

# 2025-2026 MS/PHD GUIDELINES

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The School offers doctoral degrees in biostatistics, community health sciences and epidemiology that are comprised of formal classroom instruction, guided research and supervised teaching experiences with faculty. In addition, the School offers the Master of Science degree in biostatistics that is comprised of formal classroom instruction and guided research. Students are expected to develop in-depth working relationships with their advisors/mentors. The degrees are awarded jointly by the School of Public Health and the School of Graduate Studies.

All students entering the programs will receive a foundation in public health knowledge and an understanding of the way their specific field of study contributes to achieving the goals of public health. Although specific requirements vary by degree program, all MS and PhD students must gain experience in research and complete courses in biostatistics, the foundations of public health, research ethics in public health, and a teaching practicum (PhD only). All PhD degrees require a minimum of 60 credit hours, of which at least 30 credits must be in letter-graded courses using the A through F scale. The MS is a two-year degree program with a minimum requirement of 42 semester hours of graduate work, not over six hours of which is allowed for research and composition of a thesis, and not more than two credit hours of seminars.

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#### STUDENT RESEARCH ADVISORY COMMITTEE

This document outlines the minimum requirements established by the School of Graduate Studies for the composition of the Research Advisory Committee that will guide the research training of students enrolled in PhD programs and MS programs that require a thesis.

Each student enrolled in a PhD program or a MS program with a thesis shall have a faculty serve as Chair and an Advisory Research Committee to guide their research training. The committee shares the responsibility of guiding the students' training and completion of their research project, in accordance with program criteria.

## **Committee Appointment:**

Minimum guidelines for establishing the Research Advisory Committee are detailed below. The SPH Dean may serve as a committee member as needed. Substitution or addition of committee members after formal appointment may be made after consultation with the Chair and Program Director and will require approval by the SPH Dean. Continuity of committee membership is sought to provide consistent guidance to the students throughout the program.

#### Minimum Guidelines for Thesis (MS) Committees

- The thesis Research Advisory Committee shall be made up of no less than three Graduate Faculty members, two of whom must also be full-time faculty in Biostatistics. These members shall have experience that will contribute substantively to the training of the student.
- 2) One of the three committee members may be from outside the LSUHSC-NO faculty, provided they have Graduate Faculty membership at an accredited University offering doctoral degrees. Outside LSUHSC-NO faculty must provide documentation that they are in good standing as Graduate Faculty at their respective institutions.
- 3) Committees may contain more than 3 members, however no more than one member may be from outside LSUHSC-NO.

#### Minimum Guidelines for Dissertation (PhD) Committees

- 4) The committee for PhD students must be approved no later than the time of filing the *Request for Preliminary Exam*.
- 5) The doctoral Research Advisory Committee shall be made up of no less than five Graduate Faculty members, inclusive of the Chair. These members shall have experience that will contribute substantively to the training of the student.
- 6) The Chair of the dissertation committee is the primary research mentor to the student and must be either an Associate or Full member of the Graduate Faculty.
- 7) One voting member of the committee (not the student's Chair) shall serve as the Administrator to oversee the dissertation committee and ensure the committee adheres to the rules of the Graduate School. The Administrator must be a Full member of the Graduate Faculty and may be outside the area of research interest of the student.
- 8) A minimum of two committee members must be Full members of LSUHSC-NO Graduate Faculty and be from the student's degree-granting Program. Each program may require more than two be from within the program.
- 9) One of the five committee members may be from outside the LSUHSC-NO faculty, provided they have Graduate Faculty membership at an accredited University offering doctoral degrees. Outside LSUHSC-NO faculty must provide documentation that they are in good standing as Graduate Faculty at their respective institutions.
- 10) Committees may contain more than 5 members, however no more than one member may be from outside LSUHSC-NO.

# THESIS (MS)

A student advances to candidacy upon approval of the program and completion of 12 semester hours with at least a B average.

When the thesis is complete, the candidate will be required to present successfully the thesis in an open seminar. After the open seminar, students meet with their thesis committee for an oral examination. To pass the examination, there may be no more than one negative vote among committee members. Full details are available in the MS/PhD Guidelines on Moodle.

When students are entering their last semester, in addition to continuing meetings with their advisor, students must schedule an appointment with Ms. Martha Cuccia in the SPH Office of Academic Affairs. She will review the procedure for the defense and the associated paperwork, as well as the submission and publication of the thesis. The process includes, but is not limited to, the following steps:

- 1. Create a Digital Scholar account on the LSU Health Library website using your LSUHSC account.
- 2. After a successful defense and all signatures have been obtained on the <u>Dissertation/Thesis Defense</u> Final Examination Report, submit the final signed form via Moodle.
- 3. Once the form has been submitted, the Associate Dean for Academic Affairs (ADAA) will email the <a href="SPH Digital Scholar">SPH Digital Scholar</a> (DS) Administrator, Martha Cuccia, the completed form. Whereupon, the Administrator enters all the committee members into DS.
- 4. After all edits of the thesis that were recommended/required by the Committee are complete, upload the final thesis (pdf format) into Digital Scholar.
- 5. SPH Administrator emails the Committee Chair to notify them of the next step, their final review (and approval). After that review, the Chair approves the final version of the thesis in DS. The SPH Administrator will then post the thesis and upload and post in the "Supplemental Content" section the completed <u>Dissertation/Thesis Defense Final Examination Report</u>.
- 6. After the upload to Digital Scholar is complete, the final document will be uploaded to ProQuest by the Administrator. The student can check the status of their submission in ProQuest @ View/revise my dissertation/thesis.

# **QUALIFYING EXAMINATION (PhD)**

Students must pass a series of written comprehensive examinations after completing their PhD core courses. This examination is the most thorough in the doctoral program. It should require the candidate to demonstrate competence in a broad segment of the major field. Full details are available in each program section in this document. If students fail the written examination, they are subject to dismissal from the program. In some cases, the program faculty may develop a remediation plan to be completed before another examination may be given.

#### PROSPECTUS DEFENSE (PhD)

After passing the written comprehensives, students must pass an oral defense of the students' research prospectus. This oral examination will be given by the Research Advisory Committee of each student and will assess the research prospectus and mastery of discipline in the dissertation area. The student selects the Committee Chair in conjunction with the Academic Program Director.

If a student does not pass the prospectus defense, a new prospectus must be written and defended within the timeframe allotted for PhD degree completion, allowing no less than one calendar year for dissertation completion and defense If there is no more than one negative ballot out of a minimum of five, students become a "candidate" after the Dean has been notified by the Chair and Academic Program Director of successful completion of the oral prospectus (also termed preliminary examination). This is typically not open to the public and announcement is not made through the Office of Academic Affairs; the program may choose to announce to faculty, staff, students or collaborators from within the program.

Students must complete and submit the <u>Request for Preliminary Examination</u> to the Office of Academic Affairs at least two weeks prior to the scheduled exam. The program may set an earlier deadline. A <u>Report of Preliminary Examination form must be completed after the oral preliminary examination</u>. These forms are available on the school's website or from the Office of Academic Affairs.

# **DISSERTATION (PhD)**

The dissertation must make a significant contribution to the field, suitable for publication in a peer-reviewed journal of international repute. Refer to the <u>LSUHSC School of Graduate Studies Dissertation and Thesis Guidelines</u> for preparation of dissertation. For the planned graduation date, students should check the academic calendar for the last date to hold a dissertation defense and the final date for submission of the dissertation to the School of Public Health.

There are two stylistic options for dissertation manuscript(s): the monograph option and the three publishable papers option. Students must choose one and must have the approval of their Chair. The format decision must be made prior to the prospectus defense and clearly described to the student's Research Advisory Committee. Once the prospectus has been accepted, the student may not change the format.

#### **MONOGRAPH OPTION**

This is a traditional format of dissertations. With this format, the student extensively cites the literature and empirical support for the methods applied in their research. The committee has the ability to review this information in advance of the oral defense and the student has access to reference this material in the oral defense. Since this format does not clarify a publication plan for the final dissertation, the student should be prepared to describe publication progress and/or plans to convert the document into peer reviewed journal submissions and/or book chapters.

#### **PUBLICATION-SYTLE OPTION**

For this format, the dissertation consists of at least three full-length manuscripts on original research conducted by the candidate to be submitted to peer reviewed journals. The articles should form a cohesive body of work that supports a theme or themes that are expressed clearly in the introduction of the dissertation, as taken from the prospectus defense. With this option, and after a successful dissertation defense, the student must still convert the three papers into a hybrid monograph for submission to ProQuest. The dissertation must include an abstract that synthesizes the articles, as well as an introduction (Chapter 1 – typically adapted from the prospectus), the three manuscripts (Chapters 2-4), and a conclusion (Chapter 5) that discusses and synthesizes what was learned from the three articles and their implications for future practice, research, and/or policy. These are the minimum requirements, but programs may require additional chapters based upon the students' research.

## DISSERTATION DEFENSE AND FINAL SUBMISSION (PhD)

- 1. Student submits the Final Exam Request form that lists the members of the Research Advisory Committee and sets the date for the final exam. Permission to hold the defense will be granted by the Dean of the School of Public Health in conjunction with the Associate Dean for Academic Affairs (ADAA) only after all the foregoing conditions are satisfied and one calendar year has elapsed since students have passed the oral defense of the prospectus (three academic semesters). The defense is preceded by an open seminar of the students' dissertation research. Students must petition the Dean and Associate Dean for Academic Affairs for permission to take the examination. Traditionally, the examination is a test of the student's intimate knowledge of the area of the field in which the student is working. However, at the discretion of the Committee or the Dean, the examination may include questions from the major field or general public health knowledge.
  - Students must complete and submit the <u>Request for Dissertation/Thesis Defense and Final</u>
     <u>Examination at least two weeks prior to the scheduled defense</u>. This form is signed by the Academic Program Director, ADAA & Dean.

- Public Defense Date is advertised at least 2 weeks in advance via email notification from the ADAA
- 2. Student submits the final draft of dissertation/thesis document(s) to all committee members for formal review no less than 2 weeks prior to final exam date; the program may require a more stringent timeline. This timeline is subject to the approval of the committee and given the scope of the review warranted, more time may be required for review.
  - Committee members read dissertation, mark edits, and prepare questions for the oral defense. It
    is not required that students receive these recommended edits or questions prior to the oral
    defense.
- 3. The oral defense consists of both (1) Public Seminar, which may include questions from the public & (2) a Closed Door Oral defense, which includes only the student and committee members.
- 4. Following the Exam, the Administrator obtains signatures of all committee members on the form, indicating they accept (including with required edits) or reject the dissertation as presented and defended. The form, with the record of accepting or rejecting the dissertation, is also signed by the Program Director.
  - To pass the examination, there may be no more than one negative vote.
  - Students may need to make edits, verified by the Chair, before the form is signed.
- 5. When students are entering their last semester, in addition to continuing meetings with their advisor, students must schedule an appointment with <a href="Ms. Martha Cuccia">Ms. Martha Cuccia</a> in the SPH Office of Academic Affairs. She will review the procedure for the defense and the associated paperwork, as well as the submission and publication of the thesis. The process includes, but is not limited to, the following steps:
  - Create a Digital Scholar account on the LSU Health Library website using your LSUHSC account.
  - After a successful defense and all signatures have been obtained on the <u>Dissertation/Thesis Defense</u> <u>Final Examination Report</u>, submit the final signed form via Moodle.
  - Once the form has been submitted, the ADAA will email the <u>SPH Digital Scholar (DS) Administrator</u>, Martha Cuccia, the completed form. Whereupon, the Administrator enters all the committee members into DS.
  - After all edits of the thesis that were recommended/required by the Committee are complete, upload the final thesis (pdf format) into Digital Scholar.
  - SPH Administrator emails the Committee Chair to notify them of the next step, their final review (and approval). After that review, the Chair approves the final version of the dissertation in DS. The SPH Administrator will then post the dissertation and upload and post in the "Supplemental Content" section the completed Dissertation/Thesis Defense Final Examination Report.
  - After the upload to Digital Scholar is complete, the final document will be uploaded to ProQuest by the Administrator. The student can check the status of their submission in ProQuest @ <u>View/revise</u> <u>my dissertation/thesis.</u>

#### **CERTIFICATION**

If not more than one member of the examining committee dissents (all assents and dissents are recorded on the Dissertation/Thesis Defense Final Examination Report), the Administrator confirms all applicable processes were followed, and if the dissertation is accepted, the candidate will be certified to the School of Public Health Faculty, Graduate Faculty and Chancellor as having met all requirements for the degree of Doctor of Philosophy.

#### **EXAM ONLY STATUS**

Doctoral students in good standing having completed the required dissertation credit hours and have scheduled their final defense may register under "Exam Only" (INTER 999, 1 credit hour) in their anticipated final semester of the program. This is done with special permission of the Associate Dean for Academic Affairs.

#### TIME TO DEGREE COMPLETION

The School of Public Health requires that all work towards a doctoral degree be completed in not more than eight calendar years. The Master of Science must be completed in no more than four years. Any requests for extension of this policy are subject to approval by the students' committee, Program Director, ADAA and SPH Dean.

#### RESIDENCE REQUIREMENT

The LSUHSC–NO Schools of Graduate Studies and Public Health requires three years (9 semesters) of full—time residence for the PhD, although in most instances, more time is needed. A minimum of one year (three consecutive semesters) must be taken in residence at the Health Sciences Center following completion of the qualifying examinations (written and oral). The LSUHSC–NO Schools of Graduate Studies and Public Health require one academic year, two semesters, or four summer terms as the minimum residence requirement for the MS. Two-year residence represents a more realistic average. Exceptions may be made by petition to the School Dean.

## **COURSE REQUIREMENT**

Specific course requirements are dependent upon academic program policy. However, in general, a minimum of 60 credit hours is required and at least 30 of those hours must be taken in courses which require a letter grade for evaluation. The minimum courses required by each Program are listed in the Program Descriptions in this catalog.

## TRANSFER OF CREDITS

The procedure for transferring credits is outlined below:

- 1) Students should initially consult with their academic advisor on the suitability of transfer of graduate level courses.
- 2) Upon approval of the advisor, students then contact Academic Affairs (Ms. Cuccia) to initiate the transfer process including the Request for Transfer Credit.
- 3) Students submit the course syllabus of the course to be transferred, making sure the syllabus is the one from the semester the course was taken to Ms. Cuccia and the course director for the LSUHSC SPH course s/he wants to replace. The course director reviews the syllabus to determine if the learning objectives and competencies are consistent with learning objectives and competencies of the LSUHSC SPH course.
- 4) The course director notifies Academic Affairs (Ms. Cuccia) of the approval of transfer.
- 5) After the form, transcripts and syllabus are complete, the package is submitted to the LSUHSC SPH Program Director for approval.
- 6) The Program Director in consultation with the Program Faculty will determine whether to approve the transferred credit. The Program Director signs the Request for Transfer Credit as Transfer Credit Evaluator and forwards both the form and syllabus to the Office of Academic Affairs.
- 7) The Office of Academic Affairs sends a copy of the completed <u>Request for Transfer Credit</u> to students requesting transferred credits to inform students of the approval, and to notify them that they are required to have the original university send an official transcript directly to the SPH Office of Academic Affairs.
- 8) The Office of Academic Affairs then sends the transcript with the form to the LSUHSC Registrar.

<u>Master of Science in Biostatistics</u>: The School of Public Health allows a maximum of 13 semester credits to be transferred into the School of Public per degree program.

<u>Doctor of Philosophy</u>: The School of Public Health allows a maximum of 18 semester credits to be transferred into the School of Public per degree program.

No transfer credit is permitted for coursework receiving a grade below B and transfer credits used for another earned degree will not reduce credit hour requirements. Students must follow the procedure above.

# **MASTER OF SCIENCE in BIOSTATISTICS**

The Master of Science in Biostatistics is a two-year degree program with a minimum requirement of 42 semester hours of graduate work, not over six hours of which is allowed for research and composition of a thesis, and not more than two credit hours of seminars. It begins with a core of basic biostatistical methods and statistical theory and continues with electives in biostatistical methods directly applicable in public health.

Entry requirements include calculus and linear algebra. In some cases, students deficient in entry requirements may be admitted provided a plan for remediation is developed and approved by the faculty.

Course		
Number	Course Title	Credit Hours
BSDS 6150	Statistical Programming	2
BSDS 6200	Principles of Applied Statistics	3
BSDS 6202	Applied Linear Models	3
BSDS 6204	Statistical Inference I	3
BSDS 6206	Statistical Inference II	3
BSDS 6210	Categorical Data Analysis	3
BSDS 6212	Survival Analysis	3
BSDS 6610	Biostatistical Consulting	2
BSDS 6900	Thesis Research	6
PUBH 6200	Essentials of Public Health	3
PUBH 6221	Foundations of Public Health Ethics	1
Biostatistics El	ectives (see university catalog for full list of electives)	10
Total:		42

# **DOCTOR OF PHILOSOPHY in BIOSTATISTICS**

The PhD in Biostatistics is an advanced, research-oriented degree program requiring in-depth study and research in a particular area of emphasis within biostatistics. The core curriculum includes a solid foundation of coursework in advanced statistical methods and statistical theory. Additional coursework may include multivariate methods, nonparametric statistics, mixed models, statistical computing, design and analysis of experiments, clinical trials methodology, bioinformatics, and other advanced statistical methods. PhD students will also receive training in research ethics and hands-on experience in statistical consulting and gain teaching experience through a formal teaching practicum. Students will have the opportunity to take elective courses in epidemiology and other core disciplines in public health.

The curriculum is designed for students entering with a master's degree in statistics or biostatistics. Those students entering without a previous relevant master's degree can expect additional coursework to fulfill prerequisites for taking PhD-level advanced coursework.

#### **PhD Biostatistics Curricular Requirements**

Course Number	Course Title	Credit
		Hours
BSDS 6210	Categorical Data Analysis	3
BSDS 6212	Survival Analysis	3
BSDS 6610	Biostatistical Consulting I	2
BSDS 7200	Theory of Linear Models	3
BSDS 7202	Generalized Linear Models	3
BSDS 7204	Advanced Statistical Theory	3
BSDS 7318	Statistical Learning	3
BSDS 7410	Teaching Practicum in Biostatistics	2
BSDS 7900	Dissertation Research	15
PUBH 6200	Essentials of Public Health	3
PUBH 6221	Foundations of Public Health Ethics	1
PUBH 7410	Doctoral Teaching Practicum	1
Biostatistics Electives (see university catalog for full list of electives)		
Methodology Electives		9
Applied Emphasis Electives		9
Data Science Electives		3
Total:		63

Methodology Electives	Applied Emphasis Electives	Data Science Electives
BSDS 6308 - Multivariate	BSDS 6302 - Longitudinal Data	BSDS 6150 – Statistical
Methods [3]	Analysis [3]	Programming [2]
BSDS 6310 - Applied Bayesian	BSDS 6304 - Design and	BSDS 6300 – Statistical
Methods [3]	Analysis of Experiments [3]	Computing [3]
BSDS 6316 - Stochastic	BSDS 6312 - Sampling Methods	BSDS 6301 – Data Visualization
Processes [3]	[3]	[3]
BSDS 6318 - Nonparametric	BSDS 6314 - Clinical Trials	BSDS 6350 – Introduction to Data
Statistics [3]	Methodology [3]	Science [3]
BSDS 7302 - Mixed Models [3]	BSDS 6450 - Design And	
	Analysis of Expression Studies [3]	
BSDS 7320 - Robust Inference		
[3]		

Courses indicated with light grey shading are PhD-specific required courses. Students who have taken BSDS 6210 Categorical Data Analysis in a previous master's program may petition for a waiver of this course requirement. However, this will not reduce the total required credit hours of the program.

Though courses numbered in the 7000's are PhD-specific, well-prepared MS students may request permission to take these courses. They are designed to provide PhD students with a more rigorous in-depth analysis of a subject area than typically associated with the master's level. The PhD in Biostatistics curriculum blends 6000 and 7000- level course to provide both a broader exposure to different subject areas in statistics and a deeper understanding of statistical theory and methods to facilitate advanced subject area research.

## **Biostatistics Qualifying Process**

All PhD students in Biostatistics are required to pass a set of preliminary examinations before being admitted to candidacy for the PhD degree.

#### Written Comprehensive

The written comprehensive examinations are based on the material in the first-year core PhD courses (BIOS 6210, 6212, 7200, 7202, and 7204). These exams consist of multiple in-class, closed-book written sessions including an applied/data analysis session. These examinations will be written, graded and scored anonymously by the faculty of the Biostatistics Program. A consensus score of Pass or Fail will be assigned to each examination session for each student. The examinations are usually offered shortly after the spring semester in late May or early June.

#### Oral Prospectus

In addition to the written comprehensive examinations, students must pass an oral examination involving the defense of the students' research prospectus. This examination should be taken no later than the third year of full-time study. The oral preliminary examination will be given by the students' Doctoral Advisory Committee and will assess the students' research prospectus and mastery of discipline in the dissertation area. The students' PhD advisor will be the Committee Chair.

If students fail either the written or the oral exam, the Doctoral Advisory Committee determines the conditions to be met before another examination may be given, usually to take place the following year.

## **DOCTOR OF PHILOSOPHY in COMMUNITY HEALTH SCIENCES**

The Doctor of Philosophy in Community Health Sciences is an advanced program of study designed primarily for those who intend to pursue careers involving research, teaching, and professional practice to promote health, prevent disease and improve the quality of life. The program advocates for a socioecological approach to understanding determinants of health.

The program trains students to 1) conduct original research to identify and examine individual, social and environmental determinants of health, illness, and disease; 2) design, implement and evaluate multi-level interventions to promote health, prevent disease and reduce health disparities; and 3) translate knowledge derived from research into public health practice. The curriculum includes coursework, research and practical instruction in community health promotion, health education, systems thinking, research and intervention design including traditional (experimental) and applied (community-based participatory) approaches, as well as statistical methods and data analysis and interpretation. Doctoral students also gain expertise through participation in a formal teaching practicum. Each student is required to complete a dissertation based on independent empirical research that generates knowledge and promotes innovation in the field of public health.

The curriculum below assumes students enter the PhD program with an appropriate master's degree. Those students entering without a previous relevant master's degree can expect additional coursework to fulfill prerequisites for taking PhD-level advanced coursework. Students should develop specific course sequence plan with their academic advisor upon entering the program.

#### **PhD Community Health Science Curricular Requirements**

Course Number	Course Title	Credit Hours
CHSP 7202	Community, Behavior & Health: Theories in Action	3
CHSP 7203	Advanced Research Methods and Ethics in CHS	3
CHSP 7207	Advanced Community Analysis, Ecology, and Health Disparities	3
CHSP 7247	Developing Research Proposals	2
CHSP 7410	PhD Applied Teaching Experience	1
CHSP 7700	Community Health Sciences Seminar (1 credit)	3
CHSP 7900	Dissertation Research (1-9 credits)	15
PUBH 6200	Essentials of Public Health	3
PUBH 7410	Doctoral Teaching Practicum	1
	Focus Credit Hours	9
	Content Electives	9
	Methods Electives	9
Total:		61

Behavioral Focus	Environmental Focus
BSDS 6102 Biostatistical Methods II (3 credits)	EHCS 6253 Geospatial Health and the Environment (3 credits)
CHSP 7353 Fundamentals of Multi-Level	EHCS 7202 Analysis of Weather and Climate Extremes
Design and Analysis (3 credits)	(3 credits)
EPPH 6221 Intermediate Epidemiology (3 credits)	EHCS 7203 Human Biomonitoring and Health (3 credits)

CONTENT ELECTIVES	METHOD ELECTIVES
EPPH 6352 – Social Epidemiology (3 credits)	CHSP 6233 – Qualitative Methods (3 credits)
CHSP 6220- Policies and Programs in Maternal, Child and Adolescent Health (3 credits)	EPPH 6226- Epidemiologic Design & Analysis (3 credits)
CHSP 7351- Race/Ethnicity, Gender and Health Disparities (3 credits)	BSDS 6301- Data Visualization (3 credits)
CHSP 7352 – Mental Health Promotion in Community Health Science (3 credits)	BSDS 6150- Statistical Programming (2 credits)
EHCS 7254 – Advanced Environmental Policy and Justice (3 credits)	BSDS 6300- Statistical Computing (3 credits)
EPPH 6301- Epidemiology of Sexually Transmitted Infections and Diseases (3 credits)	CHSP 7221- Structural Equation Modeling and Psychometrics (3 credits)
CHSP 6248- Organizational Behavior (3 credits)	CHSP 7350- Translational Research & Implementation Science (3 credits)
HPSM 6277 Health Advocacy and Community Based Activism (2 credits)	BSDS 6210- Categorical Data Analysis (3 credits)
EHCS 6238- Principles of Environmental Health (3 credits)	BSDS 6302- Longitudinal Data Analysis (3 credits)
EHCS 6239- Principles of Occupational Health (3 credits)	BSDS 6314- Clinical Trials Methodology (3 credits)
EHCS 6235- Climate Change & Sustainable Solutions (3 credits)	EPPH 7214- Mathematical Modeling of Infectious Diseases (3 credits)
EHCS 6246- Water Quality Management (3 credits)	EPPH 6217- Database Management (3 credits)
EHCS 6250- Emergency Response to Disasters & Terrorism (3 credits)	HPSM 6225- Health Outcomes Research (3 credits)
EHCS 6252- Industrial Hygiene and Environmental Safety (3 credits)	EHCS 6201- Geographic Information Systems for Health Care (3 credits)
	EHCS 6243- Air Quality, Air Pollution & Dispersion Modeling (3 credits)
	EHCS 6245- Health Risk Assessment and Management (3 credits)
	EHCS 6244- Integrated Environmental Assessment for Public Health (3 credits)

With the approval of their academic advisors, students may satisfy elective requirements with any combination of 6000- and 7000-level courses selected from the list of Content and Methods electives (9 hours minimum from each group).

# **Community Health Sciences Qualifying Process**

A series of examinations are required for all PhD students in Community Health Sciences prior to being admitted as a candidate for the PhD degree. The examinations are taken after completion of all PhD core courses and are based on material contained within these courses. The first part of this exam is written and oral. It is graded by the Community Health Sciences Ad hoc Qualifying Exam Committee. The second part of the examination will be a prospectus defense facilitated by the PhD student's Research Advisory Committee. The student selects the Chair in conjunction with the Academic Program Director.

#### Comprehensive Exam

The comprehensive examination consists of applied writing sessions based on a list of approved Community Health Science topics. Written responses, and other approved CHS topics, will be further examined orally by the CHS Ad hoc Qualifying Exam Committee. A majority score of Pass or Fail will be assigned for each PhD student. If a student fails either the written or oral exam, the student may be dismissed from the program, or a remediation plan is developed, and the student may attempt the exam again the following year.

## Prospectus Defense

Following successful completion of the comprehensive exam, PhD students will identify a research area and then prepare a prospectus of original research in the field of Community Health Science. As part of the qualifying process, PhD students present their prospectus to the Research Advisory Committee. Approval of the prospectus will be determined by this Committee. After successful defense of the prospectus, students will become candidates for the PhD degree and will focus their work on independent research. If students fail the defense of the prospectus, the Committee will determine the conditions that will need to be met before another oral examination may be scheduled.

## **DOCTOR OF PHILOSOPHY in EPIDEMIOLOGY**

The PhD in the field of epidemiology is designed primarily for those who plan academic careers, research careers, or other careers involving a combination of teaching, research, and public health practice. The PhD curriculum includes advanced coursework in epidemiologic theory, analytical and statistical methods, study design and data interpretation as well as research and instructional experience. In addition to a series of core courses, including a formal teaching practicum, students will have the opportunity to take elective courses in epidemiology and other disciplines relevant to their chosen area of emphasis. The curriculum culminates in the development and completion of a dissertation generating new knowledge in the field of epidemiology based on independent research.

The curriculum given assumes students enter the PhD program with a Master of Public Health (MPH) degree in Epidemiology. Those master's level students entering without an MPH degree can expect additional coursework to fulfill prerequisites for taking PhD-level advanced coursework.

### **PhD Epidemiology Curricular Requirements**

Course Number	Course Title	Credit Hours
EPPH 7200	Advanced Epidemiologic Methods I	3
EPPH 7201	Advanced Epidemiologic Methods II	3
EPPH 7350	Causal Inference for Epidemiology	2
EPPH 7410	Teaching Practicum in Epidemiology	2
EPPH 7700	Epidemiology Journal Club	3
EPPH 7900	Dissertation Research	15
BSDS 6210	Categorical Data Analysis	3
PUBH 6200	Essentials of Public Health	3
PUBH 6221	Fundamentals of Public Health Ethics	1
PUBH 7410	Doctoral Teaching Practicum	1
	versity catalog for full list of electives)	
Content Electives		9
Methods Electives		9
Biostatistics Electives		6
Total		60

Courses indicated with light grey shading are PhD-specific required courses. With the approval of their academic advisors, students may satisfy elective requirements with any combination of 6000- and 7000-level courses selected from the approved list of Content, Methods and Biostatistics electives satisfying the minimum credit hours in each elective group.

Suggested Epidemiology Content Electives	Suggested Epidemiology Methods Electives	Suggested Biostatistics Electives
EPPH 6214 Infectious Disease	EPPH 6217 Database	BSDS 6202 Applied Linear
Epidemiology [3]	Management [3]	Models [3]
EPPH 6220 Molecular	EPPH 6218 Spatial Analysis [3]	BSDS 6212 Survival Analysis
Epidemiology [3]		[3]
EPPH 6222 Cancer	EPPH 6219 Nutritional	BSDS 6300 Statistical
Epidemiology [3]	Epidemiology [3]	Computing [3]
EPPH 6223 Chronic Disease	EPPH 6228 Survey Design [3]	BSDS 6302 Longitudinal Data
Epidemiology [3]		Analysis [3]

EPPH 6301 Epidemiology of	EPPH 6350 Epidemiology for	
STDs [3]	Public Health Practice [3]	
EPPH 6352 Social	EPPH 6351 Public Health	
Epidemiology [3]	Surveillance [2]	
EPPH 6362 Environmental	EPPH 7214 Mathematical	
Epidemiology [2]	Modeling of Infectious	
	Diseases [3]	
EPPH 6450 Cardiovascular	EPPH 7800 Prospectus	
Epidemiology [3]	Development [1-9]	
	CHSP 7221 Structural	
	Equation Modeling and	
	Psychometrics [3]	
	CHSP 7353 Fundamentals of	
	Multi-Level Design and	
	Analysis [3]	

#### Other Electives

Additional credits come from elective coursework offered at the School or elsewhere in the Health Sciences Center, and Dissertation Research credits.

# **Epidemiology Qualifying Process**

The Qualifying Examinations (Written Comprehensive & Oral Prospectus) are traditionally administered during the second year of the doctoral program, although this time frame is flexible as long as the oral prospectus examination is completed within three years from the date of enrollment (full-time student]. The Written Comprehensive Exam is only offered one time during a calendar year, usually in December after the end of the fall semester of classes. It is recommended that students who plan to take the Written Comprehensive Exam consult with their faculty advisor and discuss required and elective coursework and their readiness for taking the examination several months in advance of the scheduled examination date.

## Qualifying Examination (Written)

Students will usually sit for this exam in the second year of their PhD program in Epidemiology for full–time students. After the advisor has agreed that students have completed the required program coursework (EPPH 7200, EPPH 7201, EPPH 7350, PUBH 6221, PUBH 6200, BSDS 6210 along with at least six credit hours of BSDS electives and six credit hours of EPPH electives), students may request to take the exam. All students must notify the Exam Director of their intention to take the exam at the start of the term preceding the exam. Students who intend to take the exam will be notified with specific details pertaining to the exam.

Each exam question will be read and graded by two faculty members with appropriate expertise in the question's content. Each question will be graded on a point scale. The Examination Committee will collectively assign a final grade and make a recommendation of pass, conditional pass, or fail. Finally, the Examination Committee will suggest any conditions or remediation for students who received a conditional pass. Whenever there are at least two students taking the exam, faculty graders will be blind with respect to the name of the students. Final grades are communicated to students by the Program.

If students do not pass the exam, they may be allowed to retake the exam the next time the exam is offered. Determination of a remediation exam opportunity will be made by the Program Director, the students' advisor, and with input from the faculty. If the remediation exam is offered and students do not pass on the second attempt, they will be terminated from the program.

#### Prospectus Defense (Oral)

In addition to the Written Comprehensive Examination, doctoral students are required to successfully develop and defend their research proposal in the form of a written dissertation prospectus and oral prospectus examination.

Students should successfully defend their dissertation prospectus within six months of successfully completing the Written Comprehensive Examination. During the defense of the Prospectus, students present their research prospectus to the dissertation committee and submit responses to questioning by the committee members. Students should complete the Oral Prospectus Examination no later than one year after passing the Written Comprehensive Examination. The Epidemiology Program Director will give exceptions only upon written petition and approval.

If students fail the exam, the Research Advisory Committee determines the conditions to be met before another examination may be given. For students who must repeat an examination, the second examination must be taken within one year after the first exam.

## Specific Timeline

PhD students must complete the qualifying exam within three years of matriculation, the candidacy exam within five years of matriculation, and their degree within eight years of matriculation.

## **ROLES AND RESPONSIBILITIES**

#### STUDENT

SPH MS and PhD students are expected to uphold the highest standards of ethical conduct, academic integrity, and scientific rigor throughout their degree program and dissertation research. As emerging scholars, they bear responsibility for contributing to the advancement of knowledge in a manner that reflects honesty, accountability, and respect for the research process. Students must conduct all aspects of their research including design, data collection, analysis, interpretation, and dissemination with integrity and transparency. They are required to adhere to institutional, national, and international policies governing research ethics, including human subjects protection, data management, and responsible authorship. Students must obtain all necessary institutional approvals prior to initiating research activities and ensure continued compliance throughout the project. MS and PhD students are responsible for maintaining high levels of rigor and reproducibility in their work. This includes using valid and appropriate research methods. maintaining detailed documentation of procedures and data, and ensuring that findings are supported by evidence. Students are expected to demonstrate professionalism in their interactions with mentors, collaborators, and research participants. They must manage research data responsibly, protect confidentiality where applicable, and acknowledge the contributions of others accurately. Students are also expected to report any concerns related to research misconduct or ethical violations in accordance with institutional policy. Students must communicate research findings honestly and transparently through appropriate scholarly channels. This includes acknowledging study limitations, reporting null or negative results when relevant, and avoiding practices that could misrepresent or distort research outcomes. Proper citation and respect for intellectual property are essential components of responsible scholarship.

#### **FACULTY**

Faculty serving on research committees, those involved with the written exam, the prospectus, and the dissertation defense are granted the opportunity to significantly impact PhD students' lives. Such faculty have the critical task of overseeing the student's research progress and professional future. The seriousness of these responsibilities cannot be overstated. Faculty members must exercise diligence, fairness, and expertise to uphold the integrity of the research process and contribute to the advancement of knowledge.

The Chair must ensure alignment with program and School requirements. These duties are essential for completing a PhD student's dissertation.

The sheer volume and diverse nature of research can be overwhelming. Ensuring that research synthesis occurs—where findings from multiple studies are integrated—is essential. While we assume all students and faculty are honest and ethical, experience does not bear this out. Pressure to publish, inadequate training, competitiveness, desire to please mentors, individual circumstances, and pending job offers lead to shortcuts and scientific misconduct (Definition of Research Misconduct | ORI - The Office of Research Integrity (hhs.gov)). Detecting research misconduct, including fraud or unethical practices, must be the responsibility of all faculty involved with PhD students' progress. For the School of Public Health, at least one member of the Research Advisory Committee must be assigned to look at the raw data to ensure that summary variables, data, graphs, etc., are valid representations of the raw data.

Faculty who have conflicts of interest should be replaced.

#### **CHAIR**

The committee chair, working with department administration, helps steer the student through the intellectual stages and institutional requirements of doctoral degree work. Advising practices vary from discipline to discipline. However, the outline that follows provides widely applicable guidelines to a chair's key responsibilities.

## The Student-Advisor Relationship

- Coach the student about your advising style and what the student can do to contribute to a good working relationship.
- If you become aware of significant problems or weaknesses (e.g. in the student's writing, research related skills, or personal issues which may potentially interfere with academic progress), refer the student to appropriate resources. Ms. Martha Cuccia in Academic Affairs can help identify these.
- Be aware of students' individual situations and working style. Occasionally assess how they are doing (e.g., whether they are working well with you and seeking appropriate mentoring from others).

# **Supervising Research**

- Emphasize data collection and record keeping.
- Go over ethical issues, including human subject and animal care protections.
- Build backup ideas into any research project.
- Follow the student's development and make adjustments in assignments.
- Be aware of conflicts in a research group, and when they arise, take steps to mediate.
- All feedback on student work should be provided in an electronic format (e.g., "track changes" in a word processor) rather than handwritten.

#### **The Dissertation Process**

- Help the student formulate a long-term plan for the research and writing of the dissertation, including a timetable and tentative completion date. Ask the student to revise the plan, as needed. Document the plan and any changes (e.g., have the student email you the agreed, or updated, plan).
- Reach agreement with the student as to how often they will consult with you and submit work for you to critique.
- Meet with and review progress with the student no less than once a semester; however, more frequent contact is encouraged. Document that progress (e.g., have the student summarize and email the points of the meeting.)
- **Topic and Methodology**: Work with the student to define their dissertation topic and general research methodology. This collaboration should occur before the student takes their final course.
  - Make sure to avoid overly ambitious goals and expectations.
  - Read and provide feedback on drafts of the student's emerging methodology. Ideally, substantive feedback should be in writing whenever possible.

#### • Prospectus Assistance:

- Collaborate with the student to construct questions that will form the basis of their conceptual paper.
- o Ensure that the student addresses the criteria outlined by the program.
- Assist the student in learning how best to work with a research committee/group.

#### Committee Formation:

- Work with the student to determine the appropriate committee composition.
- This should include identifying the Administrator of the committee to ensure the committee
  adheres to the rules of the Graduate School. The Administrator must be a Full member of the
  Graduate Faculty and may be outside the area of research interest of the student.
- Complete the committee form and submit it to the Academic Program Director for review and approval, followed by submission of the signed form to Academic Affairs.
- o If a member of the committee is not responding to the student's communication or failing to review the draft sections of the dissertation in a reasonable amount of time, coach the student about how to proceed, or intervene directly if the problem is severe. If all efforts fail, encourage the student to consider finding a replacement, including guiding them on the process of replacing a member.

The Chair and Administrator (see below) must take responsibility for dealing with conflicts among committee members, should they arise. (e.g., personal conflict and intellectual disputes that create a roadblock for the student or could be viewed as a power differential where the student is not demonstrating approved, independent research).

#### **Administrative Matters**

- The student must be able to give the entire dissertation to the committee sufficiently in advance of the meeting. This must be at least two weeks before the defense but can be as much as three or four weeks, depending on the Committee. If the student is unable to meet the aforementioned deadline for distributing the dissertation, ask the student to postpone the defense unless you are certain all committee members have critiqued earlier drafts and, therefore, should be able to submit the oral defense evaluation forms on time. It is devastating when a student learns about major concerns shortly before the oral defense because the faculty member hadn't read the student's work previously.
- Prepare the student for the oral defense, in accordance with the traditions of the department and/or the wishes of the committee. (Note: The committee will need to decide how long the defense itself will last; there are no prescribed guidelines.)
- If there appear to be serious concerns about the student's work, advocate for a delay in the oral defense. Dissertations should be approved based on the quality of the work, not because of other pressures (e.g., a job offer contingent upon completion; the expense of registering for a further term, etc.).
- Make sure everyone on the committee is familiar with the roles of Chair and the other members. How
  closely and frequently members other than the Chair(s) engage with the student's work varies, all
  should be in regular contact.
- Work with the student to schedule and plan for committee meetings, taking into account the norms of the department or program.

Remember that your guidance and support play a crucial role in the success of doctoral students!

## **ADMINISTRATOR**

The Administrator serves to oversee adherence to the rules of SPH and the Graduate School. The Administrator must be a Full member of the Graduate Faculty and may be outside the area of research interest of the student.

#### **Administrative Matters**

- Be sure the student and the committee know that SPH/SGS policy requires that the oral defense must be conducted as a public event, (except for the Committee's private deliberations after the defense), open to all interested persons.
- Before the student schedules the oral defense date, be sure the student knows the date in the term of final registration by which the defense must be held.
- After the defense, submit the completed <u>Dissertation/Thesis Defense Final Examination Report</u> if no revisions or corrections are needed.

#### RESEARCH ADVISORY COMMITTEE MEMBERS

#### **Administrative Matters**

- Be familiar with SPH/SGS policy and requirements related to the oral defense
- Before the student schedules the oral defense date, committee member should be prepared to review
  all materials at least two weeks before the defense but can be as much as three or four weeks,
  depending on the Committee. If the student is unable to meet the aforementioned deadline for
  distributing the dissertation, ask the student to postpone the defense *unless* all committee members

have critiqued earlier drafts and, therefore, should be able to submit the oral defense evaluation forms on time. It is devastating when a student learns about major concerns shortly before the oral defense because the faculty member hadn't read drafts of the student's work previously.

- If there appear to be serious concerns about the student's work, please contact the Chair immediately. Dissertations should be approved based on the quality of the work, not because of other pressures (e.g., a job offer contingent upon completion; the expense of registering for a further term, etc.).
- Before the defense begins, the committee should review all the members' written evaluations and identify the topics they will raise and their sequence.
- At the defense, make sure it's clear which committee member(s) will sign off on the required revisions.
- If revisions and/or corrections are required, make sure there is a clear plan for submitting the report as soon as possible after the dissertation has been completed and approved.
- If the Candidate needs to petition the ADAA for an extension to the eight-year time limit, confer with the dissertation chair/major advisor, as well as other committee members if necessary, and provide the necessary support but require the student to develop a plan for completing the degree.

#### The Oral Defense

During a dissertation defense, committee members play crucial roles in evaluating the student's research and providing valuable feedback. Here are the expectations for committee members during this significant milestone:

## 1. Active Participation:

- Questioning and Engagement: Committee members actively participate by asking insightful
  questions related to the dissertation. They engage in thoughtful discussions with the student.
- Expertise: Provide subject matter expertise as requested by the chair or the candidate. Share
  your insights based on your field of expertise.

#### 2. Reading and Feedback:

- Draft Review: Committee members read drafts of the dissertation at various stages (e.g., proposal, final manuscript). They provide meaningful feedback to enhance the quality of the work.
- Constructive Critique: Offer constructive criticism on the content, methodology, analysis, and overall coherence of the dissertation.

#### 3. Assessment:

 Evaluation Criteria: Evaluate the dissertation based on established criteria, including scholarly rigor, originality, and contribution to the field.

#### 4. Time Management:

- Scheduled Time Slot: Be prepared for a two-hour time slot for the defense. The defense chair will allocate time for each committee member to ask questions.
- Broad Considerations: Committee members should consider the overall scholarly impact of the dissertation, the claims being made, and the significance of the research

## **Launching the Student's Career**

- Ask students to do tasks they will need to do after they get into the field.
- Encourage students to attend professional meetings, and when the two of you attend the same meeting, actively help them to network.
- Speak honestly to students about their strengths and weaknesses (e.g. not everyone can succeed as a faculty member).
- If appropriate to your field, call people to help students seek positions and be deliberate and careful about treating them fairly in this regard.
- Prepare students to consider the full range of career possibilities appropriate to their field.