

CHANGE DOCTORAL DEGREE PROGRAM FORM

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SENATE COUNCIL

1. GENERAL INFORMATION

College: Public Health Department: Epidemiology and Biostatistics

Current Major Name: Epidemiology and Biostatistics Proposed Major Name: no change

Current Degree Title: Ph.D. Proposed Degree Title: no change

Formal Option(s): NA Proposed Formal Option(s): no change

Specialty Fields within Formal Option: NA Proposed Specialty Fields within Formal Option: no change

Date of Contact with Associate Provost for Academic Administration:¹ 17 April 2012

Bulletin (yr & pgs): Spring 2012, pp. 190-193 CIP Code:¹ 26.1102 Today's Date: 17 April 2012
Biostatistics

Accrediting Agency (if applicable): NA

Requested Effective Date: Semester following approval or Specific Date:² 01 July 2013

Department Contact Person: Wayne Sanderson (Epidemiology) and Richard Kryscio (Biostatistics) Phone: 218-2227 and 257-4064 Email: wsa223@uky.edu and kryscio@email.uky.edu

2. CHANGE(S) IN PROGRAM REQUIREMENTS

	<u>Current</u>	<u>Proposed</u>
1. Number of transfer credits allowed <small>(Maximum is Graduate School limit of 9 hours or 25% of the credit hours needed to fulfill the pre-qualifying residency requirement.)</small>	9 credit hours	no change
2. Residence requirement (if applicable) <small>(Minimum of one year before and after qualifying exam.)</small>	1 year before and after qualifying exam	no change
3. Language(s) and/or skill(s) required	statistical computing	no change
4. Provisions for monitoring progress and termination criteria	A written comprehensive exam (internal assessment of readiness for dissertation research), a qualifying exam (permitting formal advancement to candidacy), and a final exam (dissertation defense) are the major progress yardsticks. Each of these can be taken a second time if failed the first time, but a second failure is potential grounds for termination. In addition, a GPA below 3.00,	no change

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	multiple "C" grades, multiple "W" grades, multiple unresolved "I" grades, an "E" grade, a "U" grade, and failure to adhere to Graduate School time limits are all potential grounds for termination.	
5. Total credit hours required:	58 plus residency	no change
6. Required courses:	<ul style="list-style-type: none"> ✓ CPH 605 ✓ CPH 712 ✓ BST 675 ✓ BST 676 ✓ BST 639 ✓ BST 760 ✓ EPI 716 ✓ EPI 714 ✓ BST 761 ✓ BST 762 ✓ EPI 715 ✓ CPH 711 ✓ CPH 701 ✓ CPH 786 (4 times) 	<ul style="list-style-type: none"> --- CPH 712 BST 675 BST 676 BST 681 <i>in prog</i> BST 682 <i>in prog</i> --- EPI 714 BST 761 BST 762 EPI 715 --- --- CPH 786 (4 times)
7. Required Distribution of courses within program:	All courses above plus DGS-approved open elective (1), epidemiology electives (2), and 700-level biostatistics electives (2)	All courses above plus DGS-approved open electives (3), epidemiology electives (3), 700-level biostatistics electives (2), and public health elective (1)
8. Minor area or courses outside program required:	na	no change
9. Distribution of course levels required (400G-500/600-700)	all 600-700	no change
10. Qualifying examination requirements	Student furnishes committee with written document (dissertation in progress) and gives oral presentation describing dissertation in progress as well as proposal to complete dissertation research; committee members may ask questions about the written document, oral presentation, or topics in epidemiology and biostatistics deemed relevant to evaluation of the	no change

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student's competence to
complete the dissertation
research.

¹Prior to filling out this form you MUST contact the Associate Provost for Academic Administration (APAA). If you do not know the CIP code, the APAA can provide you with that during the contact.

²Program changes are typically made effective the semester following approval. No changes will be made effective until all approvals are received.

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12. List any other requirements not covered above.

na

13. Please provide a rationale for changes. If the rationale involves accreditation requirements, please include specific references to those requirements.

Synopsis of Proposed Changes to the Ph.D. Program in Epidemiology and Biostatistics

Now that the Ph.D. program has been running for three years, we have some insights into how better to meet the students' needs, and so we propose the following modifications.

1. CPH 605 (Introduction to Epidemiology) will no longer be required, as this is a master's level course and the comparable master's level course in Biostatistics is not part of the curriculum. Indeed, our perception after running the Ph.D. program for three years has been that, even among those without a prior background in Epidemiology, Ph.D. students are capable of beginning immediately with CPH 712 (Advanced Epidemiology). However, Ph.D. students entering without a prior background in Epidemiology may, if they wish, take CPH 605. In this case, CPH 605 will count as a DGS-approved free elective.
2. EPI 716 (Infectious Disease Epidemiology) and CPH 711 (Chronic Disease Epidemiology) will no longer be required of all Ph.D. students, as these courses represent specialty areas that may not be pertinent to all Ph.D. students. Instead, these courses and the existing requirement to complete two DGS-approved electives in Epidemiology will be replaced by a new requirement to complete three DGS-approved electives in Epidemiology. To preserve the number of credit hours in the program on account of this change and the removal of the CPH 605 requirement as noted earlier, the existing requirement to complete one DGS-approved free elective will be replaced by a new requirement to complete three DGS-approved free electives. The DGS-approved electives in Epidemiology may include EPI 716 and CPH 711 as well as CPH 614 (Managerial Epidemiology), CPH 615 (Cancer Epidemiology), CPH 617 (Environmental/ Occupational Epidemiology), CPH 662 (Public Health Response to Terrorism), and special topics courses offered under CPH 718 (e.g., Social Epidemiology and Perinatal Epidemiology).
3. CPH 639/BST 639 (Computing Tools) and BST 760 (Advanced Regression) will be discontinued and replaced by BST 681 (Linear Regression) and BST 682 (Generalized Linear Models). Our perception after running the Ph.D. program for three years has been that Ph.D. students are already rather conversant with computing, especially because a master's level course in biostatistics is a prerequisite for the Ph.D. program, and that additional computing skills can be developed concurrently with the acquisition of material from other courses rather than in their own designated course. On the other hand, we also perceive that students need more material on regression than can be provided in a single course such as BST 760. Therefore, BST 681 addresses regression for normally distributed outcomes (along with some material on design of experiments and computing), while BST 682 addresses regression for non-normally distributed outcomes (along with some material on computing).
4. CPH 701 (Introduction to Public Health), having been discontinued, will be replaced by a DGS-approved elective in public health.

The proposed changes are summarized by the following prototypical plan for a full-time student.

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Year 1

Fall

- ✓ CPH 712 Advanced Epidemiology (3) ✓ BST 675 Biometrics I (4)
BST 681 Linear Regression (3) *new* ✓ CPH 786 Doctoral Seminar (1)

Winter

Review material from courses taken so far in anticipation of comprehensive examination

Spring

- ✓ EPI 714 Epidemiologic Study Design (3) ✓ BST 676 Biometrics II (4)
BST 682 Generalized Linear Models (3) *new* ✓ CPH 786 Doctoral Seminar (1)

Summer

Review material from courses taken so far in anticipation of comprehensive examination

Year 2

Fall

- ✓ EPI 715 Research Methods in Epi & Bio (3) ✓ BST 761 Time to Event Analysis (3)
Free Elective (3) Elective in Public Health (1)

Winter

Comprehensive examination

Choose dissertation advisor

Spring

- ✓ BST 762 Longitudinal Data Analysis (3) Free Elective (3)
Elective in Epidemiology (3) ✓ CPH 786 Doctoral Seminar (1)
Form dissertation committee

Summer

Begin dissertation research

Year 3

Fall

- Free Elective (3) Elective in Biostatistics (3)
Elective in Epidemiology (3)
Continue dissertation research

Winter

Continue dissertation research

Spring

- Elective in Biostatistics (3) Elective in Epidemiology (3)
✓ CPH 786 Doctoral Seminar (1) ✓ CPH 767 Residency Credit (2)
Qualifying examination

Summer

Continue dissertation research

Year 4

Fall

- ✓ CPH 767 Residency Credit (2)
Continue dissertation research

Winter

Continue dissertation research

Spring

- ✓ CPH 767 Residency Credit (2)

Final examination

Submit final version of written dissertation document to Graduate School

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Signature Routing Log

To Be Added by Academic Affairs prior to submission to HCCC

Dr. Brian A. Jackson

Digitally signed by Dr. Brian A. Jackson
DN: cn=Dr. Brian A. Jackson, o=University of Kentucky,
ou=Graduate School, email, c=US
Date: 2013.02.05 13:06:24 -05'00'

**College of Public Health
Program Change Proposal
PhD in Epidemiology/Biostatistics**

Approved by:

Department of Biostatistics

Richard J. Kryscio, PhD, Chair
May 30, 2012

Academic Advisory Committee

Steven Browning, PhD, Chair
September 25, 2012

Faculty Council

Steven Fleming, PhD, Chair
October 9, 2012

Academic Dean

William G. Pfeifle, EdD
Associate Dean for Academic Affairs
October 10, 2012

Health Care Colleges Council

Cynthia Beeman, Chair 11/20/12



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MEMORANDUM

TO: Health Care Colleges Council

FROM: William G. Pfeifle, EdD 
Associate Dean for Academic Affairs

SUBJECT: Program Change Proposal for PhD in Epidemiology/Biostatistics

DATE: October 10, 2012

It is the intention of the College of Public Health to modify curriculum requirements for the PhD in Epidemiology/Biostatistics program. The program has been active for three years and faculty observations about student knowledge and performance has prompted this change proposal.

This program change proposal has been reviewed and approved by the Academic Affairs Committee and the Faculty Council, according to our college's established bylaws.

Further information about this course can be obtained by contacting the program DGS director, Dr. Wayne Sanderson: 218-2227 (phone) or wsa223@uky.edu (email).

PLS 640 Advanced Topics in Plant Propagation

PLS 641 Plant Water Relations

PLS 643 Advanced Greenhouse Crop Production

PhD in Epidemiology/Biostatistics and the following related courses:

BST 639, Drop, Computing Tools for the Biomedical Sciences

BST 760, Drop, Advanced Regression

BST 701, Change, Bayesian Modeling in Biostatistics

BST 740, Change, Spatial Statistics

BST 762, Change, Longitudinal Data Analysis

BST 764, Change, Applied Statistical Modeling for Medicine and Public Health

BST 766, Change, Analysis of Temporal Data in Public Health

BST 681, New, Linear Regression

BST 682, New, Generalized Linear Models

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