

**BOARD OF GOVERNORS  
STATE UNIVERSITY SYSTEM OF FLORIDA  
NEW DOCTORAL DEGREE PROPOSAL STAFF ANALYSIS**

**Program:** Epidemiology                      **CIP Code:** 26.1309                      **Degree Level:** Ph.D.  
**Institution:** University of Florida                      **Proposed Implementation Date:** Fall 2007  
**Staffed By:** Justin Low & Krista Kahn                      **Initial Review Date:** 10-9-07                      **Last Update:** 11-10-07

**Estimated Costs:**

	Total	% & \$ Current	% & \$ New	% & \$ C&G	Cost per FTE	SUS 2005-2006 Average Costs
Year 1	\$281,154	100%; \$281,154	0%; \$0	0%; \$0	\$93,718	CIP 26 \$24,752.96 (SUS); \$17,219.52 (UF)
Year 5	\$472,406	100%; \$472,406	0%; \$0	0%; \$0	\$24,929	

**Projected FTE and Headcount are:**

	Projected Headcount	Student FTE
First Year	4	3.00
Second Year	11	8.25
Third Year	19	14.25
Fourth Year	25	17.99
Fifth Year	28	18.95

*On April 30, 2003, the Florida Board of Governors approved eight criteria, divided into the two categories of Readiness and Accountability, by which implementation authorization of new doctorates was to be assessed, and further revised those policies on March 29, 2007. Because this proposal had substantially moved through the institutional approval process prior to revision of the policies, the following is an analysis of the University's proposal based on the eight criteria approved in 2003.*

**Page Numbers:**

INSTITUTIONAL READINESS					ACCOUNTABILITY		
Mission & Strength	Program Quality	Curriculum	Faculty	Resources	Need	Budget	Productivity
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## READINESS

*1. Mission and Strength - The goals of the program are aligned with the university's mission and relate to specific institutional strengths. The program is aligned with goals identified within the State University Strategic Plan.*

### **Evidence that the proposed program is responsive to the goals of the current State University System Strategic Plan and the goals of the proposed program relate to the institutional mission statement as contained in the Strategic Plan**

The proposed Ph.D. in Epidemiology at the University of Florida (UF) supports the Board of Governors' goal to increase access to and production of degrees and satisfies an area of critical state need: health care. Although the SUS cites a shortage of nurses as the primary concern surrounding health care in the State of Florida, the training of health practitioners to address disease prevention and health disparities can help to improve the overall health conditions of Florida citizens.

Another stated goal of the SUS is to "build world-class academic programs and research capacity." The proposed program has stated a commitment to taking an interdisciplinary approach to instruction, with a core curriculum jointly taught by faculty members in the College of Public Health and Health Professions (PHHP) and the College of Medicine (COM). UF has emphasized the importance of this Ph.D. program in getting the PHHP accredited, which the proposal states would increase competitiveness on a national level and allow UF to compete more effectively for specific research and training funds.

UF has a goal of being competitive and consistent with other top AAU public institutions across the nation. UF has cited that, of the top ten AAU public institutions, seven of them offer Ph.D. programs in epidemiology and the other three are actively engaged in doctoral level training in epidemiology. The proposal asserts that "a Ph.D. focusing on epidemiology is consistent with graduate programs offered by top tier institutions."

As stated above, PHHP is in the process of applying to become an accredited College of Public Health. The Council on Education for Public Health (CEPH), which is the accrediting agency for Schools of Public Health, cites that, to gain accreditation, "as a minimum, the school shall offer the Master of Public Health (MPH) degree in each of the five areas of knowledge basic to public health and a doctoral degree in at least three of the five specified areas of public health knowledge." UF has proposed the Ph.D. in Epidemiology as being one of these three doctoral programs. UF has stated that "falling short of accreditation is inconsistent with both UF's goal to become a top tier institution and the overall high quality of graduate education UF offers."

UF's strategic plan also contains goals of interdisciplinary research and instructional programs, and the enhancement of quality graduate education. As proposed, the Ph.D.

program in Epidemiology would be jointly taught by faculty in PHHP and COM, and would introduce a new discipline of doctoral education to the UF academic program offerings.

### **Evidence of a relationship to specific institutional strengths**

The Ph.D. program in Epidemiology is proposed as a collaborative effort between the College of Medicine (COM) and the College of Public Health and Health Professions (PHHP). Academic programs in health, medicine, epidemiology, and other related disciplines are already in place within UF, with sufficient faculty to help support the program. The proposal states that multiple partnerships are in the process of being formed with the Health Science Center, the Department of Aging and Geriatric Research, and other academic departments that are appropriate to the development of the epidemiology doctoral program.

The proposal indicates that there are several institutes and centers on the UF campus that are relevant to the study of epidemiology, including the McKnight Brain Institute, the Institute on Aging, and the Institute for Child Health Policy. All such institutes already have active linkages and partnerships with COM and PHHP.

*2. Program Quality – Planning activities have been sufficient and responses to any recommendations to program reviews or accreditation activities in the discipline pertinent to the proposed program have been addressed.*

### **Evidence that planning for the proposed program has been a collaborative process involving academic units and offices of planning and budgeting at the institutional level, as well as external consultants, representatives of the community, etc.**

Evidence of collaboration is shown, with the College of Medicine (COM) and the College of Public Health and Health Professions (PHHP) engaged together throughout the process of developing the proposed program. A timeline is provided that details development meetings, as well as committee structures and faculty membership from both colleges. The overall Epidemiology Planning Committee is co-chaired by a faculty member from each college. Although evidence of extensive collaboration between COM and PHHP is presented, limited evidence is presented regarding the involvement of departments, administration, or entities external to COM and PHHP.

UF emphasizes the current relationships that it has with various health agencies, both on a state and national level. However, there is limited reference to the involvement of these agencies in the planning process. There is anticipation and expectation that such partnerships would lead to future work with, and benefit to, the epidemiology doctoral program, but concrete examples are not presented.

### **Evidence of an appropriate timetable of events leading to the implementation of the**

**proposed program**

A timetable of events is provided consisting of dates of meetings and the outcomes of those meetings. The timetable details twelve meetings of the planning committee, with supplementary information on the four subcommittees, as well as each subcommittee's roles and responsibilities.

The original timeline provided proposed an implementation date of Fall 2007. As the program would not be considered until the December Board of Governors meeting, this implementation date was unable to be attained, and an updated implementation timeline was requested. A revised timeline was provided with an implementation date of Fall 2008, allowing for Board of Governors' approval prior to application acceptance.

The proposal states that UF is in the process of pursuing accreditation for the College of Public Health and Health Professions (PHHP) by the Council on Education for Public Health (CEPH), has been developing the required self-study document, and has tentatively scheduled an accreditation site visit by CEPH for March 3-5, 2008. Given the change in implementation timeline and the College's intent to utilize this program as one of the foundation programs on which to attain accreditation for PHHP, the previously established accreditation timeline may not be attainable. The program must be implemented and students enrolled at the time of accreditation review. Although requested, a revised accreditation timeline was not provided.

**Evidence that progress has been made in implementing the recommendations from program reviews or accreditation activities in the discipline pertinent to the proposed program**

The College of Medicine received renewed accreditation following the February 2007 site visit and positive recommendations from the accreditation body. The College of Public Health and Health Professions is not yet accredited, and thus has not received recommendations from its accreditation body.

*3. Curriculum - The proposal describes an appropriate and sequenced course of study, admissions and graduation criteria are clearly specified and appropriate, and the appropriateness of specialized accreditation is addressed.*

**Evidence of an appropriate, sequenced, and fully described course of study; evidence of specific learning outcomes and industry driven competencies are discussed for any science and technology programs**

An outline of the curriculum is provided, including a brief description for each required or elective course. The proposed course of study would require a minimum of 90 semester hours beyond the bachelor's degree (which is consistent with other programs), including a minimum of 11 credits in epidemiology foundation coursework (which, in most cases, would be satisfied by a student's master's degree, as it is anticipated that

students with directly related master's degrees would be the primary applicants to the program). All students would need to demonstrate completion of the 11 foundation credits prior to moving on to more advanced study. Students would have to complete a minimum of 37-38 hours of core coursework, 15 credits of concentration, 14-15 credits of general electives (which could be satisfied by master's degree coursework, pending approval by the supervisory committee), and 12 credits of dissertation work. Students would also have to complete a teaching experience.

A list of student learning outcomes is included in the proposal, and includes a variety of learning objectives and skills. Evidence of industry-driven competencies is provided. The curriculum for this program was developed through the Curriculum Subcommittee, one of four subcommittees of the Ph.D. in Epidemiology Planning Committee, and the core coursework was designed to incorporate competencies recommended in the report of the 2002 workshop in doctoral education in epidemiology from the American College of Epidemiology and the Association of Schools of Public Health, as well as criteria for applied epidemiology competencies.

**Evidence that, if appropriate, the bachelor's and master's degree programs associated with the program are accredited and that the institution anticipates seeking accreditation for the proposed program if available**

Neither the existing master's degree in Epidemiology, nor the College of Public Health and Health Professions (PHHP), is accredited. However, the College of Medicine (COM) is accredited by the Liaison Committee on Medical Education (LCME) and was scheduled for a site visit in February 2007. Although not stated in the proposal, the COM's LCME accreditation was renewed following that site visit.

The proposal states that UF is in the process of pursuing accreditation for PHHP by the Council on Education for Public Health (CEPH). CEPH cites that, to gain accreditation, "as a minimum, the school shall offer the Master of Public Health (MPH) degree in each of the five areas of knowledge basic to public health and a doctoral degree in at least three of the five specified areas of public health knowledge." As stated in the proposal, UF is submitting the current degree proposal in an attempt to satisfy one of the three above-mentioned requirement areas. Although it is recognized by the accreditation body as a suitable structure, it is unclear if UF considered the possibility of proposing one Ph.D. in Public Health, with concentrations in topic areas, instead of proposing each concentration as a stand-alone degree program.

UF has also recently changed the name of the College in 2003 to reflect this mission, and has been developing the required accreditation self-study document. The proposal indicates that an accreditation site visit by CEPH has been tentatively scheduled for March 3-5, 2008. As stated above, due to the necessary adjustments to the implementation timeline, the proposed accreditation timeline would likely be impacted.

A National Board of Public Health Examiners (NBPHE) was established in 2005 as an independent organization dedicated to credentialing public health graduates. The NBPHE is in the process of developing a voluntary credentialing examination. The exam will cover the five core areas of knowledge offered in CEPH-accredited programs and schools – biostatistics, epidemiology, environmental health, health policy and management, and social and behavioral sciences. The impact of this new initiative on accreditation and accredited schools and programs will evolve in the coming years. The intent of this Board, however, is to assure that graduates from schools and programs of public health accredited by the Council on Education for Public Health have mastered required competencies, as there is increasing recognition that public health professionals are daily facing complex and critical health issues, such as controlling infectious diseases, reducing environmental hazards, public health preparedness, and substance abuse.

**Evidence that the institution has analyzed the feasibility of providing all or a portion of the proposed program through distance learning technologies via its own technological capabilities**

The proposal states that it is the current intention of the program to adopt a “traditional graduate education model” using face-to-face instruction on the main campus, with a significant research component. The proposal indicates that, on a national level, distance education is not typically offered at the doctoral level. The proposal cites such an absence of distance learning in the doctoral program at the closest potential partner for distance learning, the University of South Florida. The proposal explains that the distance learning component of the University of South Florida’s program is focused at the master’s level instead. Potential for partnership with the University of South Florida is noted for distance learning opportunities and sharing of coursework, given appropriate and positive gains associated with the use of such distance learning methodologies.

The proposal emphasizes that the substantial components of the program would remain at the main campus “or affiliated sites where research is being conducted.” Willingness is expressed to utilize partnerships, already in place, to bring in outside speakers and presenters for the benefit of the faculty and the student body.

*4. Faculty – A critical mass of faculty will be available to initiate the program based on estimated enrollments, and faculty in the aggregate has the necessary experience and research activity to sustain a doctoral program.*

**Evidence that there is a critical mass of faculty available to initiate the program based on estimated enrollments**

The proposal indicates that almost all of the faculty members for the proposed program

are already in place, because of the epidemiology and biostatistics curricular and research activities currently in existence at the College of Public Health and Health Professions and the College of Medicine. In Year 1, the program proposes 13 headcount and 1.96 faculty workload of directly related program faculty (for 4 headcount and 3 FTE of students). In Year 5, the program proposes 18 headcount and 2.58 faculty workload of directly related program faculty (for 28 headcount and 18.95 FTE of students). Supplementary proposal information indicates that there would be 17 faculty serving in secondary roles for the program, with responsibility to teach electives or serve as dissertation supervisors, but no additional narrative is provided. Although the faculty headcount appears acceptable, the low level of individual faculty effort (with the highest being .20 for each of four faculty members and the majority of others being at .13 faculty workload in Year 5), as well as what appears to be a low overall faculty workload for Year 5, may potentially be of concern.

**Evidence that the faculty in aggregate have the necessary experience and research activity to sustain the program**

The proposal provides evidence that the faculty have the necessary experience and research activity to sustain the program. Of the 18 faculty members slated for direct involvement in the program, 7 are currently tenured, 10 are tenure track, and 1 is research track. The proposal also notes a high level of engagement in areas of research, committee activity, and publication.

**Evidence that, if appropriate, there is a commitment to hire additional faculty in later years, based on estimated enrollments**

The original proposal indicated a commitment to hire additional faculty in certain areas prior to implementation. Based upon supplemental information provided, it appears as though the hires have now been made, though no explanatory narrative was provided.

*5. Resources – The necessary library volumes and serials; classroom, teaching laboratory, research laboratory, office space, equipment, clinical and internship sites, fellowships, scholarships, and graduate assistantships will be sufficient to initiate the program.*

**Evidence that library volumes and serials are sufficient to initiate the program**

As a member of the State University System of Florida, UF has access to the University Library System, which contains more than 4,000,000 volumes, 1,000,000 government documents, 425,000 journals, and links to online resources. The UF Health Science Center encompasses six colleges and maintains its own library with access to numerous health databases. The Health Science Center library has adequate resources and materials for graduate students, including 3,432 books on epidemiology and 120 journal titles covering core and research aspects of epidemiological training.

**Evidence that classroom, teaching laboratory, research laboratory, office, and any other type of space that is necessary for the proposed program is sufficient to initiate**

### **the program**

The proposal provides evidence that ample office, classroom, laboratory, computer facility, and library/information resources exist to support the Epidemiology program. The program would enjoy the benefits of the Health Science Center educational resources available to the College of Medicine and the College of Public Health and Health Professions. Further, it would benefit from the recently constructed, state-of-the-art "HPNP" Complex, opened for use in 2003, which is equipped with classrooms and teaching labs (ranging in size from 20 to 139 seats), a 500-seat auditorium, a 76-seat distance learning lab, smaller discussion group rooms, and a broad range of technological and audio-visual services, as well as a facility called the Communicore, which houses classrooms, an auditorium, and two large videoconferencing rooms. The proposal also provides evidence of sufficient faculty member office and research space. In addition to this facility, faculty and students also benefit from a Research Data Coordinating Center, which is a core facility providing collaborative research support in areas of data collection, database design, and data management to investigators who are conducting clinical and translational research throughout the University.

### **Evidence that necessary and sufficient equipment to initiate the program is available**

The proposal indicates that all students at UF are required to have access to a computer with minimum specifications for coursework, which would satisfy the equipment needs for the program outside of classroom and research lab space. Further, the proposal states that faculty members have access to a wide variety of teaching facilities to meet educational goals, and each classroom has a podium and web access.

### **Evidence that, if appropriate, fellowships, scholarships, and graduate assistantships are sufficient to initiate the program**

The College of Medicine and the College of Public Health and Health Professions have both stated that there is a commitment to use some of their allocated funds to finance fellowships, scholarships, and assistantships, and provided ample evidence of prior support for graduate students. However, no details have been provided regarding fellowships, scholarships, or graduate assistantships specific to the Epidemiology program, and it is unclear from the budget narrative or estimates that fellowships, scholarships, or assistantships are included.

### **Evidence that, if appropriate, clinical and internship sites have been arranged**

The proposal states that clinical and internship sites are not applicable to this program.

## **ACCOUNTABILITY**

*6. Need - There is a need for more people to be educated in this program at this level and if the program duplicates other professional and doctorate degrees in Florida, a convincing rationale for doing so is provided.*

### **Evidence that there is a need for more people to be educated in this program at this**



## **level**

As stated in the proposal, practice-based and accrediting organizations in the field of epidemiology and public health, including the Council of State and Territorial Epidemiologists and the Association of Schools of Public Health, have conducted assessments showing a national shortage of epidemiologists (particularly those that are doctoral-trained). The Department of Labor's Occupational Outlook Handbook forecasts growth at faster than average for the ten-year period between 2002 and 2012 for four areas within public health, one of which is epidemiology. Other organizations, such as the Institute of Medicine and the National Institutes of Health have stated a need for a greater number of clinical investigators, health practitioners, and epidemiologists to systematically collect and analyze data on the health of populations to formulate stronger health policies in the nation, and have recommended the development and offering of model programs to address the growing shortage of experienced clinical investigators in academic medicine. Significant population changes also bolster this demand. However, according to the Agency for Workforce Innovation, the annual percentage change for the epidemiology profession is only 1.63% each year between 2006 and 2014, and there are only 3 job openings each year on average.

## **Evidence that the proposed program does not duplicate other SUS or independent college offerings or, otherwise, provides an adequate rationale for doing so**

Currently, the University of South Florida and Florida International University offer a Ph.D. in Public Health with a concentration in Epidemiology. UF would be the only institution within the State University System of Florida to offer a stand-alone Ph.D. in Epidemiology. However, the University of Miami also offers a Ph.D. in Epidemiology.

There is no evidence in the proposal that UF has engaged in meaningful discussions with institutions that have similar programs. There is a stated willingness to speak with USF should they want to participate in a distance learning component for instruction.

## **Evidence of reasonable estimates of student headcount and FTE who will major in the proposed program, and commitment to a diverse student body**

Given the information provided in the proposal, estimates of student headcount and FTE appear reasonable, although the total number of students in Year 5 is slightly higher than some peer comparison data may indicate. UF states that the FTE figures proposed are based upon the standard graduate student FTE ratio of .75 per year per student (assuming students have an assistantship and graduate in 4 years). The proposal includes a slight reduction in the fourth year, based upon the assumption that fewer credit hours would be required to complete graduations requirements.

The proposal states that the primary beginning pool of candidates would be drawn from the MS in Epidemiology and MPH programs, and, as such, initial headcount is weighted towards these as feeder programs. The proposal states that there are currently 43 students in the epidemiology concentration of its MPH program, and it is anticipated that the both the MS in Epidemiology and the MPH programs would

remain a stable source of applicants over time. As the program grows, the College expects the pool to diversify, including preceding-degree graduates from other institutions, nontraditional students already in the practice area, and additional out-of-state and international students.

The proposal provides a stated commitment to recruit and retain students from underrepresented groups and to work in collaboration with the Office of Graduate Minority Programs. There is an outline for potential strategies and events to recruit minority students with recommendations on ways to provide funding as well. The signed EEO statement includes a formal commitment to a diverse student body.

*7. **Budget** - A complete and realistic budget for the program is provided, and any redirection of funding will not have an unjustified negative impact on other needed programs.*

**Evidence of a budget for the program that is complete and reasonable, and comparable to the budgets of similar programs at other SUS institutions, and reflective of the proposal's text**

The proposal indicates that no new funds would be requested for the proposed program, as funding would be derived from the current college budgets for the College of Medicine and the College of Public Health and Health Professions. The proposal indicates that student support would be primarily derived from grant expenditures as the program grows and increased external funding is secured. Student growth in the program is projected based upon anticipated support dollars available.

Revised faculty and budget tables were provided to reconcile changes made to the proposal. The revised faculty table provides that a portion of faculty members would be funded on Contracts & Grants. However, this funding is not reflected in the revised budget table, which includes no costs in the Contracts & Grants column. Although the Year 1 cost per FTE is high (at \$93,718), the Year 5 cost per FTE (at \$24,929) is more consistent with similar doctoral programs.

**Evidence that, in the event that resources within the institution are redirected to support the new program, such a redirection will not have a negative impact on undergraduate education**

UF has already made the commitment to redirect resources from within the institution to support this new program, and thus should be adequately prepared. UF is not asking for new funds to implement the program. The proposal indicates that there are no anticipated negative impacts on undergraduate education, but instead, an added potential for research opportunities and increased availability of lectures and seminars.

*8. **Productivity** - The academic unit(s) associated with this new degree have been productive in teaching, research, and service.*

**Evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service.**

The proposal provides sufficient evidence of productivity to indicate that the academic units associated with the proposed degree program have been productive in teaching, research, and service. The College of Public Health and Health Professions has shown substantial growth over the last several years, with grant expenditures for fiscal year 2005-06 at \$16 million, and contacts at slightly more than \$3 million. Epidemiology faculty members generated approximately \$1 million of these dollars. Graduate FTE production has increased from 117 FTE in 1996 to 435 FTE in 2006, and graduate/post-baccalaureate student headcount has risen from 198 to 546 during the same period. The College of Medicine has a strong record of external funding acquisition, with the Department of Epidemiology and Health Policy Research being awarded approximately \$14 million in each of the last three years, and the College of Medicine provides epidemiology course offerings benefiting students from different disciplines. In addition, the faculty members in both associated Colleges are involved in a broad array of University, State, National, and both public and private service activities, including board and committee work for professional societies and journals, scientific review activities of grant and grant programs at University and national levels, participation in University standing and ad hoc committees, providing professional skills and humanitarian efforts to local community programs, providing professional input on policy issues, and acting in an advisory capacity to agencies including the Institute of Medicine, National Institutes of Health, Agency for Healthcare Research and Quality, and the Centers for Disease Control and Prevention.