

**SPECIAL REPORT
OF THE
GRADUATE COUNCIL**

concerning

**REVISION TO THE PROGRAM:
BIostatistics AND EPIDEMIOLOGY
PUBLIC HEALTH (MS)
(#5517)**

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 MS in Public Health - Epidemiology concentration degree in response to changes in the accreditation criteria as overseen by the Council on Education for Public Health (CEPH), which we must

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 MS in Public Health with concentration in Epidemiology is a 45 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)

+ 3 credits of EPI 699 Thesis

These are illustrated in the attached tracking form that has been used to date.

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
- 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)

+ 3 credits of EPI 699 Thesis

Please provide the rationale for these revisions.

Prior CEPH criteria for degrees in PH required students to take: 1. biostatistics; 2. + the core course in their area (for us, EPI 630); 3. + one additional course. CEPH has modified this criterion; instead, CEPH has new substantive competencies that were not being met by the previously required coursework. Additionally, the new CEPH requirements do not stipulate that students must take additional PH core courses; thus, requiring (as opposed to offering) that MS degree students take these classes is inconsistent with the new CEPH guidelines. The new class we've developed - EPI 690R Introduction to Epidemiologic Research Methods - fills this gap by including material required by CEPH to fill competencies for MS students in PH, displacing the

required additional PH core course. However, in order to provide students the opportunity to take these classes should they be interested, they may do so, using the course to fill the 'other elective' required 3 credits as part of the 45 credit degree.

Academic Requirements Review

See attached.

**MOTION: That the Faculty Senate approve the Revision to the Program: Biostatistics and
10-19 Epidemiology Public Health (MS), as presented in Sen. Doc. No. 19-024.**

MS Epidemiology (45 credits) Academic Advising and Tracking Form

Department of Biostatistics & Epidemiology
(Requirements Apply to Students Admitted Fall 2016)

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 [<i>or</i> 591AF, Biostatistical Methods I]
_____	_____	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 [<i>or</i> 591NR, Biostatistical Methods II]
_____	_____	BIOSTAT 691F	Data Management
_____	_____	EPI 700	Analysis of Epidemiologic Data
_____	_____	EPI 737	Intermediate Methods in Epidemiology

II. ELECTIVE CLASSES

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

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

III. CULMINATING EXPERIENCE

<u>Master's Thesis (3 credits minimum)</u>			
<u>Sem/Yr</u>	<u>Credits</u>		
_____	_____	EPI 699, Master's Thesis credits	
		1. Committee	Advisor (epi): _____
			Member (epi): _____
			3 rd Member (optional): _____

III. CULMINATING EXPERIENCE (continued)

Master's Thesis (3 credits minimum)

2. Thesis info

Title: _____

Proposal filing date: _____ Defense date: _____

Grade (P/F): _____

IV. TRANSFER CREDIT, 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.

MS Epidemiology (45 credits) Academic Advising and Tracking Form

Department of Biostatistics & Epidemiology
(Proposed for Students Admitted Fall 2019)

Name: _____ ID# _____ Date entered: _____

I. CORE CLASSES (9 credits)

Public Health (15 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)

<u>Sem/Yr</u>	<u>Credits</u>	<u>Course #</u>	<u>Title</u>
_____	3	EPI 690R	Introduction to Epidemiologic Research Methods

(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 with SAS
_____	3	EPI 700	Analysis of Epidemiologic Data
_____	3	EPI 737	Intermediate Methods in Epidemiology

III. ELECTIVE CLASSES

Epidemiology Courses (4 courses / 12 credits minimum)

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

Other Elective(s) (1 course / 3 credits minimum)

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

IV. CULMINATING EXPERIENCE

Master's Thesis (3 credits minimum)

<u>Sem/Yr</u>	<u>Credits</u>		
_____	_____	EPI 699, Master's Thesis credits	
		1. Committee	Advisor (epi): _____
			Member (epi): _____
			3 rd Member (optional): _____

IV. CULMINATING EXPERIENCE (continued)

Master's Thesis (3 credits minimum)

2. Thesis info

Title: _____

Proposal filing date: _____ Defense date: _____

Grade (P/F): _____

V. TRANSFER CREDIT, 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.