

# PUBLIC HEALTH SCIENCES: SPECIALIZATION IN HEALTH MANAGEMENT AND POLICY (PHD)

## Doctor of Philosophy in Public Health Sciences, specialization in Health Management and Policy

Unit: School of Public Health and Information Sciences (<http://louisville.edu/sphis/>) (GH)

Department: Health Management and Systems Sciences (<http://louisville.edu/sphis/departments/health-management-systems-sciences/>)(HMSS)

Program Website (<http://louisville.edu/sphis/departments/hmss/academics-1/>)

Academic Plan Code(s): PHSCPHDHMP

## Program Information

The specialization in Health Management and Policy is designed to prepare graduates for careers as researchers and teachers involved in the efforts to protect and promote the health and well-being of communities and populations. It provides graduates with the knowledge and skills necessary to attain academic positions involving scholarly research and instruction in the disciplines of public health management and key policy and management positions in governmental as well as private and voluntary organizations. In addition to an in-depth understanding of the infrastructure and context of public health management, graduates of this specialization are expected to be able to identify issues and questions of importance with regard to the management of the resources of public health and to design and carry out a program of research designed to address these issues and questions. Graduates should be able to demonstrate abilities as an independent investigator as well as a team collaborator.

## Competencies

To graduate, a student in the PhD specialization in Public Health Management and Policy must demonstrate the following competencies:

1. In-depth knowledge of the history of public health, health management, and health services research.
2. Mastery of experimental research study designs, including qualitative as well as quantitative, and the ability to identify optimal designs for specific hypotheses.
3. Ability to critically evaluate published research related to health management and health services research.
4. Expertise in one or more health services research specialties such as health policy, organization theory, long-term care policy, health economics, etc.
5. Practical knowledge of issues in research management including:
  - a. Formation and leadership of multidisciplinary teams.
  - b. Staffing, budgeting, tracking.
  - c. Data quality control and data safety management.
  - d. Funding mechanisms and grantsmanship.
  - e. Research ethics and regulations.
6. Professional quality peer-review, oral and poster presentation, report, grant, and manuscript writing.

Demonstration of Competency 1 is achieved by passing the doctoral qualifying examination and by successful completion and defense of the dissertation. Demonstration of Competencies 2 through 6, inclusive, is achieved by successful development, conduct, completion, and defense of the dissertation.

## Program of Study

The program of study incorporates a foundation of courses intricate to health services research and healthcare management as well as addressing its multidisciplinary nature. At the PhD level, this requires that students take health management and theoretical foundation, health management research methods, and HMSS PhD seminar courses, and an emphasis area related to providing in-depth knowledge related to effectively managing the resources necessary to carry out the mission of improving access, cost, and quality within the healthcare system.

The student works with his or her faculty advisor to develop a specific program of study for the student's coursework based on the required coursework and emphasis area (see Degree Requirements tab). The student's individualized program of study must be approved by the student, faculty advisor, and the HMSS PhD Committee.

## Faculty Advisor

Upon admission to the PhD specialization, each student is assigned a faculty advisor who works with the student to develop a program of study.

## HMSS PhD Committee

The purpose of the HMSS PhD Committee is to oversee the overall quality of doctoral education within HMSS. The committee will:

1. Annually review the progress of PhD students within the curriculum,
2. Manage the qualifying exam process,
3. Approve the composition of the dissertation committee,
4. Approve preliminary dissertation proposals to move to the proposal defense stage, and
5. Make curriculum quality improvement recommendations to the HMSS faculty for their approval.

## Admission Requirements

An applicant who has satisfactorily completed a Master of Public Health degree, or another relevant master degree or a health professional degree is considered for admission to the Public Health Management and Policy specialization. Applicants already holding an advanced degree are evaluated on the basis of appropriateness of previous coursework, training and experience. The graduate work by such applicants is reviewed on a case-by-case basis, and the applicant, if admitted, may be required to take additional course work prior to completing the minimum 51 credit hours required for post-master's doctoral work.

Application materials must be submitted to the Graduate School.

The minimum required documentation for full admission must include:

- Graduate application (<http://louisville.edu/graduate/futurestudents/apply-materials/application/>)
- Resume or curriculum vitae
- A personal statement that is a clear, substantive one-page description of your professional and research experience as it relates to your goals in public health and the PhD program.
- Official transcript for each degree

- Official GRE score
- Three letters of recommendation from individuals who have direct knowledge and experience with the applicant's academic or professional work experience.
- If applicant's native language is not English, one of the following:
  - Official TOEFL, IELTS or Duolingo score
  - ECFMG (Educational Commission for Foreign Medical Graduates) certification
  - Degree from an accredited U.S. Institution.
- Foreign credential evaluation for each degree not from an accredited U.S. institution
- Admission interviews by the PhD Committee are required and are in addition to your application for admission. An interview provides the PhD Committee an additional source of information and perspective about your potential fit for the University of Louisville.

The following are recommended criteria for admission:

- Undergraduate and graduate GPA each  $\geq 3.0$  on 4.0 scale
- GRE performance recommended in 50th percentile or above for verbal and quantitative scores (Comparable scores on the MCAT or DAT are considered.)
  - The recommended GRE requirement for PhD admission may be waived based on the candidate's educational background. Considerations for the waiver may include a Doctor of Medicine (M.D.) or a Master's degree in a quantitative discipline such as economics, math, or statistics. Applicants must request waiver as part of their initial application. The request for the waiver is assessed during initial application review and by the PhD Program Director during the admissions interview.

## Application Deadline

Fall semester – March 1<sup>st</sup>.

Applications received after the priority admission deadline will be considered on a space-available basis.

Spring semester – Applications are not accepted.

Summer semester – Applications are not accepted.

## Curriculum

Each doctoral student, in consultation with his or her academic advisor and the HMSS PhD Committee, plans a course of study that uniquely fits the student's career goals. The design of a doctoral program of study that reflects each student's professional skills and research interest is the primary organizing principle of the proposed program.

## Program Requirements

51 total credit hours:

- 33 credit hours of required coursework,
- 3 credit hours of public health management seminars, and
- 15 credit hours within an emphasis area.

Some required or emphasis area courses may require additional credit hours in prerequisite courses not already taken by the student. The specific coursework for a student is established with the student's individualized program of study.

The emphasis in doctoral training goes beyond accumulating course credit. Completion of the coursework is the prelude to sitting for the qualifying examination. Successful passage of the qualifying examination allows the student to enter doctoral candidacy. A doctoral candidate must then successfully develop and present to the HMSS PhD Committee a preliminary dissertation proposal (PDP) that describes the dissertation committee, what the student wishes to accomplish with the dissertation, and an original and independent research project in the prescribed format. Once the PDP is approved by the HMSS PhD Committee, the student may schedule the proposal defense. Upon successful defense of the proposal, a student may then proceed to dissertation research.

Upon successful completion of the research, defense of the dissertation, and demonstration of the required competencies listed below, a student is awarded the PhD degree.

## Coursework

Code	Title	Hours
<b>CEPH Accreditation Course</b>		
PHPH 523	Public Health in the United States <sup>1</sup>	3
<b>Minimum Total Hours</b>		<b>3</b>

<sup>1</sup> PHPH 523 fulfills the accreditation requirement that all graduates from the School of Public Health and Information Science receive foundational instruction in public health. The three (3) credit hours for PHPH 523 do not accrue toward the 51 credit hours required for Ph.D. degree completion. Students with a prior degree and/or coursework from a CEPH accredited school or program of public health may be relieved of this requirement, per approval of the Associate Dean for Academic Affairs.

Code	Title	Hours
<b>Required Coursework</b>		
<b>Health Management Foundations</b>		<b>9</b>
PHMS 700	Introduction to Health Services Research	
PHMS 715	Health Policy Research	
PHMS 708	Population Health and Health Disparities	
<b>Theoretical Foundations</b>		<b>6</b>
PHMS 720	Organizational Theory in Health Services Research	
PHMS 740	Microeconomic Theory	
<b>Health Management Research Methods</b>		<b>18</b>
SOC 618	Qualitative Research Methods	
PHST 650	Advanced Topics in Biostatistics	
PHMS 670	Statistical Data Management	
PHMS 671	Statistical Analysis for Population Health	
PHMS 645	Health Services Research Methods I	
PHMS 646	Health Services Research Methods II	
PHMS 725	Economic Evaluation in Health Care	
<b>Seminars</b>		<b>3</b>
PHMS 751	Seminar I in Public Health Management	
PHMS 752	Seminar II in Public Health Management	
PHMS 753	Seminar III in Public Health Management	
<b>Specialization/Emphasis Area (see below)</b>		<b>15</b>
<b>Minimum Total Hours</b>		<b>51</b>

## HMSS PhD Seminars

A student in the PhD specialization in Health Management and Policy is required to complete at least three (3) credit hours in the HMSS PhD Seminar series (PHMS 751, PHMS 752, PHMS 753). These group courses are jointly taught by the faculty of the department and are designed to provide a collegial experience that provides an opportunity to integrate learning from other courses, discuss hot topics, brainstorm about research ideas, and acquire professional skills in scientific manuscript and grant writing, oral and poster presentations, grantsmanship, and peer review.

## Emphasis Area

As a part of the approved program of study, a student is able to select 15 credit hours of elective coursework that is structured around a specific area within public health. For example, students could choose to do an emphasis area in long-term care policy, population health, global health, etc. Courses may be selected from those offered within the school, other schools or colleges within the university, or from sources outside the university with permission and acceptance of credit by the school and university.

Emphasis areas need to be submitted by each student by the end of the second semester in the Program. Because some courses are only offered every other year, the student and the faculty advisor must plan the emphasis area sequence as soon as reasonably possible.

All emphasis areas need to be first approved by a student's advisor and then presented to the HMSS PhD Committee for approval. The HMSS PhD Committee will review the chosen courses and confirm that they contribute to an overall expertise within the emphasis area designated by the student. The student must provide a written rationale for the choices of elective coursework in his or her emphasis area. These can be tweaked and changed while the student is in the program. However, these changes must also be approved by the HMSS PhD Committee.

### Emphasis Area Examples

Code	Title	Hours
<b>Organizational Systems</b>		
SOC 750	Program Evaluation	3
LEAD 702	Applied Multiple Regression	3
SOC 675	Social Inequality & Stratification	3
PHEP 627	Survey Research Methods	3
SOC 740	Social Policy	3
<b>Health Data Analytics</b>		
PHMS 641	Data Mining I	3
PHST 620	Introduction to Statistical Computing	3
PHMS 644	Biomedical Foundations for Health Analytics	3
PHMS 638	Data Security & Electronic Health Records	3
PHMS 642	Data Mining II	3
<b>Health Policy</b>		
SOC 622	Survey Research and Design	3
SOC 710	Statistics II	3
SOC 715	Statistics III	3
PHPB 705	Policy to Advance Health Equity	3
PHMS 710	Advanced Health Policy and Analysis	3

## Qualifying Examination

Upon completion of the required coursework (a minimum of 30 credit hours not including 15 credit hours of emphasis area coursework) and public health management seminars (three (3) credit hours total) for the PhD, the student is eligible to sit for the qualifying examination. The components of the qualifying exam focus on the subject matter drawn from foundation courses and health management research methods. The timing and eligibility for the qualifying exams are determined by the student's faculty advisor and the HMSS PhD Committee. Successful completion of the exam admits the student to doctoral candidacy. A student who does not successfully complete the exam may be required to take additional or remedial coursework and is allowed one opportunity to retake the exam. After admission into candidacy, the student will still be responsible for completing the additional 15 credit hours of required emphasis area coursework.

## Dissertation

A dissertation is required of a candidate for the degree of Doctor of Philosophy in Public Health Sciences with a specialization in Health Management and Policy. It is to be a scholarly achievement in research and should demonstrate a thorough understanding of research techniques in health management and the ability to conduct independent research. All dissertations use a three-paper format.

### Dissertation Committee

The dissertation shall be read by a reading committee, chaired by the student's faculty advisor, and appointed by the dean of the school upon the advice of HMSS PhD Committee. This committee shall consist of at least four members and must include one representative of an external department. The dissertation must be approved by the committee and the chair of the department.

The composition of the dissertation committee must be reviewed and approved by the HMSS PhD Committee. This is done as part of the preliminary dissertation proposal (PDP) process.

### Preliminary Dissertation Proposal

The Preliminary Dissertation Proposal (PDP) process involves a student (1) forming the dissertation committee; (2) writing a preliminary dissertation proposal using the PDP format; (3) the dissertation chair will present the PDP to the HMSS PhD Committee; and (4) the HMSS PhD Committee will provide feedback and approve the PDP to move to the proposal defense stage. Students may not move to the proposal defense stage without HMSS PhD Committee approval of the PDP.

The PDP uses the AHRQ (NIH) research proposal format. This is the general outline students should follow when constructing a PDP.

Total page limit: ten pages, single-spaced, or twenty pages, double-spaced

### Sections

1. Coversheet and Student Letter (three pages, single-spaced, or six pages, double-spaced)
  - a. Project Title
  - b. Student's Name
  - c. List Chair and members on Dissertation Committee.
  - d. Areas of knowledge – identify areas of knowledge (content and methods) necessary for successful completion of a dissertation. Discuss how these have been met or will be met through courses, independent study, etc.

- e. Student letter – should discuss career goals, background, and interest in health services research, and the anticipated manner in which the proposed dissertation will contribute to career goals. List source of funding for research.
2. Specific Aims (one page, single spaced, or two pages, double-spaced) – Also list specific hypotheses for each aim. If desired, the overall purpose of this line of investigation may be mentioned in order to indicate the long-term importance of the specific aim being sought through this study.
3. Research Strategy (six pages, single spaced, or twelve pages, double-spaced) – Section III's format may be tailored to meet the needs of the specific study being proposed. It could be organized for the study as a whole, for each specific aim, or for each paper to be written. However, the following sub-headings usually apply (major methods should be referenced).
  - a. Significance – Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses. Explain how the proposed project will advance the field and improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields. Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.
  - b. Innovation – Explain how the application challenges and seeks to shift current research or clinical practice paradigms. Describe any novel theoretical concepts, approaches, or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions. Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions.
  - c. Approach - Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted as well as any resource sharing plans as appropriate. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. As part of this section, provide a tentative sequence or timetable for the project.

Use this section to provide an account of the student's or committee's preliminary studies pertinent to the proposed study, summarizing methods and preliminary findings. Relevant publications or manuscripts may be attached in the Appendix. If there are no preliminary studies, please indicate so in a sentence.

4. Protection of Human Subjects ([louisville.edu/research/humansubjects](http://louisville.edu/research/humansubjects))
5. AHRQ Priority Populations
6. References Cited
7. Appendix
  - a. Survey instrument, if applicable

## Dissertation Proposal

Once approved by the HMSS PhD Committee, the candidate will submit a written dissertation proposal to all members of the dissertation committee. The candidate is then orally examined on the dissertation proposal at a time scheduled by the candidate in consultation with the committee chair and full dissertation committee.

## Dissertation Preparation

The dissertation is to be prepared in format according to the guidelines of the Graduate School (<http://louisville.edu/graduate/current-students/thesis-dissertation-information/thesis-dissertation-guidelines-1/>). HMSS PhD students do a three-paper dissertation.

### Three-Paper Dissertation Guidelines

Students will write a three-paper dissertation. The dissertation will include a brief introduction to the three papers and how they fit together (roughly ten pages). The research questions submitted and approved within the dissertation proposal will define the subject matter for each of the papers in the dissertation.

Prior to the dissertation defense, at least one of the three papers in the dissertation must be submitted for review to a reputable peer-reviewed journal that is agreed upon by the doctoral candidate's dissertation committee. The remaining two papers must be of high enough quality that the dissertation committee feels that they can be submitted to a reputable journal, although they do not need to be submitted prior to the dissertation defense.

Each paper must report on original scholarship and address the research questions in the dissertation proposal. One of the papers may consist of a literature synthesis which leads to specification of a conceptual framework for addressing a research question or questions.

Prior to the dissertation defense, the student must specify a target peer-reviewed journal for each and format each according to the chosen journal's formatting rules. Each paper is expected to conform to the length requirements for the chosen peer-reviewed journal (typically 25-30 pages in length). Co-authors for each paper should be acknowledged in a "Statement of Contributors" but not included as authors in the dissertation itself. They can be listed as authors when the papers are submitted for publication, but not as authors in the dissertation itself.

The following information is in the current guidelines, please review and advise if you have additional questions or concerns. The information is as follows:

### Published Work

With the approval of your adviser and your thesis or dissertation committee, you may include part or all of the content of manuscripts published in or accepted for publication by scholarly journals and proceedings as chapters in your thesis or dissertation. If you choose this option, you must:

1. Be a primary author—i.e., lead author—of the articles (i.e., a person principally involved in the data selection or collection, the data analysis or interpretation, and the writing of the papers).
2. Obtain the needed copyright clearance from the publisher—i.e., a letter granting permission to include the journal article in your thesis or dissertation.
3. Include a proper citation to the work, either a footnote or a citation in the reference section of the thesis or dissertation.
4. Format the work so that it conforms to the requirements as specified in "Guidelines for the Preparation and Processing of Theses and Dissertations" (The Guidelines). In other words, the journal publication cannot simply be pasted into the thesis or dissertation in its published format.

The content and format of each paper included may be similar to or the same as what you submit to the journal/proceedings, except the content must comply with the formatting requirements as outlined in The

Guidelines. The bibliography or reference section of each article must become part of the final Reference Section in the thesis and dissertation, as stipulated in The Guidelines. There should be only one abstract and one list of acknowledgments for the thesis or dissertation.

If the publisher grants permission for the publication to be used, the publisher will give instructions on how the approval should be documented in the dissertation. The publisher's official notice of approval must be formatted accordingly and added as an Appendix. Permission to use previously published material in a thesis or dissertation doesn't necessarily give the student permission to sell that material. The student may need to put a restriction on the sale and availability of his/her work according to the publisher's guidelines.

## Dissertation Approval

The dissertation is to be submitted in completed form to the chair of the department at least thirty days before the end of the term in which the candidate expects to be graduated, and the candidate is not eligible for final defense until the dissertation has been accepted by the committee and chair.

The doctoral candidate will prepare a dissertation document that will include:

1. An introduction of at least ten pages that summarizes the three papers.
2. The papers themselves (refer to Published Work above).
3. A synthesis section at the end that addresses the implications for practice and research, in non-technical terms, to the extent not addressed in the separate papers.
4. Any additional material, as appendices, that would not usually be part of a journal article (e.g. a survey instrument) but which the dissertation committee deems relevant.
5. Statement of contributions: a statement specifying his/her role and those of others in selecting study questions, designing analyses, identifying appropriate methods, analyzing the data, and writing and reviewing the papers. This statement will be signed by each contributor named.
6. Dissemination plan: this will specify the target peer-reviewed journal for each of the three papers. For each paper that has not been submitted for publication, the student is required to obtain a signature from a faculty member with experience publishing or reviewing for the target journal (or similar ones). The faculty member will sign a statement to the effect that in his/her opinion, the paper is potentially publishable in the journal selected (these signatures will be required by the conclusion of the dissertation defense).

The oral defense is scheduled by the dissertation committee and doctoral candidate. The time and place for the defense is published to the general academic community, members of which are free to attend the defense. The dissertation is approved by a majority vote of the committee and the concurrence of the department chair.

## Evaluation by Dissertation Committee

Dissertations will be evaluated by the dissertation committee using the following criteria:

**Extent of the student's contribution:** The committee should be persuaded that the student played the primary role in the formulation and write-up of the research for all three papers. For example, if a faculty member provided the data, selected the

methodology and directed the analyses, the student's role may not meet the required standard of independence.

**Eventual publication of the three papers:** The committee should only approve the dissertation if it feels that the three papers are potentially publishable, that is, ready for submission to peer-reviewed journals. Faculty endorsement of the Dissemination Plan will be relevant for this.

**Papers published before the final defense are acceptable as described below:** In some cases, one or more of the papers may have already been accepted or published by a peer-reviewed journal at the time of the defense. While this satisfies the publication criterion, the committee will still need to evaluate the paper(s) in light of the other criteria, and the paper(s) will need to be reformatted to meet the Graduate School requirements.

The HMSS PhD Committee will allow one paper to be included in the three paper dissertation that was developed while the student was in the PhD program, prior to dissertation proposal defense. The paper published prior to the dissertation proposal defense can only be considered if approved by the chair of the student's PhD committee and the HMSS PhD Committee.

## Dissertation Submission

The following steps must be taken to submit the final copy of the dissertation electronically after oral defense and approval of the committee:

1. Final document must be converted to a PDF (following the guidelines as noted above) and sent to the Graduate School and the department's administrative assistant.
2. Instructions will be provided from the Graduate School regarding submission of the final dissertation through the University of Louisville Institutional repository, ThinkIR.
3. The signature page within the electronic version must have the names of your committee members typed under the signature line; the signatures cannot be scanned into the document.
4. Submit a signed signature page, digital/electronic signature page (<http://louisville.edu/graduate/current-students/thesis-dissertation-information/>) can be found on the the Graduate School web-site and the department administrative assistant.

For questions regarding preparation and submission of dissertations to the Graduate School, contact the Coordinator of Academic Services.