

PhD in Epidemiology Academic Assessment Plan

College of Public Health and Health Professions and College of Medicine
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Office of the Provost

*University of
Florida*

*Institutional
Assessment*

*Continuous Quality
Enhancement*

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Academic Assessment Plan for Ph.D. in Epidemiology

College of Public Health and Health Professions and College of Medicine

A. Mission

Epidemiology Mission Statement

The mission of the University of Florida Department of Epidemiology is to improve health globally through education, training, research and service. As a leader in the field, the Department aims to:

- Advance the field's theoretical and empirical base through rigorous multidisciplinary epidemiology research that monitors health globally.
- Prepare the next generation of scientific leaders to design and conduct ethical, relevant and innovative epidemiological studies.
- Train a public health workforce committed to working with diverse communities to bring about outcomes that matter.
- Develop and refine epidemiological measures and methods in that address the dynamic and complex factors impacting public health globally.

The PhD in Epidemiology facilitates the department's vision to prepare the next generation of scientific leaders to design and conduct ethical, relevant and innovative epidemiological studies and to train the leaders of the public health workforce. The Faculty mentor guides the PhD student in conducting innovative, ethical and rigorous research, to advance the field and to commit their work to outcomes that matter.

The University of Florida College of Public Health and Health Professions recently established a new educational model that focuses on the integration of worldwide public health problem-solving and individual patient care. At the heart of this model is the College's mission to preserve, promote and improve the health and well-being of global populations, communities, and individuals. To fulfill this mission, the College fosters collaborations among public health professionals in education, research and service.

The PhD in Epidemiology program fosters the attainment of that mission through preparing graduates who can apply epidemiological methods to address critical and/or emerging public health and clinical research issues. Graduates are trained by individuals who are themselves attempting to fulfill this mission, and are passing on the passion for doing so to their mentees.

This PhD Program is also congruent with the overall mission of the College of Medicine which "strives to improve health care in Florida, our nation, and the world through excellence and consistently superior leadership in education, clinical care, discovery, and service" through its goals. The Epidemiology PhD faculty and its students will work to : "improve our understanding of human health and disease through groundbreaking research and to translate these discoveries into new solutions that promote health, and improve health outcomes and quality of care" through research conducted by faculty members and their mentees, and to "provide leadership to the State of Florida, the nation, and the world in efforts to promote health, to predict and prevent disease,

and to deliver care” through patient-centered and community-centered research and dissemination of findings.

At the center of the University of Florida’s mission statement is commitment to human knowledge, benefits, and services with quality and effectiveness. These interlocking elements span all of the university's academic disciplines and represent the University's obligation to lead and serve the needs of all of Florida's citizens, the nation, and the world. It aspires to further state, national and international achievements in support of human values and improving the quality of life.

The mission statements of the department, the two colleges that house it, and the University all propel the Epidemiology PhD program to provide the research, training, education, and service to the interdisciplinary fields that require epidemiologists, that collectively seek to advance science and to improve the public health.

B. Student Learning Outcomes and Assessment Measures

The Department of Epidemiology’s former Student Learning Outcomes were as follows:

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery
Skills	Ability to design and interpret epidemiologic research studies to answer health-related research.	How measured: 1. Study design questions on written PhD progression examination. 2. Article critique as part of written PhD progression examination. Level of achievement: 80% of PhD students/graduates who take the written progression. Who will measure: Graduate faculty, Department of Epidemiology	Campus
Knowledge	Demonstrate a thorough understanding of epidemiology concepts.	How measured: Passing PhD written progression examination. Level of achievement: 80% of PhD students/graduates who take the written progression Who will measure: Graduate faculty, Department of Epidemiology	Campus
Professional Behavior	Display ethical behaviors, cultural sensitivity, teamwork, professional conduct and communication.	How measured: Student participation in local and non-local professional organizations and/or community service activities. Students discuss professional and service activities with their mentors on an annual basis. Level of	Campus

		achievement: All students to participate in at least one professional organization before graduation. Who will measure: Mentor, PhD program director, indicated on mentoring form.	
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We have applied to revise our Student Learning Outcomes to incorporate the improvements that have been made to our PhD program within the last 18 months. The revised outcomes are:

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery
Skills	Design epidemiologic research studies and analyze data to answer health-related research questions that are currently relevant to the population.	1a. All students will be required to pass a written preliminary exam after completion of their core coursework. This exam includes questions on study design and analysis. Written preliminary exams are assessed using a common rubric by Graduate faculty in the Department of Epidemiology. Level of achievement: 80% of PhD students who take the written preliminary exam. 1b. All students will be required to pass a Written Area Exam and an Oral Area Exam that relates Epidemiologic concepts to their specific research topic of interest. Written and Oral Area exams are assessed using a common rubric by members of the student's Supervisory Committee. Level of achievement: 80% of PhD students who take written and oral area exam. 2. All students develop and defend a Dissertation Proposal that includes a discussion of the planned study design and analysis. Doctoral dissertation proposals are assessed using a common rubric by members of the student's Supervisory Committee. Level of	Campus

		achievement: 80% of PhD students who defend their dissertation proposal. 3. All students write and defend a Doctoral Dissertation that includes a discussion of their completed study design and analysis. Doctoral Dissertations are assessed using a common rubric by members of the student's Supervisory Committee. Level of achievement: 80% of PhD students who defend their Doctoral Dissertation.	
Skills	Prepare to become an independent researcher in the field of Epidemiology	1. All students are expected to set and meet one goal per year in post-degree planning. This is assessed by the student's Research Mentor and Academic Advisor on the student's <i>Annual Mentoring Plan and Review of Progress Toward Goals</i> form. Level of achievement: 80% of PhD students who complete the <i>Annual Mentoring Plan and Review of Progress Toward Goals</i> form.	Campus
Knowledge	Illustrate a thorough understanding of epidemiology concepts.	1a. All students will be required to pass a written preliminary exam after completion of their core coursework. This exam includes questions on study design and analysis. Written preliminary exams are assessed using a common rubric by Graduate faculty in the Department of Epidemiology. Level of achievement: 80% of PhD students who take the written preliminary exam. 1b. All students will be required to pass a Written Area Exam and an Oral Area Exam that relates Epidemiologic concepts to their specific research topic of interest. Written and Oral Area exams are assessed using a common rubric by members of the student's Supervisory Committee. Level of achievement: 80% of PhD students who take written and	Campus

		oral area exam. 2. All students develop and defend a Dissertation Proposal that includes a discussion of the planned study design and analysis. Doctoral dissertation proposals are assessed using a common rubric by members of the student's Supervisory Committee. Level of achievement: 80% of PhD students who defend their dissertation proposal. 3. All students write and defend a Doctoral Dissertation that includes a discussion of their completed study design and analysis. Doctoral Dissertations are assessed using a common rubric by members of the student's Supervisory Committee. Level of achievement: 80% of PhD students who defend their Doctoral Dissertation.	
Professional Behavior	Display ethical behaviors, cultural sensitivity, teamwork, professional conduct and communication, and build academic skills such as grant writing.	1. All students who have completed at least one year of the program are expected to have a goal of publishing at least three peer-reviewed papers per year and be first-author on at least one of them. This is assessed by the student's Research Mentor and Academic Advisor on the student's <i>Annual Mentoring Plan and Review of Progress Toward Goals</i> form. Level of achievement: 70% of PhD students who complete the <i>Annual Mentoring Plan and Review of Progress Toward Goals</i> form. 2. All students are expected to set and meet one goal per year in service/professionalism. This is assessed by the student's Research Mentor and Academic Advisor on the student's <i>Annual Mentoring Plan and Review of Progress Toward Goals</i> form. Level of achievement: 80% of PhD students who	Campus

		complete the <i>Annual Mentoring Plan and Review of Progress Toward Goals</i> form. 3. Grant writing and professional skills are learned through coursework but tracked throughout the academic year through advisors and mentors for: a) meetings at which they present research as the first author; b) grants submitted or grants they help write for mentors; c) presentations skills that are assessed through monthly student brown bags. Level of achievement: a) 90% of students will present research as a first author at least once per year; b) 60% of students will submit grants or help write grants for mentors Mentors, advisors, and the PhD Program Assistant will officially review progress toward these milestones twice yearly during academic advising opportunities and during the PhD program Assessment Cycle.	
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C. Research

Doctoral students in our program are expected to write and publish research papers in high-impact peer-reviewed journals and communicate research results with scientists, policy makers, and the public at local, national and international conferences. We also expect doctoral students to develop grant proposals and apply for pre-doctoral fellowships or other grants from NIH and other research institutes. To this end, we require all of our doctoral students to be able to conduct independent research as demonstrated in a dissertation presenting original research to address critical and/or emerging public health and clinical research issues.

Preparation: Doctoral students in our program are required to choose research mentors in the first semester of enrollment. The researcher mentor and the student will annually sign a Mentoring Compact, which outlines expectations for both parts. The Research Mentor will meet with the student to review the PhD Student Annual Mentoring Plan, evaluate the progress toward goals, and make suggestions for improvements.

In addition to core and selective coursework in Epidemiology and Biostatistics, our doctoral students are required to take several classes that educate them about the skills in developing grant proposal and research papers. All students in the program will take PHC 6937 Grant Writing Skills for Clinical and Health Research, which provides practical instruction in the grant process, with a specific focus on National Institutes of Health (NIH) procedures. This course provides the student with experience in writing parts of the grant application and in reviewing other's grant applications. Students are also required to take the doctoral seminar series courses (GMS 6892 Epidemiology Seminar I and PHC 7000 Epidemiology Seminar II), which help the students understand the historical development, philosophy, culture, and current state of epidemiological practice and science, and which educate the students about constructing research ideas, developing them into full proposals, and discussing auxiliary methods based on students' planned dissertation topics. The Journal Club series (PHC 6894: Epidemiology Journal Club and GMS 6901 Epidemiology Writing Circle) also offer the students the training in critically analyzing published literature on research methods and measures, writing papers, and critiquing each other's papers.

Our program also provides doctoral students other resources and supports to prepare them to become a researcher in the discipline. Before their progress to candidacy, doctoral students are encouraged to take independent study with other faculty members in or outside the program. This course provides them the training to be a productive scholar through co-authoring, reviewing, conference and publication venues, etc. In addition, we encourage our students to actively interact with peers, faculty and other researchers from inside and outside the university in developing their research skills through the activities of regular doctoral student's association meeting, department seminar, and annual college research day. The regular doctoral student's association meeting gives our doctoral students a chance to communicate with peers in the program on a regular basis. Through these activities, they can become familiar with other students' research, share information and resources, and help each other deal with the difficulties of dissertation project development, etc. In the departmental seminar, we regularly invite national or international well-established researchers to give a seminar. It introduces our students to the innovative and pioneering research areas and methods in the field and provides them the opportunity to communicate with these well-known experts. Furthermore, the annual college research day offers our doctoral students the opportunity to present their research findings to the peers and faculty members from other disciplines in the College and encourage their multidisciplinary interactions. Finally, to facilitate presentation of research at academic conferences, we fund doctoral students for a portion of travel to one or two conferences per year through Epidemiology Chair's Travel Award and Graduate Student Council Travel Grants.

D. Assessment Timeline

Our timeline for our original SLO's is as follows:

Program Ph.D. in Epidemiology

College of Public Health and Health Professions and
College of Medicine

Assessment	Assessment 1	Assessment 2
SLOs		
Knowledge		
Demonstrate a thorough understanding of epidemiology concepts.	Written PhD progression examination	
Skills		
Ability to design and interpret epidemiologic research studies to answer health-related research.	Written PhD progression examination	
Professional Behavior		
Display ethical behaviors, cultural	All students to participate in at least one professional	Students discuss professional and service activities with

sensitivity, teamwork, professional conduct and communication.	organization before graduation	their mentors on an annual basis.
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Our timeline for our new SLO's is as follows:

Assessment SLOs	Assessment 1	Assessment 2	Assessment 3	Assessment 4	Assessment 5
Knowledge					
Illustrate a thorough understanding of epidemiology concepts.	Written Preliminary Exam	Written Area Exam and Oral Area Exam	Dissertation proposal	Dissertation defense	
Skills					
Design epidemiologic research studies and analyze data to answer health-related research questions that are currently relevant to the population.	Written Preliminary Exam	Written Area Exam and Oral Area Exam	Dissertation proposal	Dissertation defense	
Prepare to become an independent researcher in the field of Epidemiology.	Annual Evaluation				
Professional Behavior					
Display ethical behaviors, cultural sensitivity, teamwork, professional conduct and communication, and build academic skills such as grant writing.	Bi-annual evaluation of goal of publishing at least three peer-reviewed papers per year	Bi-annual evaluation of completion of goal related to service/professionalism	Bi-annual evaluation of meetings at which students present research as the first	Bi-annual evaluation of grants submitted or grants they help write for mentors	Bi-annual evaluation of presentation skills that are assessed through monthly student brown bags

E. Assessment Cycle

The Assessment Cycle for our original SLO's is as follows:

Assessment Cycle for:

Program Ph.D. in Epidemiology College of Public Health and Health Professions and College of Medicine

Analysis and Interpretation:

May-June

Program Modifications:

Completed by September 1

Dissemination:

Completed by October 1

SLOs	Year	10-11	11-12	12-13	13-14	14-15	15-16
Content Knowledge							
Demonstrate a thorough understanding of epidemiology concepts.		X	X	X	X	X	X
Skills							
Ability to design and interpret epidemiologic research studies to answer health-related research.		X	X	X	X	X	X
Professional Behavior							
Display ethical behaviors, cultural sensitivity, teamwork, professional conduct and communication.		X	X	X	X	X	X

The Assessment Cycle for our revised SLO's is as follows:

Assessment Cycle for:

Program Ph.D. in Epidemiology College of Public Health and Health Professions and College of Medicine

Analysis and Interpretation:

May-June

Program Modifications:

Completed by September 1

Dissemination:

Completed by October 1

SLOs	Year	10-11	11-12	12-13	13-14	14-15	15-16
Content Knowledge							
Illustrate a thorough understanding of epidemiology concepts.		X	X	X	X	X	X
Skills							
Design epidemiologic research studies and analyze data to answer		X	X	X	X	X	X

health-related research questions that are currently relevant to the population.						
Prepare to become an independent researcher in the field of Epidemiology.	X	X	X	X	X	X
Professional Behavior						
Display ethical behaviors, cultural sensitivity, teamwork, professional conduct and communication, and build academic skills such as grant writing.	X	X	X	X	X	X
#6						

F. Measurement Tools

As a whole, the measurement tools involve a combination of methods.

Current SLO: Demonstrate a thorough understanding of Epidemiology concepts

New SLO: Illustrate a thorough understanding of Epidemiology concepts.

Current SLO: Demonstrate ability to design and interpret epidemiologic research studies to answer health-related research questions

New SLO: Design epidemiologic research studies and analyze data to answer health-related research questions that are currently relevant to the population.

The understanding, design, and interpretation SLOs are measured through completion of required coursework with satisfactory grades, and by the PhD qualifying examination series, the dissertation proposal defense, and the final dissertation defense.

The PhD qualifying exam consists of three parts: 1) the Written Preliminary Examination, 2) the Written Area Examination, and 3) the Oral Area Examination.

The Written Preliminary Examination includes a general knowledge component with questions that test conceptual knowledge of epidemiology in an applied way, and also includes the critique of a journal article. This is a common examination given to all PhD students within a given cohort and will assess general knowledge of epidemiology concepts and the ability to interpret an epidemiologic study. Grading is conducted by several faculty within the department and the exam final grade is pass-fail.

The Written Area Examination is administered by the student's doctoral dissertation committee. The exam questions are generated by the committee and approved by the epidemiology curriculum committee. Students are given one week to provide written responses to 3 of 5 questions on the

exam. The exams are graded by the supervisory chair with assistance from other dissertation committee members. Students are graded pass-fail on each of the questions, provided an opportunity to resubmit up to 2 questions that are not passed, and ultimately passed or failed on this examination.

The Oral Area Exam is also administered by the student's doctoral dissertation committee. Committee members will grade the student's ability to apply epidemiologic concepts to a specific content area and to interpret epidemiologic work done within a student's more focused areas of research. All committee members will complete a checklist with ratings for each question; the results will be summarized and a score of pass or fail will be determined based on this feedback.

Successful passing of the three-part qualifying examination will demonstrate successful accomplishment of the first two SLOs.

Additional assessment periods occur at the time of the doctoral dissertation proposal defense and the final dissertation defense. Both activities require both a written document and oral discussion that will highlight successful completion of these SLOs. If the student does not appear to have mastered the material, the student will not be allowed to continue in the program.

Current SLO: Display ethical behaviors, cultural sensitivity, teamwork, professional conduct and communication.

New SLO: Display ethical behaviors, cultural sensitivity, teamwork, professional conduct and communication, and build academic skills such as grant writing.

New SLO: Prepare to become an independent researcher in the field of Epidemiology.

The ethical component of this SLO will be assessed by successful passing of a course in biomedical or public health ethics, by completion of IRB training materials related to research in human subjects, and by successfully completing research activities without any expressed concerns related to research activity. Teamwork, professional conduct, and communication is measured through a variety of activities, including successful completion of the PhD seminar series (which requires collaborations in small groups of students, supervised by epidemiology faculty), and by overall participation in departmental activities such as seminar attendance and willing participation in other activities required by the department (such as required teaching assignments). Any activity that is non-professional or inconsistent with the SLO will be documented in writing and placed in a student file. Student service activities and outside professional collaborations will also be documented on each student's annual letter/mentoring report.

Department of Epidemiology
Oral Area Exam Assessment

Student Name: _____

Date: _____

Research Mentor: _____

Committee Member
completing assessment: _____

	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Knowledge of literature in the field of study			
Ability to discuss study designs relevant to the field			
Ability to discuss persistent and current problems in the field today that need to be solved			
Clarity of responses to questions			

Comments: _____

Criteria for Pass or Fail: If a student does not meet expectations on any one or more of the assessment criteria then they have failed the oral area exam. If the committee agrees that the student is a candidate for remediation then a remediation plan will be proposed by the committee and sent by the Research Mentor to the Department Chair and to the Chair of the Department's Curriculum Committee for final approval or for modification. A student who is recommended for remediation must retake the oral area exam upon successful completion of the remediation plan.

Overall Assessment (Pass or Fail): _____

If fail, is remediation recommended (yes or no)? _____

Committee Member Signature: _____

G. Assessment Oversight

Here, list the names and contact information of those who oversee the assessment process in your program. Add or delete rows as needed.

Name	Department Affiliation	Email Address	Phone Number
Linda B. Cottler	Dean's Professor and Founding Chair, Chair of the Executive Leadership Committee and member of the Curriculum Committee	lbcottler@ufl.edu	273-5468
Cindy Prins	Clinical Assistant Professor, PhD Program Director, Member of the Executive Leadership Committee and Curriculum Committee	capfive@phhp.ufl.edu	273-5934
Catherine W. Striley	Assistant Professor, Chair of the Department Curriculum Committee, Member of the Executive Leadership Committee	cstriley@ufl.edu	273-5359
Robert Cook	Associate Professor, Member of the Executive Leadership Committee	cookrl@phhp.ufl.edu	273-5869
Xiaohui Xu	Assistant Professor, Member of the Executive Leadership Committee	xh xu@phhp.ufl.edu	273-5362
Nikki Burke	Program Assistant	nburke@ufl.edu	273-5961

Figure 1. University of Florida Graduate/Professional Program Assessment Plan Review Rubric

Related resources are found at <http://www.ua.assessment.edu>

Program:		Year:			
Component	Criterion	Rating			Comments
		Met	Partially Met	Not Met	
Mission Statement	Mission statement is articulated clearly.				
	The program mission clearly supports the College and University missions, and includes specific statements describing how it supports these missions.				
Student Learning Outcomes (SLOs) and Assessment Measures	SLOs are stated clearly.				
	SLOs focus on demonstration of student learning.				
	SLOs are measurable.				
	Measurements are appropriate for the SLO.				
Research	Research expectations for the program are clear, concise, and appropriate for the discipline.				
Assessment Map	The Assessment Map indicates the times in the program where the SLOs are assessed and measured.				
	The Assessment Map identifies the assessments used for each SLO.				
Assessment Cycle	The assessment cycle is clear.				
	All student learning outcomes are measured.				
	Data is collected at least once in the cycle.				
	The cycle includes a date or time period for data analysis and interpretation.				
	The cycle includes a date for planning improvement actions based on the data analysis.				
	The cycle includes a date for dissemination of results to the appropriate stakeholders.				

University of Florida Graduate/Professional Program Assessment Plan Review Rubric, continued

Component	Criterion	Rating			Comments
		Met	Partially Met	Not Met	
Measurement Tools	Measurement tools are described clearly and concisely.				
	Measurements are appropriate for the SLOs.				
	Methods and procedures reflect an appropriate balance of direct and indirect methods.				
	The report presents examples of at least one measurement tool.				
Assessment Oversight	Appropriate personnel (coordinator, committee, etc.) charged with assessment responsibilities are identified				