

NWCCU MINOR CHANGE
University of Utah proposal for the
creation of an Emphasis in Clinical and Translational Epidemiology
for the existing Population Health Sciences PhD degree program.

Proposal. The purpose of a proposal is to enable the institution to set forth the activities constituting the change and the impact expected on the institution as a whole. The proposal is to be single-spaced. Although the scope and depth of information to be provided in the proposal will depend upon the nature of the proposed change, responses to the following are required:

a. Mission and Core Themes:

1. clear statement of the nature and purposes of the change in the context of institutional mission and core themes;

The Department of Population Health Sciences is seeking approval to establish its third emphasis, Clinical and Translational Epidemiology, in the Population Health Sciences PhD. Both population health and health services research expertise exist within the University of Utah, but there is an urgent need to strengthen the program by building on existing expertise in clinical and translational epidemiology. This is a natural extension of the patient interface with the health system, incorporating clinical symptoms and molecular mechanisms to establish new evidence based-treatment and exemplary clinical outcomes.

The Ph.D. program in Population Health Sciences will serve as an academic hub from which to broaden knowledge and expertise, it will significantly enhance the University of Utah Health Sciences' academic and clinical missions, and it will impact research and education in health sciences at other institutions. It also addresses, in part, the University's commitment to the Utah Legislature to prepare our students to meet the demands of a transforming healthcare system.

This is a unique and targeted program that is not offered elsewhere in USHE institutions. There is a close relationship with the field of Public Health and a natural path between those programs to the academic mission of Population Health Sciences that will resonate with students at other USHE Institutions. The implementation of this emphasis will provide a strong foothold for Clinical and Translational Epidemiology scholarship in the state of Utah and within the intermountain region.

The continued growth and development of the Population Health Sciences Ph.D. program will fulfill the University of Utah's commitment to the Utah State Legislature that the University will prepare its students to meet the demands of a transforming health care system and have an immediate impact on the workforce and health care sector upon graduation. Additionally, by allowing students interested in research in the areas around clinical and translational epidemiology, health systems research, and biostatistics to remain in state for their doctoral degree, it will help meet the Governor's call that 66% of Utahns will have a post secondary degree by 2020.

b. Authorization:

- evidence of formal approval by the governing board and by the appropriate governmental agency to offer the proposed existing and/or new program(s) at the proposed site(s). If the institution is located in, or operates in, a state that has only minimal requirements for chartering, but also a higher level of authorization to grant degrees, approval at the higher level is required;

The proposal was reviewed and approved by the University Board of Trustees on May 10, 2016.
See <http://curriculum.utah.edu/degrees/approval-process.php>

c. Educational Offerings:

- descriptive information of the educational offering(s); Include a list of required courses, credits (if applicable) and total number of credits required for program completion;

Course Number	New Course?	Course Title	Credit Hours
Required Courses			
PHS 7000		Biostatistics for Clinical Research	3
FP MD 7300		Epidemiology II	3
WRTG 7060/70j		Scientific Writing	3
PHS 7303		Compliance Training	1
FP MD 6305		Cancer Epidemiology	3
PHS 7020		Analysis of Secondary Data	4
BIO 5210		Cell Structure and Functions	3
PHS XXXX		Comparative Health Systems Seminar I	1
PHS 7100	X	Clinical and Translational Epidemiology (Epi III)	3
PHS 7030		Applied Modern Causal Inference	2
PHS 7XXX	X	Seminar in Population Health Sciences : Epidemiology	1
PHS 7XXX	X	Molecular Epidemiology	3
PHS 7XXX	X	Advanced Seminar in Population Health Sciences: Epidemiology	1
MDCRC 6450		Grant Writing	2
PHS 7900		PHS Dissertation	18
Add Another Required Course			
Required Course Credit Hour Sub-Total			51
Elective Courses			
		Directed Elective	3
Add Another Elective Course			
Elective Credit Hour Sub-Total			12
Core Curriculum Credit Hour Sub-Total			63

The Population Health Sciences Curriculum Committee and its external advisory board may add or delete directed electives to the approved list to reflect new science and innovation.

Ethics in biomedical research will be emphasized within the courses developed in Population Health Sciences. Additionally, students will have the opportunity to focus in depth on ethics in their directed electives from course offerings across campus.

To avoid duplicating classes already taught at the university, this degree program will utilize the existing course catalog through required courses and directed electives.

Degree Map

First Year Fall	Cr. Hr.	First Year Spring	Cr. Hr.
PHS 7000 Biostatistics for Clinical Research	3	FP MD 6305 Cancer Epidemiology	3
FP MD 7300 Epidemiology II	3	PHS 7020 Analysis of Secondary Data	4
WRTG 7060/7080 Scientific Writing	3	BIO 5210 Cell Structure and Functions	3
PHS 7305 Research Compliance Training	1	PHS 7310 Comparative Health Systems Seminar	1
Total	10	Total	11
Second Year Fall	Cr. Hr.	Second Year Spring	Cr. Hr.
PHS 7100 Clinical and Translational Epidemiology	3	PHS 7110 Molecular Epidemiology	3
PHS 7030 Applied Modern Causal Inference	2	Directed Elective	3
Directed Elective	3	Directed Elective	3
PHS 7115 PHS Seminar	1	PHS 7125 Advanced PHS Seminar	1
Total	9		10
Third Year Fall	Cr. Hr.	Third Year Spring	Cr. Hr.
MDCRC 6450 Grant Writing	2.5	PHS 7900 Dissertation	9
Directed Elective	3		
PHS 7900 Dissertation	4		
Total	9.5	Total	9
Fourth Year Fall	Cr. Hr.	Fourth Year Spring	Cr. Hr.
PHS 7900 Dissertation	9	PHS 7900 Dissertation	9
Total	9	Total	9

2. description of expected student learning outcomes;

Expected student learning outcomes for students while enrolled in the education program in Population Health Sciences will be:

1. Successful completion of coursework
2. Successful passing of comprehensive exams
3. Peer-reviewed publications
4. Submitted and accepted abstracts and poster presentation
5. Thoughtful application of coursework to dissertation per dissertation committee

3. description of the plan for student learning outcomes assessment;

Upon completion of a PhD in Population Health Sciences, student learning will be assessed by three key components.

1. Tracked peer-reviewed publications
2. Career placement upon graduation in the area of their emphasis including but not limited to post-doctoral fellowships, faculty appointments, or administrative/executive roles around health care transformation.
3. Extramural funding

4. evidence of approval by the appropriate academic policy body of the institution;

The proposal was reviewed and approved by the Graduate Council on March 28, 2016, and by the University Academic Senate on May 2, 2016. See <http://curriculum.utah.edu/degrees/approval-process.php>

d. Planning:

1. plans and descriptive materials indicating evidence of need for the change, the student clientele to be served;

The demand for students trained in the Clinical and Translational Epidemiology curriculum outlined in this proposal is high and the supply is inadequate. The Epimonitor, a widely recognized resource for epidemiologists in both the latest developments in the field and career opportunities, has a job board that features over 30 open positions at any given time. This number has been consistent over the past several months and illustrates the urgency for moving forward with this uniquely designed program. Additionally, the Huntsman Cancer Institute is developing pre-doc and post-doctoral scholarships to continuously improve cancer outcomes and patient care and has several open positions that our students would be uniquely qualified for.

In the Ph.D. program, approved by the Board of Regents on July 31, 2015, this emphasis was mentioned with the intent to implement at a later date. As part of initial student recruitment, the Department of Population Health Sciences gauged student interest in this focus. Several undergraduate and graduate level students in the USHE schools have indicated interest in applying to this program once the emphasis is approved. Now that faculty have been recruited and infrastructure has been solidified, the department is poised to develop this emphasis for implementation in Fall 2017.

Educating researchers who investigate innovations in care with those who study innovations in care delivery provides a bridge to translational research. The goal of this proposed emphasis is to teach students how to bring innovative discoveries from the molecular level through the continuum to implementation at the health systems level. Coursework reflects the translational process from cells to systems. The emphasis in clinical and molecular epidemiology is designed to complement, strengthen, and extend the capacity for scholarship across the campus. This will be the only available Ph.D. emphasis in the state of Utah with this focus.

The proposed addition will increase opportunities to engage, rather than compete, with other departments and colleges across the University to strengthen collaborative scholarship around clinical and molecular epidemiology; and will be overseen by the interdisciplinary curriculum committee. The connections among health systems researchers, clinical and molecular epidemiologists, and biostatisticians throughout the program exemplify team-based and research from inception.

This graduate program infrastructure in the Department of Population Health Sciences offers opportunities for collaborative research with clinician-scientists in the Health Sciences clinical departments as well as other campus investigators. Similar to other School of Medicine basic science departments, the Population Health Sciences department leverages and connects the resources being deployed specifically to improve care delivery to patient populations.

2. procedures used in arriving at the decision to change;

On February 10, 2016 the School of Medicine College Council Executive Committee unanimously approved the proposal to establish this emphasis in the Population Health Sciences Ph.D. Program. On March 10, 2016, the School of Medicine College Council were asked to vote on the implementation of this emphasis. This proposal in Clinical and Translational Epidemiology was unanimously approved.

3. organizational arrangements required within the institution to accommodate the change; and

The proposed emphasis can be handled within the existing infrastructure, and so no changes are required.

4. timetable for implementation;

The University seeks to offer the new degree emphasis starting Fall 2017.

e. Budget:

1. projections (revenue and expenditures) for each of the first three years of operation at the program or department level, plus, one year prior to the change at the institutional level;
2. revenue and expenditures associated with the change itself;
3. institutional financial support to be reallocated to accommodate the change; and
4. budgetary and financial implications of the change for the entire institution. Revenues and expenditures must include a cash flow analysis.

The creation of this program within the existing degree is not expected to substantially increase costs. The majority of courses offered for the program exist, and the faculty costs associated with new courses will be paid by a combination of state funds, differential tuition (if approved), and institutional funds. Administrative support will come from funds already designated for the department and the education program.

f. Student Services:

1. capacity of student services to accommodate the change; and
2. implications of the change for services to the rest of the student body;

The proposed emphasis can be handled within the existing infrastructure, and so no changes to student services are required. There should be no impact to the services for the rest of the student body.

g. Physical Facilities:

1. provision for physical facilities and equipment;

The proposed emphasis can be handled within the existing infrastructure, and so no changes to facilities and equipment are necessary.

h. Library and Information Resources:

1. adequacy and availability of library and information resources;

The proposed emphasis can be handled within the existing library and information resource infrastructure, and so no changes to these resources are required for implementing the new emphasis.

i. Faculty:

1. analysis of the faculty and staff needed;
2. educational and professional experience qualifications of the faculty members relative to their individual teaching assignments; and
3. anticipated sources or plans to secure qualified faculty and staff.

The proposed emphasis can be handled with the faculty and staff, and so no changes to these resources are required for implementing the new emphasis.