

## UIC School of Public Health Student Handbook 2004-2005

### *MPH Degree Requirements for the Community Health Sciences Division*

Students are admitted to either the Comprehensive Program or the Professional Enhancement Program (PEP). The number of credits required for graduation is determined at admission. Programs of study are developed by the student and his/her faculty advisor based on conditions set at admission and the requirements of the MPH curriculum including elective courses which are selected to enhance the student's background and professional goals.

#### **Comprehensive MPH Curriculum**

CHS students in the MPH program may select one of the following three tracks:

Behavioral Sciences and Health Promotion  
Gerontology  
Maternal and Child Health (including MCH Epidemiology)

Students not wanting to focus their studies in any of these tracks may select a general course of study. Additional course work is available in the areas of developmental disabilities, international health, public health nutrition, public health practice, and women's health. The curriculum below represents the minimum requirements for a comprehensive program in CHS. Advisors often recommend additional courses for students. Students should refer to the CHS Student Handbook (<http://www.uic.edu/sph/handbooks.htm>) for a complete description of the MPH degree requirements and competencies.

#### Comprehensive Curriculum (46-51 minimum semester hour credits)

*SPH Core Requirements (18 semester hours)*

EPID 400 Principles of Epidemiology (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

IPHS 698 MPH Capstone Experience (1 sh)

*CHS Core Requirements (15 semester hours)*

CHSC 431 Community Assessment in Public Health (3 sh)

CHSC 433 Public Health Planning and Evaluation (3 sh)

CHSC 446 Research Methods in Community Health (3 sh)

CHSC 480 Health Education and Health Promotion (3 sh)

Students must select one of the following policy/advocacy courses: CHSC 527, CHSC 543 or HPA 430 (3 sh)

*CHS Track Requirements (see below) (5-8 semester hours)*

*Elective Requirements (see below) (5 semester hours)*

*Field Experience (a CHS capstone experience) (3 or 5 semester hours)*

IPHS 650: Field Experience in Public Health

#### CHS Track Requirements

Each track has two to four content courses as follows:

##### *Behavioral Sciences and Health Promotion*

Select two of the following:

CHSC 485 Communications, Mass Media and Public Health (3 sh)

CHSC 584 Community Organizing for Health (3 sh)

CHSC 586 Health Behavior Interventions (3 sh)

##### *Gerontology:*

CHSC 425 Public Health and Aging (3 sh)

Select one of the following:

CHSC 528 Societal Analysis of Aging, Health and Health Care (3 sh)

CHSC 529 Gerontological Health/Illness Behavior (3 sh)

Gerontology students must take CHSC 527 as their policy/advocacy course within the CHS core.

##### *Maternal and Child Health:*

CHSC 441 Introduction to Maternal and Child Health (3 sh)

CHSC 542 Advanced Maternal and Child Health Applied Programs (3 sh)

CHSC 595 MCH Seminar (students are required to complete two semesters of this 1 credit course)

MCH students must take CHSC 543 as their policy/advocacy course within the CHS core.

CHS elective requirement must include at least one MCH approved course.

Additional materials are available if the student is interested in an MPH in MCH Epidemiology.

### CHS Elective Requirements

Students must take a minimum of 5 credits of electives. One of the following methods or public health practice courses is strongly encouraged to meet this requirement. Students may take additional electives to enrich their program.

#### *Methods Courses:*

CHSC 434 (Introduction to Qualitative Methods in Public Health), CHSC 447 (Survey Research Methods), CHSC 534 (Management and Analysis of Qualitative Data Analysis)

#### *Public Health Practice Courses:*

CHSC 403 (The Future of Public Health), CHSC 405 (Leadership in Public Health)

### **Professional Enhancement Program MPH Curriculum**

The MPH Professional Enhancement Program (PEP) is a minimum of 33 semester hour program for medical, nursing and public health professionals working in public health organizations or in community settings. The admission criteria require the applicant to have a Bachelor's or advanced degree in a health or related profession plus 3 years of paid public health or community health experience. Physicians in training, including medical students and physicians in residency training programs, must also complete a field experience (5 semester hours) in addition to the 33 semester hours.

#### PEP Curriculum (33-38 **minimum** semester hours)

##### *SPH Core Requirements (18 semester hours)*

EPID 400 Principles of Epidemiology (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

IPHS 698 MPH Capstone Experience (1 sh)

*CHS Core Requirements (15 semester hours)*

CHSC 431 Community Assessment in Public Health (3 sh)

CHSC 433 Public Health Planning and Evaluation (3 sh)

CHSC 446 Research Methods in Community Health (3 sh)

CHSC 480 Health Education and Health Promotion (3 sh)

Students must select one of the following policy/advocacy courses: CHSC 527, CHSC 543 or HPA 430 (3 sh)

*Field Experience (5 semester hour credits for those not meeting the experience requirements--including physicians in training):*

IPHS 650: Field Experience in Public Health

The curriculum above represents the minimum requirements for a PEP program in CHS. Advisors often encourage students to take additional elective courses.

### **CHS Capstone Requirements**

Completion of both the field experience (IPHS 650) and a Master's Paper (IPHS 698) are required to meet the capstone requirements in CHS. For some students the Master's Paper will be directly related to the practicum. The culminating capstone experience enables MPH students to achieve the following learning objectives

- Apply key public health concepts (e.g., prevention, risk assessment) to a specific public health area (e.g., gerontology, infectious disease epidemiology).
- Apply knowledge of the core areas of public health to a specific health problem.
- Integrate skills and knowledge gained through core and division-required courses toward resolving a public health problem either through practice in a public health setting or through investigation and analysis.

Students who are doing research involving human subjects will need to undergo training and have their protocols approved by the Institutional Review Board (IRB).

*Field Experience/Practicum (IPHS 650):* Most students are required to complete a field experience of 5 credits (320 hours). A few students may qualify for a reduced practicum of 3 credits (192 contact hours) or a full waiver depending on their prior public health experience and career goals. The practicum provides the student with practical experience in a public health setting requiring the student to apply and integrate the skills and knowledge learned during their graduate study. A reflective journal helps the student to synthesize the experience and is used by the faculty advisor to evaluate student performance.

*Master's Paper (IPHS 698):* Each student is required to complete a Master's Paper and make an oral presentation of his/her work. In addition to the required IPHS 698, students may take up to two hours of Independent Study credit toward their Master's Paper. The purpose of the Master's Paper is for the CHS student to be able to integrate health principles and knowledge of some aspect of the public health field at the end of the student's study period. The paper may be drawn from previous course work and may incorporate results of a community survey, an analysis of secondary data, a literature review, an environmental impact statement, a grant proposal, a position paper, a program evaluation, etc.

The CHS capstone will be evaluated in four ways:

1. Evaluation of the field experience/practicum by both the student, student's practicum preceptor, and faculty advisor; and
2. Evaluation of the Master's Paper by the advisor and second faculty member; and
3. Evaluation of the oral presentation by the faculty and students in attendance; and
4. Review by the advisor and a second faculty member to assure that the practicum and Master's Paper together meet the capstone goals as established.

Additional MPH learning objectives for CHS students are the following. Students should refer to the CHS Student Handbook for MPH competencies.

1. Design and develop approaches to public health problems, taking into account community and cultural health definitions, culturally-based health behaviors, and cultural communication styles in planning and implementing effective programs and evaluations. These approaches also involve the community in assessing health needs, selecting a program approach, and planning, implementing and evaluating health programs.
2. Work effectively in cross-cultural settings and with culturally diverse communities, promote cultural competence within an organization, and compare culturally appropriate public health interventions cross-culturally within the U.S. and internationally.
3. Access and use national/state/local data sets for data management, determining statistical significance of data; analyze primary and secondary data; monitor data gathering; and review data analysis. Use data and community assessment information to develop solutions to complex public health problems and demonstrate creative problem solving.
4. Design a health education program for a specific audience, including selecting an appropriate intervention strategy, program objectives and evaluation, and include a rationale for all decisions. They also will know when and how to use principles of mass media communication in selecting/designing a health education intervention.

5. Analyze public health policy, regulation and/or legislation; design a policy position; write a policy statement; design and implement an advocacy plan promoting the policy; and defend a policy position in a controversial area.
  
6. Identify components of a good research design; create a simple quantitative and qualitative research study; select the quantitative, qualitative or combination of analytical methods research process appropriate for a particular public health research problem; select/monitor appropriate research tools; select the qualitative research method appropriate for a public health research problem; and explain how qualitative research will "interact" with public health data sets and other quantitative information.

*MPH Degree Requirements for the Environmental and Occupational Health Sciences Division*

Students with appropriate academic backgrounds and at least 3 years of relevant professional experience may be eligible for the Professional Enhancement Program. The comprehensive program requires 40-56 sh, with the minimum required length of program decided by the admissions committee at the time of admission.

**MPH - Comprehensive Program**

SPH Core Requirements (18 semester hours)

EPID 400 Principles of Epidemiology (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

IPHS 698 MPH Capstone Experience (1 sh)

Division Core

All students are required to take a minimum of 12 sh in EOHS courses, choosing at least one course in each of the following three areas:

*Exposure Assessment and Measurement*

EOHS 405 Environmental Calculations (2 sh)

EOHS 440 Chemistry for Environmental Professionals (3 sh)

EOHS 421 Fundamentals of Industrial Hygiene (2 sh)

EOHS 418 Analysis of Water and Wastewater Quality (2 sh)

EOHS 428 Industrial Hygiene Laboratory I (2 sh)

EOHS 438 Air Quality Laboratory (2 sh)

EOHS 542 Water Chemistry (3 sh)

EOHS 543 Environmental Organic Chemistry (3 sh)

HPA 564 Geographic Information System Applications in Public Health (3 sh)

*Health Assessment*

EOHS 450 Principles of Occupational/Environmental Medicine (2 sh)

EOHS 455 Environmental and Occupational Toxicology (3 sh)

EOHS 495 Environmental/Occupational Health Seminar (1 sh)

EOHS 551 Occupational Diseases (4 sh)

EOHS 554 Occupational and Environmental Epidemiology (2 sh)

EOHS 555 Advanced Toxicology (3 sh)

*Intervention Strategies*

EOHS 411 Water Quality Management I (4 sh)

EOHS 431 Air Quality Management I (3 sh)

EOHS 461 Community Health and Consumer Protection (2 sh)

EOHS 482 Occupational Safety Science (2 sh)

EOHS 556 Risk Assessment in Environmental and Occupational Health (3 sh)

Sub-total 12 sh

*Comprehensive MPH Themes (does not apply to PEP students):*

With the approval of the faculty advisor, MPH students choose from among a series of grouped quantitative courses to acquire skills that can be applied to occupational and environmental content. These include three courses, one of which should be at the 500 level. Following are a few samples of three-course quantitative themes, but other series may be developed with the advisor's approval.

EOHS epidemiology/biostatistics:

EPID 403 Quantitative Methods in Epidemiology I (3 sh)

BSTT 401 Biostatistics II (4 sh)

EOHS 554 Occupational and Environmental Epidemiology (2 sh)

Environmental Health data management and analysis:

BSTT401 Biostatistics II (4 sh)

HPA 465 Health Information and Decision Support Systems (4 sh)

HPA 564 Geographic Information System Application in Public Health (3 sh)

Environmental Chemistry:

EOHS 418 Analysis of Water and Wastewater Quality (2 sh)  
EOHS 440 Chemistry for Environmental Professionals (3 sh)  
EOHS 542 Water Chemistry (3 sh)

Human Health Risk Assessment:

BSTT401 Biostatistics II (4 sh)  
EOHS455 Environmental and Occupational Toxicology (3 sh)  
EOHS556 Risk Assessment in Env and Occ Health (2 sh)

#### Electives

Students should select courses with their advisor in a discipline of interest.

Subtotal 8-24 sh

#### Capstone Requirement

For students in the comprehensive program, the required capstone experience is the field practicum (IPHS 650). Students are required to complete the practicum after completion of all, or nearly all, of their coursework. Students may register for IPHS 650 for 3-5 sh with 1 sh credit awarded for each 64 hr of contact time. MPH students must summarize their experience in a poster presentation.

All students should undergo Institutional Review Board (IRB) training prior to beginning their field experience (IPHS 650) and/or their proposed Capstone project (IPHS 698) if human subject data or analysis is used. Students must submit for IRB review as early as possible, to allow sufficient time for the lengthy review process. Students should consult the SPH Student Reference Guide and their academic advisors to determine the proper IRB procedure to follow. Please note: The field experience and capstone cannot be undertaken without IRB review or exemption.

Subtotal 3- 5 sh

Program Total: 40-56 sh

### **MPH - Professional Enhancement Program (PEP)**

#### SPH Core Requirements (18 semester hours)

EPID 400 Principles of Epidemiology (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

IPHS 698 MPH Capstone Experience (1 sh)

Division Core

All students are required to take a minimum of 12 sh in EOHS courses, choosing at least one course in each of the following three areas:

*Exposure Assessment and Measurement*

EOHS 405 Environmental Calculations (2 sh)

EOHS 440 Chemistry for Environmental Professionals (3 sh)

EOHS 421 Fundamentals of Industrial Hygiene (2 sh)

EOHS 418 Analysis of Water and Wastewater Quality (2 sh)

EOHS 428 Industrial Hygiene Laboratory I (2 sh)

EOHS 438 Air Quality Laboratory (2 sh)

EOHS 542 Water Chemistry (3 sh)

EOHS 543 Environmental Organic Chemistry (3 sh)

HPA 564 Geographic Information System Applications in Public Health (3 sh)

*Health Assessment*

EOHS 450 Principles of Occupational/Environmental Medicine (2 sh)

EOHS 455 Environmental and Occupational Toxicology (3 sh)

EOHS 495 Environmental/Occupational Health Seminar (1 sh)

EOHS 551 Occupational Diseases (4 sh)

EOHS 554 Occupational and Environmental Epidemiology (2 sh)

EOHS 555 Advanced Toxicology (3 sh)

*Intervention Strategies*

EOHS 411 Water Quality Management I (4 sh)

EOHS 431 Air Quality Management I (3 sh)

EOHS 461 Community Health and Consumer Protection (2 sh)

EOHS 482 Occupational Safety Science (2 sh)

EOHS 556 Risk Assessment in Environmental and Occupational Health (3 sh)

Subtotal 12 sh

#### Electives

Students should select courses with their advisor in a discipline of interest.

Subtotal 1-3 sh

#### Capstone Requirement

Students in the PEP are required to complete a capstone experience with 3-5 sh credit. Students may use IPHS 650 Field Practicum as their capstone experience or PEP students may choose to complete a project selected with the student's advisor. Students must summarize their experience in a poster presentation.

Subtotal 3-5 sh

Program Total: 35 sh

### **Additional Requirements for Students Enrolled in the Occupational Medicine Residency Program, Applied Science Accreditation Board for Engineering and Technology, Inc. (ASAC-ABET) - Accredited Industrial Hygiene Program**

#### Occupational Medicine Residency Program

*Additional Requirements (if not selected to meet divisional core requirements).*

EOHS 421 Fundamentals of Industrial Hygiene (2 sh)

EOHS 455 Environmental and Occupational Toxicology (3 sh)

EOHS 551 Occupational Diseases (4 sh)

EOHS 554 Occupational and Environmental Epidemiology (2 sh)

EOHS 482 Occupational Safety Science (2 sh)

Subtotal (divisional core and residency requirements) (12 + 4 sh= 16 sh)

#### *Capstone Requirement*

For occupational medicine residents, the required capstone experience is the field practicum (IPHS 650). Students are required to complete the practicum after completion of all, or nearly all, of their coursework. Students may register for IPHS 650 for 3-5 sh with 1 sh credit awarded for each 64 hr of contact time. Students must summarize their experience in a poster presentation.

Subtotal 3-5 sh

Program Total: 36 sh

ASAC-ABET - Accredited MPH Program in Industrial Hygiene

*Additional Requirements (if not selected to meet the divisional core)*

EOHS 405 Environmental Calculations (2 sh)

EOHS 421 Fundamentals of Industrial Hygiene (2 sh)

EOHS 428 Industrial Hygiene Laboratory I (2 sh)

EOHS 431 Air Quality Management I (3 sh)

EOHS 438 Air Quality Laboratory (2 sh)

EOHS 424 Environmental Acoustics (2 sh)

EOHS 482 Occupational Safety Science (2 sh)

EOHS 529 Industrial Hygiene Lab II (2 sh)

EOHS 523 Engineering Controls/Industrial Ventilation (4 sh)

EOHS 570 Hazardous Materials Management (3 sh)

EOHS 584 Radiation Protection (3 sh)

either EOHS 455 Environmental and Occupational Toxicology (3 sh)

and EOHS 554 Occupational and Environmental Epidemiology (2 sh)

or EOHS 551 Occupational and Environmental Diseases (4 sh)

Subtotal (divisional core and additional requirements) (12 + 19 sh = 31 sh)

*Capstone Requirement*

For students with limited practical experience, the required capstone experience is the field practicum (IPHS 650). Students are required to complete the practicum after completion of all, or nearly all, of their coursework. Students may register for IPHS 650 for 3-5 sh with 1 sh credit awarded for each 64 hr of contact time. For students with appropriate prior work experience, the culminating experience can be a project selected with the student's advisor. Students must summarize their experience in a poster presentation.

Subtotal 3-5 sh

Program Total: 56 sh

**Additional MPH learning objectives for EOHS students:**

- Understand the basic mechanism by which environmental and occupational pollutants impact health (i.e., the linkage of pollutants' source, media, receptor and health effects) and the means to develop controls or interventions to protect humans and ecological systems.
- Understand the basic sciences deemed most relevant for the study of environmental and occupational health - toxicology, epidemiology and environmental chemistry.
- Be able to collect, analyze and interpret environmental and occupational quality data.
- Understand the structure of regulations and policies that govern the efforts to protect workplace and environmental health.
- Demonstrate the ability to implement an occupational or environmental health investigation or project and clearly report on the result.

## *MPH Degree Requirements for the Epidemiology and Biostatistics Division*

### **Epidemiology**

Students are admitted to either the Comprehensive Program or the Professional Enhancement Program (PEP). Admission to the PEP program is generally considered at the time of admission to the School. Current MPH students may petition for admission into the PEP by submitting to their advisor a statement detailing their eligibility based on the following conditions:

- Pre-matriculation professional education in accordance with schoolwide guidelines on PEP
- 3+ years of direct experience in epidemiology. This experience can be work on research projects or applied public health programs; or publications and/or presentations directly relevant to epidemiology.
- Graduate or current student in a US School of Medicine, which provides an evidence-based curriculum exposing students to the US medical/public health systems, epidemiology, and biostatistics.
- Other case-by-case reviews to be conducted by a faculty committee of three.

### Comprehensive Program Curriculum (minimum of 50 sh)

#### *SPH Core Requirements (18 semester hours)*

EPID 494a Introduction to Epidemiology: Principles & Methods\* (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

IPHS 698 MPH Capstone Experience (1 sh)

#### *Epidemiology Requirements (17 sh)*

EPID 494b Epidemiologic Computing\*\* (2 sh)

EPID 404 Intermediate Epidemiologic Methods (4 sh)

EPID 410 Epidemiology of Infectious Diseases (2 sh)

EPID 411 Epidemiology of Chronic Disease (3 sh)

EPID 591 Current Epidemiologic Literature (2 sh)

BSTT 401 Biostatistics II (4 sh)

\* In future offerings, this course will be offered as EPID 403.

\*\* In future offerings, this course will be offered as EPID 406.

*Electives*

Comprehensive program minimum requirement 12 sh

*Field Experience*

IPHS 650 Field Experience in Public Health 3-5 sh

Professional Enhancement Program Curriculum (minimum of 36 sh)

*SPH Core Requirements (18 semester hours)*

EPID 494a Introduction to Epidemiology: Principles & Methods\* (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

IPHS 698 MPH Capstone Experience (1 sh)

*Epidemiology Requirements (17 sh)*

EPID 494b Epidemiologic Computing\*\* (2 sh)

EPID 404 Intermediate Epidemiologic Methods (4 sh)

EPID 410 Epidemiology of Infectious Diseases (2 sh)

EPID 411 Epidemiology of Chronic Disease (3 sh)

EPID 591 Current Epidemiologic Literature (2 sh)

BSTT 401 Biostatistics II (4 sh)

### *Electives*

PEP minimum requirement 1 sh

### *Field Experience*

Not required for the PEP

\* In future offerings, this course will be offered as EPID 403.

\*\* In future offerings, this course will be offered as EPID 406.

Any required course may be waived on the basis of prior education or experience. Please refer to the section on Academic Policies and Standards for course waiver rules and procedure.

Students must select electives in consultation with their advisor. In developing the program of study, students should consult the SPH Student Handbook and the semester course schedule which are available online at the [SPH website](#).

### Field Experience: IPHS 650

For students who are in the comprehensive program, the field experience may be for 3-5 semester hours, based on the field experience responsibilities. Field experience is not required for students in the Professional Enhancement Program (PEP). SPH Memorandum of Understanding and Field Learning Agreement forms must be completed prior to embarking upon the field experience.

The field experience must be practical, applied and public health in orientation, and should preferably be with an organized public or private agency. Working with his/her academic advisor, and with the latter's signed approval the student must submit a detailed (but brief) field experience proposal to the field supervisor. Final Student and Supervisor Evaluation Forms must be given to the advisor for review and signature in order to obtain a grade for IPHS 650.

### Capstone Requirement: IPHS 698

Students must enroll in IPHS 698 (MPH Capstone Experience), for 1 credit hour. Students must complete a formal oral presentation to Division students and faculty on a topic as described below. The presentation will conform to the format and time length of a paper delivered at the annual meetings of the American Public Health Association (APHA). Students are cautioned to restrict their courseload during the semester of capstone registration, as this is an involved and challenging project.

The topic is to be approved by the student's advisor, and a final abstract of the presentation is to be submitted at least one week prior to the presentation. The topic should not be the same as one already addressed in a paper submitted for a previous course. Where appropriate, students are encouraged to present findings based on their field experience (IPHS 650). However, it may take an alternative form, such as a comprehensive review of the literature on a public health issue from an epidemiologic perspective; a report on another research project in which the student has taken part; a proposal for a study to address an important public health issue; or another format acceptable to the student and his/her academic advisor or faculty mentor. Students

may consult with other faculty mentors in addition to their academic advisor for the purposes of developing their capstone presentation.

Three faculty members will evaluate the quality of the presentation. Each faculty member will assess the experience based on three criteria: content (60%), organization (20%) and oral presentation (20%). A presentation should consist of an introduction to the problem or issue, an explanation of the methods used to research the topic, a summary of the results or findings, conclusions as to the public health implications of the results, and recommendations for practical applications or further research.

If the presentation is evaluated as unsatisfactory by at least two of the three faculty members, the student will be required to submit a written paper, including citations, covering the same material as the oral presentation. The written paper will be evaluated by the three committee members on the content and organization of the material. In some cases, the capstone review committee may simply require written clarification or additional analyses pertinent to identified deficiencies in the oral presentation.

Students should refer to the Program Requirements for the MPH Degree in this Handbook for more detail about the field experience and capstone.

#### IRB: Institutional Review Board

All students must undergo Institutional Review Board (IRB) training by the end of their first year of study, and, where required, must submit IRB review or exemption forms prior to beginning the field experience. Students should consult the SPH Student Reference Guides available in the division, and speak with their advisors. Where required, the field experience and capstone cannot be undertaken without first obtaining IRB review or exemption.

#### Standards of Performance for Epidemiology MPH Program

In addition to school-wide standards, for students in Epidemiology no grade below "B" is acceptable in any epidemiology or biostatistics 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.

#### [MPH in Maternal and Child Epidemiology \(53-57 sh\)](#)

In conjunction with the Community Health Sciences division, the Division of Epidemiology and Biostatistics allows students the opportunity to pursue an MPH in Epidemiology under the Maternal and Child Health (MCH) Epidemiology track. This program offers courses in both maternal and child health and epidemiology for students wishing to focus on applied MCH epidemiology.

In addition to the 18 sh of core MPH course requirements, students in the Maternal and Child Health Epidemiology track must take the following courses:

#### *Community Health Sciences Courses (6-7 sh)*

Choose 2 of 5:

CHSC 432 Analytic Methods in Public Health (3 sh)

CHSC 446 Research Methods in Community Health (3 sh)

CHSC 433 Public Health Planning and Evaluation (3 sh)

CHSC 431 Community Assessment in Public Health (3 sh)

PA 540 Research Methods for Public Administration (4 sh)

*Biostatistics and Epidemiology Courses (16 sh)*

BSTT 401 Biostatistics II (4 sh)

BSTT 410 Introduction to Statistical Computing (1 sh)

EPID 494b Epidemiologic Computing\*\* (2 sh)

EPID 404 Intermediate Epidemiologic Methods (4 sh)

EPID 410 Introduction to Infectious Disease Epidemiology (2 sh)

EPID 411 Introduction to Chronic Disease Epidemiology (3 sh)

*MCH Concentration Courses (10 to 11 sh)*

CHSC 441 Introduction to Maternal and Child Health (3 sh)

Choose one:

CHSC 542 Advanced Maternal and Child Health Applied Programs (3 sh) **OR**

CHSC 543 MCH Policy and Advocacy (3 sh)

Choose one:

CHSC 548 Readings in Reproductive and Perinatal Epidemiology (1 sh)

**OR**

EPID 591 Current Epidemiologic Literature (2 sh)

Choose one:

EPID 518 Epidemiology of Pediatric Diseases (3 sh) **OR**

EPID/CHSC 545 Reproductive and Perinatal Health (3 sh)

*Field Experience*

IPHS 650 Field Experience in Public Health (3-5 sh)

Any required course may be waived on the basis of prior education or experience. Please refer to the section on Academic Policies and Standards for course waiver rules and procedure.

Field Experience: IPHS 650:

The Field Experience or practicum for MCH Epidemiology must be undertaken in conjunction with a state or local public health agency.

Students in the Maternal and Child Health Epidemiology program should adhere to all other guidelines for the Epidemiology MPH degree, in addition to the Program Requirements for the MPH Degree in this Handbook.

Additional learning objectives for students in epidemiology:

1. Appreciate the history and philosophy of epidemiology as a public health science.
2. Understand the implications of epidemiology for other health specialists.
3. Understand and apply measures of disease frequency.
4. Have substantive knowledge of chronic and infectious disease epidemiology and their related multidisciplinary fields.
5. Have knowledge of protocol development, subject recruitment, instrumentation, data collection, quality control, multidisciplinary collaboration, reporting and presentation of findings.

**Biostatistics**

A Masters of Public Health (MPH) degree in Quantitative Methods is offered through the School's Biostatistics program. The degree is tailored to those within the public health work-force who require competency in the management, analysis and interpretation of public health data, and knowledge of data analysis issues as applied to a particular area of public health.

Program of Study (Minimum credit hour requirement: 48 sh)

*SPH Core Requirements (18 semester hours)*

EPID 494a Introduction to Epidemiology: Principles & Methods\* (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

IPHS 698 MPH Capstone Experience (1 sh)

*Quantitative Methods Core Requirements (20 sh)*

BSTT 401 Biostatistics II (4 sh)

BSTT 402 Logistic Regression and Survival Analysis (2 sh)

BSTT 410 Introduction to Statistical Computing (1 sh)

BSTT 430 Design of Clinical Trials (3 sh)

BSTT 440 Sampling and Estimation Methods (3 sh)

EPID 404 Intermediate Epidemiologic Methods (4 sh)

CHSC 447 Survey Research Methods (3 sh)

*Concentration Electives*

Minimum of 7 sh; may be more depending on the concentration 7-10 sh

The following are examples of courses in each of the three areas of concentration which would satisfy requirements for the MPH in Quantitative Methods. (Courses will be selected in consultation with a faculty advisor from the student's chosen area of concentration.)

Concentration in EOHS

Option 1:

EOHS 405 Environmental Calculation (1 sh)

EOHS 411 Water Quality Management (3 sh)

EOHS 418 Analysis of Water and Waste Water Quality (2 sh)

EOHS 421 Fundamentals of Industrial Hygiene (2 sh)

Option 2:

EOHS 431 Air Quality Management (3 sh)

EOHS 438 Air Quality Laboratory (2 sh)

EOHS 532 Air Quality Management II (2 sh)

Concentration in CHS

CHSC 433 Public Health Planning and Evaluation (3 sh)

CHSC 434 Qualitative Methods (2 sh)

CHSC 442 Introduction to Community Assessment (2 sh)

Concentration in HPA

HPA 403 US Health Care System (2 sh)

HPA 417 Quality management Health Services (2 sh)

HPA 465 Health Information and Decision Support Systems (4 sh)

## Field Practicum

IPHS 650 Field Practicum 3-5 sh

### *Field Experience: IPHS 650*

The field experience or practicum must be practical, applied and public health in orientation, and should preferably be with an organized public or private agency. A student works with his/her advisor to determine an appropriate practicum site. Students must complete all forms required by the School of Public Health in the semester prior to registration for the Field. (see Program Requirements for the MPH degree in this Handbook).

### *Capstone Requirement: IPHS 698*

All MPH Quantitative Methods students are required to complete a capstone project in their area of concentration, typically a data management and analysis project for a study in that area. Each student will identify a key faculty member in his or her area of concentration as well as a faculty member in Biostatistics. The student will work with these two faculty members to design a plan for an appropriate capstone project, which should include substantive interpretation of results and discussion of consequences in addition to actually carrying out the analysis. The student will write a report which will be evaluated by the two faculty members. The data set may arise from the student's field practicum experience.

Students should refer to the Program Requirements for the MPH Degree in this Handbook for more details about the field experience and capstone.

## IRB: Institutional Review Board

All students must undergo Institutional Review Board (IRB) training by the end of their first year of study, and, where required, must submit IRB review or exemption forms prior to beginning the field experience. Students should consult the SPH Student Reference Guides available in the division, and speak with their advisors. Where required, the field experience and capstone cannot be undertaken without first obtaining IRB review or exemption.

## Standards of Performance for Biostatistics MPH 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.

## *MPH Degree Requirements for the Health Policy and Administration Division*

### **Divisional Course Requirements**

#### **Comprehensive Program**

After admission, the comprehensive MPH student must select one of two tracks in the Division:

- Public Health Policy and Administration; or
- Health Services Administration and Policy **(As of fall 2005 semester, this track will be replaced by the Master of Healthcare Administration (MHA) program. The MHA program curriculum can be viewed at the [MHA website.](#))**

#### Public Health Policy and Administration (PHPA):

The Public Health Policy and Administration Track (PHPA) is designed to prepare students in the MPH Comprehensive Program for participation in organizational and governmental decisions which promote prevention and health protection. Some of these students will be employed as public health administrators in local, state and federal health departments and agencies or in community not-for-profit settings. Others will be policy analysts and advocates within the public health arena.

#### *Requirements*

SPH Core Courses (17 sh):

EPID 400 Principles of Epidemiology (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

PHPA Required Courses (22 sh):

HPA 463 Health Economics (3 sh)

HPA 444 Health Care Budgeting and Strategic Planning (3 sh)

HPA 465 Health Information and Decision Support Systems (4 sh)

HPA 516 Health Personnel Management\*\* (3 sh)

HPA 430 Introduction to Public Health Policy (3 sh)

HPA 431 Law and Public Health (3 sh)

HPA 432 Public Health Advocacy (3 sh)

\*\*NOTE: Courses offered in other UIC departments and institutions may be substituted for PHPA requirements with approval of the student's advisor and the Division Director.

Selectives (2 in either administration or policy)

Policy:

HPA 402 Social Ethics and Public Health\*\* (3 sh)

CHSC 403 The Future of Public Health\*\* (2 sh)

CHSC 584 Community Organizing for Health\*\* (3 sh)

EPID 428 Epidemiology of Violence\*\* (2 sh)

\*\*NOTE: Courses offered in other UIC departments and institutions may be substituted for PHPA requirements with approval of the student's advisor and the Division Director.

Administration:

HPA 511 Organizational Theory (3 sh)

HPA 522 Health Evaluation Methods (3 sh)

HPA 551 Marketing Health Programs (3 sh)

HPA 405 Leadership & P.H. Practice (3 sh)

Electives (3 courses minimum) (6-9 sh)

Field Experience/Practicum:

IPHS 650 (3-5 sh)

MPH Capstone Experience:

IPHS 698 (1 sh)

Total 53-60 sh

*Additional learning objectives for students in the Public Health Policy and Administration track:*

- Identify and define relevant terms, concepts and theories within the fields of law, health policy analysis, public policy development, public health ethics and public health advocacy.
- Identify and define management principles in analyzing, planning, controlling and leading public health agencies.
- Demonstrate an understanding of public policy processes and how they affect the public's health, the field of public health, and the management of public health agencies.
- Apply principles of management to the analysis of case studies in public health administration.
- Select and apply methods for analyzing a public health policy issue and discuss the pros and cons of the method selected.
- Develop and support opinions on public health policy and administration.

Health Services Administration and Policy (HSAP): (this track will be dropped Fall 2005)

*Requirements:*

SPH Core Courses (17 sh):

EPID 400 Principles of Epidemiology (3 sh)

BSTT 400 Biostatistics I (3 sh)

HPA 400 Principles of Management in Public Health (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

EOHS 400 Principles of Environmental Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

HSAP Required Courses (23 sh):

HPA 403 US Health Care System (3 sh)

HPA 417 Quality Management in Health Services (2 sh)

HPA 429 Introduction to Health Services Research (2 sh)

HPA 444 Health Care Budgeting and Strategic Planning (3 sh)

HPA 463 Health Economics (3 sh)

HPA 465 Health Information and Decision Support Systems (4 sh)

HPA 511 Organizational Theory Applied to Health Programs (3 sh)

HPA 516 Health Personnel Management\*\* (3 sh)

3 courses must be completed from among the following:

HPA 402 Social Ethics and Public Health (3 sh)

HPA 430 Introduction to Public Health Policy (3 sh)

HPA 431 Law and Public Health (3 sh)

HPA 432 Public Health Advocacy (3 sh)

HPA 510 Survey of Health Care Information Systems\* (4 sh)

HPA 520 Management of Health Care Communication Systems\* (4 sh)

HPA 522 Health Evaluation Methods (3 sh)

HPA 524 Case Management and Managed Care (3 sh)

HPA 531 Health Information Systems Analysis and Design\* (4 sh)

HPA 540 Applications in Health Information Management\* (4 sh)

HPA 550 Topics in Health Information Management\* (4 sh)

HPA 551 Marketing Health Programs (3 sh)

HPA 594 Advanced Special Topics in Health Policy & Administration (1 to 4 sh)

Electives (in consultation with advisor)

Field Experience/Practicum:

IPHS 650 (3-5 sh)

MPH Capstone Experience:

IPHS 698 (1 sh)

\*HPA has cross-listed courses with the School of Biomedical and Health Information Sciences in the College of Applied Health Sciences enabling students to concentrate in HIM.

**\*\*Note:** Courses offered in other UIC departments and institutions may be substituted for track requirements pending approval of the student's advisor and the Division Director.

*Additional learning objectives for students in the health services administration and policy track:*

- Understand the US health care system and its contemporary policy issues.
- Understand the nature and scope of quality in health services.
- Be knowledgeable of theoretical and methodological considerations in measuring and evaluating health services.
- Be familiar with health services research methods and substantive findings concerning access, quality, costs and outcomes.
- Understand the role of health services research in the public policy process.
- Be knowledgeable of the concepts of cost accounting and budgeting.
- Understand the process and concepts of strategic planning.
- Be familiar with the fundamental concepts of information systems analysis.
- Understand the design, implementation, evaluation and management of health information systems.
- Understand the major variables and alternative models of organization of health problems.
- Be able to analyze health organizations in terms of the interaction of structure, process, and behavior.
- Understand the principles of human resource management with particular application to the health industry and to health professionals.

### **Professional Enhancement Program**

The Professional Enhancement Program curriculum consists of coursework related to general public health knowledge. This curriculum is oriented to students with three or more years of previous experience in a public health related field who intend to pursue a public health career in the same professional area. Full-time students whose program is limited to this curriculum may complete it during one calendar year.

33 sh - minimum course work requirement for MPH degree and capstone requirement.  
(Field Experience/Practicum waived)

*Requirements:*

SPH Core Courses 17 sh:

BSTT 400 Biostatistics (3 sh)

CHSC 400 Public Health Concepts and Practice (3 sh)

HPA 400 Principles of Management in Public Health (3sh)

EPID 400 Principles of Epidemiology (3 sh)

EOHS 400 Environmental and Occupational Health Sciences (3 sh)

HPA 401 Behavioral Sciences in Public Health (2 sh)

Electives 15 sh Minimum:

At least one-half of the elective credit hours (8 sh) must be taken in the HPA division. PEP students may choose elective courses offered by other SPH divisions in consultation with their faculty advisor and final approval from the Division Director.

MPH Capstone Experience:

IPHS 698 (1 sh)

Total minimum semester hours of course work required for graduation: 33 sh

### **IRB Process**

Prior to undertaking the field experience and capstone project students must investigate the applicability of human subjects protections and HIPPA Privacy Rule requirements to their projects. Students should consult the [SPH Student Reference Guides](#) available in the division, and speak with their advisors. The field experience and/or capstone project cannot be undertaken without full compliance with IRB and HIPPA rules.

### **Capstone Requirement**

All HPA students in the MPH Program must complete the following capstone requirements:

#### Capstone Activities:

The student, in consultation with her/his advisor, will propose (and when required), implement a Capstone project that addresses a public health issue. Strategies for completing the Capstone requirement might involve a field practicum, self-study, research project or other experience. The Capstone project must lend itself to demonstrating the integration of HPA core areas with at least one other core area of public health.

#### Capstone Product:

Each student will make a public presentation, approximately 15 minutes in length, that reports on the Capstone project and demonstrates effective achievement of learning objectives, notably the integration of public health concepts beyond those related to

HPA content. The completed Capstone product will include the following elements: (1) Statement of the issue; (2) Review of the relevant literature; (3) Description of the methods needed or actually used to address the issue; (4) Description of the anticipated or actual results; and, (5) Summary of the lessons to be learned or actually learned.

Timeline and Evaluation:

By the end of the semester prior to the semester of graduation, the student will present a Capstone project proposal, with specific learning objectives, to the advisor (or capstone "mentor," if this is a faculty member other than the advisor) for approval.

At least six weeks prior to the public presentation of the Capstone project, the student will present a draft of the presentation to the advisor or mentor and one other faculty member for comment and feedback.

The Capstone project presentation will be reviewed, evaluated and graded by the student's advisor/mentor and by one other faculty member. The two faculty reviewers must reach consensus on a "pass" or "fail" grade for the Capstone project presentation.