

Florida Board of Governors

Request to Offer a New Degree Program

University of Florida
University Submitting Proposal

Fall 2010
Proposed Implementation
Date

College of Public Health & Health Professions
Name of College or School

Departments of Behavioral Science and
Community Health and Environmental and
Global Health
Name of Department(s)

PhD in Public Health
Academic Specialty or Field

(CIP 51.2201, Public Health)
Complete Name of Degree
(Include Proposed CIP Code)

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	6	4.6	136,016	4473	29,569
Year 2	14	10.6			
Year 3	22	15.8			
Year 4	30	19.9			
Year 5	32	22.7	262,363	5034	11,558

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.**

The proposed PhD in Public Health, offered by the College of Public Health and Health Professions, will require a minimum of 90 post-baccalaureate credit hours. These credits will include core public health coursework (15 credits); quantitative methods and statistics (12 credits); professional issues (6 credits); a concentration area (36 credits); supervised research (3 credits); supervised teaching (3 credits); and dissertation research (15 credits). Initial areas of concentration include environmental and global health and social and behavioral sciences. However, it is expected concentrations will be added over time and that students will also be able to specialize within each concentration. Drawing upon the existing strengths of UF to develop areas of concentration not only makes the proposed program unique, but the program will lead to broader interdepartmental and interdisciplinary collaborations. Upon successful completion of all program components, culminating in the dissertation defense, program graduates will be awarded the PhD in Public Health (CIP 51.2201, Public Health). Examples of places of employment include universities, federal and state government agencies (e.g. Centers for Disease Control, Public Health Departments), health and environmental research firms, and non-profit local, national, and international agencies.

- A. 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/about/strategicplan/>)**

The Board of Governors' document State University System of Florida Strategic Plan 2005-2013¹ includes an assessment of the areas in which programmatic growth is needed. The Board of Governors approved seven accountability measures; measure III is to "meet statewide professional and workforce needs" (page A1). The accountability outcome for this measure is "Producing more degrees in education, the health professions, programs that promote economic development, programs involving emerging technologies, and other high-wage/high demand areas," and level of priority for growth in each of the CIP areas is provided. Public health is a targeted area for growth under descriptive heading I.B.3.c Medical Science and Technology Programs.

Based on the University's strategic goals, the proposed program would contribute to the strategic plan in at least the following ways: (1) "increase the relative size and quality of the graduate program to align with peer AAU public universities;" (2) "assist the state in addressing critical shortages of health-care professionals;" and (3) "strengthen the educational facets of professional

programs and colleges with special emphasis on interdisciplinary endeavors.” There are currently only two other accredited colleges of public health with a PhD program in similar tracks (University of South Florida and Florida International University) and there is a serious shortage of public health professionals (Contribution 2). Our program will add to the pool of trained professionals within the state. The interdisciplinary design of this doctoral program directly addresses contribution number 3. We will be training doctoral students who have a background in public health that is enhanced by several other disciplines (e.g. toxicology, environmental health science for environmental and global health; liberal arts for social and behavioral sciences). Conversely, the program provides the opportunity for interdisciplinary research in the identification and management of both social and physical aspects of disease transmission.

Overall, the public health PhD program provides the opportunity to develop linkages around core topics highlighted in the strategic plan, including environmental and global health issues and related social medical issues of aging, families, and children. All of these areas are strongly associated with advanced public health education.

Public Health issues often cross geographical and political boundaries. For example, toxic stack emissions from industrial countries can be found in countries where the emissions were not generated, dust and biological particles from the sub-Saharan desert are carried to Florida on seasonal air currents; infectious diseases such as SARS can travel from one continent to another; and arboviruses can be carried by individuals across the globe, and use local insects to spread transmission. Thus, while public health problems can arise within a specific country or location, the global impact also needs to be addressed. The global health component of the public health program will focus on these regional and world-wide issues.

Finally, as an accredited college of public health, we must offer a minimum of 3 doctoral programs relevant to public health knowledge. Each program must include at least 5 full-time equivalent faculty in the college and at least one graduate student in each program. Currently there are three established public health PhD programs in the college (i.e. Health Services Research, Epidemiology, and Biostatistics), allowing us to meet minimal accreditation requirements. However, minimal standards are not where one expects UF to be as a university. As part of the evolution of public health education at UF, it is important to create the opportunity for students in each core public health discipline to achieve the highest academic credential, the PhD.

Core public health areas are defined by the public health accrediting body as biostatistics, epidemiology, environmental health, health management and policy, and social and behavioral sciences. Therefore, the public health PhD with concentration areas in environmental and global health and social and behavioral sciences provides that opportunity for advanced public health training consistent with accreditation requirements and appropriate expectations of a Research One institution. This contribution is consistent with both the SUS strategic plan and UF work plan related to becoming a premier academic entity.

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.**

The state of the national public health work force has recently been described in documents released by the American Public Health Association² (APHA) and the Association of State and Territorial Health Officials (ASTHO).³ The APHA report states:

There is a growing public health workforce shortage at the local, state, and federal levels. The number of public health workers declined to 158 workers per 100,000 Americans in 2000, as compared to 220 workers per 100,000 in 1980. Within the next few years, state and federal public health agencies could lose up to half of their workforce to retirement, the private sector and other opportunities.... the potential for a shortage of highly skilled public health professionals has become more immediate and severe in scope (p. 2).²

The recent *ASPH Policy Brief: Confronting the Public Health Workforce Crisis*⁴ indicated that by 2020, “the nation will be facing a shortfall of more than 250,000 public health workers” ... and that “over the next 11 years, schools of public health would have to train three times the current number of graduates to meet projected needs”, which are created by “more than 100,000 government public health workers – approximately one-quarter of the current public sector workforce – [being] eligible to retire by 2012” (p.1). Two specific recommendations to address this looming crisis are to educate more graduate students and to significantly increase research training, both consistent with the establishment of the Public Health PhD program.

Public health doctoral programs in environmental health typically generate 2-3 graduates per year. (PhD.org). Similarly for SBS, in a report on trends in public health training between 1994 to 2005, the Association of Schools of Public Health (ASPH) noted that among member schools (accredited schools of public health) 76 PhDs were awarded during 2004-2005 in the area “HED/BS,” which includes health education, behavioral sciences, public health education, health education administration, health behavior, community health sciences, community health practice, and health promotion.⁵ Only 5 universities in the United States with accredited schools of public health have PhD programs in somewhat similar areas of training to the EGH concentration proposed. There are 12 universities that offer a specific behavioral focus applied to PhD public health education as proposed here. Clearly, yearly production of doctorally trained experts in both EGH and SBS is quite low. These graduates play a critical role in the upkeep of the public health infrastructure through serving in leadership positions at federal and state government agencies, serving in leadership positions in non-profit local, national, and international agencies, and through providing a workforce for university and college faculty members and research firms.

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.

Because we offer a master of public health degree with concentrations in environmental health and social and behavioral sciences, students have communicated directly with us about their interest in the public health PhD program. This year, five students who graduated from our MPH program indicated they would have applied to the UF public health PhD program with a concentration in social and behavioral sciences if it had been available. (These students were all accepted into other PhD programs.) Similarly, this year three students in our EH concentration have inquired about the availability of the PhD program and 3 additional students from other majors have inquired about this concentration. At this year's American Public Health Association meeting, several students visiting the UF booth inquired whether UF offered a doctoral program in public health and expressed significant interest in applying if the program were to become available within a reasonable timeframe.

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.

In Florida, three universities have accredited schools of public health (University of South Florida, Florida International University, and the University of Florida College of Public Health and Health Professions). Michael G. Perri, dean of PHHP, has corresponded with the deans of the colleges of public health at both USF and FIU, Dr. Donna Peterson and Dr. Fernando Trevino, respectively. They have provided enthusiastic support for the PhD program at UF. There is limited overlap among the institutions yet significant potential for collaboration. Both of these issues are briefly expanded upon below.

The University of South Florida (USF) does not offer a PhD program in environmental and global health but offers one in toxicology and one in environmental and occupational health. FIU has a PhD in toxicology with a primary focus on forensic toxicology but FIU only recently became accredited and manages a very small program. Similarly, FIU has a PhD in health promotion, which includes some similar components of our proposed SBS concentration but their public health program focuses on the needs of south Floridians and therefore serves a different consumer group. USF is the closest potential partner, such as via distance learning. USF does not offer advanced (doctoral level) coursework in EGH or SBS on line. If appropriate coursework were made available via distance education and USF had increased student capacity, we would be open to discussing sharing this coursework. Dr. Peterson has been supportive of our doctoral level program development, believes there is needed growth, and assisted us with program development during the accreditation process. We believe there is significant opportunity for multi-university collaboration. For example, we recently proposed to build the state's public health workforce by creating training opportunities throughout the state for public health workers. Although this proposal did not ultimately receive legislative funding, it

involved all three universities and is an example of the potential for shared expertise and collaboration. Given that the public health colleges of all three universities are now accredited by CEPH, we anticipate future collaborative opportunities in research and training to grow.

We believe that the factors noted throughout Section II – a critical need for training in public health, a small number nationally of accredited schools of public health with similar PhD programs, the relatively low production of PhDs in public health within the State of Florida, the distinct differences in our curriculum, and the support of the deans of the colleges of public health at USF and FIU – all promote the need for the doctoral program at the University of Florida. In addition, we believe there is sufficient interest from current and past public health students at UF to provide an immediate cohort of qualified applicants for the PhD program

- 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.**

Our estimates represent a conservative build out of our PhD program during the first five years. We plan to recruit 3 students into each PhD concentration in year one, thus starting with 6 PhD students, and 4 students in each concentration beginning in year two. Based on the student interest already expressed, we believe this will be easily accomplished. In addition, because the students for each concentration are expected to come from different areas (e.g. SBS students will be drawn from social and behavioral science majors whereas environmental and global health students more likely from environmental and biological science, etc.) our recruitment pool is expected to be fairly broad. It is possible that students within the MPH program who are interested in advanced training will want to pursue the PhD prior to completing the MPH, and we would manage these on a case-by-case basis, with some students likely to pursue concurrent enrollment.

Instead of using 32 credits per student as the numerator in calculating student FTE, we used the more conservative number of credits typically taken by graduate assistants (i.e. 24 credits: 9, 9, and 6 in Fall, Spring, and Summer, respectively). In the fourth year of each student's program, we used 18 credits instead of 24, given this represents the minimum number of credits necessary to complete the degree. In all years, we used the denominator of 32.

- 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.**

If our MPH program is an indication of the diversity of the PhD program, we can anticipate a diverse student body. As shown below, approximately 36% of our MPH cohort in our SBS and Environmental Health concentrations are Black or Latino. Overall, ½ of the students identified

with racial or ethnic groups different from white (non-hispanic). Because the MPH program is one of the applicant pools from which we will draw, we are optimistic that we will be able to have a group of students who are racially and ethnically diverse.

Race/Ethnicity Breakdown of Students in MPH EH/SBS concentrations

Group	Total	Percent
White	21	50.0
Black	11	26.2
Latino/Hispanic	4	9.5
Native American	0	0.0
Asian	6	14.3
Other	0	0.0
Total	42	100%

To help ensure racial and ethnic diversity, we will work actively with the Director of Graduate Minority Programs at the University of Florida, to recruit minority students. Here is a brief summary of their current programs. Recruitment services involve creating a pool of students from groups traditionally underrepresented in the student body by participating in 1) graduate fairs nationwide, 2) partnerships with foundations and organizations, and 3) the Campus Visitation Program. Retention services are provided in the form of the Florida Board of Education (FBOE) Summer Program, the Office of Graduate Minority Programs (OGMP) Supplemental Retention Program (SRP), and academic support services and programs for graduate students. There are partnerships with (1) the Florida Educational Fund, (2) the Florida A&M University (FAMU) Feeder program, (3) the Santa Fe Community College Development Project, (4) the National Consortium for Graduate Degrees for Minorities in Engineering and Sciences, Inc. (GEM), and (5) the National Science Foundation-Alliance for Graduate Education and the Professorate.

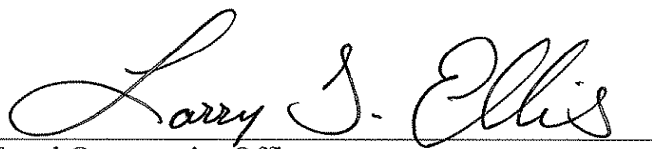
The Campus Visitation program, for example, is conducted twice a year, during the fall and spring semesters. The program is intended to provide an opportunity for prospective minority graduate students and school advisers to visit our campus. Students meet with administrators, faculty members, and current graduate students.

Potential students identified through any of these activities will be actively recruited. Once the student is recruited we will focus on helping the student be successful. For example, the Florida Board of Education Summer Fellowships prepare new graduate students from underrepresented demographic groups, admitted to the University of Florida for fall semester, during the summer. Participants receive a stipend and tuition waiver to enroll in summer graduate coursework and preparatory coursework. This enables new graduate students to spend the summer on campus prior to the fall semester, and we will pursue these scholarships for eligible graduate students.

Another retention effort is the Professional Development Workshop offered to enrich the educational experience of students who are typically underrepresented in graduate education. This series of mentoring workshops addresses issues such as writing literature reviews, effective reading strategies, summarizing and critiquing readings or lectures, passing qualification examinations, getting manuscripts published, using professional meetings to advance one's

career, and getting research grants. Opportunities also exist for additional funding should a student from an underrepresented group need longer to complete the degree, but are no longer eligible to receive a fellowship, assistantship or other funding from their department or college. Limited tuition assistance and the help of a structured retention program are provided to the student.

These University programs will supplement the efforts of the program faculty members to recruit, retain and graduate PhD students from underrepresented groups.



Equal Opportunity Officer

12-9-09

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.)**

It is anticipated that in year one, 1.13 faculty FTE will be required. The total for salary and benefits is \$140,189 from existing college sources, including E & G (\$135,716) and contracts and grants (\$4473). In addition, \$50,000 is requested for graduate student fellowships, one in each concentration as part of recruitment in year two, to be requested from the Graduate School. We anticipate that new program expenses will be minimal given we had to enhance our public health infrastructure last year as part of our accreditation process. Similarly, library resources (e.g. journals, etc.) to support the PhD program are already in place given our existing public health concentrations at the master's level. By year 3, we plan to add three faculty, one in SBS in year two and two in EGH in year three, totaling .30 effort (.10 each x three faculty) to support program growth. Therefore, by year 5 we anticipate requiring 1.43 faculty FTE for a total of \$205,251 for salary and benefits, of which \$200,217 is from E & G and \$5034 is from contracts and grants. Support for the additional FTE comes from existing resources received as part of the hiring package for our new dean. The total proposed year 5 budget is \$267,397. As noted, the bulk of this dollar amount is associated with salaries of existing faculty members from E & G.

- 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 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).

We do not anticipate any negative impact on existing programs. No resources will be taken from our undergraduate program. Our Bachelor of Health Science Program is delivered independently of the faculty proposed to support our PhD program with the exception of Dr. Mary Ellen Young. However, Dr. Young had been previously assigned to the rehabilitation counseling program, which is being closed. Therefore, her effort is, in part, being redirected to the doctoral program. We believe there are several potential advantages the PhD program offers to our undergraduate program. First, given that the majority of our undergraduates pursue advanced study, the doctoral program will offer undergraduates an additional academic path at UF, thus expanding their career opportunities. Second, we anticipate that undergraduates will indirectly benefit from doctoral students and the resources associated with having a doctoral program (e.g., more invited guest speakers and mentors) available to them. Third, we anticipate that the PhD program will result in expanded opportunities for undergraduate honors research projects.

F. 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).

The largest concentration of courses needed are public health courses taught within our college. However, program concentrations do include courses taught outside the college. These courses are typically courses that are already open as general electives to all UF students, and we anticipate very few students (maximum of 3 or 4 if all students chose the same course) needing these courses during any given semester. In addition, we have talked with appropriate representatives from other departments in order to ensure availability of required courses taught by other colleges. This was particularly important for the environmental and global health concentration, that includes three core courses from the College of Veterinary Medicine. Dr. Roberts, who teaches these courses, will be participating in the PhD program as a core graduate faculty member.

G. 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.

Most faculty members have external (to the college) funding to offset some salary support. This funding comes from federal agencies (e.g., Veterans Affairs, NIH), and national non-profit organizations (e.g., National Cancer Institute, Susan G. Komen Foundation). We will continue to seek support from these agencies, and we will be expanding our efforts to include international agencies. Our recent accreditation has made us eligible for additional funding sources we could not previously tap (e.g. CDC funding) and therefore, our opportunities for funding have grown based on this accreditation. For example, we recently received public health traineeship funds (2 in 2009) and traineeship funding (1) through the American Recovery and Reconciliation Act, for which environmental health is a priority. We believe we will remain competitive for these

funding sources and plan to request additional traineeships.

III. 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 public health work force is declining, creating a shortage that can not be addressed by the yearly production of public health professionals. Graduates of doctoral programs play a critical role in the upkeep of the public health infrastructure and contribute to cutting edge research and training. Currently, however, the production of doctorally prepared experts in both EGH and SBS is quite low, both in the state of Florida and nationally. The relative costs for the proposed PhD program (cost compared to FTE production) by year five are modest and student interest is evident; thus this program represents a sound investment. The reasonable cost at this point is in part because we can capitalize on the overall college infrastructure already in place that was necessary for college level public health accreditation acquired earlier this year. We also have a clear feeder to the PhD program from our MPH program. In addition, establishment of the PhD program creates expanded opportunities beyond our existing MPH program for research and training collaborations with USF and FIU, the only other public health PhD programs in the state. Both deans at these universities are supportive of our proposed PhD. A direct benefit is assisting with the shortage of public health professionals. PhD graduates at academic institutions help teach direct line public health workers, and public health is a targeted area of needed growth in Florida. In addition, PhD graduates have the skills necessary to address critical health priorities in Florida through research assessing effective prevention and containment strategies regarding transmission and development of disease in communities and populations. Finally, we expect an ethnically diverse student body, contributing to the richness of the educational experience of all students.

IV. Access and Articulation – Bachelor’s Degrees Only

A. If the total number of credit hours to earn a degree exceeds 120, provide a justification for an exception to the policy of a 120 maximum and submit a request to the BOG for an exception along with notification of the program’s approval. (See criteria in BOG Regulation 6C-8.014)

Insert response here. N/A

B. List program prerequisites and provide assurance that they are the same as the approved common prerequisites for other such degree programs within the SUS (see Common Prerequisite Manual <http://www.facts.org>). The courses in the Common Prerequisite Counseling Manual are intended to be those that are required of both native and transfer students prior to entrance to the major program, not simply lower-level courses that are required prior to graduation. The common prerequisites and substitute courses are mandatory for all institution programs listed, and must be

approved by the Articulation Coordinating Committee (ACC). This requirement includes those programs designated as “limited access.”

If the proposed prerequisites they are not listed in the Manual, provide a rationale for a request for exception to the policy of common prerequisites. NOTE: Typically, all lower-division courses required for admission into the major will be considered prerequisites. The curriculum can require lower-division courses that are not prerequisites for admission into the major, as long as those courses are built into the curriculum for the upper-level 60 credit hours. If there are already common prerequisites for other degree programs with the same proposed CIP, every effort must be made to utilize the previously approved prerequisites instead of recommending an additional “track” of prerequisites for that CIP. Additional tracks may not be approved by the ACC, thereby holding up the full approval of the degree program. Programs will not be entered into the State University System Inventory until any exceptions to the approved common prerequisites are approved by the ACC.

Insert response here. N/A

- C. If the university intends to seek formal Limited Access status for the proposed program, provide a rationale that includes an analysis of diversity issues with respect to such a designation. Explain how the university will ensure that community college transfer students are not disadvantaged by the Limited Access status. NOTE: The policy and criteria for Limited Access are identified in BOG Regulation 6C-8.013. Submit the Limited Access Program Request form along with this document.

Insert response here. N/A

- D. If the proposed program is an AS-to-BS capstone, ensure that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as set forth in Rule 6A-10.024 (see Statewide Articulation Manual <http://www.facts.org>). List the prerequisites, if any, including the specific AS degrees which may transfer into the program.

Insert response here. N/A

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 also see section IB.) Encompassed within the mission of the Board of Governors’ document State University System of Florida Strategic Plan 2005-2013¹ are strategic goals

referenced previously in this document. The public health PhD program is consistent with both the SUS and UF University Strategic mission⁶ related to increasing PhD production (SUS goal 1 and UF goal regarding graduate students). The PhD program provides access to a new program for which students have clearly expressed interest. In addition, the establishment of the PhD further increases access to high quality teaching not only for the PhD students but also for advanced master's students. The establishment of this PhD is also consistent with other accredited colleges of public health in the state and contributes to appropriate competitiveness nationally. The PhD program supports enhanced research capacity in public health, consistent with building world class academics and research capacity, cited explicitly in the SUS plan (goal 3) and implicit in the context of the work plan referencing UF's aspiration to attain top ten AAU status. Students in the EGH concentration will also have the ability to acquire technical expertise in emerging pathogens and environmental impacts, specific workforce needs identified in the SUS Strategic Plan (goal 2) and in UF's work plan under maximum impact areas. Similarly, students in the SBS concentration will have the opportunity to address policy, rehabilitation, and the health needs of individuals across the developmental spectrum (from children and families to the elderly), consistent with additional maximum impact areas cited in the UF work plan. For example, specific researchers are currently focusing on malaria transmission, pesticide risks in humans, damage of hookah smoking, and preventative behaviors related to cancer, providing research opportunities for public health doctoral students. Finally, public health is interdisciplinary by nature as well as ethnically diverse. As previously noted, we anticipate a diverse student class, which contributes to the stated goal of further diversification of the student body and the overall goal of diverse human capital in the UF work plan. Consider, for example, that of the 5 SBS students who inquired about the PhD program, 4 were nonwhite (2 were Black, 2 were Latino, and 1 was White, non-Hispanic). The design of the PhD lends itself well to the recruitment of students with diverse backgrounds.

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.

The existence of the environmental health and social and behavioral sciences concentrations in the Master of Public Health (MPH) program creates the foundation for the development of the environmental and global health (EGH) and social and behavioral sciences (SBS) concentrations in the public health PhD program, of which students select one. The faculty members who will form the core instructional team for the doctoral program teach in the MPH program. The MPH program is expected to serve as a feeder for the proposed degree. Conversely, the doctoral program will strengthen the MPH program by introducing additional courses that can be opened to advanced master's students, by providing trained teaching assistants for larger MPH courses, by offering MPH students the opportunity to work on research projects with doctoral students, and by raising the overall intellectual climate through the use of journal clubs and guest speakers.

The breadth of coursework available at UF represents a significant institutional strength that will be used in the Ph.D program through the student's selection of specialty coursework within a concentration. Specifically, EGH students have the opportunity to acquire training in a disciplinary perspective (i.e., toxicology, exposure assessment, zoonotic and vector borne diseases, and global health). Similarly, in social and behavioral sciences, students will select

coursework representing a specific behavioral or social science theoretical perspective. In both of these concentrations, the disciplinary perspective will involve coursework crossing colleges (for example human health risk assessment in veterinary medicine; medical anthropology and social inequality in liberal arts and sciences). As our program grows, we also anticipate offering our graduate courses to students from other departments (e.g., Environmental Engineering, Soil Science, etc). Students both within and outside the program will therefore have the opportunity to learn from faculty members with different disciplinary perspectives. Faculty members will also have the opportunity to develop interdisciplinary contacts through the co-mentoring of students. We believe that these activities will lead to greater collaboration with other departments and programs. This type of collaboration is already evident in our relationship with specific centers. We are forging a new collaboration with the Center for Latin American Studies around global health. We believe this will provide opportunities for PhD students as this relationship develops. We already have excellent UF partnerships with Dr. Steve Roberts, Director of the Center for Environmental and Human Toxicology and Dr. Glenn Morris, Director of the Emerging Pathogens Institute, both of whom have been integrally involved in public health PhD planning. There is great potential for both direct and indirect benefits to the PhD program as these collaborations mature.

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.

Planning for the PhD program has occurred via varied levels of interaction, including departmental faculty, departmental subcommittees, administrative meetings between the dean’s office and departmental representatives, and between chairs and specific faculty representatives. Faculty representatives from the two concentrations initially worked independently to design critical concentration components and then met together to discuss and finalize core coursework for the program as a whole. Dr. Glenn Morris, director of the Emerging Pathogens Institute, also participated in the discussion regarding overall program components and the EGH concentration.

(For table below, SBS refers to Social Behavioral Sciences faculty and EH refers to environmental health faculty; environmental health changed to EGH this past year. EGH faculty includes Dr. Roberts, director of the Center for Environmental and Human Toxicology and Dr. Barber.)

Planning Process

Date	Participants	Planning Activity
1/11/08, 2/1/08, 3/7/08, 5/2/08	SBS Faculty as a whole	Initial general discussions of public health PhD program
5/13/08	EH faculty, Dean Perri, Dr. Glenn Morris	Initial discussion of PhD program; discussion of creating department of EGH
6/13/08	EH faculty	Discussion of potential admission criteria and standards for EGH

		students
7/18/08	SBS faculty	Continued general discussion of PhD program
7/25/08	EH faculty	Discussion of standards and course development
8/12/08	SBS faculty	Retreat to discuss PhD program design as part of overall educational program discussion
8/15/08	EH faculty	Discussion of lab experiences for students
8/22/08	SBS faculty and potential doctoral students	Discussion to gain student input on program requirements
9/29/08	SBS faculty	Team meeting to discuss administrative issues
1/9/09	SBS faculty	Team meeting to discuss administrative issues
1/15/09	SBS doctoral committee – Dr. Giselle Mann, Dr. Tracey Barnett, Dr. Dennis Thombs, and Dr. Curbow, ex officio	Dr. Mann appointed director of SBS doctoral program planning group and holds planning meeting
2/6/09	SBS faculty	Update on planning for PhD program
3/13/09, 5/1/09	SBS doctoral committee	In depth program planning
5/11/09	EH faculty, Dean Perri	Review of status of department and plans for future
5/27/09	EH faculty	Discussion of PhD prerequisites
6/12/09	EGH faculty SBS faculty	Discussion of overall program, identification of faculty and courses
6/22/09	Dr. Freeman and Dr. Morris	Identification of supplemental faculty for EGH concentration
7/10/09	SBS faculty	Update for faculty as a whole
7/17/09	EGH faculty and Dr. Greg Gray	Update on umbrella design for program
8/5/09	Dr. Freeman, Dr. Morris, Dr. Curbow, Dr. Stephanie Hanson, executive assoc. dean	Establish draft of shared requirements/courses and credits hours
8/14/09	SBS faculty	Update on agreed curriculum
9/10/09/9/11/09	EGH faculty/SBS faculty respectively	Update on combined curriculum
9/21/09	Dr. Freeman, Dr. Morris	Continued discussion of supplemental faculty
10/8/09	EGH faculty and Dr. Gray	Discussion of lab rotation course specifically and other courses generally
10/15/09	EGH faculty	Further discussion of outside faculty
11/12/09	EGH faculty	Further discussion of lab rotations
11/13/09	SBS faculty	General update at monthly faculty

		meeting
11/24/09	Dr. Curbow, Dr. Freeman, and Dr. Hanson	Review and revision of curricular draft
11/30/09	EGH faculty, Dr. Gray	Discussion of bioethics course
11/30/09	SBS doctoral committee and doctoral students	Gain input on program requirements and course offerings as currently designed
12/8/09	Dr. Curbow, Dr. Freeman, and Dr. Hanson	Complete proposal

Events Leading to Implementation

Date	Implementation Activity
Approval Process	
December, 2009	1. Submit proposal to Graduate Council for review and approval
February, 2010	2. Submit proposal to University Faculty Senate for review and approval
March, 2010	3. Submit proposal to Board of Trustees for review and approval
June, 2010	4. Submit proposal to Board of Governors for review and approval
Preparation Process	
February, 2010	1. Send letter to current and former MPH students in the Environmental Health (EH) and SBS concentrations to respond to inquiries related to the development of a PhD program and its possible timeframe, including Senate approval and remaining approval process; outline admissions procedures to be used if program is approved
March, 2010	2. Organize first year schedule of classes
March, 2010	3. Draft student applicant rating form and related student selection criteria material
June, 2010	4. Send letter to current and former MPH students in the EH and SBS concentrations alerting them to approval of PhD program by BOT (contingent on favorable BOT decision) and approval required by BOG
Beginning late June, 2010	5. Invite applications for admission and begin accepting applications from students, contingent upon favorable decision by Board of Governors
June-July, 2010	6. Review applicants and select first student cohort
June-August, 2010	7. Notify students of acceptance status
August, 2010	8. Admit first cohort

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.

The College received initial accreditation as a school of public health this year (June 25, 2009). Accreditation was awarded for 5 years. The Council on Education for Public Health (CEPH), the accrediting body, offered a handful of recommendations, including ensuring research concepts are integrative in the undergraduate program, and changing the public health experience for students in the college in programs outside of public health. All recommendations have already been implemented or are substantially completed. We have redesigned the undergraduate research methods program, which will be implemented in Spring, 2010 and an internally managed public health grounding course has been designed and implemented. As a bit of background to the latter issue, as part of public health education, all students are required to demonstrate grounding in public health. We had initially used an externally offered on line program to achieve this grounding in public health. CEPH questioned the rigor of this course. We therefore eliminated this course and developed an on line course taught by our faculty. The course includes assessment of content mastery for each core public health area.

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.**

Key Learning Objectives by Area of Study

<i>Area of Study</i>	Credits	Learning Objectives
Core Public Health	15	<ul style="list-style-type: none"> • Explain the contributions of the different core areas to public health research and practice • Apply public health principles learned in core courses to a focused area of study
Methods and Statistics	12	<ul style="list-style-type: none"> • Demonstrate understanding of methodological issues applied to public health problems • Demonstrate appropriate research design and use of methods in laboratory and applied (field) settings • Demonstrate competency in quality assurance/quality control methods • Demonstrate skills necessary to assess the soundness of assessment and intervention tools used to measure public health concerns
		<ul style="list-style-type: none"> • Apply basic univariate statistics to a dataset (e.g., mean, median, standard deviation, skew) using statistical software such as SPSS • Apply basic bivariate statistics to a dataset (e.g., t-test, one-way ANOVA, chisquare) using statistical software such as SPSS • Apply basic multivariate statistics to a dataset (e.g., multiple regression, logistic regression; hierarchical regression) using statistical software such as SPSS

Professional Issues	6	<ul style="list-style-type: none"> • Describe ethical challenges in conducting public health research and possible solutions • Develop a full draft of a grant proposal using the NIH format • Critically evaluate public health research • Develop a syllabus and evaluation plan for a public health course
Concentration	36	<ul style="list-style-type: none"> • Demonstrate an in-depth understanding of public health issues/problem solving approaches in a core public health concentration and specialization • Develop concentration-specific expertise to successfully conduct research and teach in that area
Supervised Research	3	<ul style="list-style-type: none"> • Perform key research tasks (e.g., literature search; literature review; database development; data collection; data analysis; dissemination of findings) • Participate productively as a member of a research team
Supervised Teaching	3	<ul style="list-style-type: none"> • Effectively deliver course material, organize and lead group learning activities/discussions • Appropriately interact with students • Provide and receive constructive feedback concerning teaching skills
Dissertation Research	15	<ul style="list-style-type: none"> • Independently craft a research question suitable for a doctoral dissertation • Independently develop a research procedure suitable for a doctoral dissertation • Design and submit an IRB application appropriate to the dissertation research project • Independently carry out a dissertation research project • Independently analyze dissertation data • Independently communicate, verbally and in writing, the results of the doctoral dissertation

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

The program has adopted the graduate program admission standards of the University of Florida, which at a minimum include (1) a baccalaureate degree from an accredited university or college, (2) GRE test scores submitted, (3) a 3.0 junior-senior level grade point average, and (4) a completed application for Graduate School, including a letter of intent, official transcripts, completed application form, and 3 letters of recommendation. International students whose primary language is not English will have to demonstrate language proficiency. The graduation requirements include: (1) successful completion of all course/curricular requirements; (2)

successful passage of all components of the qualifying exam leading to admission to candidacy; (4) successful completion of a college level teaching experience, (4) successful execution and defense of the dissertation; and (4) appropriate paperwork completion for UF graduation. Students will be eligible to sit for the qualifying examination after completion of the coursework in foundation courses (15 credit hours of public health core), methods and statistics (9 credit hours completed; 3 remaining credits can be taken during the semester of the qualifying exam), concentration core plus majority of specialty work (minimum of 23 credit hours in concentration completed). After passing the examination, students will be advanced to candidacy, at which time they will complete any remaining concentration hours, supervised research and teaching, and dissertation research. All University of Florida Graduate School policies and procedures will be followed in this program.

- 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.**

Curriculum

Public Health Core Courses: 15 credits			
PHC 6050	Statistical Methods for Health Sciences Research I	Required	3
PHC 6001	Principles of Epidemiology in Public Health	Required	3
HSA 6114	U.S Health Care System	Required	3
PHC 6410	Psychological, Behavioral, and Social Issues in Public Health	Required	3
PHC 6313	Environmental Health Concepts in Public Health	Required	3
Quantitative Methods and Statistics: 12 credits			
STA 6166	Statistical Methods Research I	Required	3
PHC 6053 or EDF 7412	Regression Methods for the Health and Life Sciences or Structural Equation Models	Required	3
PHC 6000 or PHC 6700	Epidemiology Methods I or Social and Behavioral Research Methods	Required	3
Additional course approved by supervisory committee based on research focus of the student		Required	3
Professional Issues: 6 credits			
PHC 6937	Public Health Journal Club	Required	1
PHC 6937	Public Health and Biomedical Ethics	Required	2
PHC 6162	Public Health Grant Writing	Required	2
PHC XXXX	Seminar in Public Health Teaching	Required	1
Concentration Area: 36 credits; students choose one concentration			

<i>Environmental and Global Health</i>			
VME 6602	General Toxicology	Required	3
PHC 6702	Exposure Measurement and Assessment	Required	3
PHC 6937	Risk Communication	Required	2
VME 6607	Human Health Risk Assessment	Required	4
PHC 6762 or PHC XXXX	International Public Health or Global Health	Required	3
PHC 6937	Environmental and Global Health Journal Club	Required	1
Students choose an area of specialization within EGH in consultation with their supervisory committee		Required but courses not dictated	12
PHC XXXX	Laboratory Rotation – Setting is selected based on academic focus of student	Required	4
VME 6767	Issues in the Responsible Conduct of Research	Required	1
General elective from different specialization area to round out education in environmental and global health		Elective	3
<i>Social and Behavioral Science</i>			
PHC 6112	Assessment and Surveillance in Public Health	Required	3
PHC XXXX	Instrument Development for Health Behavior	Required	3
PHC XXXX	Public Health Qualitative Methods	Required	3
PHC 6937	Theory Development and Testing for Public Health Social and Behavioral Science	Required	2
PHC 6937	Perspectives in Public Health: Social and Behavioral Science	Required	1
Behavioral and social science theory – courses representing different behavioral and social theories (e.g. Psychological, anthropological, social) approved by supervisory committee		Required but courses not dictated	12
Students choose an area of specialization within SBS in consultation with their supervisory committee		Required but courses not dictated	12
Supervised Research: 3 credits			
PHC 7979	Supervised Research	Required	3
Supervised Teaching: 3 credits			
PHC 6940	Supervised Teaching in Public Health	Required	3
Dissertation Hours: 15 credits			
PHC 7980	Research for Doctoral Dissertation	Required	15
		TOTAL	90

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

Public Health PhD – Proposed EGH Concentration Sequence

Fall	Spring	Summer
Statistical Methods for Health Sciences Research I– PHC 6050 (3)	US Health Care System – HSA 6114 (3)	Exposure Measurement and Assessment – PHC 6702 (3)
Principles of Epidemiology in Public Health – PHC 6001 (3)	Environmental Health Concepts in Public Health – PHC 6313 (3)	Risk Communication - PHC 6937 (2)
Psychological, Behavioral, and Social Issues in Public Health – PHC 6410 (3)	Introduction to Biostatistical Methods – PHC 6052 (3)	Lab Rotation - (1)
Total: 9	Total: 9	Total: 6

Year Two

Fall	Spring	Summer
Human Health Risk Assessment – VME 6607 (4)	Epidemiology Methods I – PHC 6000 (3)	Public Health Grant Writing - PHC 6162 (2)
Issues in the Responsible Conduct of Research – VME 6767 (1)	Seminar in Public Health Teaching - (1)	Specialization Course - (3)
Laboratory Rotation – (1)	Laboratory Rotation – (2)	Public Health Journal Club - PHC 6937 (1)
Specialization Course - (3)	Regression Methods for the Health and Life Sciences – PHC 6053 (3)	
Total: 9	Total: 9	Total: 6

Year Three

Fall	Spring	Summer
International Public Health– PHC 6762 (3)	Public Health and Biomedical Ethics (2)	Supervised Research – PHC 7979 (3)
Specialization Course (3)	General Toxicology - VME 6602 (3)	Advanced Statistics - (3)
Supervised Teaching – PHC 6940 (3)	Specialization Course - (3)	
	EGH Journal Club - (1)	
Total: 9	Total: 9	Total: 6

Year Four

Fall	Spring	Summer
Research for Doctoral Dissertation PHC 7980 (6)	Research for Doctoral Dissertation - PHC 7980	

	(9)	
General Elective - (3)		
Total: 9	Total: 9	

Public Health PhD – Proposed SBS Concentration Sequence

Fall	Spring	Summer
Statistical Methods for Health Sciences Research I– PHC 6050 (3)	US Health Care System – HSA 6114 (3)	Theory Breadth Course (3)
Theory Development/Testing PHC 6937 (2)	Public Health and Biomedical Ethics – PHC 6937 (2)	Specialization Course (3)
Psychological, Behavioral, and Social Issues in Public Health – PHC 6410 (3)	Introduction to Biostatistical Methods – PHC 6052 (3)	
Seminar in Public Health Teaching (1)	Perspectives in Public Health: Social and Behavioral Science PHC 6937 (1)	
Total: 9	Total: 9	Total: 6

Year Two

Fall	Spring	Summer
Social and Behavioral Research Methods – PHC 6700 (3)	Regression Methods for the Health and Life Sciences – PHC 6053 (3)	Public Health Grant Writing - PHC 6162 (2)
Principles of Epidemiology in Public Health – PHC 6001 (3)	Environmental Health Concepts in Public Health – PHC 6313 (3)	Specialization or Theory Breadth (3)
Specialization or Theory Breadth (3)	Assessment and Surveillance in Public Health – PHC 6112 (3)	Public Health Journal Club – PHC 6937 (1)
Total: 9	Total: 9	Total: 6

Year Three

Fall	Spring	Summer
Public Health Qualitative Methods – PHC 6937 (3)	Specialization or Theory Breadth (3)	Supervised Research – PHC 7979 (3)
Instrument Development for Health Behavior - PHC 6937 (3)	Specialization or Theory Breadth (3)	Specialization or Theory Breadth (3)
Advanced Statistics Course (student’s area of specialization) (3)	Specialization or Theory Breadth (3)	
Total: 9	Total: 9	Total: 6

Year Four

Fall	Spring	Summer
Supervised Teaching PHC - 6940(3)	Research for Doctoral Dissertation - PHC 7980 (9)	
Research for Doctoral Dissertation PHC - 7980 (6)		
Total: 9	Total: 9	

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

Insert response here.

Core Public Health

HSA 6114 U.S. Health Care System (3)

Basic concepts and ideas concerning the distribution of health and illness, the organization of the health care system and the relationship of one to the other. Definitions of health and illness, as well as the historical context for developments of our health care system are discussed and debated. The course concludes with a discussion on trends that could impact the health care system in the future.

PHC 6001 Principles of Epidemiology in Public Health (3)

Distribution and determinants of health-related states or events in specific populations and application to control of health problems.

PHC 6050 Statistical Methods for Health Sciences Research I (3)

Appropriate use of data summarization and presentation of basic statistical methods, including ANOVA, nonparametric methods, inference on discrete data, inference on survival data, and regression methods for continuous, binary, and survival data.

PHC 6313 Environmental Health Concepts in Public Health (3)

Survey of major topics of environmental health: sources, routes, media, and health outcomes associated with biological, chemical, and physical agents in the environment; effects of agents on disease, water quality, air quality, food safety, and land resources; and current legal framework, policies, and practices associated with environmental health and intended to improve public health.

PHC 6410 Psychological, Behavior and Social Issues in Public Health (3)

Explore how social and behavioral sciences theories and public health concepts and methods can be applied throughout the health-illness experience

Quantitative Methods and Statistics

PHC 6052 Introduction to Biostatistical Methods (3)

General introduction to statistical methods based on t, F, and Chi² tests. Analysis of variance for basic experimental designs. Factorial experiments. Regression analysis and analysis of covariance.

PHC 6053 Regression Methods for the Health and Life Sciences (3)

This course introduces graduate students in fields other than statistics to a wide range of modern regression methods. Emphasis is on modeling driven by actual data from studies in a variety of areas, primarily from health, biology, and ecology. The primary topics are multiple linear regression, logistic regression, and Poisson regression.

EDF 7412 Structural Equation Models (3)

Confirmatory factor analysis and causal models.

PHC 6000 Epidemiology Methods I (3)

PHC 6700 Social and Behavioral Research Methods (3)

Research methods and their specific applications to public health issues.

Professional Issues

PHC 6937 Public Health Journal Club (1)

Critical analysis and discussion of contemporary research literature and professional topics in public health. Includes student critiques of public health research designs.

PHC 6937 Public Health and Biomedical Ethics (2)

Overview of bioethical principles applied to public health, and discussion of historical and current ethical issues and cases in public health research and practice.

PHC 6--- Seminar in Public Health Teaching (1)

Discussion and practice of the fundamental skills associated with quality university teaching in public health.

PHC 6162 Public Health Grant Writing (2)

Preparation, submission, and management of competitive grants, including operations of national review panels and finding sources of extramural funding. This course provides instruction in the grant process, with a specific focus on National Institutes of Health (NIH) procedures.

Concentration Area: Environmental and Global Health

VME 6602 General Toxicology (3)

This course is structured to comprehensively provide the student with the fundamental concepts of toxicology as they relate to specific organ and tissue systems.

PHC 6702 Exposure Measurement and Assessment (3)

Explore methods to measure, estimate and prevent exposure to hazardous agents in the context of

public health practice with emphasis on the use and application of methods.

PHC 6937 Risk Communication (2)

Identify and develop successful techniques for effective and productive risk communication within the context of environmental health, risk assessment, and regulatory activities. This course will focus on issues relevant for environmental health, toxicology, and environmental engineering.

VME 6607 Human Health Risk Assessment (4)

Conceptual approaches and computational techniques for quantitative health risk assessment.

PHC 6762 International Public Health (3)

Overview of international health. Several health determinants that impact health outcomes from around the globe are discussed. Special attention is provided to continents that are economically disadvantaged and suffering from major pandemics such as HIV/AIDS, TB, and malaria, and from other emerging and re-emerging diseases.

PHC--- Global Health (3)

Overview of challenges in global health surveillance, research, and intervention; discussion of current and emerging public health trends and implications of policy decisions on global health management

PHC 6--- Laboratory Rotation (4)

Provide familiarity with the diversity of activities carried out in laboratories.

PHC 6937 Public Health Journal Club (1)

Critical analysis and discussion of contemporary research literature and professional topics in environmental and global health.

VME 6767 Issues in the Responsible Conduct of Research (1)

A graduate-level course addressing laws, policies, guidelines and principles concerning the conduct of research in an ethical manner. Presentation and discussion of issues; guiding principles and potential pitfalls.

Concentration Area: Social and Behavioral Sciences

PHC 6112 Assessment and Surveillance in Public Health (3)

This is the first of two courses designed to provide skills to execute public health programs. Integrating in-class and community-based work, students develop the knowledge, skills, and methods necessary to conduct community assessment and surveillance that will inform the design of interventions, which impact social and behavioral factors in health and illness.

PHC 6--- Instrument Development for Health Behavior (3)

Content focuses on practical development and testing of psychometric properties of an instrument to measure health related behavior. Explores principles of measurement and

assessment as they apply to health research.

PHC 6937 Theory Development and Testing in Behavioral and Community Public Health (2)

Students develop a theoretical model to explain a key public health behavior by using one or more behavioral science constructs. Emphasis is on developing an in-depth understanding of the history, measurement, and methodological issues surrounding important theoretical constructs.

PHC 6937 Perspectives In Public Health: Social And Behavioral Science (1)

Examination of primary literature from across the behavioral sciences on important public health topics with a goal of developing an integrative theoretical perspective.

PHC 6--- Public Health Qualitative Methods (3)

Common qualitative methods used to assess public health problems in applied settings.

Supervised Research

PHC 6910 Supervised Research (1-6)

Students work on a research project under the supervision of a faculty member

Supervised Teaching

PHC 6940 Supervised Teaching In Public Health (1-3)

Advanced doctoral students co-teach a course with a faculty member prior to completion of the PhD degree.

Dissertation

PHC 7980 Research for Doctoral Dissertation (1-15)

Dissertation research following advancement to candidacy in the doctoral program.

- 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.**

Insert response here. 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.**

The College received initial accreditation as a school of public health this year (June 25, 2009) from the Council on Education for Public Health. Accreditation was awarded for 5 years (to July

1, 2014).

- 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?**

College level accreditation requires that all academic programs offered by our college be compliant with public health accreditation standards. Therefore, CEPH, the accrediting body, comprehensively reviewed the master of public health program and the master of health administration program (both considered to be part of public health academics). These programs were accredited by CEPH as part of college level accreditation. The site team also reviewed all of our other academic programs. Each had to demonstrate that students acquired fundamental knowledge of public health and varying degrees of public health competency based on the level and type of program. College level accreditation required compliance with these standards.

- 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.**

Although the delivery system for this degree program will predominantly be a traditional graduate education model with delivery on the main campus, the core public health courses (15 credits) are currently available online, and it is possible additional courses will become available via distance education in the future. Some components of the program require intensive interaction with and supervision by faculty member (e.g., supervised research, supervised teaching). Therefore, substantial components of this program will always remain at the main campus or affiliated site where research is being conducted as part of program requirements. USF is the closest potential partner for distance learning. They do not offer advanced (doctoral level) coursework in EGH or SBS on line. If appropriate coursework were made available via distance education and USF had increased student capacity, we would be open to discussing sharing this coursework. Dr. Donna Peterson, dean of the College of Public Health at USF, has been supportive of our doctoral level program development and assisted us with program development during the accreditation process. We also plan to capitalize on the expertise of diverse Health Science Center faculty members and the professional relationships we have built with faculty members from other universities and agencies to enhance students' classroom exposure to experts in the field.

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).

Please see Table 4.

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.

The projected faculty costs, salary and benefits, in Year 1 and Year 5, respectively, are \$140,189 and \$205,251. All but \$5034 in faculty costs is paid from E & G; the remainder is from contracts and grants. We do not anticipate use of adjunct faculty for this program.

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).

The numbers requested are provided below. It is important to note that the MPH program is a non-thesis master's. Dr. Krueger, in particular, has significant experience working with master's students (N=24) on culminating projects, which includes a final paper. However, nonthesis research projects are not reflected below. For theses and dissertations, the numbers include students currently being supervised on their research projects.

Faculty Name	Theses	Dissertations	Professional Publications
Barnett, Tracey	2	0	8
Curbow, Barbara	23	82	83
Mann,Giselle	10 (USA), 22 (AUS)	7	49
Pomeranz, Jamie	0	2	12
Rahim-Williams,Bridgette	0	0	4
Thombs, Dennis	14	15	98
Young, Mary Ellen	4	15	53
Barber, David	11	13	46
Freeman, Natalie	2	9	56
Ilacqua, Vito	2	1	8
Kane, Andrew	10	14	59
Krueger, Traci	0	0	4
Mayer, Brian	4	7	16
Okech, Bernard	2 (Kenya)	1 (Kenya)	18
Roberts, Steve	7	29	91

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.

The public health program has been highly successful since its initiation, as reflected in the five-year growth trend from 2004 to 2008. During this time period, the master of public health program grew from 53 students (Fall, 2004) to 129 students (Fall 2008). During the five-year period from 2004 to 2008, the number of MPH graduates has grown from 21 to 61, including 8 environmental health graduates and 20 social and behavioral sciences graduates. Research awards during that same time period grew almost 4-fold, from \$1,379,126 to \$4,843,182. The degree program has also been complemented by a popular certificate program, which enrolled 7 students in an on-campus format in 2004 and currently has 72 students (26 on campus and 46 on line).

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.**

1.a Overall Access

The University Library System, composed of 9 libraries, constitutes the largest information resource in the state of Florida. It contains more than 4,000,000 volumes, 1,000,000 government documents, 4,200,000 microforms, and 550,000 maps and images. In addition, the Libraries provide over 425,000 links to online resources, including e-books, databases, government documents, tutorials and full texts of journals. The Digital Library Center is developing the UF Digital Collections and contributes to the Publication of Archival, Library & Museum Materials (PALMM) initiative of the State University System. All of the libraries serve all of the university's faculty members and students; however, each has a special mission to be the primary support of specific colleges and degree programs. The Health Science Center Libraries are among the eight libraries in the system known as the George A. Smathers Libraries of the University of Florida. The Legal Information Center (aka the UF Law Library) is attached to its administrative unit.

The University of Florida Health Science Center (HSC) Library serves as a primary information center for the staff, faculty members and students within the Health Science Center. The University of Florida Health Science Center has expanded into the one of the most comprehensive public academic health centers in the Southeast. The "center" now encompasses six colleges (Medicine, Nursing, Public Health & Health Professions, Veterinary Medicine, Dentistry and Pharmacy), affiliated centers and institutes, a statewide network of affiliated hospitals and clinics that includes Shands Hospital as the flagship teaching hospital, and the neighboring Veterans Affairs Medical Center of Gainesville.

HSC Library provides access to relevant propriety databases: CINAHL, Web of Knowledge

(Science/Social Science Citation Indexes, CAB, BIOSIS, Zoological Record), Health and Psychosocial Instruments, Dissertation and Theses, Journal Citation Reports, the Cochrane suite of Evidence-Based Medicine resources, Knovel, LexisNexis Academic Universe, SciFinder Scholar and multiple additional databases available through Cambridge Scientific Abstracts, EbscoHost, FirstSearch, Gale and WilsonOmniFiles. It also provides clear navigation to public databases such as PubMed, TOXNET, Agricola and Ageline and is considering subscription to CABI Global Health database. Remote library access to databases and other electronic information resources is provided through a campus-wide fiber optic backbone, proxy services and a downloadable Virtual Private Network software package. Classes on database searching, authoritative websites and use of bibliographic software packages such as EndNote and RefWorks are taught each semester for UF faculty members, staff, and students. These classes can help to improve library and information searching skills. Some classes are taught through course-integrated instruction while others are offered for the whole UF community. Tutorials are available for off-campus users. When not in use for classes, the HSC Libraries' Informatics Lab provides public access to electronic resources and productivity software such as Microsoft Office. The library has 106 computers (total) available: 71 in the public areas (including 5 large-screen, multiple keyboard group study workstations in the Collaboration Commons and 3 scanning stations); 8 in private study rooms and 27 in the open computer laboratory/electronic classroom. Several PC and iMAC computer stations within the HSC Libraries have SPSS and SAS statistical software and software for editing and sharing sound and image files for research and presentations. HSC students can also reserve 23 several private study rooms for group discussion or private work and 2 rooms for AV viewing. In addition, HSC students can use the primary student study area--available 24/7--called the "blue room."

The HSC Libraries' collection supports instruction and research for the six HSC colleges. The Collection Management department selects materials in all formats and evaluates the quality and use of the materials received. As of June 30, 2008 the Health Science Center Libraries' collection totaled 340,866 volumes; this includes 103,853 monograph (book) volumes; 237,013 journal volumes; and 6,605 audiovisual resources. As of August, 2009, UF users have access to more than 64,000 electronic journals and 219,574 electronic books campus-wide. Participating in the National Network of Libraries of Medicine facilitates HSCL's interlibrary loan service for health-related materials outside this collection.

1.b Environmental and Global Health

The UF Library system holds, licenses or provides links to over 1,700 books and videos and 3,700 periodical volumes, including electronic and print and electronic-only access. The extent of full-text vs. Table of Contents with or without abstracts and the stability of access on the electronic media varies among these titles and their providers.

2. Serials. (Provide the total number available in this discipline and related fields, and list those major journals which are available at your institution.)

The UF Libraries catalog identified 122 journal titles under the subject heading "Environmental Health" and 17 under "World Health" held by UF libraries. Among the essential and research core serials (journals with one exception) specific to Environmental and Global Health are the following:

Annals of Tropical Medicine and Parasitology
Archives of Environmental and Occupational Health: An International Journal
Archives of Environmental Contamination and Toxicology
Archives of Toxicology
Asian Journal of WTO & International Health Law and Policy
BMC International Health and Human Rights
Bulletin of Environmental Contamination and Toxicology
Bulletin of the World Health Organization
Chemosphere [subject heading: Pollution--physiological effects]
Clinical Toxicology [Official journal of the American Academy of Clinical Toxicology and European Association of Poisons Centres and Clinical Toxicologists]
Critical Reviews in Toxicology
Eastern Mediterranean Health Journal
European Journal of Public Health
Environmental and Molecular Mutagenesis
Environmental Health: A Global Access Science Source
Environmental Health Perspectives
Environmental Research
Environmental Toxicology and Chemistry
Ethnicity and Disease
Health Care for Women International
Human and Experimental Toxicology
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
Indoor Air
Inhalation Toxicology
International Archives of Occupational and Environmental Health
International Journal of Global Health and Health Disparities
International Journal of Occupational Medicine and Environmental Health
Journal of the Air and Waste Management Association
Journal of Applied Toxicology
Journal of Environmental Health
Journal of Exposure Science and Environmental Epidemiology
Journal of Toxicology and Environmental Health
Neurotoxicology and Teratology [subject headings: Environmental Pollution--adverse effects, Nervous System Diseases--chemically induced]
Reproductive Toxicology
Revista Panamericana de Salud Publica
Scandinavian Journal of Work, Environment and Health
Science of the Total Environment
Toxicology
Toxicology and Environmental Health, Parts A (Current Issues) and B (Critical Reviews)
Transactions of the Royal Society of Tropical Medicine and Hygiene
Tropical Medicine and International Health

Other available relevant core journals include:

Annals of Agricultural and Environmental Medicine
Aquatic Toxicology
Asian Journal of WTO & International Health Law and Policy
Cell Biology and Toxicology
Environmental Geochemistry and Health
Environmental Health in Emergencies and Disasters
Environmental Management and Health
Environmental Pollution [subject heading: Pollution—physiological effect]
Environmental Toxicology
Environmental Toxicology and Pharmacology
Florida Journal of Environmental Health
Food and Chemical Toxicology
Food and Cosmetics Toxicology
Forensic Toxicology
Fundamental and Applied Toxicology
Genomics and World Health
Global Change and Human Health
Global Health
Global Health Action
Global Health Promotion
Global Tuberculosis Control: WHO Report
Globalization and Health
Hazardous Substances and Public Health
Indoor & Built Environment
International Journal of Environmental Health Research
International Journal of Environmental Research and Public Health
International Journal of Hygiene and Environmental Health
International Journal of Toxicology
International Journal of Toxicology, Occupational and Environmental Health
Internet Journal of World Health and Societal Politics
Journal of the Air Pollution Control Association
Journal of Analytical Toxicology
Journal of Biochemical Toxicology
Journal of Environmental and Public Health
Journal of Environmental Health Research
Journal of Environmental Science and Health
Journal of Nutritional and Environmental Medicine
Journal of Rural and Remote Environmental Health
Medical Anthropology Quarterly
Molecular and Cellular Toxicology
Mutation Research: Genetic Toxicology and Environmental Mutagenesis
Mutation Research: Fundamental and Molecular Mechanisms of Mutagenesis
Regulatory Toxicology and Pharmacology
Reviews in Pesticide Toxicology
Toxicology and Industrial Health
Transactions of the Royal Society of Tropical Medicine and Hygiene

Tropical Medicine and International Health
Veterinary and Human Toxicology
Veterinary Toxicology
World Health
World Health Forum

The UF Library system holds, licenses or provides links to approximately 10,000 books and videos and 2800 periodical volumes within the SBS area, including electronic and print and electronic-only access. Again, the extent of full-text and stability of access for electronic media vary by title and provider.

2. *Serials (Provide the total number available in this discipline and related fields, and list those major journals which are available at your institution.)*

There are approximately 1,000 related journals. Among the essential core journals in public health specifically pertinent to SBS are the following:

AIDS Education and Prevention
American Journal of Health Behavior
American Journal of Health Promotion
Annals of Behavioral Medicine
Culture, Health and Sexuality
Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine
Health Education and Behavior
Health Promotion Practice
Health Psychology
Journal of Adolescent Health
Journal of Community Health
Journal of Health and Social Behavior
Perspectives on Sexual and Reproductive Health
Preventing Chronic Diseases
Social Science and Medicine

Other available relevant core journals include:

Addiction
Addictive Behaviors
AIDS and Behavior
AIDS: An International Monthly Journal
Allied Health and Behavioral Sciences
American Journal of Community Psychology
American Sociological Review
Applied behavioral science review
Archives of Sexual Behavior
The Behavioral and Brain Sciences
Behavioral Biology
Behavioral Science

Behavior Science Research
Behavioral Sciences & the Law
British Journal of Health Psychology
Canadian journal of Behavioural Science
Cognitive, Affective & Behavioral Neuroscience
Culture, Medicine and Psychiatry
Ethnicity and Disease
Evaluation and the Health Professions
Health Risk and Society
Hispanic Journal of Behavioral Sciences
Human Behavior
Integrative Physiological and Behavioral Science: The Official Journal of the Pavlovian Society
The Journal of Applied Behavioral Science
Journal of Behavioral Medicine
Journal of Behavioural Science
Journal of Biosocial Science
Journal of Consulting and Clinical Psychology
Journal of Health and Social Behavior
Journal of Health Politics, Policy and Law
Journal of Legal Medicine (Chicago,IL)
Journal of Nutrition Education and Behavior
Journal of Personality and Social Psychology
Journal of School Health
Journal of Studies on Alcohol
Journal of the American Geriatrics Association
Medical Anthropology Quarterly
Omega Journal of Death and Dying
Patient Education and Counseling
Psychological Bulletin
Psychology and Health
Psycho-Oncology
Sexually Transmitted Diseases
Social Marketing Quarterly
Sozial- und Präventivmedizin: Social and Preventive Medicine
Sociological Methodology
Substance Use and Misuse
Systems Research and Behavioral Science
Techniques in the Behavioral and Neural Sciences
Tobacco Control
Women and Health: The Multidisciplinary Journal of Women's Health Issues
Library document to be attached to final proposal.

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.

Insert response here. N/A

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 PhD program will benefit from Health Science Center educational resources available to the College of Public Health and Health Professions. The majority of classroom teaching is scheduled in two facilities: the HPNP Complex and the Communicore. The HPNP building is a state-of-the-art teaching facility that opened for student use in 2003. The HPNP is equipped with classrooms and teaching labs ranging in size from 20 seats to 139 seats, plus a 500-seat auditorium and a 76-seat distance-learning lab. The smaller classrooms have moveable seats and are designed for discussion groups and teaching labs. All HPNP classrooms are equipped with a broad range of audio-visual services, including a podium with an enclosed, networked PC, already attached to one or more ceiling mounted projectors. The Communicore houses classrooms ranging in size from 10 to 179 plus a 520-seat auditorium and two large rooms (165, 179 capacity) for videoconferencing. A series of 15-seat classrooms have moveable seating and are designed for use for discussion groups. The faculty members' office and research space for the SBS and EGH concentrations in the PhD program in the HPNP building includes 4140 square feet, including offices for each chair, faculty and staff, two conference rooms, and dedicated space for doctoral students. The EGH concentration also includes 4 faculty member offices located in the Center for Environmental and Human Toxicology, one office in the Aquatic Pathobiology facility, and a conference room in the Center for Environmental and Human Toxicology.

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 facilities are anticipated for this program. The infrastructure of the College of Public Health and Health Professions and the Health Science Center provides adequate instructional support.

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

All students at the University of Florida are required to have access to a computer with minimum specifications for coursework. This access will satisfy the equipment needs for course related and research activities. Faculty members have access to a wide variety of teaching facilities to meet educational goals. As noted above, standard equipment in each classroom includes a

podium and computer access to the web as well as PowerPoint presentations. The Health Science Center provides staff who are capable of diagnosing and repairing common A/V problems on-site and have a cache of commonly used equipment (e.g. DVD players, VCRs, video recorders, etc) available to address A/V needs not met by the equipment already in the classrooms. The faculty labs are equipped with appropriate materials to satisfy program requirements related to lab rotations.

- 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.**

Insert response here. 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.**

Insert response here. 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 College of PHHP has a proven record of support of its doctoral students. In academic year 2008-2009, graduate assistantship support totaled \$1.43 million for 161 students. We also provided tuition waiver support of \$894,031. It is the intention of the program to secure appropriate funding for students in the new PhD program. Anticipated primary sources of support include research assistantships from externally funded faculty member research, internal and external fellowship opportunities, and teaching assistantships available through the master of public health program and the bachelor of health science program. We plan to request \$50,000 in graduate student fellowship support from the Graduate School, consistent with previous new PhD program requests.

- 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.**

Insert response here. N/A

- 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.**

Insert response here. N/A

REFERENCES

- ¹ www.fldu.org-StrategicPlan-pdf-StrategicPlan_05-13.pdf.url
- ² Association of State and Territorial Health Officials (2004). State Public Health Employee Worker Shortage Report: A Civil Service Recruitment and Retention Crisis
<http://www.astho.org/pubs/Workforce-Survey-Report-2.pdf>
- ³ American Public Health Association (September, 2006). The Public Health Workforce Shortage: Left Unchecked, Will We Be Protected?
<http://www.apha.org/workforcebrief.pdf#search=%22APHA%20Public%20Health%20Workforce%22>
- ⁴ ASPH Policy Brief (December 2008). *Confronting the Public Health Workforce Crisis. Executive Summary* <http://www.asph.org/UserFiles/WorkforceShortage2010Final.pdf>
- ⁵ Association of Schools of Public Health (2006). *2005 Annual Data Report*.
<http://www.asph.org/userfiles/ADR%202005.pdf>
- ⁶ From Achievement to Recognition: Strategic Work Plan for the University of Florida, March 8, 2007. <http://www.president.ufl.edu/workPlan-20070503.pdf>

