focus of this MD/MS dual degree program, i.e., service to underserved ethnic and socioeconomic communities in Florida, the US and beyond, is a proven interest and draw for underrepresented minorities and international students. Many such students/graduates are also well documented to dedicate their careers to serving these very communities of which they are members, in regions with higher numbers of diverse and underserved patients and families in Florida and the US. Thus, the FAU MD/MS dual degree program will likely attract and graduate higher percentages of underrepresented minorities (e.g., Blacks, Hispanics, and Native Americans) compared to other state or national medical schools not offering this unique program. This positions FAU COM very well to advance Liaison Committee on Medical Education and FAU COM institutional goals of: a) recruiting and retaining more ethnically diverse medical students, residents, and faculty; and b) cultivating improved cultural competency among same.

Goal II: Meeting statewide professional and workforce needs

- Increasing the Number of Medical Doctors in the State of Florida (with unique knowledge and skills tailored to serving local and global underserved communities)

- FAU COM will matriculate its first class of 64 students in Summer 2011. The MD/MS dual degree founding cohorts will begin in 2012 and graduate in 2015. With their unique training, FAU COM's MD/MS dual degree graduates in particular will: a) likely pursue a residency in a primary care specialty; and b) be especially well suited to remain in South Florida/Florida and improve health services offered to the local/regional community. This is due to their Global Health and Bioethics Curricula emphasizing, e.g., Community Based Participatory Research and Education Training; Community Engagement Activities; and the MS Capstone Project. Through such training and service projects, FAU COM's MD/MS dual degree graduates will develop: a) longstanding partnerships with local and global underserved communities; and b) the special knowledge, skills and experience - including cultural competency - to improve the effectiveness of their health services for such ethnic and socioeconomic communities.

- Economic Development: Emerging Technologies and Better Targeted/More Culturally Competent Health Services

- By definition, this academic program can be included as a member of the Advisory Group on Emerging Technologies defined degree programs that support emerging technologies. Such new or developing technologies have been identified in Florida as potential sources of economic competitiveness and development.
- However, this program can positively impact the economic development of South Florida and Florida in more fundamental ways. For example, because our MD/MS graduates will be uniquely well equipped to provide targeted and culturally competent health services to both local and global underserved communities, this can improve Florida's health economics by: a) better attending to low cost preventive care; b) better ensuring compliance with health & wellness regimens tailored to particular ethnic and socioeconomic communities; thus c) lessening reliance on higher cost acute/ emergency room care; and d) otherwise avoiding unwarranted expenditures often associated with Florida's underserved communities.

- High Wage/High-Demand jobs

- As the above list of jobs (see section I. A, pg. 2) secured by graduates of similar programs in the USA and UK already resoundingly suggests, this MD/MS dual degree program will likely increase the economic competitiveness of FAU's MD/MS graduates, thereby also increasing economic development in the region, state and beyond in a number of ways.

Goal III: Building world-class academic programs and research capacity

- Centers of Excellence

- As already stated above, this program aims to establish the first MD/MS Global Health and Bioethics dual degree program in the state, country, and world.
- On this basis alone, the program will establish FAU COM as a national and international leader in Global Health and Bioethics, enabling it to help define and shape this field as an early pioneer.
- The program will internationalize the FAU COM & main University campus, better preparing FAU students, residents, faculty, and community members to understand and manage the realities and forces of globalization.
- It is our explicit goal that this will “brand” FAU’s College of Medicine in a manner both uniquely well suited to its local demographics and planned services, and also bolster institutional, SUS, state, national, and international excellence.
- Core FAU COM faculty are already nationally and internationally recognized and published in the program’s core academic disciplines (please see attached CV’s for Drs. Myser & Servoss) For example, Dr. Myser was employed by University of California San Francisco’s (UCSF) School of Medicine/Institute of Global Health as Health Professions Education Coordinator for Global Health Sciences (focused on developing core international partnerships between six parallel health professional schools at UCSF and MUHAS/Tanzania, funded by an \$8 million Gates Foundation grant) the year UCSF graduated its founding class of MS in Global Health Sciences students (2009). Her book, “Bioethics Around the Globe” was published by Oxford University Press in June 2011. Core faculty are already committed in many ways to continue and increase this trend of national and international productivity in Global Health and Bioethics. For example, Dr. Myser has already been invited/accepted to organize a special issue (in 2013) of *The Journal of Bioethical Inquiry* (an international bioethics journal based in Australia, for which she serves as Associate Editor of Global Bioethics) on “Global Health and Bioethics.” Dr. Myser and Dr. Servoss, who is FAU COM’s Assistant Dean of Diversity, will co-author the opening article, "Addressing Health Disparities in the Context of Globalization: The Emergence of Global Health and Bioethics Masters Programs as a Means to Effect 'Local' and 'Global' Remedies & Achieve Key Social Missions of Medical Education." This article will offer the first professional journal article exploration, comparison, and analysis of Global Health and Bioethics/Global Health Sciences Masters level training programs around the nation and globe, prominently featuring and describing FAU COM’s MD/MS dual degree program.
- All the above will ideally help bring Florida’s research productivity in this and associated fields to a level appropriate to the 4th largest state - and one of the nation’s most ethnically diverse states - while maintaining and enriching the SUS’s and FAU COM’s high level of faculty productivity.

Goal IV: Meeting community needs and fulfilling unique institutional responsibilities

- South Florida Community Needs

- As indicated above, South Florida is notable for its unique and varying mosaic of ethnic communities and cultural groups. The region’s patients, families and students include new immigrants, assimilated immigrants and established Florida residents. Minority and

international students make up more than 40% of the student body at FAU, which consistently ranks in the top 30 universities nationally in student-body diversity. South Florida and FAU's rich ethnic and socioeconomic demographics offer unique opportunities to explore and develop health professional excellence through diversity. These factors challenge and call for FAU COM graduates to be equipped with heightened cultural competency, to better serve and care for patients in our local community, the nation and around the globe.

Accordingly, our goals include developing physicians and researchers with special skills in providing cross-cultural and international health care, and advancing social justice on behalf of underserved communities. The COM can uniquely draw on and partner with "bridge communities" whose members may originate from overseas, but now reside either temporarily or permanently in South Florida.

- **Student Service Partnerships with Local/Regional/State/Global Communities; Social Mission and Public Benefits**

- **Community Service Partnerships:** The MS in Global Health and Bioethics curriculum is horizontally and vertically integrated with the MD curriculum throughout FAU COM's four year medical training program. This MD/MS dual degree will facilitate student immersion in the community and the building of community partnerships over the entire course of their education. Students will be working with community organizations, international organizations, interdisciplinary teams and neighborhood households to identify and address existing healthcare needs and gaps in services. Students in the MD/MS program will thus work together with community partners throughout their training, and especially through their Capstone Project, to address real medical, social and ethical issues experienced by disadvantaged families of South Florida and overseas. We will thereby prepare graduates to assess and address the medical and non-medical factors that affect health outcomes, through a curriculum that integrates the ethical foundations of medicine, social determinants of health, cultural competency, public health principles, and sustained community-based participatory service learning projects. The community engagement effort through community-based participatory research (CBPR) and the Capstone Projects will additionally serve the institution and community by enabling them to collaboratively and democratically construct substantive, rich, and deep insights/knowledge of how FAU can best serve the community.
- **Social Mission and Public Benefits:** The MD/MS in Global Health and Bioethics curriculum will provide students with early clinical experiences in the community (Department of Health, community health centers, etc.) that will help inform research ideas and guide fieldwork project topics and allow students to begin studying community- and site-specific clinical and cultural issues, socio-behavioral determinants of health and how factors like poverty and immigrant/refugee status and other stressors may complicate medical care. The MD/MS will thus highlight the "social mission" and "public benefits" of the University and the COM, to serve the community and to promote socially conscious medicine. Medical schools contribute numerous important public

goods to society beyond training the future physician workforce. These public goods include providing substantial healthcare to underserved communities. One core social mission is to train physicians to care for the population as a whole, taking into account such issues as primary care, underserved areas and workforce diversity. In “The Social Mission of Medical Education: Ranking the Schools” (Annals of Internal Medicine 2010, 152:804-811.), Mullan and colleagues suggest that the social mission of a school of medicine can be measured based on percentage of medical school graduates who practice primary care, work in health professional shortage areas and who are underrepresented minorities. FAU as a public medical school will primarily admit students from within the state. Mullan and colleagues concluded that public schools are indeed more responsive to the population-based and distributional physician workforce needs that concern legislators. Graduates of schools with a strong social mission are likely to be among the most well prepared practitioners for primary care and for the care of underserved minority populations, and our MD/MS dual degree uniquely advances all of these goals.

- Accordingly, the MD/MS dual degree in Global Health and Bioethics will integrate research, community issues and public health in a manner that will transform the way healthcare is practiced and viewed by the South Florida community and its leaders. The curriculum is focused on traditional missions like research and teaching medical students diagnostic skills but also emphasizes social missions and public benefits through community involvement, local medicine, social consciousness and local cultural issues. Such efforts could go far toward making healthcare more affordable and accessible. This combined degree program thus exemplifies one new, innovative curricula that has an explicit social mission aimed at improving the quality of life of local and global families and communities. With students engaged in the local communities, they will help our most vulnerable families, those who often count on the government for medical support. Students are also partnering with families to administer and increase preventive care, reduce emergency room visits and improve health literacy, thus addressing the healthcare crisis in the state and nation at its most foundational level.

INSTITUTIONAL AND STATE LEVEL ACCOUNTABILITY

II. Need and Demand

- A. Need: Describe national, state, and/or local data that support the need for more people to be prepared in this program at this level. Reference national, state, and/or local plans or reports that support the need for this program and requests for the proposed program which have emanated from a perceived need by agencies or industries in your service area. Cite any specific need for research and service that the program would fulfill.**

National Data/Plans/Reports-US Government-Demonstrating Demand/Need for

Such Training: The Department of State and the US Agency for International Development identified global health as one of six development areas where the US government is best placed to deliver meaningful results and advance America's core national security, diplomacy and international development interests around the world. By strategically investing in global health, they wish to spur progress across sectors in economic development, job creation, education, etc. These are goals with both global reach and local significance. For example, a core objective of the President's Global Health Initiative is to improve health outcomes among women and girls because of the centrality of women to the health of their families and communities. Girls and women are particularly vulnerable to ill health because of their reproductive role and patterns of gender discrimination. They suffer disproportionately from the effects of gender-based sexual violence and exploitation, face economic, social, cultural and legal barriers to healthcare, and are comparatively underserved by health services.
(<http://www.pepfar.gov/documents/organization/136504.pdf>)

One example from our Global Health and Bioethics program that directly attends to this national and international need and demand, is to incorporate a course on "Women, Maternal and Child Health and Empowerment" that focuses on: a) the challenges in delivering safe and effective women's, maternal and child health; and b) the methodological and ethical challenges in health research and healthcare involving women and children. Our dual degree program will thus enable graduates systematically to understand and assess the specific determinants of health inequities experienced by women and girls, locally and globally. An additional outcome of our targeted programmatic content and methodological emphases is that our graduates will receive the specific training and skills to increase the participation of women and girls *themselves* in the design, implementation and evaluation of health programs through our community-based participatory service learning projects and the MS Capstone project.

National Data/Plans/Reports-Medical and Interdisciplinary Education Emerging "Best Practices"-Demonstrating Demand/Need for Such Training: In a recent review of global health training and international clinical rotations for residents, Drain and colleagues ("Global Health in Medical Education: A Call for More Training and Opportunities" *Academic Medicine* 2007; 82:226-230.) commented that medical students in the US have engaged in international rotations abroad as part of their medical education for over half a century, and their interest and participation has accelerated in recent years. In 1978, 5.9% of graduating American medical students had completed a clinical education experience abroad as part of their medical education. By 2004, 22.3% of graduating American medical students had participated in an international health experience. Many medical students are now expanding the time they spend in medical school to pursue international clinical rotations *and* research opportunities. Medical students have been leading much of the call for greater emphasis on global health issues as part of medical education. Beginning in 1997 at UCSF and in 2007 at medical schools at Vanderbilt University, Harvard University, Duke University and the University of Washington (with the aid of \$30 million from the Bill and Melinda Gates Foundation) launched or expanded major initiatives in global health. Thus, global health is increasingly being recognized as important by medical schools, and the growing interest

among medical students continues to push global health into the mainstream of medical education. Drain and colleagues concluded with recommended strategies to meet the global health interests of medical students including, but not limited to, the creation of combined degree programs (e.g., MD/PhD, MD/MPH) in global health.

Haupt and colleagues (“Three Domains of Competency in Global Health Education: Recommendations for All Medical Students” *Academic Medicine* 2007;87:222-225.) asserted that regardless of faculty opinion on a global health curriculum, medical students are highly interested in the topic of global health, and we must listen to their views as the consumers and purchasers of medical education. One measure of this increased medical student interest in global health includes the formation of the Global Health Action Committee by the American Medical Students Association. And, in the American Committee on Clinical and Tropical Medicine and Traveler’s Health survey, repeated mention was made that advanced electives for students in global-health related topics were popular and filled to capacity. Finally, participation in international electives has averaged a robust 23.1% among US graduates since 2000, not including those who participated in cultural awareness workshops, multicultural community-based projects, or learned a foreign language for patient care. Haupt and colleagues conclude that schools need to separate the educational needs of the highly interested group of students who participated in global health electives from the core competency in global health needed *by all*.

The call for academic medicine to focus on global health training has also been heralded at the international level. At the World Health Summit 2009, the M8 Alliance of Academic Health Centers and Medical Universities was formed to lead intensified international debate about research and education in global health challenges. (*The Lancet* 2010;376:1197-1198.) During the October 2010 Summit, the M8 Alliance called for global programs and action plans based on science and led by academic institutions stating that academic medicine must take more responsibility for global health. The M8 Alliance concluded that: a) universities have the exclusive role to educate doctors and healthcare workers, and prepare them for changing medical challenges; b) academic medicine must spearhead the process to create academic centers for translational research in low-income and middle-income countries, with resources to train and advance a cadre of interdisciplinary investigators; and c) we need a strong globalization process in medical education that differentiates and supports diverse medical career models.

In 2009, the Center for Strategic and International Studies (CSIS) Global Health Policy published a report on “The Dramatic Expansion of University Engagement in Global Health.” The demand for experiences in global health must be understood within the larger context of internationalization of higher education (MacFarlane et al., 2008). In this report, the authors commented on the unprecedented and palpable surge of attention and growth of global health on universities campuses across the US. Root causes of this growth were attributed to: a) significant changes in American higher education that place greater emphasis on and resources for internationalization in response to students’ greater awareness of the world starting at an early age and facilitated by global media; b) heightened public visibility of the global health agenda, as a matter of US foreign policy

(enlightened national self-interest in protection from looming transnational health threats admittedly contributes to this public health imperative for investing in global health), and as a part of a larger movement for greater global equity; and c) expansion of funding resources, e.g., US government, foundations, corporate and private philanthropy have generated new opportunities for universities, and potential career paths for students. This growth of global health at academic institutions is marked by: a) new demand among undergraduate, graduate and professional students for education and training that will prepare them for a global marketplace; b) new donors that have opened up unprecedented levels of funding for global health; and c) areas of research and discovery that have received greater attention in light of globalization and threats of pandemics and bioterrorism. Although the majority of global health programs are still housed within schools of medicine or public health, free-standing institutes and university-wide centers have expanded the disciplinary framework for global health beyond the health professions to include business, engineering, humanities (e.g., bioethics/research ethics and religious studies), international affairs/political science, journalism, human rights, public policy, law, and the social sciences (e.g., anthropology, cultural studies, and sociology).

In direct response to this growth and the need for academic stewardship, the Consortium of Universities for Global Health (CUGH) was formed in 2008. The CUGH is comprised of representatives from 20 US and Canadian universities, the Bill and Melinda Gates Foundation and the Rockefeller Foundation. The mission of the Consortium is to promote, facilitate and enhance the growth of global health as an academic discipline as well as support the development of global health academic programs at universities. This development illustrates the great expansion and support for global health at American universities and for the new Obama administration.

(http://csis.org/files/media/csis/pubs/090420_merson_dramaticexpansion.pdf)

B. Demand: Describe data that support the assumption that students will enroll in the proposed program. Include descriptions of surveys or other communications with prospective students.

National (USA) & International (UK) Data Documenting Student Enrollment in Masters Level Global Health and Bioethics/International Research Ethics Programs:

There are currently two national (USA) and two international (UK) Masters level training programs in Global Health. University of California San Francisco (UCSF) and Duke University offer more innovative and interdisciplinary (one year) Master of Science degrees in Global Health Sciences and Global Health respectively. These interdisciplinary Masters programs are distinct from the handful of existing MPH programs with a mere global health “emphasis,” e.g., University of Washington, New York University, and University of North Carolina-Chapel Hill, which offer more traditional (two year) MPH in Global Public Health degrees. Oxford University offers a more innovative (one year) Master of Science in Global Health Science with significant emphasis on International Research Ethics; and Edinburgh offers a range of MS options combining Global Health training with, e.g., Anthropology, Public Policy, or Public

Health Research/Public Health.

USA:

1. **Master of Science:** The first academic institution to incorporate the term “global health” in its name was the University of California San Francisco (UCSF) when it formed its Institute of Global Health in 1999 (MacFarlane et al., 2008). Former UCSF Chancellor and current Executive Director of UCSF Global Health Sciences, reasoned thus: “Global health problems such as those associated with migration, climate change, and emerging pandemics are, in California, local problems that demand solutions. A School of Global Health gives UC a novel framework through which to mobilize and leverage its resources to solve these problems.” Additional evidence supporting the development of both the UCSF School of Global Health and the MS in Global Health Sciences (GHS) degree included: (1) a University of California survey on the Los Angeles and San Diego campuses which found that more than half of undergraduates were “somewhat or very interested” in a major or minor in global health, with 11% interested in pursuing graduate-level study in the field; and (2) a UC Office of the President grant which supported Phase I planning for the School of Global Health, responding to: a) the rising impact of global health challenges in California; and b) demand from the nation’s top post-graduate school applicants for programs addressing global health; and c) a \$4 million Gates Foundation grant for program planning and development.
(UC Newsroom, <http://www.universityofcalifornia.edu/news/article/19077>)

Accordingly, aided by this Gates Foundation program development grant, UCSF started the first US-based Masters of Science in Global Health Sciences in Fall 2008, graduating its founding class of seven students in Spring 2009, its second class of 18 students in 2010, and its third class of 29 students in 2011. UCSF currently limits enrollment to 30 new students per year (which enables it to cover all expenses/resources of its self-sustaining tuition-based Masters level training program). Although UCSF anticipated that its MS in Global Health Sciences would attract primarily health professional students and practitioners, it has consistently attracted a much wider variety of students, from those who recently completed a bachelor degree (BA/BS) to those seeking to add global health expertise to their current career to and/or begin a second interdisciplinary career, all coming from a full range of academic disciplines. This creates a uniquely interdisciplinary cohort of learners for UCSF’s MS in Global Health Sciences. The program has in each cohort also attracted a good mix (approximately 30% each) of in state, out of state, and international students alike, as evidenced in the link below:
(<http://www.globalhealthsciences.ucsf.edu/education/graduate/students/index.aspx>)

2. **Master of Science:** The second US-based Master of Science in Global Health was created at Duke University the following year, admitting its inaugural class in Fall 2009.
(<http://globalhealth.duke.edu/news-events/global-health-news-at-duke/dghis-master-of-science-in-global-health-focuses-on-research>) As at UCSF, this Masters program

has attracted a broad mix of students, researchers, clinicians, and professionals - from multiple disciplines ranging from business, environmental science/ocean science, history, journalism, medicine, law, philosophy, political science and public policy. Duke's MS offers a richer understanding of the causes and solutions for health problems explored through a broadly multidisciplinary lens. It continues to attract national and international students alike, and currently limits its annual intake to 20-25 new students per year. This program has in each cohort attracted a good mix of in state, out of state, and international students alike. In 2009 it received 38 applications: 11 from NC, 17 from other US states, and 10 from overseas. In 2010 it attracted 71 applications: 6 from NC, 51 from other US states, and 14 from overseas. In 2011 it attracted 79 applications: 22 from NC, 32 from other US states, and 25 from overseas. (<http://globalhealth.duke.edu/news-events/global-health-news-at-duke/dghi-announces-second-class-of-master-of-science-in-global-health-students/>) Duke Global Health Institute MS student and possible employer commentary video: (<http://globalhealth.duke.edu/education/MSgh-prospective-students>)

- 3. Master of Public Health:** University of Washington's (UW) campus-wide Department of Global Health was launched in January 2007, with generous funding from the Bill and Melinda Gates Foundation. It reports to the Provost through direct reports to the School of Medicine and School of Public Health Deans: (http://globalhealth.washington.edu/about_us/about_org_chart.php) Its mandate is to harness the expertise, energy and creativity of faculty across all 17 UW schools and colleges to create a comprehensive global health program. The Department is housed in the School of Medicine and School of Public Health, but all major health disciplines are represented, including Medicine, Public Health, Nursing, Pharmacy, Dentistry and Social Work, among other academic disciplines. A more traditional MPH in Global Health is offered on four different tracks: General (for those with substantial global health experience or other health-related experience in disadvantaged communities); Leadership, Policy and Management (for mid-career professionals seeking to be leaders, managers, and policy advocates); Health Metrics and Evaluation (for recent college graduates with demonstrated quantitative skills); and Peace Corps Master's International (for those who do not have developing country health work experience). The 2010 graduating class, including relevant tracks, numbered at 20. For students interested in combining an MPH with graduate studies in Medicine, Public Affairs, Social Work, International Studies, Anthropology and other graduate degree programs, MPH concurrent degrees are offered. There are also certificate programs, e.g., the Medical Student Global Health Pathway (for medical students pursuing careers in research or clinical practice with underserved communities either domestically or internationally) or the [15 credit] Graduate Certificate in Global Health (providing training and context for the field of global health for graduate students and professionals). The program has attracted a good mix of in state, out of state, and international students. For example, in 2010, there were 9 in state, 6 out of state, and 9 international students. In 2011, there were 29 in state applicants, 34 out of state applicants, and 14 international applicants. (<http://globalhealth.washington.edu>)

4. Master of Public Health: New York University (NYU) offers a traditional “public health” option emphasizing “core public health competencies” such as (international) health promotion and disease prevention (rather than an MS or MS in a more richly interdisciplinary Global Health Sciences/Global Health program), which is not yet accredited with Council on Education for Public Health (CEPH). In Fall 2006, NYU initiated this two-year MPH in Global Public Health, cutting across five of its professional schools (Dentistry; Nursing; Medicine; Social Work; Culture, Education and Human Development; and Public Service), with emphasis in either Global Health Leadership or Community and International Health. It enrolls about 40 students per year. NYU’s MPH in Global Public Health is also offered in four dual degree options: DDS/MPH (5 years); MD/MPH (5 years); MS/MPH (3 years); and MSW/MPH (3 years): (<http://www.nyu.edu/mph/academics>)
Student Video: <http://www.youtube.com/watch?v=3tTNarL6z-g>
Student Feedback: <http://forums.studentdoctor.net/showthread.php?p=10834598>

5. Master of Public Health: The Office of Global Health at the University of North Carolina (UNC)-Chapel Hill is the new organizing unit for global health activities at the Gillings School of Global Public Health. Based in the Dean’s Office, and reporting to an Associate Dean for Global Health, it “coordinates interdisciplinary global health research, teaching and practice across all seven departments in the SPH...and enhances cooperative partnerships with investigators and institutions from around UNC, North Carolina, the US, and other countries around the world.” For the years 2006-2009, it was awarded a 3-year, \$400,000 grant to establish the UNC Partnership in Global Health, which is active both locally (NC) and globally (Malawi). UNC’s Office of Global Health offers a [minimum 10 credit hours] Graduate Certificate in Global Health for currently enrolled graduate students, primarily in public health (although under special circumstances other graduate students may apply), focused on developing core competencies, e.g., cultural competency, leadership, and professionalism & ethics. They also offer a standard, MPH, tailored for Global Public Health emphasis, which draws on core MPH coursework plus student-elected additional courses from departments ranging from anthropology, biology, business, city and regional planning through international studies, journalism, law, nursing, political science, sociology and social work. (<http://www.sph.unc.edu/globalhealth/about/>). Currently, no specific enrollment numbers or data are available.

UK:

- 1. Master of Science:** Oxford University offers a one year MS in Global Health Science - substantively featuring professional training in International Research Ethics - that averages 22 students per year since 2005. (<http://www.publichealth.ox.ac.uk/courses/gradstu/globalhealth/alu>) Its goal is to recruit and train students to assume leadership positions within major international health organizations and ministries of health. Upon completion of the MS, students are expected to be self-directed and original in tackling problems in global health and

equipped to continue to advance their knowledge, understanding and skills further in research or professional practice in the field of global health.

(<http://www.publichealth.ox.ac.uk/courses/gradstu/globalhealth>)

Sir Ka-hing Li donated 5 million pounds to extend and strengthen the University of Oxford's global health research networks with Asia, and, in particular, China.

(http://www.ox.ac.uk/media/news_stories/2010/100513.html)

2. **Master of Science/Master of Public Health:** In Fall 2009, the University of Edinburgh launched a Global Health Academy to facilitate multidisciplinary, university-wide collaborations across three schools and 22 programs to tackle global health issues (<http://www.ed.ac.uk/about/edinburgh-global/news-events/news/global-health-academy>). In doing so, it sought to build on "its extraordinary legacy of attending to neglected tropical diseases," and "its commitment to human rights and social justice," since "Manson founded tropical health there as a discipline." Its Global Health Academy brings together a wide portfolio of postgraduate Masters degrees in global health, including sciences and social sciences, policy and practice, and human and animal health. For example, Edinburgh University newly offers a (1 year full-time or 2-3 year part-time) MS combining Global Health with, e.g.:
Anthropology
(http://www.sps.ed.ac.uk/gradschool/taught_masters/a_g/MS_global_health_and_antropology);
Public Policy
(http://www.sps.ed.ac.uk/gradschool/taught_masters/a_g/MS_global_health_and_public_policy);
or Public Health Research (now a traditional MPH from 2011 forward)

- C. **If similar programs (either private or public) exist in the state, identify the institution(s) and geographic location(s). Summarize the outcome(s) of any communication with such programs with regard to the potential impact on their enrollment and opportunities for possible collaboration (instruction and research). Provide data that support the need for an additional program.**

Statewide Evidence/Data Documenting Student Enrollment in Global Health and Bioethics/International Research Ethics:

The MD/MS in Global Health and Bioethics degree program will be the first of its kind to be offered anywhere. There are NO institutions in Florida currently offering a Masters or other degree in Global Health and Bioethics. There are only three institutions in Florida that even have a department/center or certificate program in global health, and only one focused on global bioethics/international research ethics, and none offers a self standing or dual degree in Global Health or Global Health and Bioethics. The University of South Florida (Tampa, FL) has a Department of Global Health housed within its College of Public Health: USF Master of Public Health students may elect a *concentration* in global health that allows students to take four related classes, e.g., in Global Communicable Diseases, Global Health Practice, Global Disaster Management and Humanitarian Relief, and Epidemiology of Global Health. At the University of North Florida (Jacksonville,

FL), there is an incipient Center for Global Health and Medical Diplomacy offering minimal community educational events, public forums, seminars and conferences, with the aim of increasing visibility and awareness of local, national and global health issues. The University of Miami (Miami, FL) has established a Global Institute in the Miller School of Medicine that undertakes community-driven health and development programs in the US, Latin America and the Caribbean. The only educational program at the University of Miami is a Global Health Certificate Program. The University of Miami Ethics Programs (which are not housed in the Miller School of Medicine) also feature a small but significant number of global bioethics and international research projects, but offer no formal associated educational training or degrees:
<http://www.miami.edu/index.php/ethics>

Since our program has not yet been approved and additionally has such a distinct, combined emphasis on global health *and* global bioethics/international research ethics, we have not to date communicated with the above Florida institutions about our plans. However, upon approval of the dual degree program, and once we have begun to develop and publicize our program more broadly, we can begin to explore opportunities for possible instructional and research collaborations if and as appropriate.

- D. Use Table 1 (A for undergraduate and B for graduate) to categorize projected student headcount (HC) and Full Time Equivalents (FTE) according to primary sources. Generally undergraduate FTE will be calculated as 40 credit hours per year and graduate FTE will be calculated as 32 credit hours per year. Describe the rationale underlying enrollment projections. If, initially, students within the institution are expected to change majors to enroll in the proposed program, describe the shifts from disciplines that will likely occur.**

See accompanying excel tables.

- E. Indicate what steps will be taken to achieve a diverse student body in this program, and identify any minority groups that will be favorably or unfavorably impacted. The university's Equal Opportunity Officer should read this section and then sign and date in the area below.**

Achieving diversity in the combined MD/MS Global Health and Bioethics program:
In addition to the specific recruitment measures already underway at the COM-1, the

1 Achieving diversity in the FAU COM MD program:

Listed below are the FAU COM's initiatives aimed at achieving a diverse class of medical students:

1. The Associate Dean for Admissions and Enrollment and the Assistant Dean for Diversity, Cultural and Student Affairs, will establish relationships and collaborative initiatives (see 3. below) with historically black colleges and universities (HBCUs) to enhance the pool of underrepresented minorities (URMs) applying to the COM. Both Deans will meet with:

a. pre-health advisors at HBCUs in Florida to identify qualified underrepresented applicants for recruitment to the COM. These institutions include Florida Agricultural and Mechanical University, Bethune-Cookman University, and Florida Memorial College.

b. minority pre-health organizations to identify and recruit underrepresented minorities. Active chapters of the Multicultural Association of Pre-Medical Students (MAPS) are located at the University of Florida, Florida State University, University of South Florida, University of Central Florida, Nova Southeastern University, and the University of Miami. The goal of these ties will be to develop personal ties to the

targeted focus of this MD/MS dual degree program, i.e., service to underserved ethnic and socioeconomic communities, is a proven interest and draw for underrepresented minorities (See Section IB. SUS Strategic Plan 2005, Goal I: Improving/Enriching URM Access, pg. 3). Previous studies in the literature further support the fact that underrepresented minority physicians provide relatively more care to minority and underserved populations compared with non-minority physicians (Council on Graduate Medical Education. Minorities in Medicine: An Ethnic and Cultural Challenge for Physician Training. An Update. Seventh Report. Rockport, MD: US DHHS; 2005; Komaromy M et al. The role of black and Hispanic physicians in providing health care for underserved populations. NEJM 1996;334:1305-10.)

Paula Schul
Equal Opportunity Officer

August 15, 2011
Date

III. Budget

A. Use Table 2 to display projected costs and associated funding sources for Year 1 and Year 5 of program operation. Use Table 3 to show how existing Education & General funds will be shifted to support the new program in Year 1. In narrative form, summarize the contents of both tables, identifying the source of both current and new resources to be devoted to the proposed program. (Data for Year 1 and Year 5 reflect snapshots in time rather than cumulative costs.)

See accompanying excel tables.

B. If other programs will be impacted by a reallocation of resources for the proposed program, identify the program and provide a justification for reallocating resources. Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct faculty and teaching assistants). Explain what steps will be taken to mitigate any such

-
- a. Pre-med forums for prospective medical school applicants that are held annually throughout the state of Florida at major colleges and Universities (e.g., Florida Atlantic University (Boca Raton), University of Florida (Gainesville), the University of North Florida (Jacksonville), Florida State University, the University of West Florida (Pensacola), the University of Central Florida (Orlando), University of South Florida (Tampa), the University of Miami (Coral Gables) and Florida International University (Miami).
 - b. Pre-med American Medical Students Association (AMSA) and Alpha Epsilon Delta (pre-med honor society) meetings at smaller, but potentially equally important feeder schools such as Stetson, Rollins, St Thomas, Barry University, Nova Southeastern University, Florida Gulf Coast University, and the Florida Institute of Technology

3. The FAU COM will establish health professions pipeline programs aimed at increasing the number of underrepresented minorities in medicine. The COM has an existing community outreach program for high school students, including underrepresented and underserved minorities in South Florida. The goal of this program is to encourage and develop students' desire to enter healthcare fields. This outreach program will be expanded and implemented at a Palm Beach County medical magnet middle school (Roosevelt Middle School) beginning in 2011.

Lastly, the FAU COM is in the beginning phases of establishing a partnership with Florida Agricultural and Mechanical University (FAMU). FAMU is the oldest historically African-American institution in the State of Florida. The goal of this collaboration would be to provide an enhanced curriculum, mentoring and research opportunities to FAMU undergraduates in hopes that they will apply to the FAU COM.

Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct faculty and teaching assistants). Explain what steps will be taken to mitigate any such impacts. Also, discuss the potential positive impacts that the proposed program might have on related undergraduate programs (i.e., increased undergraduate research opportunities, improved quality of instruction associated with cutting-edge research, improved labs and library resources).

N/A

- C. Describe other potential impacts on related programs or departments (e.g., increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the proposed major).**

N/A

- D. Describe what steps have been taken to obtain information regarding resources (financial and in-kind) available outside the institution (businesses, industrial organizations, governmental entities, etc.). Describe the external resources that appear to be available to support the proposed program.**

Possible Funding Sources include:

- Public
 - National Institute for Minority Health Disparities (NIMHD) – on 6/9/11, we submitted a \$4.9 million grant to NIH-NIMHD to build FAU COM’s Global Health and Bioethics MD-MS and MS training programs, and to conduct research through our programs to reduce and eliminate health disparities among Caribbean blacks in Florida and the Caribbean. The public health and financial costs of associated health disparities are considerable: health inequalities among African Americans, who have the worst health profile among racial/ethnic groups studied, led to \$135.9 billion in excess direct medical costs and \$782.8 billion in indirect costs (lower worker productivity due to illnesses, and losses from premature deaths) of health inequalities between 2003 and 2006 (LaVeist et al., 2009). Accordingly, the savings to Florida state and the United States of these and other Global Health and Bioethics interventions could also be considerable.
 - NIH-Fogarty (e.g., International Research Ethics Capacity Building-focused on developing countries, e.g., we will apply for a research capacity-building partnership with Turkey in Spring 2012; & Framework Program Development Grants)
 - HRSA Program Development grants (e.g., funded University of Miami Miller School of Medicine’s new MD-MPH dual degree)
 - Florida Department of Health (in kind contributions, e.g., clinical rotations & preceptors)
- Private
 - Bill and Melinda Gates Foundation (The Gates Foundation gave program planning grants to both UCSF and their alma mater, University of Washington, to create and build their Global Health Sciences Master of Science and Master of Public Health programs; also the Gates Foundation gave the entire University of California system a

grant to create and build a wide-ranging, cross-campus initiative in global health training. We aspire in future to seek the former and/or latter type of Gates' planning grants, especially similar global health initiative across Florida State University System campuses.)

- Local philanthropists (Confidentially, the FAU COM Development Office is exploring and developing possible, local Global Health and Bioethics philanthropists and funders.)

IV. Projected Benefit of the Program to the University, Local Community, and State

Use information from Table 1, Table 2, and the supporting narrative for “Need and Demand” to prepare a concise statement that describes the projected benefit to the university, local community, and the state if the program is implemented. The projected benefits can be both quantitative and qualitative in nature, but there needs to be a clear distinction made between the two in the narrative.

The projected benefits of the MD/MS in Global Health and Bioethics are to prepare graduates of the program to:

- Assume leadership, advocacy, research, education and service roles in the emerging fields of global health and global bioethics/international research ethics.
- Implement and evaluate programs and policies focused on improvement of health for both local and global underserved communities.
- Identify social determinants of health, including behavioral, environmental, cultural, economic and political factors.
- Understand how these determinants of health contribute to local and global inequities in health, and work to remedy them in more culturally competent and effective ways.
- Understand and manage ethical issues involved in research, education, policy and clinical service in a global health setting.
- Utilize the above unique knowledge and skills to deliver culturally competent health care to underserved populations in Florida and the United States.
- With their unique training, FAU COM's MD/MS dual degree graduates in particular will: a) likely pursue a residency in a primary care specialty; and b) be especially well suited to remain in South Florida/Florida and improve health services offered to the local/regional community.
- Through such training, FAU COM's MD/MS dual degree graduates will develop: a) longstanding partnerships with local and global underserved communities; and b) the special knowledge, skills and experience - including cultural competency - to improve the effectiveness of their health services for such ethnic and socioeconomic communities.
- This training program can thus positively – quantitatively and qualitatively - impact the economic development of South Florida and Florida in fundamental ways. For example, because our MD/MS graduates will be uniquely well equipped to provide targeted and culturally competent health services to both local and global underserved communities, this can improve Florida's health economics by: a) better attending to low cost preventive care; b) better ensuring compliance with health & wellness regimens tailored to particular ethnic and socioeconomic communities; thus c) lessening reliance on higher cost acute/ emergency

room care; and d) otherwise avoiding unwarranted expenditures often associated with Florida's underserved communities.

As indicated above, South Florida is notable for its unique and varying mosaic of ethnic communities and cultural groups. The region's patients, families and students include new immigrants, assimilated immigrants and established Florida residents. Minority and international students make up more than 40% of the student body at FAU, which consistently ranks in the top 30 universities nationally in student-body diversity. South Florida and FAU's rich ethnic and socioeconomic demographics offer unique opportunities to explore and develop health professional excellence through diversity. These factors challenge and call for FAU COM graduates to be equipped with heightened cultural competency, to better serve and care for patients in our local community, the nation and around the globe.

The MD/MS students will also be working with community organizations, international organizations, interdisciplinary teams and neighborhood households to identify and address existing healthcare needs and gaps in services. The students will thus work together with local community partners throughout their training, and especially through their Capstone Project, to address real medical, social and ethical issues experienced by disadvantaged families of Florida, the U.S. and beyond. We will thereby prepare graduates to assess and address the medical and non-medical factors that affect local and other health outcomes, through a curriculum that integrates the ethical foundations of medicine, social determinants of health, cultural competency, public health principles, and sustained community-based participatory service learning projects. The local community engagement effort through community-based participatory research (CBPR) and the Capstone Projects will additionally serve the institution and local community by enabling them to collaboratively and democratically construct substantive, rich, and deep insights/knowledge of how FAU can best serve the community.

The MD/MS in Global Health and Bioethics curriculum will provide students with early clinical experiences in the local community (Department of Health, community health centers, etc.) that will help inform research ideas and guide fieldwork project topics and allow students to begin studying community- and site-specific clinical and cultural issues, socio-behavioral determinants of health and how factors like poverty and immigrant/refugee status and other stressors may complicate medical care. The MD/MS will thus highlight the "social mission" and "public benefits" of the University and the COM, to serve the local community and to promote socially conscious medicine. Medical schools contribute numerous important public goods to society beyond training the future physician workforce. These public goods include providing substantial healthcare to underserved communities. One core social mission is to train physicians to care for the population as a whole, taking into account such issues as primary care, underserved areas and workforce diversity. In "The Social Mission of Medical Education: Ranking the Schools" (*Annals of Internal Medicine* 2010, 152:804-811.), Mullan and colleagues suggest that the social mission of a school of medicine can be

measured based on percentage of medical school graduates who practice primary care, work in health professional shortage areas and who are underrepresented minorities. FAU as a public medical school will primarily admit students from within the state. Mullan and colleagues concluded that public schools are indeed more responsive to the population-based and distributional physician workforce needs that concern legislators. Graduates of schools with a strong social mission are likely to be among the most well prepared practitioners for primary care and for the care of underserved minority populations, and our MD/MS dual degree uniquely advances all of these goals.

Accordingly, the MD/MS dual degree in Global Health and Bioethics will integrate research, community issues and public health in a manner that will transform the way healthcare is practiced and viewed by the South Florida/Florida community and its leaders. The curriculum is focused on traditional missions like research and teaching medical students diagnostic skills but also emphasizes social missions and public benefits through community involvement, local medicine, social consciousness and local cultural issues. Such efforts could go far toward making healthcare more affordable and accessible. This combined degree program thus exemplifies one new, innovative curricula that has an explicit social mission aimed at improving the quality of life of local and global families and communities. With students engaged in the local communities, they will help our most vulnerable families, those who often count on the government for medical support. Students are also partnering with families to administer and increase preventive care, reduce emergency room visits and improve health literacy, thus addressing the healthcare crisis in the state and nation at its most foundational level.

INSTITUTIONAL READINESS

V. Related Institutional Mission and Strength

A. Describe how the goals of the proposed program relate to the institutional mission statement as contained in the SUS Strategic Plan and the University Strategic Plan.

Please see section I. B. (pp. 3-7) above:

For FAU Strategic Goal 1 (Providing Increased Access to Higher Education), please consult the description addressing SUS Strategic Goal I (Access to and Production of Degrees).

For FAU Strategic Goal 2 (Meeting Statewide Professional and Workforce Needs), please consult the description addressing SUS Strategic Goal II (Meeting Statewide Professional and Workforce Needs).

For FAU Strategic Goals 3 (Building World-Class Academic Programs, and Objective 2.1 Build interdisciplinary focused research and scholarly activity programs such as Centers of Excellence that have the greatest potential for success of securing federal

grants including earmark dollars, program project grants, training grants, and center grants from federal sources) and 7 (Increasing the University's Visibility), please consult the description addressing SUS Strategic Goal III (Building World-Class Academic Programs and Research Capacity).

Finally, for FAU Strategic Goal 4 (Meeting Community Needs and Fulfilling Unique Institutional Responsibilities), please consult the description addressing SUS Goal IV (Meeting Community Needs and Fulfilling Unique Institutional Responsibilities).

B. Describe how the proposed program specifically relates to existing institutional strengths, such as programs of emphasis, other academic programs, and/or institutes and centers.

In addition to the core faculty & their strengths highlighted above, over time we aim to draw on related institutional strengths including:

- Faculty (e.g., as Lecturers/Specialty Mentors/Research Collaborators)
 - FAU Professional Colleges/Schools (e.g., Business, Nursing, Social Work)
 - FAU Departments (e.g., Anthropology, Caribbean & Latin American Studies, Education, Health Administration/Health Science, Philosophy/Ethics, Political Science/International Affairs, Philosophy/Ethics, Sociology, and the Wilkes Honors College)
 - Office of International Programs

Such wide-ranging collaborations will eventually build stronger interdisciplinary relations across the COM itself, other professional schools, and relevant departments across campus. Strategies to catalyze the development of interdisciplinary Global Health & Bioethics collaborations across FAU include: (1) sending "requests for proposals" (RFPs) to develop interdisciplinary initiatives; (2) providing other opportunities for collaboration through the College of Medicine's Interprofessional Education Program which is already planning educational curricula involving medical, nursing, and social work faculty and students; and 3) offering joint appointments in the College of Medicine as appropriate. This can help break down "silo" thinking within the COM and across campus, as well as internationalizing the broader campus.

- Local clinical & health policy experiences
 - Florida Department of Health
 - Caridad Clinic
- Local professional members of underserved communities in South Florida who can build two-way bridges of education, research and service to and from South Florida, Latin America, the Caribbean and beyond

C. Provide a narrative of the planning process leading up to submission of this proposal. Include a chronology (table) of activities, listing both university personnel directly involved and external individuals who participated in planning. Provide a timetable of events necessary for the implementation of the proposed program.

Chronology (Table) of Activities: Planning Process

Date	Participants	Planning Activity
June 2010	Myser (Director of Global Health and Bioethics); Servoss (Asst. Dean of Diversity, Cultural and Student Affairs)	Inception of idea for MS Global Health and Bioethics
August 2010	Friedland (COM Dean and Vice President of Medical Programs); Paull (COM Vice Dean, Research, Graduate Programs and Faculty Affairs); Myser	Conduct FAU Main Campus & Professional Schools "Advance Evaluation" (online research and face-to-face meetings as possible with schools and departments noted above) to explore local interest/talent/support for Global Health MS
October 2010	Friedland; Myser	Finalize job offer and title
March 2011 & June 2011 & August 2011	Myser; Servoss; Rosson (Graduate College Dean); Fulks (Graduate College Asst. Dean)	Consult with Graduate College Dean & Assistant Dean
March 2011 & June 2011 & August 2011	Myser; Servoss; Kaufman (Associate Provost for Academic Budget)	Consult with Associate Provost for Academic Budget
March 2011	Myser; Linda Rackleff Becker (COM Director of Planning and Admin)	Consult with Director of Planning and Administration
Mar-Apr 2011	Myser; Servoss	Drafting New MD-MS Curriculum & New Degree Program proposal
Mid-April	Myser; Servoss; Henson; Paull; Kaufman	Myser and Servoss present MD/MS program to Drs. Paull (Vice Dean, Research, Graduate Programs and Faculty Affairs), Henson (Vice Dean, Medical Education and Student Affairs) & Kaufman

Timetable of Events Leading to Implementation

Date	Implementation Activity
June 28, 2011	Presentation of the MD/MS program to FAU COM Curriculum Committee- Approved
July 11, 2011	Presentation of MS program to the FAU COM Graduate Programs Committee- Approved
August 31, 2011	Presentation of MD/MS & MS programs to the GPC
October 1, 2011	Presentation of MD/MS & MS programs to the Faculty Senate
October 19, 2011	New Degree Program submission to the BOT Academic Programs Subcommittee
November 16, 2011	New Degree Program submission to BOT, Full Board Meeting
Fall/Winter 2011	Initiate Admissions process for MD-MS dual degree program
May 2011-July 2012	More detailed curriculum development
August 2012	Matriculate founding MD-MS cohort

Long-Term Program Goals:

- (2012) Create a self-standing, one-year MS in Global Health & Bioethics [a one-year version of the MS Global Health and Bioethics curriculum extracted from the four-year dual degree program version] to engage and train a much broader range of interested students (as described above in section 2 B, pp. 10-14); Gain FAU/BOT Administrative Approval; Commence with Founding MS Cohort in 2013

- Conduct a Florida-wide COM & broader university evaluation, aimed at building a multi-campus, system-wide “Global Health Institute of Florida” headquartered at FAU COM
- Based on University of California’s experiences, such a state-wide arrangement is of greatest interest for Bill and Melinda Gates Foundation funding, and they have not yet funded anything like that in this equally ethnically diverse state on the East/Southeast coast.

VI. Program Quality Indicators - Reviews and Accreditation

Identify program reviews, accreditation visits, or internal reviews for any university degree programs related to the proposed program, especially any within the same academic unit. List all recommendations and summarize the institution's progress in implementing the recommendations.

Global Health & Bioethics MS Program Quality Indicators: As an emerging academic discipline, there is no existing accreditation body at any level. However, the newly created Consortium of Universities for Global Health (formed 2008) eventually plans to standardize competencies and outcomes, and we intend to be a pioneering contributor to these discussions and decisions.

MD Program Quality Indicators: The COM was just approved by the BOG and Florida Legislature in early 2011. The Liaison Committee on Medical Education granted preliminary accreditation status to the COM in February 2011; and SACS approved the COM in March, 2011. Therefore, the MD degree program will not be subject to internal FAU program review or BOG academic program review for several years. The MD program will be subject to a second review and site visit by the LCME during the 2012-13 academic year prior to a determination by the LCME as to whether to grant the COM provisional accreditation status.

VII. Curriculum

- A. Describe the specific expected student learning outcomes associated with the proposed program. If a bachelor’s degree program, include a web link to the Academic Learning Compact or include the document itself as an appendix.**

The overall purpose of the MS in Global Health and Bioethics is to prepare graduates of the program to:

- Assume leadership, advocacy, research, education and service roles in the emerging fields of global health and global health ethics.
- Implement and evaluate programs and policies focused on improvement of health for both local and global underserved communities.
- Identify social determinants of health, including behavioral, environmental, cultural, economic and political factors.
- Understand how these determinants of health contribute to local and global inequities in health & work to remedy them in more culturally competent/effective ways.

- Understand and manage ethical issues involved in research, education, intervention and clinical service programs in a global health setting.

B. Describe the admission standards and graduation requirements for the program.

All eligible applicants must first be admitted to the FAU MD program. This is a necessary but not sufficient criterion. Additional criteria will be the following:

- Curriculum vitae
- Aptitude for and experience of global health issues
- A personal statement that gives reasons for applying for the MS degree, prior global health experience in underserved populations, expectations from the program, and potential contribution to the class experience
- Three (3) Letters of Recommendation
- Original transcripts from undergraduate and graduate schools (if appropriate)
- GRE scores will not be required for the *combined* MD/MS dual degree (but will be for any later evolving *self-standing* MS in Global Health and Bioethics)

C. Describe the curricular framework for the proposed program, including number of credit hours and composition of required core courses, restricted electives, unrestricted electives, thesis requirements, and dissertation requirements. Identify the total numbers of semester credit hours for the degree.

The total number of credit hours is 30. Curricular framework, composition and sequence of required core courses is:

Foundations of Global Health – New Paradigms in Research, Education, and Service (3.0 credits)

Foundations of Global Bioethics – New Paradigms in Research, Education, and Service (3.0 credits)

New and Resurgent Diseases of Global Importance (1.0 credit)

Women, Maternal and Child Health and Empowerment (1.0 credit)

Qualitative Research Methods for Global Health & Bioethics (2.0 credits)

International/Global Research Ethics (2.0 credits)

Intensive Fieldwork Identification and Planning for the Capstone Project (1.0 credit)

Global Health and Human Rights (1.0 credit)

Medical Anthropology, Health Diplomacy and Global Justice (1.0 credit)

Global Health and Bioethics Policy and Development (2.0 credits)

Global Health and Bioethics Qualifying Exam Preparation and Capstone Planning Seminar (1.0 credit)

No elective courses will be offered at this time.

There is no thesis or dissertation requirement. However, there is a qualifying exam and a capstone project comprehensive exam (based on a 10-week fieldwork experience) as described below.

Qualifying Exam: Final written protocol describing all aspects of forthcoming fieldwork to be undertaken, including: context of the problem, conceptual and theoretical framework guiding the project, and proposed methodology

Fieldwork Experience (10 credits) – These credits may substitute for “research elective” during the 4th year of the MD program.

Capstone Project Comprehensive Exam: The Capstone Project Comprehensive Exam serves as the culminating experience of the program: a formal written and oral presentation of the completed fieldwork project that allows students: a) to synthesize and integrate Global Health and Bioethics concepts, skills, and knowledge acquired throughout the program; and b) to demonstrate the acquisition of fundamental Global Health and Bioethics competencies.

Courses for which MD students will receive “double dipping” credit from the MD program (Foundations of Medicine) – total of 3 credits:

Social and Behavioral Determinants of Health (1.0 credit)

Statistical Concepts for Global Health (1.0 credit)

Global Health Epidemiology (1.0 credit)

D. Provide a sequenced course of study for all majors, concentrations, or areas of emphasis within the proposed program.

As above

E. Provide a one- or two-sentence description of each required or elective course.

Foundations of Global Health – New Paradigms in Research, Education, and Service (3.0 credits) This will offer an introduction to major global health problems, techniques of analysis, critical appraisal and potential solutions featuring regional case studies.

Foundations of Global Bioethics – New Paradigms in Research, Education, and Service (3.0 credits) This course will explore the cultural meanings and social functions of bioethics in various countries according to their unique histories, sociocultural features, politics, economics, etc.

New and Resurgent Diseases of Global Importance (1.0 credit) New and resurgent communicable and non-communicable diseases will be explored with a focus on the relevant demographics of South Florida and its unique migration patterns.

Women, Maternal and Child Health and Empowerment (1.0 credit) This course will introduce students to the methodological and ethical challenges in health research and healthcare involving women and children aimed at morbidity and mortality prevention.

Qualitative Research Methods for Global Health & Bioethics (2.0 credits) This course will enable students to identify and implement appropriate qualitative research methods to answer specific global health and bioethics questions. Special focus will be given to community-based participatory research for the democratic construction of knowledge and service.

International/Global Research Ethics (2.0 credits) This course will introduce students to the ethical theories and frameworks underpinning international research ethics debates and decision-making. Specific focus will be paid to the ethical conduct of research and good clinical practice around the globe, cross-cultural challenges and evaluating risks, benefits and standards of care in research in the international setting

Intensive Fieldwork Identification and Planning for the Capstone Project (1.0 credit) In this course, the Capstone Project, a 10-week fieldwork project focused on local underserved global “bridge communities” in South Florida or abroad, will be introduced and project planning will begin with the supervision of Global Health faculty members and community partners.

Global Health and Human Rights (1.0 credit) Review relevant human rights codes and guidelines relevant to global health with particular focus on ethical challenges raised when performing research involving vulnerable populations.

Medical Anthropology, Health Diplomacy and Global Justice (1.0 credit) The aims of this course are to: (1) increase students’ awareness and understanding of sociocultural factors involved in health related beliefs and behaviors; (2) introduce health diplomacy methods (a new academic sub-discipline emerging out of medical anthropology) to employ cultural competency and improve health by strategically addressing existing failures in sociocultural “diplomacy,” particularly in resource-poor communities/countries; (3) thereby improve global justice.

Global Health and Bioethics Policy and Development (1.0 credit) This course will introduce students to the policy process and understanding the role policy plays in realizing international development objectives. The evolution and challenges of global governance for global health, global health regulation and trade will also be explored.

Global Health and Bioethics Qualifying Exam Preparation and Capstone Planning Seminar (1.0 credit) During this course, the student will prepare for the qualifying exam, the final written protocol describing all aspects of the Capstone Project fieldwork, including: context of the problem, conceptual and theoretical framework guiding the project and proposed methodology.

Qualifying Exam: Final written protocol describing all aspects of forthcoming fieldwork to be undertaken, including: context of the problem, conceptual and theoretical framework guiding the project, and proposed methodology

Fieldwork Experience (10 credits)

Capstone Project Comprehensive Exam: The Capstone Project Comprehensive Exam serves as the culminating experience of the program: a formal written and oral presentation of the completed fieldwork project that allows students: a) to synthesize and integrate Global Health and Bioethics concepts, skills, and knowledge acquired throughout the program; and b) to demonstrate the acquisition of fundamental Global Health and Bioethics competencies.

Courses for which MD students will receive “double dipping” credit from the MD program (Foundations of Medicine) – total of 3 credits:

Statistical Concepts for Global Health (1.0 credit) This will be an introduction to statistical techniques commonly used in clinical research. Topics include measures of association, sample size calculation and power, parametric and non-parametric analysis, linear and logistic regression.

Global Health Epidemiology (1.0 credit) This course will introduce students to core epidemiologic concepts and study designs commonly used in clinical and community based participatory research. Specifically, the design and analysis of cohort, case-control, cross-sectional studies and randomized controlled trials will be studied using regional case studies focused on global health.

Social and Behavioral Determinants of Health (1.0 credit) This course will introduce students to the social and behavioral determinants of health such as socioeconomic status, ethnicity and gender. Students will explore the relationship between the globalization process and the exacerbation of health inequities within and between countries.

F. For degree programs in the science and technology disciplines, discuss how industry-driven competencies were identified and incorporated into the curriculum and identify if any industry advisory council exists to provide input for curriculum development and student assessment.

N/A

G. For all programs, list the specialized accreditation agencies and learned societies that would be concerned with the proposed program. Will the university seek accreditation for the program if it is available? If not, why? Provide a brief timeline for seeking accreditation, if appropriate.

As already stated above, the Consortium of Universities for Global Health (CUGH), the planning for which was funded and led by the Bill and Melinda Gates Foundation, aims to standardize competencies and outcomes, and we intend to be a pioneering contributor to these discussions and decisions: <http://www.cugh.org/about/landing>

The Global Health Education Consortium (GHEC) is another resource, but also does not do accreditation: <http://globalhealtheducation.org/aboutus/SitePages/Home.aspx>

With regards to the implementation of the MD/MS dual degree program, the COM will be required to submit a progress report to the LCME by April 15, 2012, prior to the LCME 2012-13 site visit in which we will include information about the implementation of the of the MD/MS. No further approval is required from SACS to implement the MD/MS degree.

- H. For doctoral programs, list the accreditation agencies and learned societies that would be concerned with corresponding bachelor's or master's programs associated with the proposed program. Are the programs accredited? If not, why?**

N/A

- I. Briefly describe the anticipated delivery system for the proposed program (e.g., traditional delivery on main campus; traditional delivery at branch campuses or centers; or nontraditional delivery such as distance or distributed learning, self-paced instruction, or external degree programs). If the proposed delivery system will require specialized services or greater than normal financial support, include projected costs in Table 2. Provide a narrative describing the feasibility of delivering the proposed program through collaboration with other universities, both public and private. Cite specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.**

The delivery system for the core courses will be traditional delivery at the Charles E. Schmidt Biomedical Science building on the FAU-Boca Raton campus which houses the College of Medicine. For example, didactics, problem-based learning sessions and practica will take place at FAU COM. The 10-week fieldwork experience, the Capstone Project, will take place off-campus in local/regional communities or on supervised overseas sites.

VIII. Faculty Participation

- A. Use Table 4 to identify existing and anticipated ranked (not visiting or adjunct) faculty who will participate in the proposed program through Year 5. Include (a) faculty code associated with the source of funding for the position; (b) name; (c) highest degree held; (d) academic discipline or specialization; (e) contract status (tenure, tenure-earning, or multi-year annual [MYA]); (f) contract length in months; and (g) percent of annual effort that will be directed toward the proposed program (instruction, advising, supervising internships and practica, and supervising thesis or dissertation hours).**

See attached excel spreadsheet

- B. Use Table 2 to display the costs and associated funding resources for existing and anticipated ranked faculty (as identified in Table 2). Costs for visiting and adjunct faculty should be included in the category of Other Personnel Services (OPS). Provide a narrative summarizing projected costs and funding sources.**

See attached excel spreadsheet

C. Provide the number of master's theses and/or doctoral dissertations directed, and the number and type of professional publications for each existing faculty member (do not include information for visiting or adjunct faculty).

N/A for this MS, but please see attached core faculty CV's for general such information.

Faculty Name	Theses	Dissertations	Professional Publications

D. Provide evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, as well as qualitative indicators of excellence.

Please see attached core faculty CV's, which describe and document all this in detail.

IX. Non-Faculty Resources

A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5. Provide the total number of volumes and serials available in this discipline and related fields. List major journals that are available to the university's students. Include a signed statement from the Library Director that this subsection and subsection B have been reviewed and approved for all doctoral level proposals.

The MD-MS in Global Health and Bioethics is an inter-disciplinary degree that is likely to require resources from multiple disciplines. The following library resource information looks at key elements needed to support the degree program but it should be noted that there are a variety of more general texts, journals, and e-resources across disciplines that are likely to be useful additions to this curriculum.

As regards physical holdings [predominantly traditional book titles] the following resources are available:

Medical philosophy. Medical ethics: 405

War and public health: 1

Ethnic minorities and public health: 164

Gender Specific Public Health: 150

Medical Statistics: 117

Medical Economics: 276

Public health related to: ethics, social medicine, global issues, statistics: 167

Preventative medicine and public health, community medicine, and public health: 330

Legal aspects of Medicine: 188

Philosophy, Ethics: 2001

There are also approx. 308 electronic resources such as e-books in the global health field and an additional 318 electronic resources that look at various aspects of bioethics. Additionally we have several other electronic collections that incorporate related topics such as health economics and human rights as well as collections of related topics such as

legal proceedings as they relate to the ethics of various biomedical topics as well as general text and e-resources that can be utilized for statistical components of the course. As this is an emerging field there are few "major journals", instead articles are published in related disciplines. Some of the journals available that are related to the field or publish within the field are listed below:

Bioethics

American journal of tropical medicine and hygiene

Global health promotion

Global social policy

Globalization and health

Journal of the National Society of Allied Health

Health policy and planning

Public health ethics

American journal of Public Health

Journal of public health (Oxford, England)

Public health and the environment

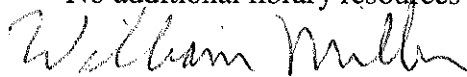
Lancet infectious diseases

Epidemiology and community health

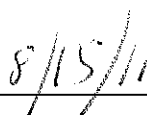
Southern African journal of epidemiology & infection

B. Describe additional library resources that are needed to implement and/or sustain the program through Year 5. Include projected costs of additional library resources in Table 3.

No additional library resources are projected at this time.



Library Director



Date

C. Describe classroom, teaching laboratory, research laboratory, office, and other types of space that are necessary and currently available to implement the proposed program through Year 5.

The space currently available for FAU COM teaching activities in the Schmidt Biomedical Science Center and the FAU Medical Education Research Park Simulation Center facility is summarized in the tables below. Since Lecture Hall 126 is the only room currently available to accommodate 64 students, plans are underway to remodel Lecture Halls 128 and 130. When renovations are completed during the late spring of 2011, prior to admission of the charter class, each room will be able to accommodate a total of 84 students and a movable wall will have been installed between the two lecture halls, which, when retracted, will create a large lecture hall that can accommodate 168 students.

**Charles E. Schmidt Biomedical Science Center (BC-71)
COM Instructional Space**

**Charles E. Schmidt Biomedical Science Center (BC-71)
COM Instructional Space**

Year Constructed: 2002	Year of Last Major Renovation: 2008-09	
Type of Room*	Capacity	Main Educational Use(s)**
Lecture Hall 126	140	Lectures, small group discussions
Lecture Hall 128	84	Lectures, small group discussions
Lecture Hall 130	84	Lectures, small group discussions
Study Rooms 101,107, 109 &114	20 each	Study, small group discussions
Study Rooms 106 & 108	24 each	Study, small group discussions
Meeting Rooms 122,124, 314	16-18 each	Small group discussions
Gross Anatomy Lab 401	64	Human anatomy instruction
Clinical Skills Examination Rooms (8)	4-5 each	Clinical skills instruction/assessment

*Lecture hall, science lab, conference room, small-group discussion room, etc. If several rooms of similar type and seating capacity are use, simply indicate total number of such rooms in parentheses.

**Lectures, small-group discussion, dissection, wet labs, slide study, etc.

*** Prior to commencement of the charter class in summer, 2011, lecture halls 128 and 130 will have been remodeled to each seat 84 students, with a retractable wall between the two halls that will allow creation of a single larger lecture hall that can seat 168 students.

FAU College of Medicine Research Park Simulation Center Instructional Space

Year Constructed: 2002	Year of Last Major Renovation: 2006	
Type of Room*	Seating Capacity	Main Educational Use(s)**
Conference Room 1 Discussion, distance learning facilities	24	Lectures, small group
Conference Room 2 Discussion, distance learning facilities	12	Small groups
Small Group Study Rooms 1,2,3 & 4 Training, small group discussion	20 each	Study, small groups
Simulations Center Two bay emergency simulators and 3 station triage area	48	Case-based studies and scenario simulation
Ambulance	6	Simulation of emergency room treatment in live, real time environment

*Lecture hall, science lab, conference room, small-group discussion room, etc. If several rooms of similar type and seating capacity are use, simply indicate total number of such

rooms in parentheses.

**Lectures, small-group discussion, dissection, wet labs, slide study, etc.

- D. Describe additional classroom, teaching laboratory, research laboratory, office, and other space needed to implement and/or maintain the proposed program through Year 5. Include any projected Instruction and Research (I&R) costs of additional space in Table 2. Do not include costs for new construction because that information should be provided in response to X (J) below.**

No additional such spaces are required.

- E. Describe specialized equipment that is currently available to implement the proposed program through Year 5. Focus primarily on instructional and research requirements.**

IT-videoconferencing resources for any overseas communications.

- F. Describe additional specialized equipment that will be needed to implement and/or sustain the proposed program through Year 5. Include projected costs of additional equipment in Table 2.**

N/A

- G. Describe any additional special categories of resources needed to implement the program through Year 5 (access to proprietary research facilities, specialized services, extended travel, etc.). Include projected costs of special resources in Table 2.**

N/A

- H. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5. Include the projected costs in Table 2.**

The MD-MS dual degree will have their MS offered at no additional tuition cost; it will be included for the cost of their MD tuition. No fellowships, scholarships, or graduate assistantships are planned for future cohorts at this time.

- I. Describe currently available sites for internship and practicum experiences, if appropriate to the program. Describe plans to seek additional sites in Years 1 through 5.**

For the Founding MD-MS Class (Fall 2012-Spring 2015), all Capstone Projects will be required to focus on underserved *local* "global bridge communities" resident in or expatriated to South Florida, in part to demonstrate service and public benefits to South Florida's/Florida's local/regional/state underserved communities in genuine need. In doing so, FAU COM will continue to build Global Health & Bioethics *Local* Community Partnerships. In the meantime, Global Health & Bioethics *International* Community Partnerships - being created/developed from 2011 forward based on wide-ranging existing international contacts of core faculty on every inhabited continent - will offer later cohorts both local and global fieldwork opportunities for Global Health and

Bioethics Capstone Projects. The key is to establish adequate local then global partner supervision and mentoring.

- J. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Table 2 includes only Instruction and Research (I&R) costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase as a result of the program, describe and estimate those expenses in narrative form below. It is expected that high enrollment programs in particular would necessitate increased costs in non-I&R activities.**

N/A

**TABLE 1-B
PROJECTED HEADCOUNT FROM POTENTIAL SOURCES
(Graduate Degree Program)**

Source of Students (Non-duplicated headcount in any given year)*	Year 1		Year 2		Year 3		Year 4		Year 5	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Individuals drawn from agencies/industries in your service area (e.g., older returning students)	1	1	2	2	3	3	4	4	4	4
Students who transfer from other graduate programs within the university**	0	0	0	0	0	0	0	0	0	0
Individuals who have recently graduated from preceding degree programs at this university	2	2	4	4	6	6	8	8	8	8
Individuals who graduated from preceding degree programs at other Florida public universities	3	3	6	6	9	9	12	12	12	12
Individuals who graduated from preceding degree programs at non-public Florida institutions	1	1	2	2	3	3	4	4	4	4
Additional in-state residents***	0	0	0	0	0	0	0	0	0	0
Additional out-of-state residents***	1	1	2	2	3	3	4	4	4	4
Additional foreign residents***	0	0	0	0	0	0	0	0	0	0
Other (Explain)***	0	0	0	0	0	0	0	0	0	0
Totals	8	8	16	16	24	24	32	32	32	32

* List projected yearly cumulative ENROLLMENTS instead of admissions

** If numbers appear in this category, they should go DOWN in later years.

*** Do not include individuals counted in any PRIOR category in a given COLUMN.

**TABLE 2
PROJECTED COSTS AND FUNDING SOURCES**

Instruction & Research Costs (non-cumulative)	Year 1					Year 5					
	Funding Source					Funding Source					
	Reallocated Base* (E&G)	Enrollment Growth (E&G)	Other New Recurring (E&G)	New Non-Recurring (E&G)	Contracts & Grants (C&G)	Subtotal E&G and C&G	Continuing Base** (E&G)	New Enrollment Growth (E&G)	Other*** (E&G)	Contracts & Grants (C&G)	Subtotal E&G and C&G
Faculty Salaries and Benefits	115,000	0	0	0	0	\$115,000	115,000	0	0	0	\$115,000
A & P Salaries and Benefits	0	0	0	0	0	\$0	0	0	0	0	\$0
USPS Salaries and Benefits	4,650	0	0	0	0	\$4,650	4,650	0	0	0	\$4,650
Other Personnel Services	0	0	0	0	0	\$0	0	0	0	0	\$0
Assistantships & Fellowships	0	0	0	0	0	\$0	0	0	0	0	\$0
Library	0	0	0	0	0	\$0	0	0	0	0	\$0
Expenses	0	0	0	0	0	\$0	0	0	0	0	\$0
Operating Capital Outlay	0	0	0	0	0	\$0	0	0	0	0	\$0
Special Categories	0	0	0	0	0	\$0	0	0	0	0	\$0
Total Costs	\$119,650	\$0	\$0	\$0	\$0	\$119,650	\$119,650	\$0	\$0	\$0	\$119,650

*Identify reallocation sources in Table 3.

**Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "other new recurring") from Years 1-4 that continue into Year 5.

***Identify if non-recurring.

Faculty and Staff Summary

Total Positions(person-years)	Year 1	Year 5
Faculty	TBA ^a	TBA
A & P	0	0

Calculated Cost per Student FTE

	Year 1	Year 5
Total E&G Funding	\$119,650	\$119,650
Annual Student FTE	11.5	10.73

USPS	1	1
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E&G Cost per FTE	\$10,404	\$11,151
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*We will continue to identify campus-wide interdisciplinary faculty (e.g., from Anthropology, Business, Caribbean & Latin American Studies, Health Adm Nursing, Office of International Programs, Philosophy, Political Science, Social Work, Sociology, and the Wilkes Honors College) to give individual lectur

Administration/Health Science,
and enrich courses.

**TABLE 3
ANTICIPATED REALLOCATION OF EDUCATION & GENERAL FUNDS**

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
0.5 of Dr. Myser's FTE	150,000	75,000	\$75,000
0.20 of Dr. Servoss's FTE	200,000	40,000	\$160,000
0.15 of Ms. Annie Thomas's FTE	31,000	4,650	\$26,350
Totals	\$381,000	\$119,650	\$261,350

Nursing, Office of International Programs, Philosophy, Political Science, Social Work, Sociology, and the Wilkes Honors College) to give individual lectures and enrich courses.

MD-MS Global Health and Bioethics

Curriculum & Schedule (Summer 2013-Spring 2016)

- **Prerequisite:** all participating students must first be admitted to FAU’s MD program and differing, additional selection criteria will guide admission to the MS
- Global Health and Bioethics is an emerging academic discipline which is interdisciplinary by definition, with integrated competencies drawing on, e.g., bioethics, biological/health sciences, health economics, public/health policy, human rights, intercultural communication/cultural competency, international affairs, international development, medical anthropology and public health, offering a novel framework through which to mobilize and leverage multidisciplinary resources to solve global health and bioethics problems.
- The MS curriculum will begin the summer after Year 1 of the MD program. During Year 2 (1st and 2nd semesters), the Global Health and Bioethics Seminars will occur during Friday afternoons which are dedicated time for “Independent Study” in the MD curriculum. During Year 3, there will be a 1.0 credit seminar reserved for Capstone Project planning. During Year 4, there will be a 12-week Capstone Project.
- 8 MD-MS students = one cohort
- Distribution of credit hours by faculty member(s) over the 4-year MD curriculum:

MS Curriculum	Faculty Instructors	Credit hours
Year 1 Summer	Myser and Servoss	5 credits
	Myser	3 credits
Year 2 Fall	Myser and Servoss	1 credits
	Myser	4 credits
Year 2 Spring	Myser and Servoss	2 credits
	Myser	1 credit
Year 3 Fall & Spring	Myser and Servoss	1 credit
Year 4	Myser and Servoss	10 credit (Students’ fieldwork experience)

Year 1 Summer (8 weeks)

Foundations of Global Health – New Paradigms in Research, Education, and Service (3.0 credits)

Myser and Servoss

- Major Global Health Problems and Potential Solutions
- Social and Behavioral Determinants of Global Health
- Techniques of Analysis of Global Health Problems
- Capacity to Evaluate, Synthesize, and Critically Appraise Complex Evidence/Research Articles in Global Health (e.g., for Global Health Policy)
- Regional Case Studies in Global Health (e.g., Africa, Asia, Caribbean, Latin America, Muslim World, Western Europe, No. America, Australia/Pacific)
- Global Health and Anthropology
- International Development & Health: Development in Theory and Practice; Strengths & Weaknesses

- Paradigms and Narratives in Development Studies
- Intended and Unintended Consequences of Development Interventions for Global Health
- Conflict and Natural Disasters

Foundations of Global Bioethics – New Paradigms in Research, Education, and Service (3.0 credits) Myser

- Recognize and Adapt the Cultural Ethos of Bioethics (e.g., White Anglo-Saxon Ethos in USA) for International Applications
- Explore the Cultural Meanings and Social Functions of Bioethics in Various Countries According to their Unique Histories, Sociocultural Features, Politics, Economics, etc.
- Globalization of Bioethics: Balkanization vs. Universalization of Values, Standards and Guidelines

New and Resurgent Diseases of Global Importance (1.0 credit) Myser and Servoss

- Effects of Globalization on Health (with focus on the relevant demographics of South Florida)
- Recognize global health problems associated with migration, climate change and emerging pandemics as local health problems, in Florida, requiring solutions
- Migration, Marginalization and Health
- Overlapping and Special Debriefing with Department of Health rotations will help inform research ideas and guide fieldwork project topics and allow students to begin studying community- and site-specific clinical and cultural issues
- Cross-Cultural Communication and Ethics
- Use of Translators and Ethics of Using Translators

Women, Maternal and Child Health and Empowerment (1.0 credit) – Myser and Servoss

- Clinical and Global Health Context of Prevention and Treatment in Women and Children in Both Developed and Developing Countries
- Women, Maternal and Child Health: Morbidity and Mortality Prevention
- Challenges in Delivering Safe and Effective Women's, Maternal and Child Health
- Methodological and Ethical Challenges in Health Research and Healthcare involving Women and Children
- Social Justice and Power

Year 2, 1st Semester (30 weeks): Global Health and Bioethics Seminars (Friday Afternoons' "Independent Study" 1-5pm)

Qualitative Research Methods for Global Health & Bioethics (2.0 credits) Myser

- Recognize High Quality Qualitative Research Methods
- Evaluate the Validity of Qualitative Research
- Identify Appropriate Qualitative Research Methods to Answer Specific Global Health and Bioethics Questions
- Understand and Implement Core Methods: e.g., Ethnography
- Conduct Community Based Participatory Research for Democratic Construction of Knowledge and Service

International/Global Research Ethics (2.0 credits) – Myser

- Ethical Theories and Frameworks Underpinning International Research Ethics Debates and Decision Making
- Recent and Current Controversies in International Research Ethics
- Core Cases: Identifying and Analyzing Ethical Issues Raised by Research Protocols & Developing Appropriate Responses
- International Guidelines and Regulations for Ethical Conduct of Research and Good Clinical Practice Around the Globe
- Informed Consent Theories and Standards: Providing Information and Facilitating/Supporting Voluntary Decision Making
- Cross-Cultural Challenges: Autonomy vs. Beneficence; Individualism vs. Communitarianism (Individual vs. Communal Leader Informed Consents)
- Evaluating Risks, Benefits, and Standards of Care in Research
- Post Trial Access to Research Interventions and Benefit Sharing
- Ethical Review of Research – Reviewing and Being Reviewed – Systems and Challenges including the Role of Research Ethics Committees
- Foreign Pharmaceutical Goals vs. Local Goals
- Engaging Research Communities: Issues to Address and Strategies for Meaningful Engagement
- Good Research Practice: Identifying Issues to Address When Designing and Conducting Specific Studies (including variables such as Vulnerable Populations, Complex Environments such as Emergency and Refugee Populations, and a Variety of Research Designs including Public Health Studies, Genomic and Operational Research)
- Capacity Building, Policy Development, and Empirical Ethics Research: Developing Responses to Research Ethics Issues on a Case-By-Case and Institutional Basis

Intensive Fieldwork Identification and Planning for the Capstone Project (1.0 credit) - Myser and Servoss

Year 2, 2nd Semester (10 weeks): Global Health and Bioethics Seminars (Friday Afternoons' "Independent Study" 1-5pm)

Global Health and Human Rights (1.0 credit) - Myser and Servoss

- Human Rights Codes and Guidelines Relevant to Global Health
- with Particular Focus on Ethical Challenges Raised when Performing Research involving Vulnerable Populations.

Medical Anthropology, Health Diplomacy and Global Justice (1.0 credit) – Myser

- Sociocultural Factors involved in Health Related Beliefs and Behaviors
- Health Diplomacy Methods (a New Academic Subdiscipline emerging out of Medical Anthropology) to Employ Cultural Competency and Improve Health by Strategically Addressing Existing Failures in Sociocultural "Diplomacy," Particularly in Resource-Poor Communities/Countries
- Health Diplomacy to Improve Global Justice

Global Health and Bioethics Policy and Development (1.0 credit) - Myser and Servoss

- The Policy Process

- Understanding the Role Policy Plays in Realizing International Development Objectives
- International Health Organizations
- Evolution and Challenges of Global Governance for Global Health
- Health Systems Strengthening and Implementation Science
- Global Health Regulation and Trade

Year 3

Global Health and Bioethics Qualifying Exam Preparation and Capstone Planning Seminar: Block 4 (2 first semester + 2 second semester) Friday afternoons, 1-5pm, or other independent study time of MD academic year (1.0 credit) Myser, Servoss

Year 4 (12 weeks MD-MS Capstone Project; cf. "Research Elective" –Ideal Time Slot: March April May/i.e., Post Residency Interviews)

Week 1- Qualifying Exam: Final Written Protocol describing all aspects of forthcoming fieldwork to be undertaken, including: context of the problem, conceptual and theoretical framework guiding the project, and proposed methodology

Weeks 2-11: 10-week Fieldwork Experience (10 credits)

Week 12- Capstone Project Comprehensive Exam: The Capstone Project Comprehensive Exam serves as the culminating experience of the program: a formal written and oral presentation of the completed fieldwork project that allows students: a) to synthesize and integrate Global Health and Bioethics concepts, skills, and knowledge acquired throughout the program; and b) to demonstrate the acquisition of fundamental Global Health and Bioethics competencies

Courses for which MD students will receive "double dipping" credit from the MD program (FOM) – total of 3 credits:

Statistical Concepts for Global Health (1.0 credit) Servoss

- Statistical Techniques commonly used in Clinical Research, including Measures of Association, Sample Size Calculation and Power, Parametric and Non-Parametric Analysis, Linear and Logistic Regression.

Global Health Epidemiology (1.0 credit) Servoss

- Core Epidemiologic Concepts and Study Designs commonly used in Clinical Research. Specifically, the Design and Analysis of Cohort, Case-Control, Cross-Sectional Studies and Randomized Controlled Trials will be studied using Regional Case Studies focused on Global Health.
- Quantitative Methods will be identified and explored that will be applied to students' Capstone Projects.

Social and Behavioral Determinants of Health (1.0 credit) Myser and Servoss

- Recognize the Impact of Ethnicity, Gender and Socioeconomic Status on Health
- Comparative Regional Determinants of Health
- Explore the Relationship between the Globalization Process and the Exacerbation of Health Inequities Within and Between Countries

Future Electives:

Global Health Economics

- Comparative Health Systems
- Health Care in Low-Resource Settings
- Link to Economic Development in South Florida (cf. Commonwealth University's Service Learning Projects and FIU's NeighborhoodHELP)

Global Health Decision Science

- Decision Science Methods – Decision and Cost Effective Analysis.
- Case Studies from the literature will be used to Demonstrate How Decision Science is used to Frame Clinical and Health Policy Decisions in an Economic Context.

Environmental and Occupational Health in a Sustainable World

Climate Change and Global Health (e.g., engage Scripps Oceanography)

n.b. For the Founding MD-MS Class (Summer 2013-Spring 2016), all Capstone Projects will be required to focus on underserved *local* "global bridge communities" resident in or expatriated to South Florida, in part to demonstrate service/benefit to local/regional/state communities. In doing so, FAU COM will continue to build Global Health & Bioethics *Local* Community Partnerships. In the meantime, Global Health & Bioethics *International* Community Partnerships - being created/developed from 2011 forward - will offer later cohorts both local and global fieldwork opportunities for Global Health and Bioethics Capstone Projects, once adequate local then global partner supervision and mentoring is established.

n.b. For all coursework, we will continue to identify campus-wide interdisciplinary faculty (e.g., from Anthropology, Business, Caribbean & Latin American Studies, Health Administration/Health Science, Nursing, Office of International Programs, Philosophy, Political Science, Social Work, Sociology, and the Wilkes Honors College) to give individual lectures and enrich courses, demonstrating benefit to the FAU Campus while helping to globalize the university more. Strategies to catalyze the development of interdisciplinary Global Health & Bioethics collaborations within FAU include: (1) sending "requests for proposals" (RFPs) to develop interdisciplinary initiatives; (2) providing other opportunities for collaboration through the College of Medicine's Interprofessional Education Program which is already planning IPE modules involving medical, nursing, and social work faculty and students; and 3) offering joint appointments in the College of Medicine as appropriate.



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July 7, 2011

Catherine Myser, Ph.D.
Julie Servoss, M.D., M.P.H.
Charles E. Schmidt College of Medicine
Florida Atlantic University
777 Glades Rd, BC 71
Boca Raton, FL 33431

Dear Dr. Myser and Dr. Servoss:

As the Dean and Vice President for Medical Programs at Florida Atlantic University, Charles E. Schmidt College of Medicine, I strongly support the two new proposed graduate degree programs: The MD-MDS dual degree in Medicine and Global Health and Bioethics, and the independent MS degree in Global Health and Bioethics. I believe that these two programs will enrich the graduate educational opportunities at Florida Atlantic University as well as the State of Florida. They will also be invaluable tools in the continued efforts to engage in international education activities.

These proposed degree programs will focus on training future health care and other professionals to use a range of resources to solve several global health and bioethics problems in the U.S. and around the world. Since these programs are very unique, it means that FAU will be a leader in this field and will attract students from around the world. Additionally, it will open more doors for our faculty to apply for extramural grants. You may be aware that health issues, especially when examined in global context, are top targets for support from federal agencies, international agencies and private foundations. These grant funds will provide critical resources to enable us to achieve this objective.

I cannot stress enough how important and necessary it is for FAU to build global partnerships in order to maximize funds for research on a global level. Therefore, I hope you will be granted the approval of the two proposed graduate degrees in Global Health and Bioethics.

Sincerely,

Michael L. Friedland, M.D.
Vice President for Medical Program
Dean, Charles E. Schmidt College of Medicine

Cc: Diane Alperin, Interim Provost
Edward Pratt, Dean of Undergraduate Studies
Barry Rosson, Vice President for Research and Dean of Graduate College



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July 21, 2011

Catherine Myser, PhD
Director, Ethics, Social Medicine and Global Health Programs
Schmidt College of Medicine
Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431

Dear Dr. Myser:

I am pleased to support your proposal for a Master of Science degree program in Global Health and Bioethics in the Schmidt College of Medicine at Florida Atlantic University. This innovative interdisciplinary degree program can attract students to the University and foster engagement with diverse and underserved communities in our geographic area.

I found your proposal quite compelling. As only the 5th Master's program in Global Health in the US, the only program combining Global Health and Bioethics, and the burgeoning interest in and need for education in Global Health, there is great potential for attracting students and funding. Offering the program through distance learning modalities would make it more accessible to interested students within and outside the US. South Florida is well-positioned to attract students from Latin America and the Caribbean to the program, and the diversity of our surrounding communities creates a rich laboratory to implement the capstone projects proposed. The MD/MS degree can offer medical students an opportunity to specialize in global health and obtain focused experiences in public health and ethics. Students in the other Florida medical schools may be drawn to the program especially with creative capstone projects that might include study abroad experiences.

Some of these courses could be appealing to our PhD students in nursing who are seeking cognates or electives. The College of Nursing does offer two courses in qualitative research methods which might be useful to students enrolled in this program. I agree that it is important to take advantage of any opportunities to increase interprofessional education among the faculty and students in the health professions programs at FAU.

I enthusiastically support your proposal for the Global Health and Bioethics Master's degree program. I wish you success as you plan your program and look forward to future collaborations.

Sincerely,

A handwritten signature in cursive script that reads 'Marlaine C. Smith'.

Marlaine C. Smith, RN, PhD, AHN-BC, FAAN
Dean and Helen K. Persson Eminent Scholar

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July 6, 2011

Catherine Myser Ph.D.
Julie Servoss M.D., M.P.H.
Dean Michael Friedland M.D.
Charles E. Schmidt College of Medicine
Florida Atlantic University
777 Glades Road BC-71
Boca Raton, FL 33431

Dear Dr. Myser, Dr. Servoss and Dean Friedland:

I write as Director of the Office of International Programs at Florida Atlantic University to enthusiastically support the two new graduate degree programs you have proposed: the MD-MS dual degree in Medicine and Global Health and Bioethics, and the independent MS degree in Global Health and Bioethics. I have reviewed both proposals in detail, and feel they will make extremely valuable contributions to the professional and interdisciplinary graduate educational opportunities at Florida Atlantic University (FAU) as well as the State of Florida. They will also be invaluable tools in FAU's continued efforts to engage in international education activities and the 21st century global higher education system.

The Global Health and Bioethics field is an emerging interdisciplinary academic discipline that will train future health care and other professionals to use a range of resources to solve different global health and bioethics problems in the U.S. and around the world. Global health issues and the interface between culture, society, poverty, access and service delivery of health care within an ethical framework are of critical importance now. We need to train competent professionals for leadership, advocacy, research, education and service roles in these areas, and the proposed degree programs will be unique to Florida (and rare in the U.S.) once launched. The degree content aligns particularly well with the College of Medicine's student-centered and patient-focused approach that features problem based learning and clinical experiences with local physicians, health departments, and hospitals and clinics. Engagement with community clientele from South Florida as well as selected international locations will deepen the cultural awareness of the students and strengthen their professional and international capacities upon graduation from FAU. The uniqueness of these degrees means FAU will be a leader in this field and students from Florida, across the U.S. and from around the world will want to enroll at FAU.

I am further excited that these degrees are being proposed at a time when FAU is embarking on a new phase of internationalization. FAU is meeting the "global imperative" of global engagement by adding new international partnerships in strategic world locations and adding curriculum and study abroad options to help train globally competent graduates. Some of our current world partners will have the

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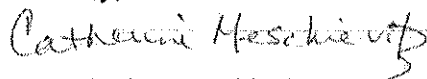
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capacity to host the Global Health and Bioethics students doing their 10 credit fieldwork experience overseas. New partners identified initially for our Global Health and Bioethic connections will also have the potential to offer access to added FAU faculty and students in other academic disciplines, thereby building comprehensive partnerships. Comprehensive partnerships engage multiple constituencies at home and abroad, sparking new synergies that lead to transformative activities and results. All of this activity will link FAU more firmly to the emerging global higher education system and allow faculty and students to contribute to new cutting edge knowledge production.

Last, but certainly not least, these two degrees will directly lead to more extramural grant opportunities for FAU faculty. Health issues, especially when examined in global contexts, are top targets for support from federal agencies, international fundors and private foundations. Dr. Myser's and Dr. Servoss's recent submission to NIH for a multi-year grant for research on minority health and health disparities in Jamaica and South Florida is one example. Moreover, many foundations are now giving internationally focused grants to U.S. universities only in tandem with overseas partners, be they universities, research centers or NGOs. The international ties and partnerships FAU has and will continue to build are necessary building blocks to maximize available funds for research on global health and bioethics; and in turn the latter strength simultaneously will allow FAU to add more fruitful partnerships and global ties. It is truly a "win-win" scenario.

For all these reasons, I urge prompt approval of the two proposed graduate degrees in Global Health and Bioethics. I look forward to working with the College of Medicine, the deans and faculty and others across FAU as they implement the degrees and help FAU engage globally in meaningful ways.

Sincerely,



Dr. Catherine Meschievitz
Director

xc: Diane Alperin, Interim Provost
Edward Pratt, Dean of Undergraduate Studies
Barry Rosson, Vice President for Research and Dean of the Graduate College