UIC UNIVERSITY OF ILLINOIS AT CHICAGO

School of Public Health

PhD Degree

Student Handbook

2014-2015

Revised August 2014

TABLE OF CONTENTS

PHD DEGREE PROGRAM INFORMATION

ACADEMIC CALENDAR

For the current academic calendar, please visit the UIC School of Public Health website: http://publichealth.uic.edu/academics/academiccalendar/.

CURRICULUM OVERVIEW

The Doctor of Philosophy (PhD) degree in Public Health Sciences is an academic degree awarded by the Graduate College of the University of Illinois and is subject to the requirements described in the UIC Graduate Catalog. (For this degree program, the School of Public Health acts as the Department of Public Health Sciences (DPHS) of the Graduate College.) The program is designed to develop scholars capable of conducting research and teaching in public health sciences. The program also prepares students for research careers in governmental, private, and voluntary organizations. Programs of study leading to a PhD (in Public Health Sciences) may be taken in one or more of the Divisions of the School of Public Health:

1. Community Health Sciences
2. Environmental and Occupational Health Sciences
3. Epidemiology and Biostatistics
4. Health Policy and Administration

Interdisciplinary studies that combine two or more of these areas are encouraged.

The PhD program consists of six components:

1. SPH School-wide Core Course Requirements – (11 SH) (if not completed at masters level)
2. Divisional Course Requirements and Electives – (variable based on chosen Division); Students must complete a minimum of 9 SH in formal 500 series courses in the chosen major area of concentration (not necessarily in one division). In addition, some academic divisions require students to complete additional hours in a collateral area.

3. The Preliminary Examination
Preliminary Examination - (a rigorous test of the student's knowledge and ability to apply it) should be taken as soon as possible after completion of the required program of study.

4. Dissertation Research Requirements – (minimum of 32 SH)
   - IPHS 599 PhD Dissertation Research
     - The student's research is carried out under the guidance of a dissertation advisor and Dissertation Examining Committee. The research may take any or a combination of many forms: field, laboratory, or computer applications are some examples. The research must be creative and original, advancing a field of public health by adding significant new knowledge, testing current theory, or leading to a new theory.
   - Examinations
     - Dissertation Proposal Defense- given orally to determine if the proposed research is feasible and if the student is prepared to pursue it.
     - Dissertation Defense - includes both presentation of the dissertation at an open meeting and a final examination by the Dissertation Examining Committee.
5. Instructional Experience - Instructional experience (teaching in at least one course for at least some part of the academic semester with guidance from the regular instructor).
6. Required Non-Credit Training

- HIPAA Research Training
- Investigator Training 101

ADMISSIONS

Please see the Admissions section of the SPH website for information.

Conditional Admission Policy Statement

Under special circumstances, an applicant may be recommended by a Division for admission on a conditional basis (e.g., completion of preparatory course work). The conditions under which a student is admitted to the School are to be stipulated in writing by the director of the Division recommending admission of the student. Conditionally admitted students must satisfy the conditions prior to graduation (or earlier if so specified by the Division).

Change in Division

If a student's interests change after admission or the student determines that professional goals would be better achieved in a division different from the one originally assigned please contact the Academic Coordinator in your division to initiate the process to Request for Change of Degree.

Students requesting a division change must meet the requirements of the division they wish to enter. The new division reserves the right to deny entry to a student seeking the division change.

DEGREE PROGRAM TIME LIMITATIONS

- **7 Years:** A student who is admitted to the Graduate College with a master's degree, or who continues in the Graduate College after completing the master's degree at the University of Illinois at Chicago, must complete the degree requirements within seven years after initial registration as a doctoral student.
- **9 Years:** A student who is admitted to the Graduate College without a master's degree and proceeds directly to the doctorate must complete degree requirements within nine years of initial registration as a doctoral student.

The Director of Graduate Studies (DGS) will periodically review the progress of doctoral candidates. If the DGS determines that the student is not making satisfactory progress toward the degree, the student may be recommended for dismissal from the program.

Time spent on a leave of absence approved by the program and the Graduate College is not counted toward the degree time limit (see the Leave of Absence section of the Academic Policies and Procedures Handbook).

PRELIMINARY EXAMINATION TIME LIMITATION

Failure to complete the degree requirements within five years of passing the preliminary examination requires retaking the examination. Graduate College rules require that a minimum of one year elapse after passing the preliminary examination, before defending the dissertation.

PROGRAM OF STUDY

COURSEWORK

The curriculum is individually designed to meet the interests and goals of the student. Introductory courses in biostatistics and epidemiology are the only ones specifically required in the PhD program, if not previously completed at the masters level**. (These requirements may be waived if justified on the basis of equivalent prior experience or course work.) The division of credit hours between course work and dissertation research is highly

dependent on the background of each student. At a minimum, students must complete 9 SH in formal 500 series courses in a major area of concentration (not necessarily in one division). [Note: The 595 seminar series may not be counted towards fulfillment of this requirement.] If required by the chosen division, the student must also complete 6 SH in a collateral area. Course work must be designed to assure preparation for the preliminary examination and subsequent doctoral research. Course work does not, however, usually dominate the PhD program.
** Biostatistics majors are required to take an introductory epidemiology course and advanced biostatistics courses; see BSTT PhD Curricular Chart.

After admission to the PhD program, the student is assigned a major advisor with interests and expertise compatible with the student's goals. Together, the student and advisor develop an overall program of study which is approved by the Division Director and the Graduate College. The approved program proposal form shall be submitted prior to the completion of the second semester of study. Revised proposals may be submitted thereafter.

The student is encouraged to utilize any of the resources of The University of Illinois at Chicago plus those in neighboring institutions. (See description of the Chicago Metropolitan Exchange Program.) The primary requirement is that a meaningful, cohesive, health-directed, research-oriented program be constructed.

Students may use Independent Study (IPHS 596) to satisfy elective hours. Up to 9 semester credit hours (SH) of independent study may be credited toward the PhD program.

INSTRUCTIONAL EXPERIENCE

Each PhD student is required to obtain experience in classroom teaching. The teaching experience for doctoral candidates should at minimum consist of planning, leading and evaluating a minimum of two classroom sessions, which may be online or in-class sessions. If students are clear that they will be pursuing a career in academe, they should be encouraged by their advisors to go beyond this minimum.

All PhD students' efforts should be supervised and evaluated by appropriate faculty. Documentation should accompany this evaluation so that PhD students are clearly rated on their efforts at planning, teaching, and evaluating the students in their classes. Efforts of students who are laboratory or teaching assistants should be considered vital teaching experiences as long as there is appropriate evaluation of such efforts by faculty and students. It is the responsibility of the student and his or her faculty advisor to make sure the student's instructional experience is properly evaluated.

PhD program proposal forms include areas for the date and description of the student's teaching experience. The expected term for satisfying this requirement should be identified at the initial submission of the program proposal, and, if known, a description of the proposed teaching experience. A revised program proposal must be submitted to the student's advisor near the graduation term (if not required earlier as a result of other changes to the student's program) reflecting a brief description of the instructional experience.

Students with relevant and appropriate prior teaching experience may petition to waive this requirement. At a minimum, the prior teaching experience should meet the criteria identified above.

THE PRELIMINARY EXAMINATION

TIMING

The preliminary examination should be undertaken as soon as possible after completion of the required program of study.

COMMITTEE SELECTION

Prior to sitting for the preliminary examination, the student selects a Preliminary Examining Committee with the assistance and approval of the major advisor. It consists of a minimum of five members, of whom at least three (3) are UIC Graduate College faculty with full membership and two (2) of whom must be tenured, who have interest and expertise in the student's major and collateral areas. The Chair of the Committee must be a full member of the UIC Graduate College Faculty. If a collateral area is required, at least one member must represent the student's collateral area. Up to two of the members may be selected from outside the DPHS or UIC. The committee must be approved by the Graduate College. The committee works with the student until the preliminary examination is completed. The Preliminary Exam is a rigorous test of the student's knowledge and understanding of his/her chosen program of study, and the ability to apply such knowledge to the field of his/her specialization.

The preliminary examination consists of two parts-a written part prepared for the individual student by the examining committee, and an oral part administered by the committee sitting together with the student. These parts will be separated by no more than four weeks. In the case where the student has failed the written portion of the examination, the Committee may elect not to give the oral examination. The written questions will cover broad conceptual issues and problems, providing the principal (but not necessarily exclusive) focus of the oral examination. At the discretion of the Division the format and scheduling of the written exam may vary, but will include the following information:

- Core principles, concepts, and approaches in the general area of specialization.
- Basic knowledge of the facts and current status of the discipline of specialization.
- Problem-solving, applying principles and facts to issues in the area of specialization.
- Collateral area principles, facts, and problem-solving.

The oral examination may consist of further discussion and elaboration of the answers to the written questions and/or any other relevant topics raised by the examiners.

The evaluation of the student's performance will result in one of several findings:

Pass - This finding indicates that the student is progressing satisfactorily in the acquisition of knowledge and understanding in the elected area of specialization. The student is, as a consequence, encouraged to proceed with additional specialized course work and to begin preparatory work on the dissertation topic. Passing this examination formally admits the student to PhD candidacy.

Fail - This finding indicates that the student is deficient in knowledge of the elected area of specialization and may lead to either of two consequences. The student may be required to withdraw from the PhD program, or may be asked to retake the examination after completion of deficiency-oriented course work. The Preliminary Examining Committee and Division Director have jurisdiction for remedial programming, but dismissal will be the prerogative of the Director of Graduate Studies for DPHS with the advice of the Executive Committee. The decision may be appealed to the Dean. The Dean, on the recommendation of the Committee, may permit a second examination. A third examination is not permitted.

The Preliminary Examining Committee certifies the results and reports them to the Graduate College.

THE DISSERTATION PHASE

DISSERTATION COMMITTEE SELECTION

After successfully completing the preliminary examination, the student, in conjunction with the major advisor, will select a dissertation chair and Dissertation Examining Committee. This committee consists of five members, at least two of whom must be tenured faculty members, and one who is from outside the Division. The dissertation advisor, who must be from the student's division, serves as chair of the committee and must be a member of the UIC Graduate College faculty. The Graduate College must approve the Committee composition.

DISSERTATION COMMITTEE FUNCTIONS

The Dissertation Committee is responsible for guiding the student's research and helping to assure successful performance during the Dissertation Proposal Defense and ultimately the Dissertation Defense.

The PhD candidate should work with his/her Committee chair to set an introductory meeting of the Committee during which the expected intellectual contributions of each Committee member are discussed and decided upon.

The student and committee members should also decide upon the frequency of meetings, optimal communication methods, expected timeframe for developing and completing the dissertation and scheduling examinations, faculty availability during summer months, and other guidelines and mutual expectations for the sharing and review of the student's work.

It is highly recommended that the PhD student at the point of beginning work on his or her thesis or dissertation obtain a copy of the Graduate College Thesis Manual.

THE DISSERTATION PROPOSAL

DISSERTATION PROPOSAL ELEMENTS

The Dissertation Proposal typically consists of the first three chapters of the dissertation: Chapter 1. Introduction or Broad Overview of the Proposed Research; Chapter 2. Literature Review ; Chapter 3. Methodology.

DISSERTATION PROPOSAL DEFENSE

The Dissertation Proposal Defense, given orally by the Dissertation Examining Committee, serves two primary functions:

- To ascertain whether the student is adequately prepared to pursue the dissertation topic. If deficiencies are discovered, additional course work may be required.
- To indicate to the student whether the Dissertation Examining Committee feels that the proposed research is feasible and whether the research should result in a useful, satisfactory product within the time and resources available.

The Dissertation Proposal Defense should not put the student into a pass-fail situation. Rather, it should, when necessary, guide the student into a more feasible and/or fruitful research plan. The major advisor will notify the Division Director and the Director of Graduate Studies for the School of Public Health when the Dissertation Proposal Defense has been passed. A "pass" constitutes a contract between the Examining Committee and the student that all major elements of the research proposal have been identified and agreed to.

RESEARCH AND DISSERTATION FORMAT

The student's research is carried out under the guidance of a dissertation advisor and the Dissertation Committee. The research may take any or a combination of many forms: field, laboratory, or computer applications are some examples. The research must be creative and original, advancing a field of public health by

adding significant new knowledge, testing current theory, or leading to a new theory. Completion of the assigned research credit does not guarantee an acceptable dissertation; additional research effort may be necessary.

The dissertation may be presented in the traditional thesis format or may consist of (typically three) manuscripts of publishable quality with respect to peer-reviewed journals. The specific requirements for both are to be established by the dissertation committee in accordance with Graduate College requirements.

The manuscript format typically follows the chapter outline below:

1. Introductory chapter to include the over-arching theme(s), hypotheses which tie the papers together
2. Literature review
3. Methods chapter
4. The manuscripts
    a) Paper #1
    b) Paper #2
    c) Paper #3
5. Conclusion to include a discussion of the impact of the research
6. Appendices to include, as appropriate, such items as survey instruments, foundational tables, organizational charts, additional tables, and other items not appropriate for a journal article nor the body of the thesis document.

The manuscript format must conform to the Graduate College Thesis Manual.

DISSERTATION DEFENSE

Both a final examination and dissertation presentation are required. This typically takes the following format. The candidate presents his/her findings at an open meeting of faculty, students, and the Dissertation Committee. Immediately following the open session the committee meets with the student in executive session. Finally, the Dissertation Examining Committee reports to the Graduate College that the student has or has not passed his/her examination and thus has or has not satisfied all requirements for the PhD degree.

FINAL FORMATTING OF DISSERTATION

It is the student's and advisor's responsibility to assure the final dissertation format meets the requirements of the Graduate College Thesis Manual. A final draft will be reviewed and approved by the SPH Director of Graduate Studies and the Graduate College, or returned to the student for further editing.

Upon receipt of a properly formatted thesis, the Director of Graduate Studies will recommend the student to the Graduate College for award of the degree.

THE PHD CURRICULUM BY DIVISION

BIOSTATISTICS – PHD

The PhD in Biostatistics program requires a minimum of 96 semester hours (SH). This program includes the following course requirements:

Note: PhD students majoring in Biostatistics must take any required MS courses whose equivalent they have not taken previously.

I. School-Wide Core Requirements (35 SH)

Course	Title	Credits
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 599	PhD Dissertation Research	min. 32 SH
Required Non-Credit Training: http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/education/index.shtml		
HIPAA Research Training		Non-credit
Investigator Training 101		Non-credit

II. Divisional Core Requirements (10 SH)

Course	Title	Credits
BSTT 560	Large Sample Theory	2 SH
BSTT 561	Advanced Statistical Inference	3 SH
BSTT 562	Linear Models	4 SH
BSTT 595	Seminar	1 SH
	**Doctoral Preliminary Examination in Biostatistics	

III. Electives (19 SH)*

Select at least three of the following (offered alternate years):

- BSTT 563 Generalized Linear Models (spring, even #d yrs.)(4 SH)
- BSTT 564 Missing Data (spring, odd #d yrs.)(4 SH)
- BSTT 565 Computational Statistics (fall, even #d yrs.) (4 SH)
- BSTT 566 Bayesian Methods (fall, odd #d yrs.) (4 SH)
- BSTT 567 Advanced Survival Analysis (spring, odd #d yrs.)(4 SH)

Additional Electives (7 SH):
May include courses from list above, courses from a collateral area, or additional semesters of BSTT 595. May not include BSTT 400, BSTT 401, BSTT 505, BSTT 523, BSTT 524 or BSTT 525.

*Students with a master's degree in public health or a related area may receive up to 32 SH of credit towards the 96 SH total.

**** Doctoral Preliminary Examination in Biostatistics**

The written exam includes both in-class and take-home portions. The in-class portion is scheduled for 4 hours, while students have 1 week to complete the take-home portion. Material for the exam is based primarily on the 500-level biostatistics courses as well as the required statistics courses. The oral examination follows the written examination (within one month) and may re-examine students based on the answers to the written portion or include additional material based on required coursework.

Standards of Performance for Biostatistics Program

Students in Biostatistics are allowed only one grade of C in required courses. A student who receives two Cs in required courses will not be allowed to graduate from the program. A student may re-take a course one time and attempt to replace the C with a higher grade.

COMMUNITY HEALTH SCIENCES – PHD

The PhD in Community Health Sciences program requires a minimum of 96 semester hours (SH), although more hours are often necessary. PhD students in Community Health Sciences are required to select a major area of concentration relevant to community health and obtain advisor approval in all course selections. For students selecting a PhD in MCH Epidemiology, there are additional requirements. This program includes the following course requirements:

I. School-Wide Core Requirements (32 SH)

Course	Title	Credits
IPHS 599	PhD Dissertation Research	min. 32 SH
Required Non-Credit Training: http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/education/index.shtml		
HIPAA Research Training		Non-credit
Investigator Training 101		Non-credit

II. Divisional Core Requirements (22-28 SH)

Course	Title	Credits
CHSC 595	Doctoral Seminar (1 SH; take 2 semesters)	2 SH

In addition, PhD students in the Community Health Sciences are required to take courses from three specific areas: 1) Theory, 2) Advanced Research Methods, and 3) Advanced Analytic Methods. Choose 6 SH from each of the following course lists for these areas:

Theory Courses (6 SH total)		
Course	**Title**	**Credits**
CHSC 550	Advanced Introduction to Community Health Sciences	3 SH
CHSC 551	Foundations of Public Health Inquiry	3 SH

Advanced Research Methods Courses (6 SH total)		
Course	**Title**	**Credits**
Select **6 SH** from the following courses:*		
CHSC 447	Survey Planning and Design	3 SH
CHSC 577	Survey Questionnaire Design	3 SH
CHSC 594	Advanced Special Topics: Research Synthesis and Meta-Analysis	3 SH
CLJ 560	Quantitative Methods and Design	4 SH
CLJ561	Qualitative Methods and Design	4 SH
ED 501	Data and Interpretation in Educational Inquiry	4 SH
HPA 522	Health Evaluation Methods	3 SH
NUEL 548	Methodological Issues for Cross-Cultural Research	3 SH
NUEL 562	Primary Health Care Research Methods	3 SH
PSCH 533	Advanced Community and Prevention Research	3 SH
PSCH 534	Prevention Research, Theory, and Practice	3 SH
PA 528	Public Program Evaluation	4 SH
PA 540	Research Design for Public Administration	4 SH

PA 581	Cross-Cultural Survey Research Methods	2 SH
PA 582	Survey Data Collection Methods	2 SH
UPP 461	Geographic Information Systems for Planning	4 SH
UPP 588	Research Design and Evaluation	4 SH

Advanced Analytic Methods Courses (6 SH total)		
Course	**Title**	**Credits**
Select **6 SH** from the following courses:*		
CHSC 534	Management and Analysis of Qualitative Data	3 SH
CHSC 549	Advanced Applied Methods in MCH Epidemiology	3 SH
EPID 404	Intermediate Epidemiologic Methods	4 SH
EPID 501	Advanced Quantitative Methods in Epidemiology	4 SH
EPID 518	The Epidemiology of Pediatric Diseases	3 SH
HPA 557	Measurement in Health Services Research	3 SH
PSCH 545	Multivariate Analysis	3 SH
PA 541	Advanced Data Analysis I	4 SH
PA 542	Advanced Data Analysis II	4 SH
PA 588	Survey Data Reduction and Analysis	2 SH
POLS 501	Data Analysis II	4 SH

***Additional Required Courses**
The following courses must be taken if an equivalent course was not completed in the students' master's program:

- BSTT 400 Biostatistics I (4 SH)
- BSTT 401 Biostatistics II (4 SH)
- CHSC 400 Public Health Concepts and Practice (3 SH)
- CHSC 446 Research Methods in Community Health (3 SH)
- CHSC 480 Health Education and Health Promotion (3 SH)
- EPID 403 Introduction to Epidemiology: Principles and Methods (3 SH)

Note: Students in the PhD program in Maternal and Child Health Epidemiology need to discuss these requirements with their advisor.

III. Concentration Electives (minimum of 12 SH)

Select 12 SH in concentration area; at least 9 SH must be 500-level courses. The 595 seminar series may not be counted towards fulfillment of this requirement. Note: Students must complete the number of electives necessary to bring total program hours to a minimum of 96 credit hours.

Note: Students with a master's degree in public health or a related area may receive up to 32 SH of credit towards the 96 SH total. The 32 SH of credit will apply to the required 39-45 elective hours.

Preliminary Examination Requirements
The Preliminary Examination is an important milestone for PhD Students. Successful completion of the prelim indicates that you are ready to work on your dissertation research. The prelim should be taken as soon as possible after the student has completed the required coursework of the program. Students

must complete the degree within 5 years after taking the Preliminary Examination or they must retake the exam.
For more information on CHS policies on the Preliminary Examination, please see the CHS Guide to the PhD Preliminary Examination for PhD Students.

IV. Optional Programs - Maternal and Child Health Epidemiology

Maternal Child Health Epidemiology Core (40-42 SH)		
Course	**Title**	**Credits**
BSTT 505	Logistic Regression and Survival Analysis	2 SH
BSTT 507	Sampling and Estimation Methods Applied to Public Health	3 SH
BSTT 537	Longitudinal Data Analysis	4 SH
EPID 404*	Intermediate Epidemiologic Methods	4 SH
EPID 406	Epidemiologic Computing	3 SH
EPID 501	Advanced Quantitative Methods in Epidemiology	4 SH
CHSC/EPID 518	Epidemiology of Pediatric Diseases	3 SH
CHSC/EPID 548	Readings in Reproductive and Perinatal Epidemiology	2 SH
CHSC/EPID 549	Advanced Applied Methods in MCH Epidemiology	3 SH
CHSC 550	Advanced Introduction to Community Health Sciences	3 SH
CHSC 551	Foundations of Public Health Inquiry	3 SH
CHSC 595	CHSC Doctoral Seminar	1 SH
Select **one** of the following courses:		
EPID 409	The Epidemiology of HIV/AIDS	2 SH
EPID 410	Introduction to Infectious Disease Epidemiology	2 SH
EPID 411	Introduction to Chronic Disease Epidemiology	3 SH
EPID 594	Surveillance	3 SH
Select **one** of the following courses:		
CHSC 510	MCH Outcomes and Measurement	3 SH
CHSC 511	MCH Delivery Systems [**NOTE:** Students taking CHSC 511 must also enroll in a 1 SH field seminar - CHSC 594]	3 SH
CHSC 512	Best Practices in MCH Programs	3 SH
CHSC 543	MCH Policy and Advocacy	3 SH
	Preliminary Examination in MCH Epidemiology**	

Electives MCH Epi - Students must select elective courses in conjunction with their advisor as necessary to reach the minimum of 96 total program hours.

*May be waived if equivalent courses were taken in Master's degree program.

Tier 1 Highly Recommended Electives – Maternal Child Health Epidemiology		
Course	**Title**	**Credits**
One or more of the following electives are highly recommended:		
BSTT 594	Statistical Methods for Spatial Data in Public Health	3 SH
CHSC 434	Introduction to Qualitative Methods in Public Health	3 SH
CHSC 534	Management and Analysis of Qualitative Date	3 SH

CHSC 543	MCH Policy and Advocacy	3 SH
CHSC/EPID 545	Reproductive and Perinatal Health	3 SH
CHSC 577	Survey Questionnaire Design	2 SH
EPID 529	Epidemiology of Sexually Transmitted Infections	3 SH
EPID 594	Social Epidemiology	2 SH
EPSY 512	Hierarchical Linear Modeling	4 SH
HPA 557	Measurement in Health Services Research	3 SH
HPA 564	Geographic Information Systems in Public Health	3 SH
PA 582	Survey Data Collection Methods	2 SH
PA 588	Survey Data Reduction and Analysis	2 SH

Tier 2 Suggested Electives – Maternal Child Health Epidemiology		
Course	**Title**	**Credits**
One or more of the following electives are suggested:		
CLJ 560	Quantitative Methods and Design	4 SH
ED 502	Essentials of Qualitative Inquiry in Education	4 SH
EPID 471	Population I	3 SH
EPID 510	Advanced Epidemiology of Infectious Diseases	2 SH
EPID 520	Genetic Epidemiology	2 SH
NUEL /CHSC 563	Neighborhoods and Health	3 SH
PA 578	Surveys, Public Opinion, and Public Policy	4 SH
PA 581	Cross-Cultural Collection Methods	2 SH
PSCH 538	Thinking and Acting Ecologically in Community Research and Intervention	3 SH
UPP 461	Geographic Information Systems for Planning	4 SH
UPP 543	Planning for Healthy Cities	4 SH

Biological Sciences

Depending on clinical background, one or more of the following courses are strongly encouraged:

- HN 510 Nutrition-Physiological Aspects (3 SH)
- HN 594 Advanced Topics in Community Nutrition (3 SH)
- NUSP 548 Biological Basis for Women's Health & Perinatal I (2 SH)
- NUSP 549 Biological Basis for Women's Health & Perinatal II (1-2 SH)

Preliminary Examination in MCH Epidemiology**

The MCH-Epi preliminary exam will include a written and oral exam including a 4 hour in-class methods exam, a 10 day take home data analysis, and either in-class or take home questions covering two substantive areas within MCH as determined by the student's examination committee. Ideally, the preliminary exam is taken after all course work has been completed, but it may be taken earlier with consent of the academic advisor.

Students in the Maternal and Child Health Epidemiology program should adhere to all other guidelines for the PhD degree, in addition to school-wide PhD degree information.

ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES - PHD

Note: EOHS courses and curricula are being revised during academic year 2013-14. Students should meet with their adviser to make sure they are aware of the changes and plan their programs appropriately.

The PhD in Environmental and Occupational Health Sciences program requires a minimum of 96 semester hours (SH). This program includes the following course requirements:

I. School-Wide Core Requirements (43 SH)

Course	Title	Credits
BSTT 400*	Biostatistics I	4 SH
BSTT 401*	Biostatistics II	4 SH
EPID 403*	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 599	PhD Dissertation Research	min. 32 SH
Required Non-Credit Training: http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/education/index.shtml		
HIPAA Research Training		Non-credit
Investigator Training 101		Non-credit

*If not previously taken at the masters level

II. Divisional Core Requirements (16 SH)

Course	Title	Credits
EOHS 557	Design and Analysis of Experiments*	4 SH
Students should select **one** of the following courses as a substitute for EOHS 557.*		
BSTT 537	Longitudinal Data Analysis	4 SH
CLJ 561	Qualitative Methods and Design	4 SH
DHD 546	Qualitative Methods in Disability Research	4 SH
IE 442	Design and Analysis of Experiments in Engineering	4 SH
NUEL 544	Qualitative Research in Nursing	4 SH
PSCH 531	Community Research	3 SH

*EOHS 557 is no longer offered and as such, students should work with their faculty advisor to select a suitable substitute, examples of approved courses are outlined above. Please note that department approval may be required prior to enrollment.

In addition, all students are required to take a minimum of 12 semester hours in EOHS courses; choosing at least one course from each of the following three areas:

1. Exposure Assessment and Measurement		
Course	**Title**	**Credits**
Select **at least one** of the following courses:		
EOHS 405	Environmental Calculations	2 SH

EOHS 418	Analysis of Water and Wastewater Quality	2 SH
EOHS 421	Fundamentals of Industrial Hygiene	2 SH
EOHS 428	Industrial Hygiene Laboratory I	2 SH
EOHS 432	Air Quality Assessment and Management	4 SH
EOHS 440	Chemistry for Environmental Professionals	3 SH
EOHS 542	Water Chemistry	4 SH
EOHS 543	Environmental Organic Chemistry	4 SH
EOHS 564	Geographic Information System Application in Public Health	3 SH
EOHS 565	Datamining Applications in Public Health	3 SH

2. Health Assessment		
Course	**Title**	**Credits**
Select **at least one** of the following courses:		
EOHS 455	Environmental and Occupational Toxicology	3 SH
EOHS 495	Environmental/Occupational Health Seminar	1 SH
EOHS 555	Advanced Toxicology	3 SH
EOHS 571	Injury Epidemiology	3 SH

3. Intervention Strategies		
Course	**Title**	**Credits**
Select **at least one** of the following courses:		
EOHS 408	Biological, Chemical, Explosives, and Nuclear Weapons as Public Health Threats	3 SH
EOHS 411	Water Quality Management	4 SH
EOHS 461	Community Health and Consumer Protection	2 SH
EOHS 463	Safety Management Systems	2 SH
EOHS 556	Risk Assessment in Environmental and Occupational Health	3 SH
EOHS 572	Environmental Risk Assessment and Management	4 SH

III. Electives (5 SH)**

Students must complete a minimum of 9 SH in formal 500 series courses in major area of concentration (not necessarily in one division). Students must also complete 6 SH in a collateral area. Note: The 595 seminar series may not be counted towards fulfillment of this requirement.

**Students with a master's degree in public health or a related area may receive up to 32 SH of credit towards the 96 SH total. The 32 SH of credit will apply to the required 37 elective hours.

***As part of their academic training, students are strongly encouraged to enroll in at least four semesters of EOHS 595: PhD Seminar in EOHS prior to graduation from the program. This seminar, which will be offered during the Fall and Spring semesters, is designed to offer students with additional training that is not sufficiently covered and is of relevance to Doctoral students. Students should solicit the input of their advisor.

IV. Optional Concentrations - Occupational and Environmental Epidemiology Concentration in EOHS (115-117 SH)***

Students must complete the School-Wide Core Requirements above and 40 - 42 semester credit hours of the following courses as part of their divisional and elective choices. In addition, students must adhere to the divisional requirements as stipulated for their individual program of study.

Course	**Title**	**Credits**
BSTT 505	Logistic Regression and Survival Analysis	2 SH
EOHS 421	Fundamentals of Industrial Hygiene	2 SH
EPID 404	Intermediate Epidemiologic Methods	4 SH
EPID 406	Epidemiologic Computing	3 SH
EPID 501	Advanced Quantitative Methods in Epidemiology	4 SH
EPID/EOHS 530	Current Topics in Occupational & Environmental Epidemiology	2 SH
EPID/EOHS 535	Applied Methods in Occupational Epidemiology	2 SH
EPID/EOHS 536	Applied Methods in Environmental Epidemiology	2 SH
EOHS 551	Occupational and Environmental Diseases	4 SH
EOHS 556	Risk Assessment in Environmental and Occupational Health	3 SH
EOHS 563	Occupational Safety and Health Management Systems	3 SH
EPID/EOHS 571	Injury Epidemiology and Prevention	3 SH
Select **one** of the following courses:		
EPID 410	Epidemiology of Infectious Diseases	2 SH
EPID 411	Epidemiology of Chronic Diseases	3 SH
Select **one** of the following courses:		
EOHS/HPA 564	Geographic Information System Application in Public Health	3 SH
UPP 461	Geographic Information Systems for Planning	4 SH
Select **one** of the following:		
EPID 595	Epidemiology Research Seminar	1 SH
EOHS 595	PhD Seminar I EOHS	1 to 2 SH
Recommended Electives:		
EOHS 405	Environmental Calculations	2 SH
EOHS 411	Water Quality Management	4 SH
EOHS 432	Air Quality Assessment and Management	4 SH
EOHS 455	Environmental and Occupational Toxicology	3 SH
EOHS/HPA 565	Datamining Applications in Public Health	3 SH
EOHS 557	Design and Analysis of Experiments	4 SH
Credit from Previous Master's Degree in Public Health or Related Area		32 SH
Total Credit Hours Including School-Wide Core Requirements**		**115-117**

***It is expected that some of the required courses shown above will be waived based on previous course work completed and the total number of semester hours will be less than shown here. However, a minimum of 96 SH will be required of all students in the PhD program.

EPIDEMIOLOGY – PHD

The PhD in Epidemiology program requires a minimum of 96 semester hours (SH). This program includes the following course requirements:

I. School-Wide Core Requirements (43 SH)

Course	Title	Credits
BSTT 400*	Biostatistics I	4 SH
BSTT 401*	Biostatistics II	4 SH
EPID 403*	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 599	PhD Dissertation Research	min. 32 SH
Required Non-Credit Training: http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/education/index.shtml		
HIPAA Research Training		Non-credit
Investigator Training 101		Non-credit

*If not previously taken at the masters level

II. Divisional Core Requirements (24 SH)

Course	Title	Credits
BSTT 505	Logistic Regression and Survival Analysis	2 SH
EPID 404	Intermediate Epidemiologic Methods	4 SH
EPID 406	Epidemiologic Computing	3 SH
EPID 410	Epidemiology of Infectious Diseases	2 SH
EPID 411	Epidemiology of Chronic Disease	3 SH
EPID 501	Advanced Quantitative Methods in Epidemiology	4 SH
EPID 591	Current Epidemiologic Literature	2 SH
EPID 595	Epidemiology Research Seminar	1 SH
Select **one** of the following (not required for Cancer Epidemiology concentration) courses:		
BSTT 506	Design of Clinical Trials	3 SH
BSTT 507	Sampling and Estimation Methods Applied to Public Health	3 SH

Note: Students in the PhD program in Maternal and Child Health Epidemiology need to discuss these requirements with their advisor.

III. Electives (minimum of 29 SH)*

- Two 500-level substantive Epidemiology classes, in different areas, to prepare for substantive sections of preliminary examination (e.g. Cardiovascular, Cancer, Aging, Infectious, Pediatrics, Genetics) (4-6 SH)

- At least one biological science class relevant to student's research area is required if no prior biological sciences background (4 SH)
- Additional coursework in relevant area outside of Epidemiology and approved by your advisor (e.g. Biostatistics, Nutrition, Maternal and Child Health, Environmental Sciences, Sociology) (6 SH)
- Remaining electives (13-15 SH)

Note: Students must complete the number of electives necessary to bring total program hours to a minimum of 96 credit hours.

*Students with a master's degree in public health or a related area may receive up to 32 SH of credit towards the 96 SH total.

IV. Optional Concentrations

A. Occupational and Environmental Epidemiology Concentration in Epidemiology (115-117 SH)**

Students must complete the School-Wide Core Requirements above and 40-42 semester credit hours of the following courses as part of their divisional and elective choices. In addition, students must adhere to the divisional requirements as stipulated for their individual program of study.

Course	Title	Credits
BSTT 505	Logistic Regression and Survival Analysis	2 SH
EOHS 421	Fundamentals of Industrial Hygiene	2 SH
EPID 404	Intermediate Epidemiologic Methods	4 SH
EPID 406	Epidemiologic Computing	3 SH
EPID 501	Advanced Quantitative Methods in Epidemiology	4 SH
EPID/EOHS 530	Current Topics in Occupational & Environmental Epidemiology	2 SH
EPID/EOHS 535	Applied Methods in Occupational Epidemiology	2 SH
EPID/EOHS 536	Applied Methods in Environmental Epidemiology	2 SH
EOHS 551	Occupational Diseases	4 SH
EOHS 556	Risk Assessment in Environmental and Occupational Health	3 SH
EOHS 563	Occupational Safety and Health Management Systems	3 SH
EPID/EOHS 571	Injury Epidemiology and Prevention	3 SH
EPID 595	Epidemiology Research Seminar	1 SH
Select **one** of the following courses:		
EPID 410	Epidemiology of Infectious Diseases	2 SH
EPID 411	Epidemiology of Chronic Diseases	3 SH
Select **one** of the following courses:		
EOHS/HPA 564	Geographical Information Systems in PH	3 SH
UPP 461	Geographical Information Systems for Planning	4 SH
Recommended Electives:		
EOHS 405	Environmental Calculations	2 SH
EOHS 411	Water Quality Management	4 SH
EOHS 432	Air Quality Assessment and Management	4 SH
EOHS 455	Environmental and Occupational Toxicology	3 SH

EOHS/HPA 565	Datamining Applications in Public Health	3 SH
EOHS 557	Design and Analysis of Experiments	4 SH
Credit from Previous Master's Degree in Public Health or Related Area		32 SH
Total Credit Hours Including School-Wide Core Requirements**		**115-117**

**It is expected that some of the required courses shown above will be waived based on previous course work completed and the total number of semester hours will be less than shown here. However, a minimum of 96 SH will be required of all students in the PhD program.

B. Cancer Epidemiology (98 SH)

Students must complete the School-Wide and division core requirements above along with 18 semester credit hours of the following courses:

Cancer Epidemiology Core (18 SH)		
Course	**Title**	**Credits**
EPID 515	Survey of Cancer Epidemiology	3 SH
EPID 516	Advanced Cancer Epidemiology	2 SH
EPID 520	Genetics in Epidemiology	2 SH
EPID 554	Occupational and Environmental Epidemiology	2 SH
EPID 594	Special Topics: Social Epidemiology	3 SH
EPID 594	Special Topics: Surveillance Epidemiology	3 SH
CHSC 514 or HN 594*	Nutritional Epidemiology or Special Topics in Human Nutrition	3 SH

*With permission of the division, students may substitute HN 532: Evaluation of Nutritional Status (3 SH) and submit a waiver request to apply the credit.

Electives Cancer Epidemiology Concentration (minimum 16 SH)

- Students must take a minimum of 16 credits of electives.
- At least one biological science class (4 SH) relevant to student's research area is required if no prior biological sciences background

V. Optional Programs - Maternal and Child Health Epidemiology

Students in the Maternal and Child Health Epidemiology program should adhere to all other guidelines for the Epidemiology PhD degree, in addition to school-wide PhD degree information.

Maternal Child Health Epidemiology Core (37-39 SH)		
Course	**Title**	**Credits**
BSTT 505	Logistic Regression and Survival Analysis	2 SH
BSTT 507	Sampling and Estimation Methods Applied to Public Health	3 SH
BSTT 537	Longitudinal Data Analysis	4 SH
EPID 404*	Intermediate Epidemiologic Methods	4 SH
EPID 406	Epidemiologic Computing	3 SH
EPID 501	Advanced Quantitative Methods in Epidemiology	4 SH
CHSC/EPID 518	Epidemiology of Pediatric Diseases	3 SH
CHSC/EPID 548	Readings in Reproductive and Perinatal Epidemiology	2 SH
CHSC/EPID 549	Advanced Applied Methods in MCH Epidemiology	3 SH

CHSC 551	Foundations of Public Health Inquiry	3 SH
CHSC 595	CHSC Doctoral Seminar	1 SH
Select **one** of the following courses:		
EPID 409	The Epidemiology of HIV/AIDS	2 SH
EPID 410	Introduction to Infectious Disease Epidemiology	2 SH
EPID 411	Introduction to Chronic Disease Epidemiology	3 SH
EPID 594	Surveillance	3 SH
Select **one** of the following courses:		
CHSC 510	MCH Outcomes and Measurement	3 SH
CHSC 511	MCH Delivery Systems [**NOTE:** Students taking CHSC 511 must also enroll in a 1 SH field seminar - CHSC 594]	3 SH
CHSC 512	Best Practices is MCH Programs	3 SH
CHSC 543	MCH Policy and Advocacy	3 SH
	Preliminary Examination in MCH Epidemiology**	

Electives MCH Epi - Students must select elective courses in conjunction with their advisor as necessary to reach the minimum of 96 total program hours.

*May be waived if equivalent course was taken in a Master's degree program.

Tier 1 Highly Recommended Electives – Maternal Child Health Epidemiology		
Course	**Title**	**Credits**
One or more of the following electives are highly recommended:		
BSTT 594	Statistical Methods for Spatial Data in Public Health	3 SH
CHSC 434	Introduction to Qualitative Methods in Public Health	3 SH
CHSC 534	Management and Analysis of Qualitative Date	3 SH
CHSC 543	MCH Policy and Advocacy	3 SH
CHSC/EPID 545	Reproductive and Perinatal Health	3 SH
CHSC 577	Survey Questionnaire Design	2 SH
EPID 529	Epidemiology of Sexually Transmitted Infections	3 SH
EPID 594	Social Epidemiology	2 SH
EPSY 512	Hierarchical Linear Modeling	4 SH
HPA 557	Measurement in Health Services Research	3 SH
HPA 564	Geographic Information Systems in Public Health	3 SH
PA 582	Survey Data Collection Methods	2 SH
PA 588	Survey Data Reduction and Analysis	2 SH

Tier 2 Suggested Electives – Maternal Child Health Epidemiology		
Course	**Title**	**Credits**
One or more of the following electives are suggested:		
CLJ 560	Quantitative Methods and Design	4 SH
ED 502	Essentials of Qualitative Inquiry in Education	4 SH
EPID 471	Population I	3 SH
EPID 510	Advanced Epidemiology of Infectious Diseases	2 SH
EPID 520	Genetic Epidemiology	2 SH

NUEL /CHSC 563	Neighborhoods and Health	3 SH
PA 578	Surveys, Public Opinion, and Public Policy	4 SH
PA 581	Cross-Cultural Collection Methods	2 SH
PSCH 538	Thinking and Acting Ecologically in Community Research and Intervention	3 SH
UPP 543	Planning for Healthy Cities	4 SH

Biological Sciences

Depending on clinical background, one or more of the following courses are strongly encouraged:

- HN 510 Nutrition-Physiological Aspects (3 SH)
- HN 594 Advanced Topics in Community Nutrition (3 SH)
- NUSP 548 Biological Basis for Women's Health & Perinatal I (2 SH)
- NUSP 549 Biological Basis for Women's Health & Perinatal II (1-2 SH)

Preliminary Examination in MCH Epidemiology**

The MCH-Epi preliminary exam will include a written and oral exam including a 4 hour in-class methods exam, a 10 day take home data analysis, and either in-class or take home questions covering two substantive areas within MCH as determined by the student's examination committee. Ideally, the preliminary exam is taken after all course work has been completed, but it may be taken earlier with consent of the academic advisor.

Performance Standards

In addition to school-wide standards, no grade below "B" is acceptable in any Epidemiology or Biostatistics required course. If a grade below "B" is achieved in such a course, it may be repeated once. Failure to maintain this standard will be grounds for dismissal from the Epidemiology Program.

HEALTH POLICY AND ADMINISTRATION – PHD

The PhD in Health Policy and Administration (HPA) program requires a minimum of 96 semester hours (SH). This program includes the following course requirements:

I. School-Wide Core Requirements (43 SH)

Course	Title	Credits
BSTT 400*	Biostatistics I	4 SH
BSTT 401*	Biostatistics II	4 SH
EPID 403*	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 599	PhD Dissertation Research	min. 32 SH
Required Non-Credit Training: http://tigger.uic.edu/depts/ovcr/research/protocolreview/irb/education/index.shtml		
HIPAA Research Training		Non-credit
Investigator Training 101		Non-credit

*If not previously taken at the masters level

II. Divisional Core Requirements (9-15 SH)

Students must complete a minimum of 9 SH in formal 500 series courses in major area of concentration (not necessarily in one division). If required by the chosen division, students must also complete 6 SH in a collateral area.

Note: IPHS 594 cannot be counted towards fulfillment of this requirement.

III. Electives (6-12 SH)*

All students must complete a minimum of 38-44 SH in various seminars and electives.

*Students with a master's degree in a relevant research area may receive up to 32 SH of credit towards the 96 SH total. The 32 SH of credit will apply to the required 38-44 elective hours.

PhD students can choose to follow one of the several PhD tracks in HPA. For more detailed information regarding the track requirements, please contact your academic advisor. A minimum of 21 semester hours of course work relevant to the disciplinary area of Health Policy and Administration must be taken in consultation with the faculty advisor.

JOINT DEGREE PROGRAM INFORMATION

The School of Public Health participates in a joint MD/PhD with the College of Medicine.

Joint Degree	Availability of Joint Degree Programs by Division				
	CHS	EOHS	Epi	Bio	HPA
MD/PhD			X	X	

MD/PHD

Our society has a need for physicians who are accomplished population-based researchers as well as competent clinicians - individuals whose skills can bring the powers of epidemiology and biostatistics to bear on the problems of clinical medicine that have both individual and community effects. MD/PhD training in epidemiology and/or biostatistics provides an extended period of study in the etiologic and methodologic approaches of population-based health research in concert with complete medical school education. Application is normally made at the time of application to the College of Medicine; however, applicants will also be considered during their first two years of medical training. Students must apply to the MD/PhD Training Program and to the College of Medicine, and indicate in their application that they are interested in a PhD in epidemiology or biostatistics. Criteria for admission to the program include academic excellence, prior research experience, potential for independent and creative research, and commitment to a career in academic medicine. Students receive a stipend throughout their years of study. Students interested in further information may contact Babette Neuberger, Associate Dean for Academic Affairs, SPH, phone: (312) 996-5381, e-mail: bjn@uic.edu; or the MD/PhD Training Program: Dr. Larry Tobacman, Director, phone: (312) 413-1010, e-mail: lst@uic.edu; Roberta Bernstein, Assistant Director, phone: (312) 996-7473, e-mail: roberta@uic.edu.

INTERDEPARTMENTAL CONCENTRATIONS

The School of Public Health offers four Interdepartmental Concentrations for doctoral students to participate in.

Interdepartmental Concentration	Availability of Interdepartmental Concentration by Division				
	CHS	EOHS	Epi	Bio	HPA
Gender and Women's Studies	x	x	x	x	x
Survey Research	x	x	x	x	x
Violence Studies	x	x	x	x	x
Women's Health	x	x	x	x	x

GENDER AND WOMEN'S STUDIES CONCENTRATION

The School of Public Health is a participating department in the graduate concentration in Gender and Women's Studies offered by the Gender and Women's Studies Program at the University of Illinois at Chicago. Once admitted to SPH, students may apply to the GWS Program for admission to the concentration.

Experiencing GWS courses will allow students to critically examine issues of women and gender, as well as their complex intersections with race, class, ethnicity, and sexual identity; providing a rich, interdisciplinary focus.

For additional details about the program visit:
http://www.uic.edu/depts/wsweb/academics/graduate.html.

Contact Information
For further information about the concentration in Gender and Women's Studies please contact:

John D'Emilio, PhD
Director of Graduate Studies, Department of Gender and Women's Studies
(312) 996-2502
demilioj@uic.edu

SURVEY RESEARCH METHODOLOGY CONCENTRATION

The Interdepartmental Graduate Concentration in Survey Research Methodology, for master's and doctoral students, provides graduate students with state-of-the-art knowledge and skills in scientifically-grounded survey research methodologies. Graduate students electing the Interdepartmental Graduate Concentration in Survey Research Methodology receive the master's or PhD after having fulfilled the requirements of the Graduate College, their major academic units, and the Interdepartmental Graduate Concentration in Survey Research Methodology.

Students must complete a minimum of 14 semester hours, consisting of at least 7 SH of approved core courses and electives. No more than 3 SH of independent study may be used toward satisfying the concentration.

Core Courses (minimum of 7 SH)
Students must complete three of the six courses listed below. (NOTE: If a student elects to complete both BSTT 440 and STAT 431, only one of those courses may be counted toward fulfilling the core course requirement):

Course	Title	Credits
CHSC 447	Survey Planning and Design	3 SH
CHSC 577	Survey Questionnaire Design	3 SH
BSTT 440	Sampling & Estimation Methods Applied to Public Health	3 SH
STAT 431	Introduction to Survey Sampling	4 SH
PA 588	Survey Data Reduction and Analysis	2 SH
PA 579	Practicum in Survey Research	2 SH

Elective Courses
Students must complete elective courses from the list below sufficient to complete 14 SH of total required coursework. (Elective courses may include courses from the list of core courses if those courses are not used to complete the core requirement.) No more than one independent study course (1 to 3 SH) may be used as an elective.

Course	Title	Credits
POLS 467	Public Opinion and Political Communication	4 SH
PA 580	Survey Nonresponse	2 SH
PA 578	Polling, Public Opinion and Public Policy	4 SH
PA 581	Cross-Cultural Survey Measurement	2 SH
PA 582	Survey Data Collection Methods	2 SH
PA 583	Psychology of Survey Measurement: Cognitive and Social Processes	2 SH
PA 584	Internet Surveys	2 SH
PA 585	Survey Research Ethics	2 SH
PA 586	History of Survey Research	2 SH
STAT 531	Sampling Theory I	4 SH
STAT 532	Sampling Theory II	4 SH

Course Substitutions
Students may substitute another course with permission of their graduate degree academic advisor and the Director(s) of the Survey Research Methodology Concentration. In general, no more than one course or independent study course (1 to 3 SH) may be substituted. However, under special circumstances, a student may petition for approval of additional courses.

Election of the Concentration
Students must be admitted or enrolled as a regular graduate student in a master's or doctoral degree program in one of the participating academic units listed at the concentration web site. Students must prepare a proposed schedule of coursework that fulfills the Interdepartmental Graduate Concentration in Survey Research Methodology requirements. The proposal must be signed by the student and his/her academic advisor. The signed proposal must be submitted to the Director(s) of the Survey Research Methodology Concentration. Concentration Director(s) will notify the student and academic advisor of the student's acceptance into the Concentration and whether the proposed coursework is approved.

Contact Information
For further information about the concentration in Survey Research Methodology please contact:

Allyson Holbrook, PhD
Associate Professor, Public Administration
312-996-0471
allyson@uic.edu

Frederick Kviz, PhD
Professor of Community Health Sciences
(312) 996-4889
fkviz@uic.edu

Also, visit the Interdepartmental Graduate Concentration in Survey Research Methodology at http://www.srl.uic.edu/gcsrm.htm.

VIOLENCE STUDIES

The School of Public Health is a participating department in the graduate concentration in Violence Studies offered in collaboration with the Departments of Criminology, Law, and Justice, Psychology, and Political Science as well as the Gender and Women's Studies Program and the Jane Addams College of Social Work. The concentration is administered jointly through the Department of Criminology, Law, and Justice and the College of Social Work.

Composed of courses from multiple disciplines, this concentration provides students with a holistic view of the problem of violence in society and deepens their knowledge and skill set to address it. This concentration aims to produce broadly trained individuals who can apply theories and methods from multidisciplinary perspectives to critically analyze and effectively respond to various types of violence in society through innovative programs of research, policy development, treatment, and prevention. The concentration requires a minimum of 11 semester hours (4 courses) with two courses selected from a list of foundational courses and then two additional supplementary courses.

For additional details about the program including the required course work, review the Graduate Catalog description at http://www.uic.edu/gcat/SWVIOS.shtml.

Contact Information
For further information about the concentration in Violence Studies please contact:

Patricia O'Brien, PhD
Associate Professor, Jane Addams College of Social Work
(312) 996-2203
pob@uic.edu

WOMEN'S HEALTH CONCENTRATION

The Interdepartmental Graduate Concentration in Women's Health is co-sponsored by the UIC College of Nursing, the School of Public Health, and the Gender and Women's Studies program. The Concentration is housed within the College of Nursing.

This Concentration encompasses the multidisciplinary of Women's Health and provides training in the foundations of Women's Health through its structure and content. The Core courses provide a broad overview of the field and issues within Women's Health, and they address the need for a conceptual and applied background in Women's Health. The elective allows a student to pursue an issue or area of professional interest in Women's Health. The multidisciplinary requirement in this Concentration ensures that a student has significant exposure to a paradigm other than the dominant paradigms used within their own school or department.

This concentration is an elective concentration for graduate students, consisting of core and elective courses across several academic units. The Concentration curriculum can be completed without the need to change existing graduate college or departmental academic requirements. In the case of certain academic units, however, students may need to complete additional hours beyond the minimum required for a masters or a doctoral degree within their home school, college or department.

The Interdepartmental concentration in Women's Health requires 12 semester hours (SH) and is designed for completion in as little as four semesters by completing one course each semester. Students must complete at least 6 SH outside of their home area and take one core course from three separate areas: 1) Introductory Women's Health, 2) Women's Health Specific Issues, and 3) Theory/Methods.

For a complete description of the concentration, including its target audience, course requirements, and designated and affiliated faculty see the College of Nursing website at: http://www.uic.edu/nursing/prospectivestudents/womens_health_concentration.shtml.

Contact Information
For further information about the concentration in Women's Health please contact:

Carrie Klima, CNM, PhD
Concentration Director and Clinical Associate Professor of Nursing
(312) 996-1863
cklima@uic.edu

CHICAGO METROPOLITAN EXCHANGE PROGRAM (CMEP)

The Chicago Metropolitan Exchange Program (CMEP) allows UIC doctoral students to access courses at the University of Chicago and Northwestern University. Courses taken through the CMEP should be relevant to the student's program and not offered at UIC. Students will be billed for courses taken through the CMEP at their home campus at its usual rate. Please note that UIC students who would like to take courses at the University of Illinois at Urbana-Champaign or the University of Illinois at Springfield may do so as a concurrent registrant through the UIC Registrar's Office, and would not be part of this program.

More information about the CMEP is available on the Graduate College website at: http://grad.uic.edu/cms/?pid=1000979.

PHD DEGREE COMPETENCIES

PhD degree students are prepared to assume academic or research careers in a basic or applied science related to public health or careers in public health practice within both the public and private sectors. In general, the PhD graduate will be able to:

- Demonstrate an in-depth knowledge and understanding of issues in his/her substantive interest area in the biological, physical or behavioral/social sciences related to public health.
- Display a high degree of mastery in appropriate theories, analytical skills, research design and methodology in the biological, physical or behavioral/social sciences related to public health.
- Identify knowledge gaps in the selected field, synthesize relevant information, and formulate focused research questions to address these gaps.
- Design and conduct original research that contributes to the knowledge in his/her selected field.
- Incorporate knowledge of cultural, social, behavioral and biological factors in formulating research questions, and design and implement research.
- Communicate effectively and clearly both orally and in writing, and present public health issues and research findings in his/her area of expertise to peers, students and the general public.
- Demonstrate teaching skills in working with students and other professionals in academic, research or practice settings.

BIOSTATISTICS: PHD COMPETENCIES

The PhD student in Biostatistics should attain skills in the practice of biostatistics for research and teaching in academic, government, and industry settings.

In addition to competencies for MS students in biostatistics, the PhD graduate in Biostatistics will be able to:

1. Contribute to the development of the biostatistical discipline.
2. Apply advanced methodology for various data structures and problems, and interpret results appropriately.
3. Contribute effectively to interdisciplinary research.
4. Communicate biostatistical concepts effectively.

COMMUNITY HEALTH SCIENCES: PHD COMPETENCIES

PhD degree students are prepared to assume academic or research careers in a basic or applied science related to public health or careers in public health practice within both the public and private sectors.

In general, the PhD graduate will be able to:

1. Demonstrate an in-depth knowledge and understanding of issues in his/her substantive interest area in the biological, physical or behavioral/social sciences related to public health.
2. Demonstrate a high degree of mastery in appropriate theories, analytical skills, research design and methodology in the biological, physical or behavioral/social sciences related to public health.
3. Identify knowledge gaps in the selected field, synthesize relevant information, and formulate focused research questions to address these gaps.
4. Design and conduct original research that contributes to the knowledge in his/her selected field.
5. Incorporate knowledge of cultural, social, behavioral and biological factors in

formulating research questions, and design and implement original research.
6. Communicate effectively and clearly both orally and in writing, and present public health issues and research findings in his/her area of expertise to peers, students, and the general public.
7. Demonstrate the ability to conceptualize and engage in interdisciplinary collaborations.

ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES: PHD COMPETENCIES

In addition to the school-wide competencies for the PhD student and the competencies for MS students in EOHS*, the PhD graduate in EOHS will be able to:

1. Design and conduct original research that leads to new contributions to the field, demonstrating mastery in specialized areas of the field. The student will be able to:
   a) Evaluate existing facts, methods, theories and ideas, and identify critical knowledge gaps;
   b) Formulate research questions, hypotheses and/or objectives to advance the field;
   c) Develop a research proposal that includes a scientific rationale, appropriate methods and a research timeline
   d) Articulate the role of budget and regulatory requirements in the design and implementation of research
   e) Draw inferences and interpret results with reference to the work of others
   f) Compose scientific papers of publishable quality

2. Demonstrate intellectual attributes consistent with successful scientific careers, including:
   a) Knowledge and inter-relationships of fundamental concepts and methods of EOHS
   b) Specialized knowledge and application of that knowledge in an area of EOHS
   c) Ability to describe how scientific research contributes to the advancement of environmental and occupational health in the realms of practice and policy
3. Demonstrate professional attributes consistent with successful scientific careers, including:
   a) Leadership
   b) Collaboration
   c) Critique of the work of others and of self
   d) Engagement in the scientific community
4. Teach at college or graduate level

EPIDEMIOLOGY: PHD COMPETENCIES

In addition to the school-wide learning objectives for the PhD student and the learning objectives for MS students in epidemiology, the PhD student in epidemiology should attain skills specifically for the practice of epidemiology in research, teaching and practical settings.

Demonstrate the ability to:

- Critically appraise epidemiologic literature
- Summarize the current state of knowledge and develop hypotheses that may lead to new discoveries in a particular area of epidemiology
- Identify approaches to developing and evaluating theories about the determinants of health and disease patterns in populations
- Generate original ideas, data, and analyses of a quality that will influence public health practice or

epidemiological science
- Choose among the various study design alternatives used in the evaluation of causal theories or public health programs in epidemiology
- Choose among various data analysis methods in epidemiology
- Design a study and write a scientific proposal
- Communicate original ideas and findings orally and in writing at a level effective for diverse audiences including attendees at professional meetings, readers of research journals and laypersons
- Define the central role of causation in Epidemiologic study, including knowledge of various definitions and concepts of causation

CANCER EPIDEMIOLOGY: PHD COMPETENCIES

In addition to meeting the Epidemiology PhD competencies, students concentrating in Cancer Epidemiology will be able to:

- Describe and characterize the major known determinants of cancer.
- Describe, locate, analyze and interpret existing data relevant to cancer.
- Understand the strengths and weaknesses of alternative epidemiologic study designs in the context of cancer research.
- Work within a multidisciplinary team to study behavioral, environmental, infectious, nutritional and/or genetic factors involved in cancer etiology.
- Design, conduct and analyze epidemiologic studies testing hypotheses relevant for cancer.

HEALTH POLICY AND ADMINISTRATION: PHD COMPETENCIES

For students pursuing the PhD, HPA offers a number of different opportunities. There is a general research opportunity, with students pursuing a wide range of individually tailored curricula. For those students, the competencies are the same as the school-wide PhD competencies.

In addition to the school-wide competencies, HPA PhD students who focus their work on research in **public health informatics** are expected to be able to:
- Demonstrate knowledge of methods in information systems planning, analysis, development, implementation and evaluation.
- Select and apply the appropriate advanced statistical, qualitative and survey research methods to answering questions in public health informatics.
- Demonstrate the ability to use geographic information systems, data mining techniques and web-application development to develop effective public health surveillance systems.
- Apply public health science theories, principles and methods when developing and implementing information systems

In addition to the school-wide competencies, HPA PhD students who focus their work in **health services research** are expected to be able to do the following:
- Demonstrate knowledge of the underlying relevant theoretical frameworks for studying health, health services and health policy
- Demonstrate knowledge of the evolution, structure and functioning of the U.S. health system.
- Identify and analyze the relevant literature on what is known and what are the frontiers of knowledge in their area of interest.

- Select, defend and implement an appropriate study design, with attention to the reliability and validity of results.
- Recognize the need for and employ specialized techniques (e.g., measurement theory or qualitative analysis) if appropriate.
- Analyze their data and draw appropriate conclusions and identify important implications suggested by their data.
- Demonstrate professional competence in teaching, communication and grant writing.

INTERDEPARTMENTAL COMPETENCIES

MATERNAL AND CHILD HEALTH EPIDEMIOLOGY: PHD COMPETENCIES

The following competencies apply for students electing the Maternal Child Health Epidemiology program:

SURVEILLANCE & ASSESSMENT

Students will be able to:

- Identify the major domestic and international causes of mortality and morbidity within MCH populations, including differences between the U.S. and other developed and less developed countries.
- Describe the normal patterns of individual and family growth and development from an intergenerational and lifespan perspective.
- Apply understanding of human and environmental biology and behavioral sciences principles to determine potential biological mechanisms underlying maternal and child health status outcomes.
- Describe MCH problems in terms of time, magnitude/severity, scope, dispersion/location, and co-occurrence/co-morbidity.
- Describe populations by age, race/ethnicity, culture, and other societal factors of relevance to the MCH population.
- Identify environmental, social, and cultural factors that affect the health of women, children, and families in the community.
- Identify different types of surveillance methods for specific MCH public health problems.
- Identify and evaluate the sources, quality, and limitations of surveillance data for MCH health problems.
- Design data collection instruments when current data sources are not available to answer question of interest in maternal and child health.
- Assess the adequacy of the data elements to be collected or reported in an MCH surveillance system.
- Design a community-based MCH health status assessment and synthesize key findings from primary and secondary data to decide on MCH public health priorities to be addressed.
- Document the community health care delivery system in relation to the health needs of the MCH population.

STUDY DESIGN AND IMPLEMENTATION OF STUDIES

Students will be able to:

- Describe principles and key features of community assessment, program design, implementation, and evaluation.
- Use principles of research design, sampling, basic descriptive and inferential statistics, validity and reliability in the development and conduct of studies.
- Identify the strengths and limitations of qualitative and quantitative methods.

- Describe data collection strategies and their strengths and limitations, including surveys, focus groups, and record-based information.
- Formulate hypotheses or research questions, and develop and implement an analytic strategy.
- Identify key variables including environmental, psychosocial, and biological factors that are routinely considered in reproductive, perinatal and pediatric epidemiology analyses.
- Describe the key theories underpinning studies of reproductive, perinatal and pediatric health outcomes (e.g., weathering hypothesis, life-course approach).
- Identify knowledge gaps in reproductive, perinatal and pediatric epidemiology, synthesize relevant information, formulate focused research questions, and conduct analysis to address these gaps.
- Outline key methodological issues in the study of reproductive, perinatal and pediatric outcomes and approaches to successfully address these issues.
- Describe major epidemiologic study designs to be used to investigate maternal and child health problems, including the strengths, weaknesses and best uses of each.
- Describe the relationship between epidemiologic study designs and other study design types (e.g., experimental and quasi-experimental designs) and know when various design types are appropriate for various types of investigations (e.g., evaluations, etiologic studies).
- Design investigations (e.g., evaluations, etiologic studies) including the identification of target populations, determining which groups are to be included in the study (exposed versus unexposed, cases versus controls), evaluating possible sources of bias/confounding and developing ways to minimize bias confounding.
- Identify the scientific underpinnings and determine the validity of evidence for interventions addressing MCH problems.
- Develop mechanisms to monitor and evaluate programs and service networks for their effectiveness and quality, including the use of performance measures.

DATA ANALYSIS AND INTERPRETATION

Students will be able to:

- Prepare and interpret data from vital statistics, the U.S. census, complex and simple surveys, service utilization, and other relevant reports on the health of MCH populations, and have the ability to detect meaningful influences from data and the translation of data into information.
- Extract data from primary and secondary sources; use basic statistical and graphics software, including programs such as Excel, EPI-info, SPSS, and SAS for data management, analysis, and linkage of data sets.
- Describe analysis issues and limitations of key MCH datasets.
- Develop a conceptual and statistical analysis plan appropriate to answer questions under investigation.
- Use a variety of statistical methods appropriate to answer the questions under investigation.
- Utilize data analysis strategies in a variety of applied situations: summarizing data including ranking, trend analysis, resource allocation, development and monitoring of performance measures.
- Understand the difference between statistical and practical significance when describing and reporting on an MCH health problem.
- Develop and implement a strategy for building multivariable regression models that is both statistically and epidemiologically appropriate.

- Perform basic multivariable analyses as needed and appropriately handle potential confounders and effect modifiers.
- Understand the use of stratified regression modeling as an alternative way to handle effect modification (interaction).
- Utilize advanced multivariable approaches such as random effects modeling, proportional hazard modeling, multinomial logistic modeling, cluster analysis, and principal component/factor analysis.
- Interpret the relevance of analytic findings for the design, implementation and/or enhancement of MCH public health programs.
- Use the appropriate cultural/social/political framework to develop recommendations for the design, implementation and/or enhancement of MCH public health programs.
- Understand reasons for linking data and challenges in linking data.
- Analyze and interpret data using geographical information software.
- Understand the statistical issues in the analysis of data from complex sample surveys.

DATA REPORTING, TRANSLATION, AND DISSEMINATION

Students will be able to:

- Report study findings in relationship to existing MCH policies, regulations, and laws as well as the social, economic, political, and environmental context.
- Report study findings using the appropriate cultural/social/political frameworks to develop recommendations or interventions.
- Use the appropriate reporting techniques to communicate key MCH health status and health service issues to stakeholders (e.g., general public, news media, policy-makers).
- Describe the pros and cons of different data reporting techniques.
- Determine when it is necessary or beneficial to report stratum-specific data.
- Understand effective and appropriate use of information technology, including but not limited to computer graphics and other software necessary for efficient program management and communication.
- Use effective written and oral communication skills, including accurate and effective preparation of presentations, manuscripts, and reports based on both simple and complex analyses to agency boards, administrative organizations, scientific meetings, legislative bodies, consumers, and/or the media using demographic, statistical, programmatic, and scientific information.

MCH LEADERSHIP

Students will be able to:

- Articulate their personal values and beliefs and how they align with public health values.
- Identify how their personal attitudes, beliefs, and experiences (successes and failures) influence their leadership style.
- Discuss principles and issues involved in the ethical and sensitive conduct of MCH practice and research, including the ethical and confidential collection of data and its management, analysis, and dissemination.
- Share thoughts, ideas, and feelings about MCH/Public health issues effectively in discussions, meetings, and presentations with diverse individuals and groups.
- Develop and maintain positive relationships with community and agency partners, colleagues, administrative staff, and key stakeholders.

MCH EPI LEADERSHIP

Students will be able to:

- Effectively advocate for new or enhanced MCH data infrastructure in public health agencies.
- Take a lead role in the conceptualization of new or enhanced MCH data systems for surveillance and/or research.
- Contribute to the process of developing the technical specifications for new or enhanced MCH data systems for surveillance and/or research.
- Effectively and clearly communicate orally and in writing, and present public health issues and research findings in the field of MCHEPI to peers, students, and the general public.
- Demonstrate the ability to teach MCHEPI skills to students and other professionals in academic, research, or practice settings.

OCCUPATIONAL AND ENVIRONMENTAL EPIDEMIOLOGY: PHD COMPETENCIES

The following competencies apply for students electing the Occupational and Environmental Epidemiology concentration.

PhD students will be able to:

- Describe and characterize the major known determinants of occupational and environmental diseases and injuries;
- Describe, locate, analyze, and interpret existing data relevant to occupational and environmental diseases and injuries;
- Understand the strengths and weaknesses of alternative epidemiology study designs used in the context of occupational and environmental epidemiological research;
- To work within a multidisciplinary team of environmental health scientists, industrial hygienists, toxicologists, statisticians, physicians, and nurses in studying the factors involved in the etiology of occupational and environmental diseases and injuries; and
- Design, conduct, and analyze epidemiological studies testing hypotheses relevant for understanding the etiology of occupational and environmental diseases and injuries.