

**SPECIAL REPORT
OF THE
GRADUATE COUNCIL**

concerning

**REVISION TO THE PROGRAM:
BIostatistics AND EPIDEMIOLOGY
PUBLIC HEALTH (PhD)
(#5526)**

Presented at the
782nd Regular Meeting of the Faculty Senate
December 6, 2018

COUNCIL MEMBERSHIP

GRADUATE COUNCIL

Nadia Al-Ahmed, Sonia Alvarez, Joseph Black, Justin Burch, D. Anthony Butterfield, Ana Caicedo, Canan Çevik, David Cort, Robert DeConto, Jennifer Friedman, Mark Hamin, Laura Hancock, Neil Immerman, Cynthia Jacelon, Ramakrishna Janaswamy, Barbara Krauthamer, John Lopes, David Morin, Martina Nieswandt, Sarah Pfatteicher, Sarah Poissant, Rebecca Reznik-Zellen, Frederic Schaffer, Patrick Sullivan, Bianki Torres, David Vaillancort, Tilman Wolf, Kristine Yu

GRADUATE COUNCIL

The Graduate Council recommends approval of this proposal.

Briefly describe the Proposal

We propose minor modifications to the tracking form and the required coursework for the PhD in Public Health - Epidemiology Concentration in response to changes in the accreditation criteria as overseen by the Council on Education for Public Health

Please describe the existing program requirements, listing all required courses and available electives, as well as any additional requirements, and continuation or admissions policies.

The PhD in Public Health with concentration in Epidemiology is a 81 credit degree. The following lists all current requirements - coursework and otherwise:

Three public health core courses (9 credits), including:

- EPI 630 Principles of Epidemiology
- BIOSTAT 540 Introduction to Biostatistics

+ One of the following three:

- EHS 565 Environmental Health Practices
- HPP 601 Application of Social & Behavioral Theories in Pub Hlth Interventions
- HPP 620 Introduction to the US Health Care System

All of the following required epidemiology and biostatistics classes (18 credits)

- EPI 631 Scientific Writing for Thesis, Dissertation, and Grant Proposals in Epi
- EPI 632 Applied Epidemiology
- EPI 700 Analysis of Epidemiologic Data
- EPI 737 Intermediate Epidemiologic Methods
- BIOSTAT 640 Intermediate Biostatistics
- BIOSTAT 691F Statistical Computing in SAS

Four epidemiology electives (12 credits) chosen from the following:

- EHS 600 Molecular Epidemiology
- EPI 633 Infectious Disease Epidemiology
- EPI 634 Nutritional Epidemiology
- EPI 635 Social Epidemiology
- EPI 636 Epidemiologic Assessment (Clinical Epidemiology)
- EPI 639 Cancer Epidemiology
- EPI 640 Reproductive Epidemiology
- EPI 690EW Women's Health Epidemiology

One 'other elective' (3 credits) chosen from among any grad level course offered by the School of Public Health and Health Sciences (or some other area, subject to faculty approval)

Two additional biostatistics or statistics elective classes to complete a minor in biostatistics (6 credits)

Four classes in a substantive area to comprise a second minor to support the focus area of the student's dissertation work (12 credits)

Three 1-credit doctoral seminars (3 credits)

Dissertation credits (18 credits minimum)

Please describe the requirements that you are proposing, listing course requirements, elective options, as well as any additional requirements, and continuation or admissions policies.

We propose to eliminate the requirement for one of the additional Public Health Core courses (1b in the above). We also plan to add a required class that is currently being offered as an optional class - EPI 690R, Introduction to Epidemiologic Research Methods. The net change will be one additional core course (690R replacing the choice from among the 3 PH core courses) and these PH core courses would fit as an 'other elective' should students so choose. The total number of required credits will stay the same.

The following lists the modified requirements being proposed, which are also illustrated in the attached proposed tracking form:

Two public health core courses for students in epidemiology and biostatistics (6 credits), including:

- EPI 630 Principles of Epidemiology
- BIOSTAT 540 Introduction to Biostatistics
- One additional required core course in research methods and covering material required by CEPH (3 credits)
- EPI 690R Introduction to Epidemiologic Research Methods

All of the following required epidemiology and biostatistics classes (18 credits)

- EPI 631 Scientific Writing for Thesis, Dissertation, and Grant Proposals in Epi
- EPI 632 Applied Epidemiology
- EPI 700 Analysis of Epidemiologic Data
- EPI 737 Intermediate Epidemiologic Methods
- BIOSTAT 640 Intermediate Biostatistics
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Four epidemiology electives (12 credits) chosen from the following:

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- EPI 640 Reproductive Epidemiology
- EPI 690EW Women's Health Epidemiology

One "other elective" (3 credits) chosen from among any grad level course offered by the School of Public Health and Health Sciences (or some other area, subject to faculty approval)

Two additional biostatistics or statistics elective classes to complete a minor in biostatistics (6 credits)

Four classes in a substantive area to comprise a second minor to support the focus area of the student's dissertation work (12 credits)

Three 1-credit doctoral seminars (3 credits)

Dissertation credits (18 credits minimum)

Please provide the rationale for these revisions.

These revisions are being made in response to changes in the criteria overseen by the School's accrediting body, the Council of Education for Public Health. Formerly, CEPH required PhD students in Public Health with concentration in epidemiology to take 3 intro level grad classes in core areas of public health: 1. epidemiology; 2. biostatistics; and 3. one of the three other areas, Environmental Health Sciences, Community Health Education, and Health Policy and Management. In their latest 2016 guidelines, this has been changed. Instead of a number of courses, CEPH requires specific content area to be covered. As a result, our proposal includes two minor changes:

Removing the requirement for a 3rd Public Health core class, and instead adding these to the list of 'other electives' from which students may choose.

A new required course EPI 690R Introduction to Epidemiologic Research Methods. This class is intended to fill gaps in the students coursework, including content areas identified by CEPH as required content, but which other classes do not address.

Academic Requirements Review

See attached.

**MOTION: That the Faculty Senate approve the Revision to the Program: Biostatistics and
10-19 Epidemiology Public Health (PhD), as presented in Sen. Doc. No. 19-026.**

PhD Epidemiology (81 credits) Academic Advising & Tracking Form
 Department of Biostatistics & Epidemiology
 (Requirements Apply to Students Admitted Fall 2015)

Name: _____ ID# _____ Date entered: _____

I. REQUIRED CLASSES

<u>Public Health Core (9 credits)</u>			
<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	BIOSTAT 540	Introductory Biostatistics
_____	_____	EPI 630	Principles of Epidemiology
		<u>+ one of:</u>	
_____	_____	EHS 565	Environmental Health Practices
_____	_____	HPP 601	Application of Social & Beh. Theories in Public Hlth Interventions
_____	_____	HPP 620	Introduction to the U.S. Health Care System

(Substitutions for core courses only if approved by department; if approved, write name of substituted course above)

<u>Other Epidemiology/Biostatistics (18 credits)</u>			
<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	EPI 631	Scientific Writing for Thesis, Dissertation and Grant Proposals
_____	_____	EPI 632	Applied Epidemiology
_____	_____	BIOSTAT 640	Intermediate Biostatistics
_____	_____	BIOSTAT 691F	Data Management
_____	_____	EPI 700	Analysis of Epidemiologic Data
_____	_____	EPI 737	Intermediate Methods in Epidemiology

	<u>Research Seminar</u> (3 credits minimum)		
	Semester, credits		
	<u>Semester #1</u>	<u>Semester #2</u>	<u>Semester #3</u>
EPI 892A or 8902bw, Doctoral Seminar			

II. ELECTIVE CLASSES

<u>Epidemiology Courses</u> (12 credits)			
<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

<u>Biostatistics Courses</u> (toward <i>Biostatistics Minor</i>) (6 credits minimum)			
<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Second Minor (12 credits minimum)			Topic: _____
<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Other Elective(s) (3 credits minimum)			
<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	_____	_____

III. CULMINATING EXPERIENCE

<u>Dissertation</u>									
<i>Credits</i> (18 credits minimum)			Semester, credits						
	<u>Sem #1</u>	<u>Sem #2</u>	<u>Sem #3</u>	<u>Sem #4</u>	<u>Sem #5</u>	<u>Sem #6</u>	<u>Sem #7</u>	<u>Sem #8</u>	
EPI 899, PhD Dissertation									
<u>Committee</u> (min. of 4)	<u>Chairperson:</u>								
	<u>Member (epi/other):</u>								
	<u>Member (stat/biostat):</u>								
	<u>Member (outside*):</u>								
	<u>Additional members/consultants:</u>								
<u>Title:</u> _____									
*Consult with student handbook for restrictions <i>outside</i> members									
<u>Examinations</u>									
Exam							Date	Result	
Written qualifying exam in epidemiology (“comps”)									
Minor exam [Format: _____]									
Oral examination (“proposal defense”)							Filing date:		
							Defense date:		
							Report to Grad School date:		
Dissertation defense									
<u>Residency requirement</u> (2 semesters)									
Semester #1: _____				Semester #2: _____					

IV. TRANSFER CREDIT, FINANCIAL SUPPORT, RECORD OF CONTACTS, ETC.

Course Credits Approved for Transfer by Graduate Program Director (12 credit maximum)

No more than 6 max from UMass/Worc, 6 max non-degree, 6 max non-UMass school; Graduate credits may not have been used toward a previous degree; must carry a "B" or better grade and be relevant to Epi major

Sem/Yr taken	Credits	Course name	Institution
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Statute of Limitations Extension: (Maximum extension 4 months under extraordinary circumstances)

New SOL Date	Reason for Extension	Faculty requesting
_____	_____	_____
_____	_____	_____

Advisor Contact Record: (At least one contract per semester is recommended)

Advisor	Date	Nature of Contact	Advisor's Signature
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Permanent Contact Information:

Street: _____
 City/State/Zip _____
 Email: _____

Certification of Total of Credits Towards Degree/All Degree Requirements Satisfied

 Faculty Advisor Signature _____
 Date

Copies of all administrative memos related to degree requirements must be stapled to this sheet. This form, attachments, and a copy of the final transcript are filed in the departmental archives.

PhD Epidemiology (81 credits) Academic Advising and Tracking Form

Department of Biostatistics & Epidemiology
(Proposed for Fall 2019)

Name: _____ ID# _____ Date entered: _____

I. CORE CLASSES (9 credits)

Public Health (6 credits)

<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	3	BIOSTAT 540	Introductory Biostatistics
_____	3	EPI 630	Principles of Epidemiology

Other Public Health Core Competencies (3 credits)

_____	3	EPI 690R	Introduction to Epidemiologic Research Methods
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(Substitutions for core courses only if approved by department; if approved, write name of substituted course above)

II. ADDITIONAL EPIDEMIOLOGY AND BIostatISTICS CLASSES (18 credits)

<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	3	EPI 631	Scientific Writing for Thesis, Dissertation and Grant Proposals
_____	3	EPI 632	Applied Epidemiology
_____	3	BIOSTAT 640	Intermediate Biostatistics (or equivalent)
_____	3	BIOSTAT 691F	Data Management
_____	3	EPI 700	Analysis of Epidemiologic Data
_____	3	EPI 737	Intermediate Methods in Epidemiology

Research Seminar (3 credits minimum)

Semester, credits

	<u>Semester #1</u>	<u>Semester #2</u>	<u>Semester #3</u>
EPI 892, Seminar			

III. ELECTIVE CLASSES

Epidemiology Courses (12 credits)

<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Biostatistics Courses (toward *Biostatistics Minor*) (6 credits minimum)

<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Second Minor (12 credits minimum)			Topic: _____
<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Other Elective(s) (3 credits minimum)			
<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	_____	_____	_____

IV. CULMINATING EXPERIENCE

<u>Dissertation</u>								
<i>Credits</i> (18 credits minimum)				Semester, credits				
	<u>Sem #1</u>	<u>Sem #2</u>	<u>Sem #3</u>	<u>Sem #4</u>	<u>Sem #5</u>	<u>Sem #6</u>	<u>Sem #7</u>	<u>Sem #8</u>
EPI 899,								
PhD Dissertation								
<i>Committee</i> (min. of 4)	<u>Chairperson:</u>							
	<u>Member (epi/other):</u>							
	<u>Member (epi/stat/biostat):</u>							
	<u>Member (outside*):</u>							
	<u>Additional members/consultants:</u>							
<i>Title:</i> _____								
*Consult with student handbook for restrictions regarding the committee constitution and “outside” members								
<u>Examinations</u>								
<u>Exam</u>						<u>Date</u>	<u>Result</u>	
Written qualifying exam in epidemiology (“comps”)								
Minor exam [Format: _____]								
Oral examination (“proposal defense”)						Filing date:		
						Defense date:		
						Report to Grad School date:		
Dissertation defense								
<u>Residency requirement</u> (2 semesters)								
Semester #1: _____				Semester #2: _____				

V. PRIOR COURSEWORK/WAIVED CREDITS, FINANCIAL SUPPORT, RECORD OF CONTACTS, ETC.

Course Credits Approved for Waiver by Epi Program Faculty (12 credit maximum)

Students with a previous MPH/MS degree in Epidemiology may petition to waive some courses and their accompanying credits if the requirement has already been met. Courses from the Public Health Core, Epidemiology and Biostatistics Core, Epidemiology Electives (≤ 6 cr.), and the 2nd minor concentration (≤ 6 cr) may be considered for waiver given it has been completed within 10 years of the student's request and has not already been applied towards completing another requirement for the PhD in Epidemiology.

Sem/Yr taken	Credits	Course name	Institution
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Statute of Limitations Extension: (Maximum extension 4 months under extraordinary circumstances)

New SOL Date	Reason for Extension	Faculty requesting
_____	_____	_____
_____	_____	_____

Advisor Contact Record: (At least one contract per semester is recommended)

Advisor	Date	Nature of Contact	Advisor's Signature
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Permanent Contact Information:

Street: _____
 City/State/Zip _____
 Email: _____

Certification of Total of Credits Towards Degree/All Degree Requirements Satisfied

 Faculty Advisor Signature _____
 Date

Copies of all administrative memos related to degree requirements must be stapled to this sheet. This form, attachments, and a copy of the final transcript are filed in the departmental archives.