



UNIVERSITY OF  
**ILLINOIS CHICAGO**

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**School of Public Health  
Student Handbook**

**Master of Science (MS)**

**and**

**MS in Clinical and Translational  
Sciences (MS CTS)**

*AY 2021-2022*

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*The SPH Student Handbooks are static documents which are updated each August. The degree requirements contained in the AY 2021-2022. Handbooks are applicable to students matriculating into a degree program during this academic year. Students should consult the SPH website if interested in curriculum revisions adopted during the year. Such changes will apply to the next year's entering class.*

## MASTER OF SCIENCE (MS) OVERVIEW

The Master of Science (MS) degree in Public Health Sciences (Environmental and Occupational Health Sciences and Health Policy & Administration) are academic degrees 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.) MS degree students are prepared for continuing studies through the PhD program.

The Master of Science (MS) in Biostatistics and MS in Epidemiology are academic degrees awarded by the Graduate College of the University of Illinois and is subject to the requirements described in the UIC Graduate Catalog. These degree programs are primarily comprised of STEM designated courses. MS degree students are prepared for continuing studies through the PhD program.

Programs of study leading to the MS degree are offered by each of the following SPH Divisions:

Environmental and Occupational Health Sciences  
Epidemiology and Biostatistics  
Health Policy and Administration

The MS program consists of four components (minimum of 48 SH)

1. SPH School-wide Core Requirements
  - IPHS 520: Foundations of Public Health
  - BSTT 400: Biostatistics I\*
  - EPID 403: Intro to Epidemiology: Principles and Methods

\*Not required for MS students in the Biostatistics concentration
2. Divisional Core Requirements and Electives – (variable based on chosen Division)
3. Culminating Experience –
  - IPHS 598 Research in Public Health – MS (variable based on chosen division and concentration range: minimum 8 sh)
  - Research must be completed in three to four semesters of full-time work leading to a required thesis. The research may include theoretical, laboratory, field, or computer-based investigation. Research is undertaken with the assistance and approval of the student's academic advisor and Thesis Examining Committee.
  - Final Oral Examination - The final oral examination consists of a presentation of the student's research findings at an open meeting of students and faculty and a separate oral examination in the academic division by the student's Thesis Examining Committee.

**Biostatistics Students only:** All MS students in biostatistics take a comprehensive exam at the end of their second program year. This is in lieu of a master's thesis.

#### 4. Required Non-Credit Training

- Information Privacy & Security (no credit)
- Human Subjects Research (no credit)
- Title IX (no credit)
- SPH Academic Integrity Tutorial (no credit)

### Required Non-credit Training

Early in the curriculum, students will be required to complete four non-credit trainings. These trainings are provided through the Online Collaborative Initial Training Initiative (CITI) and the University of Illinois Chicago. Instructions on how to access the CITI site and the steps to complete the trainings are below.

The SPH Academic Integrity Tutorial can be accessed through the SPH website with the link provided below. You will receive an official email from UIC to complete the Title IX training.

Detailed Instructions will be provided through your division/program on the specific timing and submission of certificates of completion.

[Information Privacy & Security/Health Privacy Training](#) – IPS  
[Human Subjects Research – HSR](#)  
 Title IX Training  
[SPH Academic Integrity Tutorial](#)

Blackboard access to the CITI trainings can be found [here](#).

***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 divisional academic staff in the home division to process a “Request for Change of Degree” form.

Students requesting a division change must meet the requirements of the division they wish to enter. Admission to the new division is not guaranteed.

***Degree Completion Deadline:*** MS student’s candidates must complete all the requirements within six calendar years after their initial registration in the Graduate College. Students pursuing more than one degree at the same time will be allowed an additional two years. Time spent on a leave of absence approved by the School 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).

## PROGRAM OF STUDY

For the MS program of study only three courses, BSTT 400, EPID 403 and IPHS 520, are stipulated as school-wide requirements and students are encouraged to select courses from more than one division (most divisions have additional requirements for their MS students). Programs might consist, for example, of a blend of environmental and occupational health sciences with epidemiology and biostatistics. The School of Public Health courses might also be combined with studies outside the School. It is recommended that all students take BSTT 401, Biostatistics II, as part of their program of study in preparation for thesis research. A major requirement is that the program of study be designed and the entire 48 semester hours, including the electives, be directed toward a meaningful health-related goal. For full-time students, it is anticipated that at least four semesters, usually more depending upon the thesis topic, will be needed to complete the requirements for the MS degree. The student's thesis format must adhere to the Graduate College requirements.

***Independent Study Hours (IPHS 596):*** Students may use Independent Study (IPHS 596) to satisfy elective hours. Up to 5 semester hours (SH) of independent study may be credited for graduation for programs of study requiring 48 SH. For degree programs requiring greater than 48 SH, 1 SH of independent study may be credited toward graduation for each additional 5 SH of formal course work taken to a maximum of 9 SH.

## THE CULMINATING EXPERIENCE

***Thesis Research (IPHS 598):*** MS students in Environmental and Occupational Health Sciences, Epidemiology, and Health Policy and Administration must complete a master's thesis. Registration is required in IPHS 598 - Research in Public Health Sciences. (Hours vary by division and concentration; see program specific information for details).

***Selection of Thesis Advisor and Thesis Examining Committee:*** Before undertaking research leading to the required thesis, the student, with the assistance and approval of his/her major advisor, must select a Thesis Advisor, who must be a member of the Graduate College Faculty. In conjunction with the Thesis Advisor, the student selects the Thesis Examining Committee, subject to the final approval of the major advisor, Division Director, SPH Director of Graduate Studies, and the Graduate College. This committee consists of at least three (3) members, one (1) of whom must be a tenured full member of the Graduate College faculty. One committee member may be selected from outside the School of Public Health.

***Thesis Proposal:*** The members of the Thesis Examining Committee will meet with the student to approve the thesis proposal, and to determine that the student is adequately prepared to undertake it. The thesis research may emphasize theoretical, laboratory, field, or computer-based investigations, but it should be feasible to complete in two to three semesters of full-time work. The members of the committee then provide guidance and assistance throughout the research experience of the student.

It is strongly advised that no more than one semester elapse following completion of course work before approval of the thesis proposal.

**Preparation for Thesis Approval:** Students should seek the guidance of their advisors and the Graduate College at an early stage of thesis preparation. *It is highly recommended that MS students at the point of beginning work on their thesis obtain a copy of the Graduate College brochure, "Instructions for Completing Graduate College Degree Requirements and Preparation of Theses."* This handbook is available [online](#). The handbook provides instruction for final thesis preparation and format approval. The student and advisor are responsible for the thesis content and style. Failure to follow guidelines within the Graduate College theses manual may delay a student's certification for graduation.

**Final Oral Examination:** When a student has completed the thesis research work and a final draft of the thesis, s/he should request the advisor to convene the Thesis Examining Committee to conduct the final exam and for review and approval of the thesis for content. When the student and major advisor agree that the student is prepared, the advisor assembles the Thesis Examining Committee to conduct a final oral examination. The Thesis Examining Committee examines the student in a private session, indicating to the student whether any further work or revision of the thesis is required. The examination is then open to faculty and students for an oral presentation of the student's research. Finally, the Thesis Examining Committee reports its decision on the "Certificate of Approval" form which is signed and dated by the members and the advisor. The decision may be that the student has or has not passed his/her examination and thus has or has not satisfied all requirements for the MS degree.

A candidate cannot be passed if more than one vote of "fail" is reported. The signed report is returned to the Academic Coordinator who assures that it is received by the SPH Office of Student Affairs. The SPH Director of Graduate Studies signs off as final approval upon successful completion of the thesis format review, and the signed Certificate is then forwarded to the Graduate College to conclude the process. Upon approval of Dr. Saria Awadalla, the Director of Graduate Studies for the Department of Public Health Sciences, the student is recommended to the Graduate College for award of the degree.

**MS Bypass Procedure to PhD:** With the approval of the student's advisor and Division Director, a student may choose to enter the PhD program and not undertake the MS thesis. A written letter of application must be made to justify this transfer. The Division admissions committee will review the justification letter and an accompanying transcript. Recommendations for approving the bypass will be made to the SPH Director of Graduate Studies (Dr. Saria Awadalla) for approval and transmission to the Graduate College for final approval. A list of courses to be transferred to the PhD program must accompany the justification letter and approval.

**BSTT Comprehensive Exam:** MS Biostatistics students substitute a comprehensive examination for the thesis. Please see Biostatistics MS Degree Program for more information.

## THE MS CURRICULUM BY DIVISION

### Biostatistics

The MS in Biostatistics program requires a minimum of 48 semester hours (SH) and is designed for completion in 2 years when enrolled full-time. This program includes the following course requirements:

#### School-Wide Core Requirements (6 SH)

Course	Title	Credits
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Foundations of Public Health	3 SH
	MS Comprehensive Examination	
Required Non-Credit Training		
Information Privacy & Security (IPS)		Non-credit
Human Subjects Research (HSR)		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

#### Biostatistics Core Requirements (37 SH)

Course	Title	Credits
BSTT 506	Design of Clinical Trials	3 SH
BSTT 523	Biostatistics Methods I	4 SH
BSTT 524	Biostatistics Laboratory	2 SH
BSTT 525	Biostatistics Methods II	4 SH
BSTT 535	Categorical Data Analysis	3 SH
BSTT 536	Survival Analysis	3 SH
BSTT 537	Longitudinal Data Analysis	4 SH
BSTT 538	Biostatistical Consulting	2 SH
BSTT 550	Biostatistical Investigations	4 SH
STAT 401	Introduction to Probability	4 SH
STAT 411	Statistical Theory	4 SH

#### Electives (minimum 8 SH)

Students must take a minimum of 8 semester hours of electives. Students are strongly encouraged to complete at least one course recommended by the Director of Graduate Studies which provides a broad introduction to public health.

Electives can be any graduate level course of the students choosing.

BSTT 400, BSTT 401, BSTT 410, and BSTT 505 are not suitable electives.

## **MS Comprehensive Examination – All Biostatistics Students**

All MS students in biostatistics take a comprehensive exam at the end of their second program year. This exam consists of two parts. The first part, a three-hour written exam, will cover basic methodological material from the required biostatistics and mathematics courses. The second part will be a seven-day take-home exam in which the student is tested on the ability to perform data analysis and to describe and discuss the results.

***Performance Standards:*** 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; however, it should be noted that nearly all the courses required for the MS in Biostatistics are offered only once a year and must be taken in a particular sequence, so re-taking a course is likely to delay graduation by a full year.



## Optional Concentration

### Health Analytics

The MS in Biostatistics concentration in Health Analytics program requires a minimum of 48 semester hours (SH) and is designed for completion in 2 years when enrolled full-time. This program includes the following course requirements:

#### School-Wide Core Requirements (6 SH)

Course	Title	Credits
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Foundations of Public Health	3 SH
	MS Comprehensive Examination	
Required Non-Credit Training		
Information Privacy & Security (IPS)		Non-credit
Human Subjects Research (HSR)		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

#### Biostatistics Core Requirements (37 SH)

Course	Title	Credits
BSTT 426	Health Data Analytics Using Python Programming	3 SH
BSTT 413	Introductory to Programming in R	2 SH
BSTT 523	Biostatistics Methods I	4 SH
BSTT 525	Biostatistics Methods II	4 SH
BSTT 527	Statistical Learning in Health Analytics	3 SH
BSTT 528	Machine Learning in Health Analytics	3 SH
BSTT 529	Health Analytics Investigations	2 SH
BSTT 535	Categorical Data Analysis	3 SH
STAT 401	Introduction to Probability	4 SH
STAT 411	Statistical Theory	4 SH

#### Electives (minimum 8 SH)

Students will complete the MS in Biostatistics, Health Analytics concentration through coursework only. The course BSTT 529 measures the main competency of the Health Analytics concentration. This course includes a comprehensive investigation of either a large or sparse complex health data set that will require application of numerous health analytic methods with an emphasis on public health research applications. A final comprehensive written report is needed to complete the program. At least two faculty members from the division will evaluate the final report.

## Environmental and Occupational Health Sciences

The MS in Environmental and Occupational Health Sciences program requires a minimum of 48 semester hours (SH). This program is designed for completion in 2 years when enrolled full-time and includes the following course requirements:

### School-Wide Core Requirements (22 SH)

Course	Title	Credits
BSTT 400	Biostatistics I	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Foundations of Public Health	3 SH
IPHS 598	Research in the Public Health Sciences – MS	min. 12 SH
Required Non-Credit Training		
Information Privacy & Security (IPS)		Non-credit
Human Subjects Research (HSR)		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

### Divisional Core Requirements (22-24 SH)

Course	Title	Credits
EOHS 401	Ethics and Justice in Environmental and Occupational Health	2 SH
EOHS 402	Systems Approaches in Environmental and Occupational Health	4 SH
EOHS 440	Chemistry for Environmental Professionals	3 SH
EOHS 495	Environmental and Occupational Health Sciences Seminar	1 SH
EOHS 501	Exposure Assessment Strategies	3 SH
EOHS 502	Environment, Toxicology, and Disease	4 SH
EOHS 556	Risk Assessment in Environmental and Occupational Health	3 SH
Computing Skills Selective (2-4 SH)		
Select <b>at least one</b> of the following courses:		
BSTT 494	Intro to Data Analysis with R	4 SH
BSTT 568	Programming and Simulation in R	2 SH
BSTT 594	Big Data Analytics	3 SH
HPA 436	GIS for Environmental and Public Health Professionals	4 SH
HPA 480	Health Related Database Design and Analysis	4 SH
HPA 565	Datamining Applications in Public Health	3 SH
EOHS 571	Injury Epidemiology and Prevention	3 SH
EPID 406	Epidemiologic Computing	3 SH
UPP 461	Geographic Information Systems for Planning	4 SH

### Electives (as needed to bring the program total to 48 SH)

Students are advised to carefully select courses with their advisor to assure adequate background for MS research and to assure adequate depth in a specific area of the wide field of EOHS.

All students must complete a program **minimum of 9 semester hours** of coursework at the 500-level: not counting IPHS 598 Research Hours.

## Optional Concentrations

Students may select from the following concentrations or may build a general program of study within EOHS, in conjunction with their faculty advisor.

### ASAC ABET-Accredited Program in Industrial Hygiene (53 SH)

Students applying to the ANSAC-ABET Accredited MPH Program in Industrial Hygiene must complete one year of college math and college coursework in biology, chemistry and physics. Exceptions may be granted for applicants with relevant works experience or high-level academic achievements. Exceptions may be admitted with an individually documented plan of study to compensate for deficiencies, although applicants are strongly encouraged to satisfy all deficiencies prior to matriculation. Applicants are invited to consult with the Industrial Hygiene Program Director about possible deficiencies.

Students must complete the School-Wide Core Requirements, including IPHS 598 for 12 SH and a sufficient number of the following courses as part of their divisional and elective choices as necessary to attain 53 SH of credit. In addition, students must adhere to the divisional requirements as stipulated for their individual program of study.

<b>Industrial Hygiene Core (31 SH)</b>		
<b>Course</b>	<b>Title</b>	<b>Credits</b>
EOHS 401	Ethics and Justice in Environmental and Occupational Health	2 SH
EOHS 402	Systems Approaches in Environmental and Occupational Health	4 SH
EOHS 421	Occupational Health and Safety Practice	2 SH
EOHS 424	Evaluation and Control of Radiation Exposures	1 SH
EOHS 425	Evaluation and Control of Physical Agents	2 SH
EOHS 426	Evaluation and Control of Airborne Contaminants	4 SH
EOHS 427	Evaluation and Control of the Psychosocial Work Environment	2 SH
EOHS 495	Environmental and Occupational Health Sciences Seminar	1 SH
EOHS 501	Exposure Assessment Strategies	3 SH
EOHS 502	Environment, Toxicology, and Disease	4 SH
EOHS 556	Risk Assessment in Environmental and Occupational Health	3 SH
EOHS 563	Occupational Safety and Health Management Systems	3 SH

### Additional Requirements for Students Enrolled in ASAC-ABET - Accredited Industrial Hygiene Program Trainees are required to:

*Every year-*

- Attend all weekly Illinois ERC Interdisciplinary Seminars (EOHS 495) (held weekly throughout the academic year)
- Attend at least 4 Industrial Process Tours each year

*Once during the program:*

- Present an Industrial Process Talk (scheduled during the ERC Seminar)

## Occupational Safety (52 SH)

Students must complete the School-Wide Core Requirements, including IPHS 598 for 12 SH and a sufficient number of the following courses as part of their divisional and elective choices as necessary to attain 52 SH of credit. In addition, students must adhere to the divisional requirements as stipulated for their individual program of study.

<b>Occupational Safety Courses (30 SH)</b>		
<b>Course</b>	<b>Title</b>	<b>Credits</b>
EOHS 401	Ethics and Justice in Environmental and Occupational Health	2 SH
EOHS 402	Systems Approaches in Environmental and Occupational Health	4 SH
EOHS 421	Occupational Health and Safety Practice	2 SH
EOHS 424	Evaluation and Control of Radiation Exposures	1 SH
EOHS 425	Evaluation and Control of Physical Agents	2 SH
EOHS 427	Evaluation and Control of the Psychosocial Work Environment	2 SH
EOHS 495	Environmental and Occupational Health Sciences Seminar	1 SH
EOHS 501	Exposure Assessment Strategies	3 SH
EOHS 502	Environment, Toxicology, and Disease	4 SH
EOHS 503	Occupational Safety	2 SH
EOHS 504	Occupational Ergonomics and Biomechanics	1 SH
EOHS 563	Occupational Safety and Health Management Systems	3 SH
EOHS 571	Injury Epidemiology and Prevention	3 SH

### Additional Requirements for Students Enrolled in Occupational Safety Concentration

Trainees are required to:

*Every year-*

- Attend all weekly Illinois ERC Interdisciplinary Seminars (EOHS 495) (held weekly throughout the academic year)
- Attend at least 4 Industrial Process Tours each year

*Once during the program:*

- Present an Industrial Process Talk (scheduled during the ERC Seminar)

## Epidemiology

The MS in Epidemiology program requires a minimum of 50 semester hours (SH). This program is designed for completion in 2 years when enrolled full-time and includes the following course requirements:

### School-Wide Core Requirements (18 SH)

Course	Title	Credits
BSTT 400	Biostatistics I	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Foundations of Public Health	3 SH
IPHS 598	Research in the Public Health Sciences – MS	8 SH
Required Non-Credit Training		
Information Privacy & Security (IPS)		Non-credit
Human Subjects Research (HSR)		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

### Divisional Core Requirements (16-17 SH)

Course	Title	Credits
BSTT 401	Biostatistics II	4 SH
EPID 404	Intermediate Epidemiologic Methods	4 SH
EPID 406	Epidemiologic Computing	3 SH
EPID 591	Current Epidemiologic Literature	2 SH
EPID 595	Epidemiology Research Seminar	1 SH
Select <b>one</b> of the following courses:		
BSTT 505	Logistic Regression and Survival Analysis	2 SH
BSTT 506	Design of Clinical Trials	3 SH
BSTT 507	Sampling and Estimation Methods Applied to Public Health	3 SH

### Electives (as needed to bring the program total to 50 SH)

Students may use their electives to pursue a course of study in one of the following optional concentrations; or may customize their program of study by selecting from a broad range of course work to meet their career goals and interests. All students must complete sufficient elective hours to bring their total program of study to a 50 SH minimum.

**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.

## Optional Concentration

### Occupational and Environmental Epidemiology Concentration in EPID (55 SH) (EPID STUDENTS ONLY)

Students must complete the School-Wide Core Requirements above as well as 37 semester credit hours from the following concentration courses as part of their divisional and elective choices. program of study.

#### School-Wide Core Requirements (18 SH)

Course	Title	Credits
BSTT 400	Biostatistics I	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Foundations of Public Health	3 SH
IPHS 598	Research in the Public Health Sciences – MS	min. 8 SH
Required Non-Credit Training		
Information Privacy & Security (IPS)		Non-credit
Human Subjects Research (HSR)		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

#### Divisional Core Requirements (11 SH)

Course	Title	Credits
BSTT 401	Biostatistics II	4 SH
EPID 404	Intermediate Epidemiologic Methods	4 SH
EPID 406	Epidemiologic Computing	3 SH

Occupational and Environmental Epidemiology Courses (26 SH)		
Course	Title	Credits
EOHS 421	Occupational Safety and Health Practice	2 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
EPID 500	Applied Methods for the Analysis of Epidemiologic Data	4 SH
EPID 411	Epidemiology of Chronic Diseases	3 SH
EOHS 501	Exposure Assessment Strategies	3 SH
EOHS 502	Environmental and Occupational Toxicology and Diseases	4 SH
EOHS 495	Environmental/Occupational Health Seminar (students must participate in each semester, but need only enroll for credit in one semester)	1 SH
<b>ELECTIVES:</b> 3 hours of electives identified by student and advisor based on research interests		3 SH

## Health Policy and Administration

The MS in Health Policy and Administration program with a focus on **Health Services and Policy Research** requires a minimum of 40 semester hours (SH). This program is designed for completion in 1 year when enrolled full-time and includes the following course requirements:

### School-Wide Core Requirements (18 SH)

Course	Title	Credits
BSTT 400	Biostatistics I	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Foundations of Public Health	3 SH
IPHS 598	Research in the Public Health Sciences – MS	8 SH
<b>Required Non-Credit Training</b>		
Information Privacy & Security (IPS)		Non-credit
Human Subjects Research (HSR)		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

### HPA Divisional Requirements and Electives (22 SH)

Course	Title	Credits
HPA 415	Introduction to Public Health Policy	3 SH
HPA 460	Introduction to Economics of Health and Healthcare	3 SH
HPA 567	Public Health Policy and Analysis	3 SH
HPA 521	Empirical Methods for Health Research I	3 SH
HPA 522	Empirical Methods for Health Research II	3 SH
HPA 581	Advanced Topics in Health Economics	3 SH

### Electives

MS students in Health Policy and Administration must complete an additional 4 semester hours of the following course work relevant to the disciplinary area of Health Policy and Administration. This course work is chosen in consultation with the faculty advisor.

## Global Health Concentration

The Global Health Concentration is designed to attract students at the master's level who are interested in preparing for international careers in government, health care agencies, NGOs, industry, and academic institutions. International students who undertake the concentration will be better prepared to return to their home countries to work in the country's ministry of health, international governmental agencies, and other health care organizations.

At the conclusion of the concentration, students will be able to:

- Demonstrate knowledge of the Social Determinants of Health (SDH) and their contribution to the health of populations globally, as well as the influence of SDH (including economic, political and environmental) on programmatic approaches in international settings.
- Demonstrate critical understanding of the major causes of morbidity and mortality around the world and explain how the risk for disease varies within and across regions.
- Describe the roles and relationships of the major entities influencing global health and development, and how they work to address communicable and non-communicable diseases, including injury, given context specific challenges within countries and regions.
- Demonstrate an ability to use systems thinking to analyze programs at the local, national and international levels.
- Demonstrate a vision and philosophy of ethical professional practice that address health equities and human rights in global health.

Upon admission to the SPH division of their choice (CHS, EPID, BSTT, EOHS or HPA), students apply to the Global Health Concentration through submission of a Global Health Concentration Application and current resume. With proper planning the concentration can be completed during the same time period required for the MS program.

In addition to MS program requirements, students pursuing the Global Health Concentration must complete a minimum of 9 semester hours consisting of the following courses:

### Concentration Course Requirements (6 SH)

Course	Title	Credits
IPHS 409*	Global Public Health Challenges	3 SH
IPHS 410**	Global Public Health Solutions	3 SH

\* Offered in fall term.

\*\* Offered in spring term.

Courses need not be taken sequentially.

### Electives (3 SH)

Taking a cross-disciplinary approach to public health, the Global Health Concentration draws upon course work and other resources throughout UIC that will help GH students to deepen their knowledge and understanding of the challenges, issues, and skills required to successfully address health problems globally. Selection of an elective should be made with the help of the student's academic advisor.



For a current listing of approved Global Health Elective Courses, students should contact Keith Partyka, Program Coordinator, Global Health Program at [kpartyka@uic.edu](mailto:kpartyka@uic.edu).

Please note that registration is subject to the offering department's approval.

### **Contact Information**

Alyson Lofthouse, MUPP  
Senior Associate Director, Global Health  
(312) 996-0054  
[alofth2@uic.edu](mailto:alofth2@uic.edu)

Also, visit the School of Public Health Global Health website at  
<http://publichealth.uic.edu/global-health-program>

## Interdepartmental Concentrations

The School of Public Health offers five Interdepartmental Concentrations for MS students to participate in.

Interdepartmental Concentration	CHS	EOHS	Epidemiology	HPA
Gender and Women's Studies	X	X	X	X
Global Health	X	X	X	X
Violence Studies	X	X	X	X
Women's Health	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 (GWS) 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:

Jennifer Brier  
 Director of Gender and Women's Studies  
 312-413-2458  
[jbier@uic.edu](mailto:jbier@uic.edu)

## 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.

### Foundational Courses (minimum 5 SH)

Course	Title	Credits
EPID 428	Epidemiology of Violence	3 SH
<u>CLJ 423/</u> <u>ANTH 424</u>	Violence	3 SH
CLJ 546	Violence and Victimization	3 SH
SOCW 544	Community Violence	4 SH
<u>GWS/PSCH 521</u>	Violence Against Women	2 SH

### Supplementary Courses (minimum 6 SH)

Course	Title	Credits
<u>CLJ 422</u>	Victimization	3 SH
<u>CLJ/GWS 424</u>	Gender, Crime, and Justice	3 SH
CLJ 500	Law and Society	3 SH
<u>POLS 571</u>	Seminar in International Relations	4 SH
<u>PSCH 417</u>	Psychology and Law	2 SH
SOCW 517	Practice with Family Violence, Neglect, and Abuse	3 SH
SOCW/GWS 525	Social Work with Women	3 SH

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

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**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](mailto: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 a multidisciplinary perspective on 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 the master's 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.nursing.uic.edu/academics-admissions/prospective-students#application-deadlines>

**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](mailto:cklima@uic.edu)

## MS DEGREE COMPETENCIES

The Master of Science (MS) degree in Public Health Sciences prepares individuals to enter academic, research, or professional careers pertaining to broad areas of public health concern. It is the appropriate route for continuing studies leading to the PhD degree. Academic preparation is offered through a broad spectrum of public health courses and related research from which students can fashion individualized curricula to meet highly specialized objectives. Integrated with the course work (in all areas but biostatistics) is a research project, the findings of which must be described in a research thesis. Interdisciplinary studies that combine two or more of the School's program areas are encouraged.

The MS degree is awarded under the University of Illinois at Chicago Graduate College. For the purposes of this degree program, the School of Public Health acts as the Department of Public Health Sciences (DPHS) of the Graduate College. All requirements related to the degree, as described in the UIC Graduate Study Catalog, must be met.

MS student's complete coursework that provides a broad introduction to public health. This introduction to public health addresses the following learning objectives:

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge
7. Explain effects of environmental factors on a population's health
8. Explain biological and genetic factors that affect a population's health
9. Explain behavioral and psychological factors that affect a population's health
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities
11. Explain how globalization affects global burdens of disease
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health)

## MASTER OF SCIENCE IN CLINICAL AND TRANSLATIONAL SCIENCE (MS CTS)

The School of Public Health offers work leading to the Master of Science in Clinical and Translational Science (MS CTS). The degree is intended to train clinicians, primarily post-doctoral or post-residency fellows and junior faculty, to become leaders in clinical research. In addition, the School participates with the College of Dentistry in offering the DMD/MS CTS joint degree program; with the College of Medicine in offering the MD/MS CTS joint degree program; with the College of Pharmacy in offering the PharmD/MS CTS joint degree program; and with the National University of Health Sciences in offering a coordinated DC/MS CTS degree program.

The MS CTS program requires a minimum of 48 semester hours (SH). The program is designed for completion in 2 years when enrolled full-time and includes the following course requirements:

### Required Courses (26 SH)

Course	Title	Credits
BHIS 509	Informatics for the Clinical Investigator	3 SH
BSTT 400	Biostatistics I	4 SH
BSTT 401	Biostatistics II	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
HPA 522	Public Health Research Design and Methods	3 SH
HPA 526	Leadership and Diversity in Clinical Research	2 SH
HPA 591	Grant Writing for New Investigators	3 SH
GC 501	Scientific Integrity and Responsible Research	1 SH
IPHS 520	Public Health Frameworks for Researchers	3 SH
IPHS 598	Research in the Public Health Sciences – MS*	16 SH
Required Non-Credit Training		
Information Privacy & Security (IPS)		Non-credit
Human Subjects Research (HSR)		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

### Electives (6 SH)

All students must complete a minimum of 6 semester hours of electives selected from across disciplines at UIC. With input from their advisor and mentor, students will choose appropriate electives that are tailored to their unique backgrounds, skill levels, areas of interest, research focus, and future goals. At least 9 semester hours must be 500-level courses excluding thesis or independent study.

***MS Thesis Research Requirements:*** Sixteen credits of mentored research (IPHS 598-Research) must be completed in two to three semesters of full-time work leading to the completion of a publishable paper and a research proposal. The research must be completed under the supervision of an approved clinical investigator and with the approval of a mentorship committee designed specifically for each student.

***Final Oral Examination:*** The final oral examination consists of a presentation of the student's research findings at an open meeting of students and faculty and a separate oral examination in the academic division by the student's Thesis Examining Committee. The presentation should be based on the publishable paper and research proposal products of the student's clinical research project.

***Degree Completion Deadline:*** MS CTS students must complete all the requirements within six calendar years after their initial registration in the Graduate College. Students pursuing more than one degree at the same time will be allowed an additional two years. Time spent on a leave of absence approved by the School 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).



## MS CTS Joint Degree Options

The School of Public Health offers four joint or coordinated degree programs which allow students to complete both an MS in Clinical and Translational Science and a second professional degree in a shortened timeframe.

Joint Degree	Availability of Joint Degree Programs by Division				
	CHS	EOHS	Epi	Bio	HPA
<u>DC/MS CTS</u>					X
<u>DMD/MS CTS</u>					X
<u>MD/MS CTS</u>					X
<u>PharmD/MS CTS</u>					X

### DC/MS CTS

The UIC School of Public Health (SPH) and the National University of Health Sciences (NUHS) offer a coordinated program leading to the Doctor of Chiropractic (DC) and the Master of Science in Clinical Translational Science (MS CTS).

The program of study leading to the DC/MS CTS coordinated degree is offered by the Health Policy and Administration Division.

**Program Goals:** The program is designed to prepare doctoral students of chiropractic with the skills required to combine clinical knowledge with the knowledge and skills needed for careers as researchers in the clinical and translational sciences. Graduates will be eligible for further training in specialty programs and will be able to advance successfully to tenure-track positions in complementary and alternative medical institutions that encourage Complementary and Alternative Medicine (CAM) research to propel and support the CAM health care professions that require research for promotion.

**Length of Program:** Full time students may complete the programs in four and one-half years including twelve trimesters of required DC course work, concurrent UIC SPH courses and one full time semester at UIC.

**Program Requirements:** Students must complete a minimum of 48 semester hours of course work at SPH to satisfy the requirements of the MS CTS degree in addition to all the requirements of the NUHS DC degree. Students' work at UIC may qualify for up to twelve hours of elective credit at the National University of Health Sciences, depending on the specific courses chosen and applicability to the elective credit required for the NUHS DC program. Students will be required to meet all other curricular requirements of both NUHS and the UIC SPH division.

Students are strongly encouraged to begin studies at both schools in the Fall term. Students receiving financial aid through NUHS will be designated as students with NUHS as the “home” school and UIC as the “host school” through an NUHS – UIC consortium agreement.

**Admission Requirements:** Students must apply to and be admitted separately to both the School of Public Health and the National University of Health Sciences Doctor of Chiropractic degree

program. The policies of each program with respect to admission requirements, degree requirements, and other academic requirements are applicable.

To be considered for admission students must take the GRE, have earned a baccalaureate degree from an accredited institution, and satisfy other application requirements for each institution.

Applicants must be accepted into both schools and complete the DC/MS CTS application available from the NUHS Thomas Grieve, DC, MPH, phone: (630) 889-6442, [tgrieve@nuhs.edu](mailto:tgrieve@nuhs.edu).

**Requirements for the MS CTS portion of the degree are as follows:**

#### School-Wide Core Requirements (26 SH)

Course	Title	Credits
BSTT 400	Biostatistics I	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Foundations of Public Health	3 SH
IPHS 598	Research in the Public Health Sciences – MS*	16 SH
Required Non-Credit Training		
Information Privacy & Security		Non-credit
Human Subjects Research		Non-credit
Investigator Training 101		Non-credit
SPH Academic Integrity Tutorial		Non-credit

#### Divisional Core Requirements (12 SH)

Course	Title	Credits
BHIS 509	Informatics for the Clinical Investigator	3 SH
BSTT 401	Biostatistics II	4 SH
HPA 522	Public Health Research Design and Methods	3 SH
HPA 526	Leadership and Diversity in Clinical Research	2 SH
HPA 590	Grant Writing	1 SH
GC 501	Scientific Integrity and Responsible Research	1 SH

#### Electives (9 SH)

All students must complete a minimum of 9 semester hours of electives selected from across disciplines at UIC. With input from their advisor and mentor, students will choose appropriate electives that are tailored to their unique backgrounds, skill levels, areas of interest, research focus, and future goals. At least 9 semester hours must be 500-level courses excluding thesis or independent study.

**MS Thesis Research Requirements:** Sixteen credits of mentored research (IPHS 598-Research) must be completed in two to three semesters of full-time work leading to the completion of a publishable paper and a research proposal. The research must be completed under the supervision of an approved clinical investigator and with the approval of a mentorship committee designed specifically for each student.

***Final Oral Examination:*** The final oral examination consists of a presentation of the student's research findings at an open meeting of students and faculty and a separate oral examination in the academic division by the student's Thesis Examining Committee. The presentation should be based on the publishable paper and research proposal products of the student's clinical research project.

***Shared Courses***

- With proper planning and advisement, DC/MS CTS students may apply a maximum of 12 semester hours of MS CTS electives to DC elective requirements.
- No more than 12 total hours will consist of shared coursework.

***Contact Information:*** For further information about this joint degree program, please contact the following individuals:

**School of Public Health**

Jaclyn Jackson

CCTS Research Education and Careers in Health (REACH) Program Coordinator

(312) 413-5429

[jaclynj@uic.edu](mailto:jaclynj@uic.edu)

**National University of Health Sciences**

Thomas Grieve, DC, MPH

(630) 889-6442

[tgrieve@nuhs.edu](mailto:tgrieve@nuhs.edu)

## DMD/MS CTS

The UIC College of Dentistry (COD) and the UIC School of Public Health offer a joint degree program leading to the Doctor of Dental Medicine (DMD) and Master of Science in Clinical and Translational Science (MS CTS) degrees.

The program of study leading to the DMD/MS CTS joint degree is offered by the Health Policy and Administration Division:

***Length of Program:*** Full-time students may complete the degree in five years.

***Admission Requirements:*** Must apply and be accepted to both the UIC College of Dentistry and UIC School of Public Health. Apply for joint degree program on admission application

***Program Requirements:*** The joint degree program will be available to dental students with a timeline and mentored research requirement that will incorporate their clinical and research training. Interested dental students are encouraged to apply as soon as possible, preferably no later than May 1 of their first year in the DMD program (D1 year). Dental students choosing the joint program should be dedicated to the goals of both programs and of high academic talent to accomplish the goals and demands of the joint program. The program will typically require only one year beyond the commitment for the DMD degree.

Students in the program must satisfy requirements of the Master of Science in Clinical and Translational Science, a 48-semester hour program, and satisfy four years of the required Doctor of Dental Medicine Degree program of study. Upon admission to the MS in CTS program, students will participate in a variety of seminars and workshops. They will be expected to continue to participate in these seminars and workshops until the completion of the joint program.

***Requirements for the MS CTS portion of the joint degree are as follows***

### School-Wide Core Requirements (26 SH)

Course	Title	Credits
BSTT 400	Biostatistics I	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Public Health Frameworks for Researchers	3 SH
IPHS 598	Research in the Public Health Sciences – MS*	16 SH
Required Non-Credit Training		
Information Privacy & Security		Non-credit
Human Subjects Research		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

### Divisional Core Requirements (12 SH)

Course	Title	Credits
BHIS 509	Informatics for the Clinical Investigator	3 SH
BSTT 401	Biostatistics II	4 SH
HPA 522	Public Health Research Design and Methods	3 SH
HPA 526	Leadership and Diversity in Clinical Research	2 SH
HPA 590	Grant Writing	1 SH
GC 501	Scientific Integrity and Responsible Research	1 SH

### Electives (6 SH)

All students must complete a minimum of 6 semester hours of electives selected from across disciplines at UIC. With input from their advisor and mentor, students will choose appropriate electives that are tailored to their unique backgrounds, skill levels, areas of interest, research focus, and future goals. At least 9 semester hours must be 500-level courses excluding thesis or independent study.

**MS Thesis Research Requirements:** Sixteen credits of mentored research (IPHS 598-Research) must be completed in two to three semesters of full-time work leading to the completion of a publishable paper and a research proposal. The research must be completed under the supervision of an approved clinical investigator and with the approval of a mentorship committee designed specifically for each student.

**Final Oral Examination:** The final oral examination consists of a presentation of the student's research findings at an open meeting of students and faculty and a separate oral examination in the academic division by the student's Thesis Examining Committee. The presentation should be based on the publishable paper and research proposal products of the student's clinical research project.

### Shared Courses

- With proper planning and prior approval by the executive associate dean for academic affairs at the College of Dentistry, joint degree students may apply up to 4 hours of IPHS 598 toward DMD clinical rotation requirements (in both the D3 and D4 years).
- No more than 8 total hours will consist of shared coursework.

### Contact Information:

#### School of Public Health

Jaclyn Jackson  
 CCTS Research Education and Careers in Health (REACH) Program Coordinator  
 (312) 413-5429  
[jaclynj@uic.edu](mailto:jaclynj@uic.edu)

#### College of Dentistry

Katherine Long  
 DMD/MS CTS Program Coordinator  
 (312) 996-1018  
[longka@uic.edu](mailto:longka@uic.edu)

## MD/MS CTS

The UIC College of Medicine (COM) and the UIC School of Public Health offer a joint degree leading to the Doctor of Medicine (MD) and Master of Science in Clinical and Translational Science (MS CTS) degrees.

The program of study leading to the MD/MS CTS joint degree is offered by the Health Policy and Administration Division:

***Length of Program:*** Full-time students may complete the degree in five years.

### ***Admission Requirements:***

- Must apply and be accepted to both the UIC College of Medicine and UIC School of Public Health
- Apply for joint degree program on admission application
- Students will also be required to submit a joint degree application to the College of Medicine

***Requirements for the MS CTS portion of the joint degree are as follows:***

### **School-Wide Core Requirements (26 SH)**

Course	Title	Credits
BSTT 400	Biostatistics I	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Public Health Frameworks for Researchers	3 SH
IPHS 598	Research in the Public Health Sciences – MS*	16 SH
Required Non-Credit Training		
Information Privacy & Security - IPS		Non-credit
Human Subjects Research		Non-credit
Title IX Training		Non-credit
SPH Academic Integrity Tutorial		Non-credit

### **Divisional Core Requirements (12 SH)**

Course	Title	Credits
BHIS 509	Informatics for the Clinical Investigator	3 SH
BSTT 401	Biostatistics II	4 SH
HPA 522	Public Health Research Design and Methods	3 SH
HPA 526	Leadership and Diversity in Clinical Research	2 SH
HPA 590	Grant Writing	1 SH
GC 501	Scientific Integrity and Responsible Research	1 SH

## Electives (6 SH)

All students must complete a minimum of 9 semester hours of electives selected from across disciplines at UIC. With input from their advisor and mentor, students will choose appropriate electives that are tailored to their unique backgrounds, skill levels, areas of interest, research focus, and future goals. At least 9 semester hours must be 500-level courses excluding thesis or independent study.

***MS Thesis Research Requirements:*** Sixteen credits of mentored research (IPHS 598-Research) must be completed in two to three semesters of full-time work leading to the completion of a publishable paper and a research proposal. The research must be completed under the supervision of an approved clinical investigator and with the approval of a mentorship committee designed specifically for each student.

***Final Oral Examination:*** The final oral examination consists of a presentation of the student's research findings at an open meeting of students and faculty and a separate oral examination in the academic division by the student's Thesis Examining Committee. The presentation should be based on the publishable paper and research proposal products of the student's clinical research project.

### ***Shared Courses***

- With proper advisement, MD/MS CTS students may apply a maximum of 8 semester hours of MS research hours (IPHS 598) during the M4 year toward MD M4 electives.
- With proper planning and prior approval of the MS advisor, joint degree students may take a non-clinical medical elective during their M4 year and receive independent study credit toward the MS degree.
- With proper planning and prior approval by the Dean of Educational Affairs within the COM, joint degree students may receive credit toward the M4 electives by taking an advanced-level public health course.
- No more than 12 total hours will consist of shared coursework.

### ***Contact Information***

#### **School of Public Health**

Jaelyn Jackson

CCTS Research Education and Careers in Health (REACH) Program Coordinator

(312) 413-5429

[jaelynj@uic.edu](mailto:jaelynj@uic.edu)

## PHARMD/MS CTS

The UIC College of Pharmacy (COP) and the UIC School of Public Health offer a joint degree program leading to the Doctor of Pharmacy (PharmD) and Master of Science in Clinical and Translational Science (MS CTS) degrees.

The program of study leading to the PharmD/MS CTS joint degree is offered by the Health Policy and Administration Division:

***Length of Program:*** Full-time students may complete the degree in five years.

***Admission Requirements:***

- Must apply and be accepted to both the UIC College of Pharmacy and UIC School of Public Health
- Apply for joint degree program on admission application

***Program Requirements:*** The joint degree program will be available to pharmacy students with a timeline and mentored research requirement that will incorporate their clinical and research training. Interested pharmacy students are encouraged to apply as soon as possible, preferably no later than May 1 of their first year in the PharmD program (P1 year) for those with a prior Baccalaureate degree, and no later than May 1 of their second year in the PharmD program (P2 year) for those without a prior Baccalaureate degree. Pharmacy students choosing the joint program should be dedicated to the goals of both programs and of high academic talent to accomplish the goals and demands of the joint program.

The program will typically require only one year beyond the commitment for the PharmD degree. Participating pharmacy students who have received a Baccalaureate degree prior to entry into the PharmD program can begin the didactic portion of the MS CTS program in the summer between their P1 and P2 years. PharmD students who did not receive a Baccalaureate degree prior to entry into the PharmD program can be admitted into the MS CTS program upon completion of their P2 year and can receive up to 12 credit hours towards their MS CTS for courses they completed prior to their admission to the program.

Students in the program must satisfy requirements of the Master of Science in Clinical and Translational Science (MS CTS), a 48-semester hour program, and satisfy 133 semester hours required for Doctor of Pharmacy (PharmD) program of study. Upon admission to the MS in CTS program, students will participate in a variety of seminars and workshops. They will be expected to continue to participate in these seminars and workshops until the completion of the joint program.



*Requirements for the MS CTS portion of the joint degree are as follows:*

### School-Wide Core Requirements (26 SH)

Course	Title	Credits
BSTT 400	Biostatistics I	4 SH
EPID 403	Introduction to Epidemiology: Principles and Methods	3 SH
IPHS 520	Foundations of Public Health	3 SH
IPHS 598	Research in the Public Health Sciences – MS*	16 SH
Required Non-Credit Training		
Information Privacy & Security		Non-credit
Human Subjects Research		Non-credit
Title IX Training		Non-credit
Academic Integrity Tutorial		Non-credit

### Divisional Core Requirements (12 SH)

Course	Title	Credits
BHIS 509	Informatics for the Clinical Investigator	3 SH
BSTT 401	Biostatistics II	4 SH
HPA 522	Public Health Research Design and Methods	3 SH
HPA 526	Leadership and Diversity in Clinical Research	2 SH
HPA 590	Grant Writing	1 SH
GC 501	Scientific Integrity and Responsible Research	1 SH

### Electives (6 SH)

All students must complete a minimum of 6 semester hours of electives selected from across disciplines at UIC. With input from their advisor and mentor, students will choose appropriate electives that are tailored to their unique backgrounds, skill levels, areas of interest, research focus, and future goals. At least 9 semester hours must be 500-level courses excluding thesis or independent study.

***MS Thesis Research Requirements:*** Sixteen credits of mentored research (IPHS 598-Research) must be completed in two to three semesters of full-time work leading to the completion of a publishable paper and a research proposal. The research must be completed under the supervision of an approved clinical investigator and with the approval of a mentorship committee designed specifically for each student.

***Final Oral Examination:*** The final oral examination consists of a presentation of the student's research findings at an open meeting of students and faculty and a separate oral examination in the academic division by the student's Thesis Examining Committee. The presentation should be based on the publishable paper and research proposal products of the student's clinical research project.

### ***Shared Courses***

- With proper planning and prior approval of the MS Advisor and Director of Advanced Pharmacy Practice Experiences (APPE), joint degree students may take a non-clinical pharmacy elective during their P3 year and receive MS CTS elective credit (or take an advanced level public health course and receive PharmD elective credit).
- Shared elective coursework is limited to a maximum of 4 semester hours. Sample shared elective courses include:
  - Sample Pharmacy Electives:
    - PHAR 455 Drug Information & Statistics (4)
    - PSOP 525 Medication, Identity and Illness (3)
  - Sample Public Health Electives:
    - HPA 403 US Health Care System (3)
    - BSTT 506 Design of Clinical Trials (3)
    - HPA/PSOP 573 Principles of Economic Evaluations of Health Care Interventions (3)
- With proper advisement, PharmD/MS CTS students may apply a maximum of 4 semester hours of MS research (IPHS598) taken during the P3 year toward pharmacy electives (independent study-research elective).
- With proper advisement, PharmD/MS CTS students may apply a maximum of 4 semester hours of MS research hours (IPHS 598) taken during the P4 year toward P4 Clerkship Electives requirements.
- No more than 12 total hours will consist of shared coursework.

**Advising joint degree program students:** Students in the joint degree program will be assigned advisors from the COP's Office of Student Affairs and the MS CTS program. Advising will assure that a student is excelling in both programs and not sacrificing one for the benefit of the other.

### ***Contact Information***

#### **School of Public Health**

Jaclyn Jackson

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#### **College of Pharmacy**

Thomas TenHoeve, III, PhD

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## MS/CTS DEGREE FOUNDATIONAL COMPETENCIES

The Master of Science (MS) in Clinical and Translational degree in Public Health Sciences degree is intended to train clinicians, primarily post-doctoral or post-residency fellows and junior faculty, to become leaders in clinical research.

The MS degree is awarded under the University of Illinois at Chicago Graduate College. For the purposes of this degree program, the School of Public Health acts as the Department of Public Health Sciences (DPHS) of the Graduate College. All requirements related to the degree, as described in the UIC Graduate Study Catalog, must be met.

MS student's complete coursework that provides a broad introduction to public health. This introduction to public health addresses the following learning objectives:

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge
7. Explain effects of environmental factors on a population's health
8. Explain biological and genetic factors that affect a population's health
9. Explain behavioral and psychological factors that affect a population's health
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities
11. Explain how globalization affects global burdens of disease
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health)