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Medical Center

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Want to Change your Community?
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HERE**



School of Public Health Student Handbook: 2009-2010

This Handbook is subject to change.



Dear Student:

Welcome to the School of Public Health and to SUNY Downstate Medical Center. The School of Public Health is accredited by the Council on Education for Public Health and the New York State Education Department.

The **School of Public Health Student Handbook** is provided to assist you with the resources available to guide you in your pursuit of your educational goals. The handbook is an information compendium concerning academic requirements for the School of Public Health Program. **Please note the Student Handbook contains only information pertinent to the School of Public Health degree(s).** For more complete details regarding SUNY Downstate Medical Center policies, student rights and responsibilities, and names, locations, and telephone numbers of campus services, please consult the **SUNY Downstate Medical Center Student Handbook**.

Please study **the School of Public Health Student Handbook and the SUNY Downstate Medical Center Student Handbook** thoroughly. Both student handbooks contain information and rules and regulations that pertain to this academic year only.

SUNY Downstate Medical Center reserves the right to alter the existing rules and regulations, and academic programs, as deemed necessary for the institution. SUNY Downstate Medical Center expressly reserves that right, whenever deemed advisable, to:

1. Change or modify its schedule of tuition and fees;
2. Withdraw, cancel, reschedule, or modify any course, program of study, degree, or any requirement or policy in connection with the foregoing, and,
3. Change or modify any academic or other policy.

Essential changes to information in this Student Handbook concerning new academic regulations, policies or programs will be published in newsletters or other University publications. It is the responsibility of each student to ascertain current information that pertains to the individual's program, particularly with regard to satisfaction of degree requirements by consultation with the student's advisor, the student's program, the School of Public Health Dean's office, the Office of Student Affairs, the Office of the Registrar, and other offices as appropriate. In preparing this Student Handbook, efforts were made to provide pertinent and accurate information; however, SUNY Downstate Medical Center assumes no liability for School of Public Health Student Handbook errors or omissions.

If there is something in this Student Handbook that you do not understand or wish to have clarified, please schedule an appointment with a member of the administration in the Dean's office: 718-270-1065. We hope your time with us will prove fulfilling and valuable.

Sincerely,



Pascal James Imperato, MD, MPH&TM
Dean and Distinguished Service Professor
School of Public Health

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SCHOOL OF PUBLIC HEALTH MISSION STATEMENT, VISSION AND GOALS

Mission Statement:

The mission of the SUNY Downstate School of Public Health is to advance public health knowledge, promote health and well-being, and prevent disease and disability within communities, particularly in urban and immigrant communities. Such actions are accomplished through excellence in the education of public health professionals, scientific investigation of public health issues, and service to communities through collaborative partnerships.

Vision Statement:

Grow the SUNY Downstate School of Public Health into a nationally recognized School of Public Health that is known for leadership in urban and immigrant health, fosters the development of new knowledge and public health practices, trains diverse public health professionals, and creates innovative models to empower communities to address health disparities.

Goals:

- To provide an academic environment for public health education, research, and practice in an urban setting with an emphasis on urban and immigrant health.
- To educate individuals through an academic program that prepares graduates to identify, address, and resolve public health issues and manage public health programs in diverse settings, especially urban environments with different racial, ethnic, cultural, religious, and socioeconomic groups.
- To advance public health knowledge through scientific investigation of health and disease, with a focus on urban and immigrant health issues.
- To disseminate and interpret research results to professionals, patients, individuals and their families, and the public.
- To advance the health of communities through collaborative public health approaches to health promotion and disease prevention and intervention.

SCHOOL OF PUBLIC HEALTH ADMINISTRATION

| | |
|---|-----------------------------|
| Pascal James Imperato, MD, MPH & TM Dean | 718-270-1056 BSB-B4-318 |
| Judith H. LaRosa, PhD, RN Vice Dean for Academic & Student Affairs | 718-270-3204 BSB B4-302 |
| Karen Benker, MD, MPH Associate Dean for Community Public Health Affairs | 718-221-6194 BSB B4-322 |
| Leslie Schechter, MA Assistant Dean for Administration | 718-270-1766 BSB B4-316A |
| Daniel Ilyayev, MSED Director of Student Affairs | 718-270-2759 BSB B4-316B |

SCHOOL OF PUBLIC HEALTH DEPARTMENTS

| | |
|--|--------------|
| Health Policy and Management Departmental Coordinator: Francine Benjamin, MS | 718-613-8780 |
| Department of Environmental and Occupational Health Sciences Departmental Coordinator: Francine Benjamin, MS | 718-613-8780 |
| Department of Biostatistics and Epidemiology Departmental Coordinator: Arlene Mbonu, BA | 718-613-8376 |
| Department of Community Health Sciences Departmental Coordinator: Arlene Mbonu, BA | 718-613-8376 |

School of Public Health e-mail: publichealth@downstate.edu

In addition to consulting the School of Public Health Student Handbook, all School of Public Health (SPH) students, both single and concurrent degree, should consult the SUNY Downstate Medical Center Student Handbook for more detailed information regarding SUNY Downstate Medical Policies and Procedures.

ACADEMIC POLICIES

DEFERRAL OF ADMISSION

Accepted applicants to the School of Public Health (SPH) who request a deferral of admission and who are granted a deferral, are deferred for only one year. Deferrals of admission will not be extended beyond the one year limit except under extraordinary circumstances.

ACADEMIC ADVISING, SUPERVISION, AND EVALUATION OF STUDENT PROGRESS

Each student is assigned a faculty advisor within his/her department upon admission to the Program. Advisor assignments are based on faculty availability within the Program. Faculty advisors assist students in selecting a program of study and monitoring progress toward the successful completion of the degree. Advisors are available throughout the academic year to assist students with problems or issues and for discussions regarding academic progress and career opportunities. Advisors may be changed by request to and with the approval of the departmental chair.

Advisors are required to remain current about each student's academic progress. Course Directors are required to inform the advisor at appropriate intervals concerning students who are having academic difficulties. The advisor will, in turn, share said status with the departmental chair. Together, the advisor, and, as needed, the departmental chair, will work with the student to find necessary assistance.

Students are encouraged to maintain regular contact with advisors. Each student has the responsibility to meet with his/her faculty advisor at least once each semester prior to registration in order to review completed course work and course requirements and assure that the course plan is appropriate.

Confidential files will be maintained on each student charting the student's academic progress according to the Family Educational Rights and Privacy Act (FERPA).

For MPH students, a special emphasis is placed upon advising students engaged in the Culminating Experience. Each student and faculty advisor must review the protocol for the Culminating Experience and assure that the proper documents are completed.

For DrPH student, a special emphasis is placed upon advising students engaged in the doctoral dissertation process. Each student and his/her dissertation advisor (committee chair) and committee must work closely throughout to assure that the student and accompanying requirements and documents are completed properly. Note that the student engaged in dissertation work must register for thesis advisement each semester until the dissertation is completed and approved.

ACADEMIC COUNSELING

The Academic Counseling Offices of the respective Colleges of Medicine, Nursing, Health Professions, and the School of Public Health are available to students for academic support. They provide individualized instruction, workshops, and resource materials on time management, study organization, test-taking techniques, and stress management. Group tutorials will be available for selected courses as needed. Referrals for one-to-one tutoring are available. An educational counselor is available to meet with individual students who are experiencing academic difficulties. The SPH may provide additional resources as needed.

ACADEMIC INTEGRITY

Students are expected to maintain the highest standards of honesty in their academic pursuits. Academic dishonesty is considered a threat to the integrity and reputation of SUNY Downstate Medical Center and all the faculty and students associated with it. Since academic integrity and behavior of students suggest their future professional behavior and integrity in fulfilling their public health responsibilities, the faculty and students of SUNY Downstate Medical Center are committed to upholding and enforcing the highest standards of academic integrity. Students found guilty of any form of academic dishonesty are subject to disciplinary action. Academic dishonesty includes cheating, forgery, plagiarism, and any other infringements that may imply deviance from the highest standards of honesty in all aspects of academic endeavor.

Forms of Academic Dishonesty

Cheating: This is defined as giving or obtaining information by improper means in meeting any academic requirements. Cheating is a serious violation that includes, but is not limited to, the following examples:

- a. The use of the same work for academic credit in more than one course without the knowledge or consent of the instructor(s).
- b. The fabrication of any information used to satisfy any academic requirement.
- c. Behavior that constitutes academic dishonesty during an examination include, but is not limited to:
 - 1) Copying the work of others.
 - 2) Deliberately exposing examination materials to review by other students.
 - 3) Using notebooks, textbooks, information, or materials not specifically authorized by the instructor.
 - 4) Speaking or communicating with other students at any time during the examination.
 - 5) Using a cell phone, beeper or other electronic device during an examination.
 - 6) Leaving the examination for any length of time during the examination, without the authorization of the instructor/proctor. (Leaving the examination room after the exam has started will only be authorized for genuine issues or emergencies. Student may be escorted when leaving and returning to exam room.)

Forgery: This is defined as the alteration of academic forms, documents, or records or the signing of such forms or documents by someone other than the designated or authorized individual. Forgery also includes modifying an examination or assignment that has been graded and returned to the student for review.

Plagiarism: This is the representation, intentional or unintentional, of someone else's words or ideas as one's own. This includes using the work of another student, past or present, as well as the work of published authors. Since under New York State law, words in print are the property of the author or publisher, the intent to deprive that person of property is a form of larceny punishable by fine. When using another person's words in a paper, students must place them within quotation marks or clearly set them off in the text and give them appropriate attribution by footnoting or references. When students use only the ideas and change the words, they must clearly identify the source of the ideas. Plagiarism, whether intentional or unintentional, is therefore a violation of the property of the author plagiarized and of the implied assurance by the students when they hand in work that the work is their own. This includes those individuals who facilitate acts of academic dishonesty by providing papers or other information by another student as their own work. If students have any questions about what constitutes plagiarism, it is their responsibility to clarify the matter by conferring with the instructor.

The model for citations and references used in course work is the Manual of Style of the American Medical Association (AMA), Ninth Edition. You can review it on the AMA website (<http://healthlinks.washington.edu/hsl/styleguides/ama.html>). The ISBN number is: 978-0-683-40206-3.

Please note that the SPH Committee on Student Evaluation, Promotion, and Honors is responsible for:

1. Evaluating the academic performance of all students
2. Recommending students for promotion
3. Evaluating students in academic difficulty
4. Consequences to be applied for infractions of academic integrity
5. Recommending plans for remediation of those students with deficiencies or dismissal
6. Recommending students for graduation (see below for graduation requirements)
7. Recommending the conferring of honors on those students whose work is outstanding
8. Recommending students for marching in the annual May Commencement ceremony

More details are presented below under the **SPH Committee on Student Evaluation, Promotion, and Honors**.

PROFESSIONAL CONDUCT

All students are expected to exhibit a professional demeanor and behave in an appropriate manner while in class and a professional demeanor and behave in an appropriate manner while in class, in field experiences, and when interacting with SPH faculty, staff, and other students, and individuals and groups within the respective communities.

Unprofessional/inappropriate behavior includes, but is not limited to, the following:

1. Late arrival to class.
2. Late submission of papers or dated assignments.
3. Disruptive behavior in class, which includes the following:
 - a) Reading non-course related material in class.
 - b) Using cell phones/beepers/other electronic devices during class.
 - c) Having non-course related discussions with other students during class.

Please see the SUNY Downstate Medical Center Student Handbook (Appendix) for The Rules of Student Conduct.

ABSENCES FROM EXAMS

Students are expected to appear for examinations at the appointed time, or the course instructor may award the student a grade equivalent of “F” or “zero” for the exam. Students must contact the course instructor or the SPH Program Office no later than the day of the exam to explain the reason for his/her absence from the scheduled exam. Failure to notify the course instructor in a timely fashion regarding an absence from an exam may result in an “F” or “zero” for the exam. A student may be excused by the course instructor due to illness or other emergency. Personal physician notes (**may not be from a relative**) or a note from SUNY Downstate’s Student Health Service, must be presented to the course coordinator to document excused absences for illness. (Some courses coordinators may only accept notes from the Student Health Service. Students are advised to consult the course instructor for the policy in that course.)

If the student provides appropriate documentation, a make-up exam **may** be authorized by the course instructor. **The date and time of the make-up is at the discretion of the course instructor and/or the departmental chair.**

PLACEMENT EXAMS:

WRITING PLACEMENT EXAM

All students accepted into the MPH program are required to take a Scientific Writing examination. The purpose of the examination is to determine student proficiency in writing and expressive abilities. Students who pass the examination are exempted from taking a required two credit course in Scientific Writing and Presentation.

MATH PLACEMENT EXAM

All students accepted into the MPH program are required to take a Math Placement examination. The purpose of the examination is to determine student proficiency in mathematics and statistics. Students who pass the examination are exempted from taking a required one credit course in mastering math.

AUDITING

No course auditing will be permitted. Only SPH matriculated students, or those for whom a specific educational program (for example; medical residents/fellows, masters degree program nursing students) has been agreed upon by the departmental chair and/or Vice Dean, will be admitted to classes.

COURSE WITHDRAWALS FROM REQUIRED COURSES

From Required Courses

A student may withdraw from a required course upon written request, and requires approval by both the course director and the SPH Dean or Vice Dean.

- A “W” will be recorded on the student’s official transcript if the withdrawal is prior to the completion of 25% of the course.
- A “Withdraw Pass” (WP) or “Withdraw Fail” (WF) will be recorded, according to academic status, if a student withdraws at a passing grade level from a course after 25% of the course is completed but prior to 75% of the completion of the course.
- A “Fail” (F) will be recorded on the student’s official transcript if a student voluntarily withdraws after the completion of 75% of the course.

To withdraw from a course, the student must:

1. Obtain an Add/Drop form from the SPH Program Administration Office,
2. Discuss the intent to withdraw with the assigned faculty advisor,
3. Obtain a withdrawal grade with the signature of the course instructor and the departmental chair, and,
4. Return one copy to the SPH Program Administration Office and submit the form to the Registrar’s Office.

Students must speak to the course director and advisor(s) before withdrawing from a course.

Please note that withdrawal within the first week of classes entails no penalties – no “W” on the student’s record; no withdrawal fee. Withdrawal within the second week of classes entails no

“W” on the student’s record, but does incur a 30 percent of the tuition charge. Please see the academic calendar for specific dates.

EVALUATION OF STUDENT PERFORMANCE

The faculty is charged with being objective and fair in the evaluation of student performance. Evaluation of student performance is conducted through multiple measures such as examinations (written and oral), class participation, and by observations in discussion groups.

Attendance in the SPH is a privilege and not a right. The SPH reserves the right to dismiss a student at any time for deficient academic performance or unprofessional behavior as determined by the SPH Committee on Student Evaluation, Promotion, and Honors or the disciplinary procedures of the College.

Course instructors are obligated to inform students of the course requirements and evaluation procedures at the beginning of each course. This information must be provided to students in writing. Each course instructor provides students with advice about their academic standing in the course, to detect academic difficulties prior to the final grade.

Course instructors are responsible for the submission of student grades in a timely fashion to Office of the Dean, who will then submit them to the Office of the Registrar. Any change in a student grade must be submitted in writing to the Office of the Registrar by the course instructor or SPH departmental chair. Student questions regarding a grade in a course must first be directed to the course instructor. If questions still remain, the student must meet with the departmental chair. The departmental chair’s decision is final. If a student believes that his/her final course evaluation has been affected by discriminatory behavior as defined by law, the student is urged to meet with the Vice Dean and/or the Director of Affirmative Action in addition to the individuals listed above.

The Office of the Registrar will mail final grades to student addresses on record at the end of each academic year. Students who do not receive notification should contact the Office of the Registrar. **Students are responsible for keeping their current mailing address and telephone number on file with the Office of the Registrar and the SPH Office.**

Institutional policy prohibits the posting of student grades by social security number or other personally identifiable mechanisms. Some instructors post final grades on the PRIME system. To ensure confidentiality, students may access their final grades electronically through Prime using their personal ID names and passwords. At the discretion of the departmental chair, students may receive verbal notification of their grades from SPH Program staff *after* final grades are submitted to the Registrar each semester.

ACADEMIC PROBATION

A student whose cumulative and/or semester GPA is below 3.0, based on a minimum of four (4) courses (12 credits), may be placed on academic probation. A student on probation may register for a maximum of six (6) credits per semester.

After completing twelve (12) credits on academic probation, a cumulative GPA of 3.0 must be achieved in order to be removed from academic probation. A student who fails to achieve a cumulative GPA of 3.0 or higher at the end of taking these additional twelve (12 credits) or whose performance on a lesser number of credits makes it mathematically impossible for him/her to achieve the required GPA of 3.0, shall be referred to the Committee on Student Evaluation, Promotion, and Honors by the departmental chair, which will recommend one of the following options:

1. that the student be dismissed because of poor academic performance;
2. that the student be allowed to continue the next semester on a modified study program and be required to successfully repeat any failed course(s);
3. that the student take a leave of absence (for not more than one year) from SPH until readmitted to either repeat the course(s) or raise his/her GPA to 3.0;

The Committee may request that members of the faculty who are involved in the case be present to answer questions. They may also request additional information. A formal vote is taken and a recommendation is submitted in writing to the Dean. After considering the recommendations of the Committee, the Dean will make a determination. The Vice Dean will notify the student in writing of the action and of his/her right to appeal (See "Appeal and Notification).

Concurrent degree students who are placed on academic probation will have the other degree program notified of the change in status.

DEFICIENT GRADES

A "Fail" (F) grade and a "Withdraw Fail" (WF) are both considered a deficient grade and can be remediated only by repeating the entire course. However, the "F" grade and the "WF" remain on the official transcript along with the grade achieved by removing the deficiency. A student has only one opportunity to remove a deficient grade in a course. If the student fails this make-up, the student will be given a "Fail" grade.

Deficient grades in two or more courses in a semester may subject the student to dismissal. However, since each student's academic performance is reviewed on an individual basis, students are advised to meet with his/her student advisor and/or the departmental chair during the academic semester if they have questions about their particular situation.

SPH COMMITTEE ON STUDENT EVALUATION, PROMOTION, AND HONORS (SEPH)

Responsibilities

The SPH Committee on Student Evaluation, Promotion, and Honors is responsible for:

1. Evaluating the academic performance of all students
2. Recommending students for promotion
3. Evaluating students in academic difficulty
4. Consequences to be applied for infractions of academic integrity
5. Recommending plans for remediation of those students with deficiencies or dismissal.
6. Recommending students for graduation (see below for graduation requirements)
7. Recommending the conferring of honors on those students whose work is outstanding
8. Recommending students for marching in the annual May Commencement ceremony
[Those students who have not yet completed all requirements, but are reasonably expected to finish by the following August, must apply to the Committee to march.]

Members

1. Voting Members: The Committee will consist of a minimum of five voting faculty members inclusive of the Chair.

All new voting faculty members will be appointed by the Dean.

Eligibility requirements for faculty appointment to the Committee include:

- a. The faculty member must be a member of the voting faculty.
- b. The faculty member may not be an officer of the administration.

2. Non-voting members:

- a. The SPH Vice Dean.
- b. One representative from the office of Student Affairs.

The following may attend as *ex-officio* members: SUNY Downstate Medical Center Dean or Associate Dean of Student Affairs.

Meetings of the SPH Committee on Student Evaluation, Promotion, and Honors are confidential and closed to all but the members of the Committee and *ex-officio* members and invited guests.

The Committee will meet a minimum of three times per year; ad hoc meetings will take place as needed. All matters discussed in the Committee are decided by vote in a meeting consisting of at least three voting members.

The Committee may make the following recommendations:

1. Graduation.
2. Graduation with Honors.
3. Promotion, unqualified.
4. Promotion with qualification:
 - a. Recommendation for probationary status (Academic Probation) because of poor academic record or unprofessional behavior.
 - b. Requirement for remedial work, such as a make-up examination or course paper, or repeat of a course/courses
5. Dismissal for academic failure or unprofessional behavior.

All recommendations of the Committee for Academic Probation, to repeat all or part of a course or courses, dismissal for academic failure, or unprofessional behavior shall require a majority vote. Such recommendations will be submitted to the Dean of the SPH.

Students will not be allowed more than four (4) years to complete the MPH curriculum, or seven (7) years to complete the DrPH curriculum, except under special circumstances as determined and approved by the SPH Committee on Student Evaluation, Promotion, and Honors and recommended to the Dean. The time limits pertain only to the MPH or DrPH portion of the concurrent degree program.

The SPH Committee on Student Evaluation, Promotion, and Honors is responsible for recommending to the Dean the dismissal of a student that may occur for any of the following reasons:

1. Unprofessional behavior
2. Inadequate performance while on probation (i.e. receives a deficient grade or violates the conditions of probation).
3. Failure to make satisfactory progress towards graduation.

In the event that the Committee is considering recommending a student for dismissal, prior to the Committee making a final recommendation, the student will be notified in writing and will be given an opportunity to meet with the committee to discuss and clarify any issues regarding his or her academic performance (See Appeals Process described below). The student will have a minimum of 48 hours to prepare his/her statement. If the student opts not to appeal, the recommendation for dismissal will be forwarded to the SPH Dean. A majority vote is required for dismissal.

Appeal and Notification

Students who have been recommended for Academic Probation, repeating a course or dismissal for academic failure, or unprofessional behavior by the SPH Committee on Student Evaluation, Promotion, and Honors shall be notified by the SPH Vice Dean (or designee) and granted the right to appeal the recommendation to the Dean. The appeals process is as follows:

1. Written notification will be given to the student of a decision of the SPH Committee on Student Evaluation, Promotion, and Honors of unsatisfactory academic progress within seven business days of the decision. The Deputy Program Director (or designee) is required to employ only his/her best effort to notify the student of his/her status. (Initial notification will be made to the student's current local address as on file with the Registrar's Office, or the MPH program unless otherwise requested by the student.)

Students are responsible for keeping their mailing address and telephone number on file with the office of the Registrar and the SPH Program Office.

Students in academic difficulty are advised to contact the Vice Dean immediately following the SPH Committee of Student Evaluation, Promotion, and Honors meeting to ascertain their academic status.

2. A student who wishes to appeal a decision of the SPH Committee on Student Evaluation, Promotion, and Honors must submit a written notice to the Vice Dean for an appeal within 2 business days of notification of the SPH Committee on Student Evaluation, Promotion, and Honors decision. The student will have no less than 2 business days to prepare for the appeal. Appeals are intended to be expedited in the shortest reasonable time in order to provide the student with the opportunity to register for the next ensuing term or for summer sessions.

3. The Dean, after due consideration, may accept or reject the SPH Committee on Student Evaluation, Promotion and Honors decision, issue a final and binding determination, or request the SPH Committee on Student Evaluation, Promotion and Honors to undertake another review.

4. The student will be notified of the final decision of the Dean within ten business days. The Dean is required to employ only his/her best effort to notify the student of his/her status. (Notification will be made to the student's local address unless otherwise requested by the student.)

GRADING SYSTEM

Instructors assign a letter grade reflecting the performance of each student in a course. Grade points are assigned to each letter grade based on a 4.0 system and the number of credits for each course. Cumulative grade point averages are calculated each semester.

| Course Average | Letter Grade | Grade Points/ Credit |
|----------------|--------------|-------------------------|
| 96-100 | A | 4.00 |
| 90-95 | A- | 3.67 |
| 85-89 | B+ | 3.33 |
| 80-84 | B | 3.00 |
| 75-79 | B- | 2.67 |
| 70-74 | C+ | 2.33 |
| 60-69 | C | 2.00 |
| | F | 0 |
| | Y | None |
| | I | None |
| | W | None |
| | WF | 0 |
| | WP | None |

Fail: failure to successfully complete the requirements for a major portion of the course, failure to complete successfully requirements for the entire course, or withdrawal from a required course after 75% of the course has been completed.

Incomplete: a portion of the requirements of a course has not been attempted, for reasons beyond the student's control (e.g. illness)

When the course requirements have been completed in a timely fashion (usually within two weeks), the course director reports the change of grade to the Registrar. If the course requirements have not been completed by the specified time, the "I" grade is changed to an "F". Course directors must submit any extensions to deadline dates for Incompletes, to the Office of the Registrar, in writing. The maximum length of time for satisfying course requirements is the last day of classes in the subsequent semester, unless there are special circumstances approved by the SPH Committee on Student Evaluation, Promotion, and Honors.

To be eligible for graduation, a student must remove any "Incomplete" grade. An "Incomplete" grade is not considered a deficient grade. However, for awarding graduation honors, the outstanding work must be completed before such honors will be granted.

Credit: the transcript notation when a student has advanced standing (e.g. transfer credit) for a course previously completed.

Withdrawal: when a student withdraws from a required course prior to 25% of the completion of the course.

Withdraw/Passing: when a student withdraws at a passing grade level from a course after 25% of the course is completed but prior to 75% of the completion of the course.

Withdraw/Failing: when a student withdraws at a failing grade level from a course after 25% of the course is completed, but prior to 75% of the completion of the course; or failure to complete an elective course and not officially withdrawing from the elective. A “WF” grade is an academic deficiency and subject to review in the Student Evaluation process.

GRADUATION REQUIREMENTS

Students must meet all SPH graduation requirements:

1. Register for, and satisfactorily complete all required course work in the curriculum.
2. Register for, satisfactorily complete the Culminating Experience.
3. Satisfactory remediation of any academic deficiencies.
4. Be in good standing (i.e. not on academic or clinical or disciplinary probation at the time of graduation).
5. A grade point average of B or 3.0 on a 4.0-point system is required for successful completion of the degree requirement.
6. Have no disciplinary charges in progress or pending.
7. Satisfy all financial obligations due the SUNY Downstate Medical Center.
8. Complete a mandatory financial aid exit interview if the student has received financial aid while at the SUNY Downstate Medical Center.

Please note: Students are permitted to march in Commencement Ceremony and have their names listed in the program only once. Any student who marches in the Commencement Ceremony once WILL NOT be permitted to march again or have his/her name in the program the following year. August and December graduates may march in the commencement ceremony of the following year. For example: A student completing all graduation requirements in August or December 2009 may march in the May 2010 Commencement Ceremony.

GRADUATION WITH HONORS

To graduate with honors, a student must meet the following criteria:

- a. 3.60 GPA or above
- b. Outstanding (with honors) Culminating Experience
- c. No “C” or lower grades
- d. No record of lack of professionalism or disciplinary issues while in the program

Students graduating in August of the previous year, December, or May of the same academic year and participating in the May Commencement Ceremony are eligible for the General Excellence Award.

LEAVES OF ABSENCE

All leaves of absence are granted by the departmental chair. A request for a leave of absence may be approved or disapproved by the departmental chair. Permission for the leave must be obtained in accordance with these procedures and prior approval to return must also be granted.

Requesting a Leave

To request a Leave of Absence from the SPH, a student must:

1. Obtain a Leave of Absence form from the Office of Student Affairs.
2. Request a leave in writing as specified on the Leave of Absence form. The request must include:
 - a) the length of time desired for the leave (up to one year)
 - b) reasons for the request; and;

- c) a description of the activities that will make the leave meaningful and useful (outline a plan).
3. This written request must be brought/sent to the SPH Program Office, and the student must meet with the departmental chair.
4. The student must continue in coursework (barring an emergency situation as defined by the departmental chair), until the leave of absence is approved. The departmental chair (or designee) may request that the student meets with the Vice Dean prior to granting approval for the leave. If the leave will extend the student's academic time past the four (4) year deadline, that extension will require approval by the SPH Committee on Student Evaluation, Promotion, and Honors.
5. Clearances from the Bursar, Financial Aid and Housing, if appropriate, must be obtained.

Although the departmental chair may grant a leave, the SPH Committee on Student Evaluation, Promotion, and Honors will review the student's academic status up until the time the leave was approved, and may recommend action. All grades earned by the student prior to the approval of the leave remain on the student's transcript (permanent record).

Leaves of absence may be granted for the following reasons:

1. For reasons of a special academic program.
2. For the purpose of special study.
3. For reasons of health or other personal emergency.

If a health, family, social, or emotional situation necessitates time away from the program, a leave of absence may be recommended by the student's advisor or requested by the student. Depending on the nature of the student's request for leave, consultants from the Student Health Service and/or psychiatric consultants may be asked to provide information (with the student's consent) to the committee.

Leaves of absence are granted for a maximum of one year. An extension may occasionally be granted by the Dean upon recommendation by the SPH Committee on Student Evaluation, Promotion, and Honors for unusual circumstances if the student requests an extension in writing at least two months prior to the expected reentry date.

RETURNING FROM A LEAVE

A student may only return if the departmental chair determines that the student has met the goals and conditions for the leave. A request to reenter must be received by the departmental chair by the date specified in the letter from the SPH Committee on Student Evaluation, Promotion, and Honors. Such requests will be evaluated in terms of the student's success in resolving the problems that necessitated the leave and the student's ability to resume the responsibilities of continuing in their program. Every student returning from a leave of absence must be cleared by the Student Health Service and receive written approval to resume classes.

A student granted permission to return from a leave must meet with the departmental chair and/or the student's advisor to schedule courses for the academic year.

If, at the end of the approved absence, the student has not applied for reentry or is not permitted reentry, the student is withdrawn from the Program. There is no appeal from this determination.

STUDENT RECORDS

The SPH is in full compliance with the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment) which gives students access to educational records. Students may arrange to review their program records by making an appointment with the SPH Program Coordinator in the SPH Program Office.

E-MAIL

In order to receive official information distributed by faculty and administration, students are responsible for checking their email frequently – at least on a twice a week.

EMERGENCIES (Weather and Other Events)

While Downstate Medical Center (school and hospital) has never been closed due to a snow emergency, if such a declaration were to be made, you would hear the notification on your local radio or television station, the same as the notification for other school closings. You may also telephone the University Operator at 718-270-1000.

Only the President of the Downstate Medical Center is authorized to cancel academic classes at Downstate Medical Center.

However, inclement weather or other events may cause the cancellation of specific classes by the course instructor or Program Dean. If a weather emergency or other emergency event should occur, please check the SUNY Downstate website for information. In addition, one may telephone the general campus telephone number which is 718-270-1000.

Upon calling 718-270-1000, the caller will hear, “Welcome to Downstate Medical Center and its University Hospital of Brooklyn. University Hospital and all College remain OPEN today. However, college class instructors have the option of canceling individual classes. Students should press ‘2’ to hear the status of classes in your individual program. All others, Press ‘1’ to continue to the main menu.”

When you press ‘2,’ you will hear:

For MS1, press ‘1’

For MS2, press ‘2’

For College of Nursing, press ‘3’

For College of Health Related Professions, press ‘4’

For the School of Graduate Studies, press ‘5’

For the School of Public Health, press ‘6’

School of Public Health Program Office

Students may also call the School of Public Health Office number: 718-270-1065; this will allow the student to bypass the prompt system you will encounter in calling the 718-270-1000.

Please call immediately prior to traveling to class to get the most recent information available. If time permits, the SPH administration will send an e-mail to students regarding any individual class closures. Be sure to also check your e-mail prior to class.

A determination regarding whether or not classes are in session will be made on each day of the emergency. Please call back again prior to your next scheduled class to find out if there have been any changes or updates.

CURRICULUM GOAL AND OBJECTIVES

The goal and objectives of the School of Public Health at SUNY Downstate are congruent with state-of-the-science public health programs across the country; and specifically address the issues in urban and immigrant health. The underlying premises though reflect the essentials that are public health no matter where it is practiced.

Goal

The goal of the SUNY Downstate PH Program is to provide an academic environment for public health education, research, and practice, in an urban setting with an emphasis on immigrant health.

Objectives

1. To prepare graduates to identify, address, and resolve public health issues and manage public health programs in diverse settings, especially urban environments with different racial, ethnic, cultural, religious, and socioeconomic groups.
2. To prepare students to advance public health knowledge through scientific investigation of health and disease, with a focus on urban and immigrant health issues.
3. To prepare students to disseminate and interpret research results to professionals, patients, and the public.
4. To prepare students to advance the health of the communities through collaborative public health approaches to health promotion, disease prevention and intervention, particularly urban and immigrant health communities.

ACADEMIC REQUIREMENTS

MASTER OF PUBLIC HEALTH (MPH)

The Master of Public Health (MPH) program is designed to be completed in two years of full-time academic work, or up to four years of part-time academic work, including the Culminating Experience

A master's degree candidate must complete the proposed MPH program core requirements as well as the requirements of a track specialty within a department. Electives, which provide a further in-depth examination of selected issues, will complete the program requirements. For all students, the number of credits required for successful completion of the program is 42.

All students must complete a Culminating Experience that integrates theory and practice. The SUNY Downstate Medical Center School of Public Health is well situated to work with students to arrange a Culminating Experience through collaborative arrangements with an array of public and private hospitals, community-based organizations, and local, state, and federal agencies. Students are also encouraged to identify opportunities for a Culminating Experience.

MPH CORE REQUIREMENTS (18 CREDITS)

All students for an MPH degree, regardless of specialty, must complete 18 credits of MPH core requirements, 12 credits of the track specialty requirements, 9 credits of electives, and three (3) credits of the Culminating Experience. The MPH core requirements are listed below.

| Course # | Course Title | Credits |
|--|---|---------|
| BIOS 5200 (Formerly URBA 5101) | Principles of Biostatistics | 3 |
| CHSC 5200 (Formerly URBA 5103) | Health Behavior and Risk Reduction | 3 |
| CHSC 5201 (Formerly URBA 5201) | Introduction to Public Health Theory and Practice | 3 |
| EOHS 5200 (Formerly URBA 5104) | Issues in Environmental Health | 3 |
| EPID 5200 (Formerly URBA 5102) | Principles of Epidemiology | 3 |
| HPMG 5200 (Formerly URBA 5105 Principles of Health Systems Management) | Health Care Organization and Finance | 3 |

CULMINATING EXPERIENCE:

All MPH students entering the program as of June 2009 must complete a 1-credit Field Experience and a 2-credit Culminating Experience.

PUBH 6500: Field Experience 1 credit

This course is an opportunity for students to apply the knowledge and skills learned in the classroom directly in a fieldwork experience. After completion of an online module on professionalism, the student will work at an approved external site, typically a local or state health agency or a local organization under the supervision of a public health professional. If a student is able to do a placement only in his or her regular place of employment, the assignment must extend beyond or be something other than his or her regular work duties and allow application of knowledge and skills learned in the classroom.

PUBH 6000: Culminating Experience Planning Seminar 1 credit

For those who matriculated before June 2009, the CE Planning Seminar gives students an opportunity to create a plan for their Culminating Experience. The CE may take several forms based on the student's academic interests, the track in which he/she is enrolled, and his/her plans after graduation.

| Course # | Course Title | Credits |
|--------------------------------|----------------------------|---------|
| PUBH 6500 | MPH Field Experience | 1 |
| PUBH 6001 (Formerly URBA 5504) | MPH Culminating Experience | 2 |

MPH TRACK REQUIREMENTS BY DEPARTMENT

BIostatistics (BIOS) CORE REQUIREMENTS (12 CREDITS)

In addition to the MPH core requirements, all students for an MPH with a specialization in Biostatistics must complete the core requirements for the BIOS track.

| Course # | Course Title | Credits |
|--------------------------------|---|---------|
| BIOS 5201 (Formerly URBA 5317) | Categorical Data Analysis | 3 |
| BIOS 5202 | Applied Regression Analysis | 3 |
| BIOS 5203 | Survival Analysis (Formerly: Time Series Analysis) | 3 |
| BIOS 5204 | Statistical Computing | 3 |

ELECTIVES (9 CREDITS)

Students have a range of elective choices to complete the requirements for a BIOS MPH. All students must complete nine (9) elective credits. Please note that some electives require a prerequisite course. . Electives are based on student interest with advisor approval

| Course # | Course Title | Credits |
|--------------------------------|--|---------|
| BIOS 5300 | Introduction to Sampling | 3 |
| BIOS 5301 | Survey Research Methods | 3 |
| BIOS 5302 | Advanced Experimental Design | 3 |
| BIOS 5303 | Nonparametric Statistics | 3 |
| BIOS 5304 | Design And Analysis of Clinical Trials | 3 |
| BIOS 5310 (Formerly URBA 5502) | Independent Study | 1-4 |

COMMUNITY HEALTH SCIENCES (CHSC) CORE REQUIREMENTS (12 CREDITS)

In addition to completing the MPH core requirements, all students for an MPH with a specialization in Urban and Immigrant Health must complete the core requirements for the CHSC Urban and Immigrant Health track. Electives are based on student interest with advisor approval

| Course # | Course Title | Credits |
|--------------------------------|---|---------|
| CHSC 5202 (Formerly URBA 5202) | Issues in the Health of Immigrant Populations | 3 |
| CHSC 5203 (Formerly URBA 5203) | Sex, Gender, Race, and Ethnicity | 3 |
| CHSC 5205 (Formerly URBA 5206) | Urban Health Issues | 3 |
| CHSC 5206 | Planning, Program, and Evaluation | 3 |

COMMUNITY HEALTH SCIENCES (CHSC) ELECTIVES (9 CREDITS)

Students have a range of elective choices to complete the requirements for a CHSC MPH. All students must complete nine (9) elective credits. Please note that some electives may require a prerequisite course. Electives are based on student interest with advisor approval.

| Course # | Course Title | Credits |
|---|---|---------|
| CHSC 5204 (Formerly URBA 5205) | Community Organization | 3 |
| CHSC 5300 (Formerly URBA 5310) | Epidemiologic Research Methods | 3 |
| | Introduction to Research) | |
| CHSC 5301 (Formerly URBA 5303) | Human Sexual Behavior | 3 |
| CHSC 5302 (Formerly URBA 5311) | Social Marketing | 3 |
| CHSC 5303 (Formerly URBA 5304) | Issues in HIV Prevention | 3 |
| CHSC 5304 (Formerly URBA 5318) | Planning Pediatric and Adolescent Interventions | 3 |
| CHSC 5305 (Formerly URBA 5305) | Issues in Adolescent Health | 3 |
| CHSC 5306 (Formerly URBA 5603: Understanding Health Behavior) | Psychosocial and Behavioral Epidemiology | 3 |
| CHSC 5307 | Early Child Development: A Public Health | |

| | | |
|--------------------------------|--|-----|
| | Perspective | 3 |
| CHSC 5308 | Public Health Preparedness and Response to Emergencies | 3 |
| CHSC 5310 (Formerly URBA 5502) | Independent Study | 1-3 |
| CHSC 6020 | Field Experience in Maternal and Child Health | 1-3 |

**ENVIRONMENT AND OCCUPATIONAL HEALTH SCIENCES (EOHS)
CORE REQUIREMENTS (12 CREDITS)**

In addition to the MPH core requirements, all students for an MPH with a specialization in Environment and Occupational Health Sciences must complete the following core requirements for the EOHS track.

| Course # | Course Title | Credits |
|-----------|--|---------|
| EOHS 5201 | Introduction to Management, Policy and Law | 3 |
| EOHS 5202 | Occupational Health | 3 |
| EOHS 5203 | Built Environment & Public Health | 3 |
| EOHS 5205 | Risk Assessment and Communication | 3 |

**ENVIRONMENT AND OCCUPATIONAL HEALTH SCIENCES (EOHS)
ELECTIVES (9 CREDITS)**

Students have a range of elective choices to complete the requirements for a BIOS MPH. All students must complete nine (9) elective credits. Please note that some electives require a prerequisite course. . Electives are based on student interest with advisor approval.

| Course # | Course Title | Credits |
|---|---|---------|
| EOHS 5300 (Formerly URBA 5306) | Injury and Violence Prevention | 3 |
| EOHS 5301 | Principles of Industrial Hygiene | 3 |
| EOHS 5302 (Formerly EOHS 5049 Women, Health, & the Environment) | Women's Health Policy: Epidemiology and the Environment | 3 |
| EOHS 5303 | Health Effects of Air Pollutants | 3 |
| EOHS 5304 | Case Studies in Environmental Health | 3 |
| EOHS 5305 | Principals of Food Safety | 3 |
| EOHS 5310 (Formerly URBA 5502) | Independent Study | 1-3 |
| EOHS 7204 | Organization of Work, Occupational Stress, & Health | 3 |

EPIDEMIOLOGY (EPID) CORE REQUIREMENTS (12 CREDITS)

In addition to the MPH core requirements, all students for an MPH with a specialization in Epidemiology must complete the following core requirements for the EPID track.

| Course # | Course Title | Credits |
|--------------------------------|---|---------|
| EPID 5201 | Epidemiologic Research Methods | 3 |
| EPID 5202 | Infectious Disease Epidemiology | 3 |
| EPID 5203 (Formerly URBA 5302) | Chronic Disease Epidemiology | 3 |
| EPID 5204 | Biomarkers and Epidemiology (Formerly: Statistical Computer Applications In Epidemiology) | 3 |

EPIDEMIOLOGY (EPID) ELECTIVES (9 CREDITS)

Students have a range of elective choices to complete the requirements for a EPID MPH. All students must complete nine (9) elective credits. Please note that some electives require a prerequisite course. . Electives are based on student interest with advisor approval.

| Course # | Course Title | Credits |
|--|---------------------------|----------------|
| EPID 5300 | Cancer Epidemiology | 3 |
| EPID 5301 | Reproductive Epidemiology | 3 |
| EPID 5302 | Epidemiology of HIV/AIDS | 3 |
| EPID 5303 | Nutritional Epidemiology | 3 |
| EPID 5304 | GIS and Public Health | 3 |
| EPID 5305 | Epidemiology of Aging | 3 |
| EPID 5310 (Formerly URBA 5502) | Independent Study | 1-3 |

HEALTH POLICY AND MANAGEMENT (HPMG) CORE REQUIREMENTS (12 CREDITS)

In addition to the MPH core requirements, all students for an MPH with a specialization in Health Policy and Management must complete the following core requirements for the HPMG track.

| Course # | Course Title | Credits |
|-----------------|--|----------------|
| HPMG 5202 | Health Care Advocacy and Politics | 3 |
| HPMG 5203 | Health Management Concepts | 3 |
| HPMG 5204 | Access, Cost and Quality of Care (Formerly : Access, Availability, and Quality of Health Care) | 3 |
| HPMG 5205 | Health Economics | 3 |

HEALTH POLICY AND MANAGEMENT (HPMG) ELECTIVES (9 CREDITS)

Students have a range of elective choices to complete the requirements for a HPMG MPH. All students must complete nine (9) elective credits. Please note that some electives require a prerequisite course. . Electives are based on student interest with advisor approval.

| Course # | Course Title | Credits |
|---|--|----------------|
| HPMG 5201 | Health Policy in the Delivery System | 3 |
| HPMG 5300 | Health Care Finance | 3 |
| HPMG 5301 | Tools of Government | 3 |
| HPMG 5302 | Pharmaceuticals and the Health Care System | 3 |
| HPMG 5303 | Managing in Complex Organizations | 3 |
| HPMG 5304 | Health Care Reform | 3 |
| HPMG 5305 | Organizational Change in Health Care | 3 |
| HPMH 5310 (Formerly URBA 5502) | Independent Study | 1-3 |

PROFESSIONAL DEVELOPMENT COURSES FOR MPH STUDENTS

- **Writing Placement Exam.** All students accepted into the MPH program are required to take a Writing Placement examination. The purpose of the examination is to determine student proficiency in written expression. Students who pass the examination are exempted from taking a required two (2) credit course, *PUBH 5100: Writing with Power.
- **Math Placement Exam.** All students accepted into the MPH program are required to take a Math Placement examination. The purpose of the examination is to determine student proficiency in mathematics and statistics. Students who pass the examination are exempted from taking a required one (1) credit course, *PUBH 5101: Mastering Math.

* **Please Note that** these courses do not count towards the required 42-credits. Both courses are graded as pass/fail.

- **Non-Health Professional Student Requirements for MPH Students**
In addition to the PH Core Requirements and the Track Core Requirements, those who are non-health care professional students must also complete the following course:

PUBH 5102. Health Care Across the Lifespan (3)

Note that this course has credit value but it does not count toward the required 42 MPH credits.

Course Exemption for Non-Health Care Professional Course. The course listed under *Non-health Care Professional Student Requirements* is waived for students who are pursuing a concurrent degree in a health profession or who are already a health care professional. Individuals who do not meet these criteria and who wish to receive course exemption must demonstrate competency in the areas of anatomy, physiology, biochemistry, pathology, microbiology, pathophysiology, as well as clinical competency **BY** taking and passing a written examination in: *Health Care Across the Lifespan* (3 credits). Official documents from an accredited institution(s) must demonstrate that the individual has taken and passed college level, or higher, courses in such subjects. Health care professionals are not eligible to take this exemption examination.

Those who wish to take the exemption exam must pay a fee of \$50.00 per credit of the course from which they wish to be exempted, i.e., \$150.00 for a 3 credit course. If the individual passes the examination, s/he will have those credits applied to the total number of credits for successful completion of the course of study. Those who do not pass the examination must take that course and pay the full tuition for the course. The \$50.00 per credit exemption examination fee will not be refunded.

DrPH TRACK REQUIREMENTS BY DEPARTMENT

DrPH PROGRAM

The Doctor of Public Health (DrPH) program is designed to be completed in three (3) years of full-time academic work, or up to seven (7) years of part-time academic work, including the doctoral dissertation.

A doctoral degree candidate must complete the proposed DrPH program core requirements as well as the requirements of the track specialty. Electives, which provide a further in-depth examination of selected issues, will complete the program requirements. For all students, the number of credits required for successful completion of the program is 42.

All students must complete at least one field experience and a dissertation, an original research study, that integrates theory and practice. In addition, each student is required to complete an oral examination as well as a defense of the doctoral original research study.

DRPH CORE REQUIREMENTS (12 CREDITS)

| Course # | Course Title | Credits |
|-----------|--|---------|
| BIOS 7200 | Quantitative Research Methods For Public Health Practice | 3 |
| EPID 7200 | Observational Study Design In Public Health Practice | 3 |
| HPMG 7200 | Public Health Management And Ethics | 3 |
| HPMG 7205 | Interdisciplinary Leadership Seminar In Public Health | 3 |
| PUBH 6500 | Field Experience | 3 |
| PUBH 8001 | DrPH Dissertation | 12 |

COMMUNITY HEALTH SCIENCES (CHSC) CORE REQUIREMENTS (12 CREDITS)

In addition to the DrPH core requirements, all students for a DrPH with a specialization in Community Health Sciences must complete the following core requirements for the CHSC track.

| Course # | Course Title | Credits |
|-----------|--|---------|
| CHSC 7201 | Qualitative Assessment for Public Health Programs | 3 |
| CHSC 7202 | Methods of Community Intervention and Research | 3 |
| CHSC 7203 | Program Evaluation: Theory, Practice, and Research | 3 |
| CHSC 7204 | Health Promotion Seminar | 3 |

COMMUNITY HEALTH SCIENCES (CHSC) ELECTIVES (6 CREDITS)

Students have a range of elective choices to complete the requirements for a DrPH. All students must complete six (6) elective credits.

| Course # | Course Title | Credits |
|-----------|---|---------|
| CHSC 7300 | Theories of Health Behavior | 3 |
| CHSC 7301 | Psychosocial and Behavioral Epidemiology | 3 |
| CHSC 7302 | Health Communication Theory and Practice | 3 |
| CHSC 7303 | Survey Research Methods | 3 |
| CHSC 7304 | Culture, Class, and Ethnicity in Health Promotion | 3 |
| CHSC 7320 | Independent Study | 1-3 |

**ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES (EOHS)
CORE REQUIREMENTS (12 CREDITS)**

In addition to the DrPH core requirements, all students for a DrPH with a specialization in Environmental and Occupational Health Sciences must complete the following core requirements for the EOHS track.

| Course # | Course Title | Credits |
|-----------|---|---------|
| EOHS 7201 | Molecular Epidemiology, Biomarkers, and Toxicology | 3 |
| EOHS 7202 | Advanced Topics in Risk Assessment and Management | 3 |
| EOHS 7203 | Environmental Health Policy and Management Systems | 3 |
| EOHS 7204 | Organization of Work, Occupational Stress, and Health | 3 |

**ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES (EOHS)
ELECTIVES (6 CREDITS)**

Students have a range of elective choices to complete the requirements for a DrPH. All students must complete six (6) elective credits.

| Course # | Course Title | Credits |
|-----------|---|---------|
| EOHS 7300 | Advanced Topics in Occupational Health | 3 |
| EOHS 7301 | Emerging Issues in Local, National, and Global Environmental Health | 3 |
| EOHS 7302 | Disaster Preparedness and Response | 3 |
| EOHS 7303 | Environmental Health Law | 3 |
| EOHS 7320 | Independent Study | 1-3 |

EPIDEMIOLOGY (EPID) CORE REQUIREMENTS (12 CREDITS)

In addition to the DrPH core requirements, all students for a DrPH with a specialization in Epidemiology must complete the following core requirements for the EPID track.

| Course # | Course Title | Credits |
|-----------|--|---------|
| EPID 7201 | Advanced Epidemiological Research Methods I | 3 |
| EPID 7202 | Advanced Epidemiological Research Methods II | 3 |
| EPID 7203 | Principles of Surveillance and Disease Control | 3 |
| EPID 7204 | Reading Seminar in Epidemiology | 3 |

EPIDEMIOLOGY (EPID) ELECTIVES (6 CREDITS)

Students have a range of elective choices to complete the requirements for a DrPH. All students must complete six (6) elective credits.

| Course # | Course Title | Credits |
|-----------|---|---------|
| EIPD 7300 | Epidemiology of Communicable Diseases | 3 |
| EPID 7301 | Molecular Epidemiology, Biomarkers and Toxicology | 3 |
| EPID 7302 | Cancer Epidemiology | 3 |
| EPID 7303 | Chronic Disease Epidemiology | 3 |
| EPID 7320 | Independent Study | 1-3 |

HEALTH POLICY AND MANAGEMENT (HPMG) CORE REQUIREMENTS (12 CREDITS)

In addition to the DrPH core requirements, all students for a DrPH with a specialization in Health Policy and Management must complete the following core requirements for the HPMG track.

| Course # | Course Title | Credits |
|-----------|---|---------|
| HPMG 7201 | Advanced Health Care Organization and Finance | 3 |
| HPMG 7202 | Strategic Management and Planning | 3 |
| HPMG 7203 | Health Care Reimbursement | 3 |
| HPMG 7204 | Health Care Workforce | 3 |

HEALTH POLICY AND MANAGEMENT (HPMG) ELECTIVES (6 CREDITS)

Students have a range of elective choices to complete the requirements for a DrPH. All students must complete six (6) elective credits.

| Course # | Course Title | Credits |
|-----------|--|---------|
| HPMG 7300 | Health Care Law and Ethics | 3 |
| HPMG 7301 | Health Care Quality | 3 |
| HPMG 7302 | Program Evaluation | 3 |
| HPMG 7303 | Inequalities In Health and Health Care | 3 |
| HPMG 7304 | Outcomes Research Methods | 3 |
| HPMG 7305 | Pharmaceuticals and the Health Care System | 3 |
| HPMG 7306 | Issues In Global Health and Health Care | 3 |
| HPMG 7307 | International Health/Comparative Health Systems | 3 |
| HPMG 7308 | Health Care Disparities | 3 |
| HPMG 7309 | Topics In Healthcare Organization and Management | 3 |
| HPMG 7310 | Health Information Technology and Electronic Medical Records | 3 |
| HPMG 7311 | Health Care Regulation | 3 |
| HPMG 7312 | Planning For Health Services | 3 |
| HPMG 7313 | Long Term Health Care | 3 |
| HPMG 7314 | Mental Health Care and Services | 3 |
| HPMG 7315 | Health Care Capital | 3 |
| HPMG 7320 | Independent Study | 1-3 |

TEXTBOOK POLICY

The School of Public Health does not order textbooks in bulk from the SUNY Downstate bookstore, as the majority of students order them on-line. **Students are therefore, advised to order textbooks on-line or at their local bookstores.** Students can obtain textbooks and required reading information by contacting the SPH Program Office.

CREDIT TRANSFER POLICY

MPH Program Transfer Credits

Please note that a maximum of twelve (12) credits from another CHEA regionally accredited college and/or university can be transferred into the MPH program. Transfer of credits for courses used towards the completion of a granted degree will not be considered. Courses taken at other CHEA accredited institutions must be approved by the departmental chair. **Courses used for previous degrees cannot be transferred.**

DrPH Program Transfer Credits

A maximum number fifteen (15) credits from another CHEA regionally accredited college and/or university can be transferred into the doctoral program. Courses used towards the completion of a granted degree will not be considered. However, some DrPH coursework may be waived if relevant doctoral level courses have been taken at another institution. **A waiver or transfer of credits for course(s) taken at another accredited institution(s) must be approved by the departmental chair.**

For transfer of credits or a waiver, the accepted student must provide: 1) a course description and 2) verification of at least a B grade (3.0 on a 4.0 system) in that particular course(s).

Credit transfers must be approved by the departmental chair. The student must furnish official, written proof of the course content equivalency. If the student fails to provide appropriate proof of course content equivalency in a timely fashion, the option for credit transfer may be denied.

MPH COURSE DESCRIPTIONS

PROFESSIONAL DEVELOPMENT COURSES

PUBH 5100 (Formerly URBA 5003): Writing with Power (2)

Techniques for producing writing that are clear, concise and compelling. This workshop will introduce strategies for avoiding common writing pitfalls and for effectively organizing, proofing and revising writing. The workshop culminates in the development of a clear and coherent public health intervention action plan.

PUBH 5101 (Formerly URBA 5004): Mastering Math (1)

Designed to enhance key concepts in mathematics and statistics. This course will review basic math operations, formula solving and manipulation, and basic concepts of algebra. The purpose is to provide a strong mathematical foundation to pursue relevant coursework in introductory biostatistics and epidemiology.

REQUIRED COURSE FOR NON-HEALTH PROFESSIONAL STUDENTS

PUBH 5102 (Formerly URBA 5002): Health Care Across the Lifespan (3)

This course is designed to examine health care from infancy to old age. Selected models are presented for understanding development processes as an individual ages. These models will be drawn from disease states as they evolve across the lifespan. That knowledge will be applied to issues of health maintenance and disease prevention. Introduction to public health topics related to human health and disease, including a review of anatomy, physiology, and pathology of selected organ systems and associated diseases will be discussed.

This course may be waived. See Course Exemption policy.

REQUIRED MPH CORE COURSES (21 credits)

BIOS 5200 (Formerly URBA 5101): Principles of Biostatistics (3)

Introduction to statistical methods in public health. The course will cover descriptive statistics, probability concepts, and estimation of parameters, hypothesis testing, simple linear regression, correlation, and analysis of attribute data.

CHSC 5200 (Formerly URBA 5103): Health Behavior and Risk Reduction (3)

An introduction to the concepts, theories, and status of research in health promotion and disease prevention, with an emphasis on methods employed to modify group and individual health-related behaviors. This course examines methods of ascertaining health behaviors, the design and interpretation of behavioral intervention programs to modify behaviors, and current trends in the study of how lifestyle and preventive health practices impact on public health.

CHSC 5201 (Formerly URBA 5201): Introduction to Public Health Theory and Practice (3)

Introduction to the broad concepts of public health practice including the mission, core functions, structure, policy role, program activities, and collaborative endeavors of public health agencies. Theoretical and practical perspectives are studied to illustrate contemporary strategies for health promotion and disease prevention at local, state, and national levels.

EOHS 5200 (Formerly URBA 5104): Issues in Environmental Health (3)

Major environmental health issues. The course addresses public health issues in the management of water quality, wastewater, occupational health, trace elements, municipal and hazardous waste, vector control and air quality.

EPID 5200 (Formerly 5102): Principles of Epidemiology (3)

This course offers an introduction to the principles, concepts, and methods of epidemiologic research. Topics include the calculation, interpretation and application of measures of disease frequency, association and public health impact; epidemiologic study design and analysis (including the role of chance, bias and confounding); direct standardization of rates, statistical inference and principles of screening. This course also teaches students how to apply epidemiologic methods to critically analyze and interpret public health literature.

HPMG 5200 (Formerly URBA 5105 Principles of Health Systems Management): Health Care Organization and Finance (3)

Concepts and principles of management applied to planning, organizing, staffing, leading, controlling, financing, and evaluating health services organizations. Further focus will be on management and organization interaction as well as managerial roles, styles, activities, and decision-making.

BIostatistics CORE REQUIREMENTS (12 credits)**BIOS 5201 (Formerly URBA 5317): Categorical Data Analysis (3)**

This course covers analytical techniques involved in the analysis of studies where subjects have been cross-classified by two or more categorical variables. Special emphasis will be on problems related to epidemiology, public health and medicine. Topics will include: significance versus magnitude of association; estimation of relative risk; matching cases and controls; effects, measurement, and control of misclassification errors; combining evidence from many studies; and logistic regression. Students will be introduced to the SPSS statistical package for the topics covered in the course.

Prerequisite: Principles of Biostatistics and Principles of Epidemiology.

BIOS 5202: Applied Regression Analysis (3)

This course emphasizes the concepts and applications of building and evaluating regression models for public health studies. It covers simple and multiple linear regression models, including polynomial regression and analysis of variance (ANOVA) and co-variance (ANCOVA) for design of experiments as special cases. Binary regression including logistic regression and application to case-control studies will be discussed. In addition, loglinear models for count data will be covered. *Prerequisites:* Statistical Computing.

BIOS 5203: Survival Analysis (Formerly: Time Series Analysis) (3)

This course covers the basic theoretical aspects and applications of various models to analyze "time to event" data. Basic concepts such as the survival function, hazard function, left and right hand censoring, and common parametric models for analyzing survival data will be covered. The proportional hazards (PH) model with fixed and time dependent covariates, the stratified PH model, regression diagnostics for survival models, additive hazards regression models and multivariate survival models will also be covered.

Prerequisite: Statistical Computing.

BIOS 5204: Statistical Computing (3)

This course will give students a working knowledge of two statistical analysis software packages, SAS and SPSS. Emphasis will be placed on the basics of data management of files, data manipulation, basic data display, graphical display of data and statistical analysis. Although the Windows environment will be discussed, emphasis will be placed on the writing of program code.

Prerequisite: Principles of Biostatistics and Principles of Epidemiology.

BIostatistics Elective Courses (9 credits)

Students will work with their advisors to select 3 electives. Electives may be selected from any tracks.

BIOS 5300: Introduction to Sampling (3)

This course presents practical sampling methods and their theoretical background. It covers simple random, stratified, systematic, and simple stage cluster sampling techniques. In addition, ratio, regression, and difference estimation will be covered. An emphasis will be placed on sampling human populations in large communities.

Prerequisite: *Principles of Biostatistics and Principles of Epidemiology.*

BIOS 5301: Survey Research Methods (3)

This course provides an introduction to the design, analysis, and interpretation of sample surveys. Types of sampling covered will include simple random sampling, stratified random sampling, systematic sampling, cluster sampling, and multi-stage sampling. Methods of estimation are described to estimate means, totals, ratios, and proportions. Development of sampling designs combining a variety of types of sampling and methods of estimation, and detailed description of sample size determinations to achieve goals of desired precision at least cost will be covered.

Prerequisites: *Categorical Data Analysis and Statistical Computing.*

BIOS 5302: Advanced Experimental Design (3)

This intermediate course covers a broad perspective of experimental designs covered in public health, including various ANOVA designs, case-cohort studies, case-crossover studies, cross sectional studies, prospective and retrospective cohort studies, randomized clinical trials and meta analysis. The advantages and disadvantages of the various studies are discussed and emphasis is placed on selection of the appropriate study, sample size estimation and controlling for sources of bias and reduction of variability.

Prerequisites: *Principles of Biostatistics, Applied Regression Analysis and Epidemiological Research Methods.*

BIOS 5303: Nonparametric Statistics (3)

This course covers a survey of topics related to distribution-free approaches to statistical inference. Topics will include: Fisher's method of randomization; distribution free test procedures for means, variances, correlations, and trends; and rank tests. Relative efficiency, asymptotic relative efficiency and normal-score procedures will be covered. Binomial and hypergeometric distributions are covered to develop a variety of test and interval estimation procedures.

Prerequisites: *Statistical Computing, Categorical Data Analysis and Applied Regression Analysis.*

BIOS 5304: Design and Analysis of Clinical Trials (3)

This course covers fundamental concepts in the design and conduct of modern clinical trials. Topics include: sample size and power, reliability of measurement, the parallel-groups design, factorial designs, blocking, stratification, analysis of covariance, the crossover study, latin squares.

Prerequisites: *Applied Regression Analysis.*

BIOS 5310 (Formerly URBA 5502): Independent Study (1-3)

Independent study courses focus on a particular issue or set of issues related to a particular topic in public health. An Independent Study Program consists of assignments, research papers, clinical experiences and presentations submitted for academic credit. The student works closely with the professor(s) to determine the study focus and requirements.

COMMUNITY HEALTH SCIENCES (URBAN & IMMIGRANT HEALTH) TRACK CORE COURSES (12 credits)

CHSC 5202 (Formerly URBA 5202): Issues in the Health of Immigrant Populations (3)

Emigration from another country can have important effects on the health of the émigré. The demographic, scientific, clinical, economic, social, political, ethical, and legal factors of the country of origin interact with those of the new country.

They are manifest in different ways in the health of immigrants – new and old. This course will consider these and other related public health issues across the lifespan.

CHSC 5203 (Formerly URBA 5203): Sex, Gender, Race, and Ethnicity in Health (3)

The health and well being of human beings have been under intense scrutiny and involved important changes during the 20th century. Gender and racial/ethnic inequities are being addressed and gaps in knowledge narrowing. These changes involve multiple factors. This course considers many of those factors as they interact with demographic, scientific, clinical, economic, social, political, ethical, and legal issues.

CHSC 5205 (Formerly URBA 5206): Urban Health Issues (3)

The goal of this course is to prepare public health professionals to analyze and intervene in urban health issues. The course explores the health of urban populations around the world, with a special focus on New York City, from historical, economic, social, spatial, and medical perspectives. Key concepts include social capital, social cohesion, social hierarchies, social networks, public health infrastructure, healthy neighborhoods, health disparities, globalization, and micro-geographic analysis. Each semester the class will explore three health topics in depth and will organize a neighborhood mini-conference on one of these topics in collaboration with local stakeholders. In addition, each student will perform weekly analyses of his/her neighborhood of residence and periodic analyses of the neighborhood surrounding SUNY-Downstate.

CHSC 5206: Program, Planning and Evaluation (3)

Community-based programs that are designed to change health-related behaviors comprise the vast majority of the public health efforts to reduce the morbidity and mortality in populations. This course covers the life stage of community-based programs from inception, implementation, and sustainability. The course applies the theoretical concepts from the social and behavioral sciences, health education, and health communication to the planning, design, and evaluation of community-based interventions. A program-planning framework provides the methodology to examine social and behavioral determinants of health and to identify appropriate intervention and evaluation design. Characteristics of theory-based interventions are discussed, critiqued, and assessed for relevance to the needs of the students who will have the opportunity to apply these ideas to their own work.

COMMUNITY HEALTH SCIENCES (URBAN & IMMIGRANT HEALTH) ELECTIVE COURSES (9 credits):

Students will work with their advisors to select 3 electives. At least one of these electives will be selected from the Community Health Sciences Track; the others may be selected from other tracks.

CHSC 5204 (Formerly URBA 5205): Community Organization (3)

Emphasis on community organizations as a major interventional approach to community dynamics, social change, and community participation in addressing health problems. The course explores methods for identifying and analyzing community health problems and their causes.

CHSC 5300 (Formerly URBA 5310): Introduction to Research (3)

Basics for participating in the development, implementation, and evaluation of research studies in public health, particularly health-care delivery. Each student will be expected to develop and present a research proposal.

Prerequisite(s): Principles of Biostatistics, Principles of Epidemiology

CHSC 5301 (Formerly URBA 5303): Human Sexual Behavior (3)

Focus on aspects of human sexual behavior from a psychosocial and behavioral perspective. A brief review of human anatomy and physiology as well as developmental abnormalities will be considered. The purpose is to educate health professionals about the strong influences of sexuality in all its facets.

Prerequisite(s) for Non-Health professionals: Health Care Across the Lifespan

CHSC 5302 (Formerly URBA 5311): Social Marketing (3)

Social marketing is a key ingredient in strategies to develop, implement, and evaluate health communication and education programs. This course will focus on developing and presenting a social marketing plan addressing a specific public health issue among a specific racial or ethnic group.

CHSC 5303 (Formerly URBA 5304): Issues in HIV Prevention (3)

Different facets of HIV prevention including the risk factors and the impact of social, economic, racial/ethnic, cultural, and religious factors on the development of the disease. Studies focusing on different communities at high risk for the disease will be studied.

Prerequisite(s) for Non-Health professionals: Health Care Across the Lifespan

CHSC 5304 (Formerly URBA 5318): Planning Pediatric Interventions (3)

This course will require systems thinking in terms of how individuals, social networks, communities and organizations interact and affect the public health on a local, state, national and international level. This course will challenge you to identify the specific pediatric health issues affecting a local community, prioritize them, outline interventions and describe evaluation techniques for assessing the effectiveness of the interventions. The course will be interactive and encourages discussion of unique and diverse approaches to both new and long-standing problems affecting the pediatric population in this area. This course will focus on practical application and real-life scenarios. Although pediatric health issues will be the focus, the principles learned should be applicable to health concerns of other populations.

CHSC 5305 (Formerly URBA 5318): Issues in Adolescent Health (3)

The myriad factors that influence adolescent development are considered juxtaposed against societal and public health issues. This course provides the student with an opportunity to enhance knowledge regarding this period of human development.

Prerequisite(s) for Non-Health professionals: Health Care Across the Lifespan

CHSC 5306 (Formerly URBA 5603: Understanding Health Behavior): Psychosocial and Behavioral Epidemiology (3)

This course provides an introduction to the social, psychological, and behavioral issues that influence patterns of health and health care delivery. The focus is on the integration of the biomedical, social, psychological, and behavioral factors that must be taken into consideration when public health initiatives are developed and implemented. The course is based on ecological theories of influences on health behavior. The course also includes the application of epidemiologic methods to the study of social, psychological, and behavioral influences on health, disease, and recovery/mortality.

CHSC 5307: Early Child Development: A Public Health Perspective (3)

This course introduces students to early child development, the conditions which shape it, and how developmental and learning problems arising in early childhood (here collectively termed “developmental disorders” - DD) are identified and addressed at an individual and a population level.

The focus of the course will be on preventive and treatment interventions for DD’s based in the home, community programs, and health care settings in the United States and internationally. Through field visits and presentations, the students will become familiar with how such interventions are conducted, and the role of different stakeholders (families, public health programs, NGO’s, health care providers, school systems) in planning, funding, running and evaluating them. During the course, students will gain experience in doing basic developmental screenings, assessing the home caregiving environment, planning interventions and preparing and presenting messages about early child development for families.

CHSC 5308: Public Health Preparedness and Response to Emergencies (3)

This course investigates the role of public health professionals in planning and responding to "all hazards" emergencies that stress the public health and healthcare system. Topics will include: public health law; federal funding programs for preparedness and response; incident management system; training and exercises development; chemical, biological, radiological, nuclear and explosive events; hazard vulnerability analysis; and the psychosocial impact of disasters. The course will be problem based and explore current topics such as H1N1, structural collapses, coastal storms, etc. A part of the course will also focus on recovery and long term impacts (psychosocial, environmental, health effects, etc.). Students will use actual emergency management planning tools and templates from the federal government, supporting agencies and NYC, as well as journal articles.

CHSC 5310 (Formerly URBA 5502): Independent Study (3)

Independent study courses focus on a particular issue or set of issues related to a particular topic in public health. An Independent Study Program consists of assignments, research papers, clinical experiences and presentations submitted for academic credit. The student works closely with the professor(s) to determine the study focus and requirements.

CHSC 6020: Field Experience in Maternal and Child Health (1-3)

The overall goal of the course is to give the student experience in applying maternal and child health knowledge and skills in an off-campus public health setting. The experience is a planned, supervised, and evaluated internship that takes place in one of a variety of agencies or organizations, including community-based organizations and governmental departments.

**ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES
REQUIRED TRACK CORE COURSES (12 credits)****EOHS 5201: Introduction to Management, Policy and Law (3)**

Examines the core foundations of risk assessment including hazard identification, dose response, exposure assessment, and risk characterization. Introduces the basic concepts in risk management and risk communication. Provides an understanding of how risk assessment serves as an interface between science and policy.

EOHS 5202: Occupational Health (3)

Surveys the history of occupational health, the continuum from exposure to disease, the hierarchy of controls in the workplace, occupational health hazards, legal and regulatory issues, provision of occupational health services, and methods in comprehensive workplace health improvement.

EOHS 5203: Built Environment & Public Health (3)

Explores basic concepts of toxicology as applied to environmental toxicants including the distribution, metabolism, and elimination of environmental chemicals in the body. Examines the application of these concepts to the understanding of disease processes resulting from adverse environmental exposures.

EOHS 5205: Risk Assessment (3)

Examines the core foundations of risk assessment, including hazard identification, dose response, exposure assessment and risk characterization. Introduces the basic concepts in risk management and risk communication. Provides an understanding of how risk assessment serves as an interface between science and policy.

ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES ELECTIVES (9 credits)

Students will work with their advisors to select 3 electives. At least one of these electives will be selected from the Environmental Health Track; the others may be selected from other tracks.

EOHS 5300 (Formerly URBA 5306): Injury and Violence Prevention (3)

Examination of injury and violence as seen in urban settings. The course is designed to incorporate models into practical application in communities using case examples.

Prerequisite Courses for non-health professionals: Health Care Across the Lifespan.

EOHS 5301: Principles of Industrial Hygiene (3)

Introduces concepts, terminology and methodology involved in the practice of industrial hygiene. Includes the recognition, evaluation and control of biological, chemical and physical exposures in the workplace. Includes lectures, problems and a site walk-through survey

EOHS 5302 (Formerly EOHS 5049 Women, Health & the Environment): Women's Health Policy: Epidemiology and the Environment (3)

This course will identify key indicators of women's health and women's health needs utilizing both environmental health sciences and health policy perspectives. Current and historical examples will highlight how health, needs, medical practice and policies have evolved over time.

Prerequisite(s): Principles of Epidemiology

EOHS 5303: Health Effects of Air Pollutants (3)

Provides an overview of the defense mechanisms of the respiratory tract in response to environmental insults, and how this response is connected with disease. Examines the major sources of indoor and outdoor air pollution and characterizes their respective physical and chemical qualities. Introduces basic concepts of aerosol science.

EOHS 5304: Case Studies in Environmental Health (3)

In this course students will review a series of case studies that illustrate core concepts of environmental health science including hazard identification, toxicology, exposure assessment, epidemiology, and risk assessment, communication and policy.

EOHS 5305: Principles of Food Safety (3)

Food is an important mainstay of good health and promotion of wellness. There is an expectation that food purchased for home preparation and consumption and in restaurants, outdoor stands and catering halls may be safely eaten with no potential to cause harm. Substantial public health resources are devoted to assure that the food chain from American and imported venues are free from pathogens and toxic chemicals. There are strict governmental standards and mandates and delegated responsibility for enforcement. Food borne illness has severe economic costs and consequences for those affected and for those responsible. Epidemiologic investigations and root cause analysis provide evidence for corrective actions and deterrence to continue to provide a safe table. Lectures, film, class discussion, debates and assignments will be utilized to more fully understand the scope of problems and solutions to assure food safety.

EOHS 5310 (Formerly URBA 5502): Independent Study (1-3)

Independent study courses focus on a particular issue or set of issues related to a particular topic in public health. An Independent Study Program consists of assignments, research papers, clinical experiences and presentations submitted for academic credit. The student works closely with the professor(s) to determine the study focus and requirements.

EOHS 7204: Organization of Work, Occupational Stress, and Health (3)

This course provides an in-depth evaluation of current topics related to psychosocial occupational and environmental health. The application of public health principles and decision-making processes will be discussed in relation to the prevention of injury and disease, health promotion and protection of worker populations from psychosocial occupational and environmental hazards.

EPIDEMIOLOGY REQUIRED TRACK CORE COURSES (12 credits)

EPID 5201: Epidemiologic Research Methods (3)

This course introduces concepts of study design, data management and data analysis that are suitable for epidemiologic research. This course will enable students to design studies and write competitive proposals on contemporary issues in epidemiology and public health affecting immigrant and urban populations. Students will be provided with the practical skills necessary to plan and carry out research projects. Specifically, learners will explore principles and concepts associated with the design of sample surveys that are representative of populations and the analysis of data from such surveys. Throughout the course, students will be asked to prepare comprehensive, concise written reports for a variety of audiences.

EPID 5202: Infectious Disease Epidemiology (3)

This course provides students with a multidisciplinary framework for understanding the principles of interventions against infectious diseases. The course also provides knowledge and understanding of disease agents in the context of their routes of transmission and examines the reasons for successes, partial successes and failures of interventions, taking into account the social, political and economic contexts in which health systems operate. Specific topics related to the epidemiology of communicable diseases include: basic concepts and methods; epidemiologic aspects of vaccination; surveillance and outbreak investigation and the control of communicable disease in countries with a developed public health infrastructure.

EPID 5203 (Formerly URBA 5302): Chronic Disease Epidemiology (3)

This course explores the burden of chronic non-communicable diseases (CNCDs) in NY. Using a variety of sources of data (e.g. US Census data, NYS Cancer Registry and Community Health Survey) relevant to immigrant and urban populations in NY, this course will review the epidemiology of obesity, cardiovascular diseases (hypertension, stroke, coronary artery disease) and diabetes and cancer. This course also reviews the methodological issues in different types of study designs aimed at identifying the determinants of major CNCDs, and teaches students how plan successful preventive strategies.

EPID 5204: Biomarkers and Epidemiology (Formerly: Statistical Computer Applications in Epidemiology) (3)

This course introduces the basic concepts and biological principles underlying biomarkers and molecular epidemiology. The course will provide students with a basic understanding of molecular methods and study designs relevant to biomarkers epidemiologic research. The topics addressed will include the present use of specific biomarkers in epidemiologic and clinical research with examples in human cancer and other diseases related to occupational and environmental exposures.

EPIDEMIOLOGY ELECTIVE COURSES (9 credits):

Students must select 2 epidemiology elective courses from the list below. Students meet with advisors to select 1 other elective course to enhance the student's breadth of knowledge.

EPID 5300: Cancer Epidemiology (3)

This course reviews principles and methods used in the investigation of cancer incidence and mortality. Basic concepts of cancer biology and the role of environmental determinants (e.g. tobacco, alcohol, radiation, chemicals, stress, and nutrition) and genetic susceptibility will be reviewed. Using data from the NYS Cancer Registry, we will examine the sociodemographic magnitude of cancer in Brooklyn, and discuss factors influencing cancer prevention and control efforts.

EPID 5301: Reproductive Epidemiology (3)

This course explores the nature and determinants of ill-health in pregnant women and babies, and to demonstrate the contribution of epidemiologic methods to problem identification and to the design and evaluation of strategies to improve maternal and child health. Topics of discussion include disparities between various population groups, contraception, menstruation, fertility, abortion, menopause, and

maternal morbidity and mortality. Discussion of contemporary issues in safe motherhood and perinatal health in developing countries will also be provided throughout the course.

EPID 5302: Epidemiology of HIV/AIDS

This course represents a detailed model of how to tackle the epidemiological and public health aspects of a viral infection; it provides information on different routes of transmission, worldwide temporal changes in infection rate and persons at risk, historical interventions to control the diffusion of the infection along with their success rate. The course also provides knowledge and understanding of the infection versus the clinical manifestation of the disease.

Specific topics include: epidemiologic aspects of new treatments of the infection, surveillance of infection and disease trends, prevention strategies, changes in laboratory methods for virus detection and diagnosis and their impact on disease surveillance.

EPID 5303: Nutritional Epidemiology (3)

This course applies epidemiologic methods and principles to current studies of diet, nutrition and chronic disease. Students will gain expertise in understanding the current state of knowledge on the relationship between nutrition and disease including the role of co-factors. Strengths and weaknesses of the methods available to assess exposure in nutritional epidemiologic studies will be presented as students will be asked to critically evaluate epidemiologic evidence on diet-disease relationships. Other topics to be covered include: evaluation of methods to prevent nutrition-related diseases through strategies aimed at promoting population based dietary change, identification, summarization and interpretation of a range of materials relevant to the specification of priority nutrition problems in a given population; discussion of the constraints involved in program implementation; presentation of a proposal for a nutrition intervention orally and in summary written form.

EPID 5304: GIS and Public Health (3)

This course is an introduction to the concepts of Geographic Information Systems as they apply to public health. It is an intermediate level graduate course in the application of methods for displaying, describing and analyzing spatial environmental exposure and disease data and a doctoral level course for students in any field with an interest in the application of spatial methods to exposure data and disease data. Students in environmental health, epidemiology, and biostatistics are particularly encouraged to participate.

Masters students with the appropriate background may enroll with the instructor's permission. The course will focus primarily on the spatial distribution of risk factors for disease outcomes, but the principles discussed can be broadly applied. All students must be thoroughly computer literate; know Excel and feel comfortable working in a multi-windowed environment.

Attendees will learn the general concepts of GIS, and the particular applications of this technology to public health. They will also acquire hands-on experience using GIS to create GIS layers, using GIS to perform queries and searches, and create maps and reports, including statistical reports. Additionally, students will learn how to properly capture, store and format data so that it can be used in GIS, as well as how to re-format existing data in order to create maps of the data.

EPID 5305: Epidemiology of Aging (3)

This course will prepare students to effectively study health characteristics of the rapidly increasing population of older adults in the United States. Some of the topics covered will include changes in national and international age and lifespan demographics; theories of aging; the limits of the human lifespan and life-extension efforts; the interrelation of aging, health, and the environment; measurement of survival, mortality, and cause of death; measurement of physical functioning and activities of daily living; age- and disease-related changes in cognitive functioning; depression in older adults; injury (falls, driving accidents); the influence of age on disease and how to account for the age effects in the study of disease; health, frailty, and "successful" aging. Students will examine methods for conducting epidemiological studies in older populations and the implications of an aging society on public health practice.

EPID 5310 (Formerly 5502): Independent Study (1-3)

Independent study courses focus on a particular issue or set of issues related to a particular topic in public health. An Independent Study Program consists of assignments, research papers, clinical experiences and presentations submitted for academic credit. The student works closely with the professor(s) to determine the study focus and requirements.

**HEALTH POLICY AND MANAGEMENT REQUIRED
TRACK CORE COURSES (12 credits)****HPMG 5202: Health Care Advocacy and Politics (3)**

This course will review basic legal and legislative processes at both state and federal levels. Students will learn how changes are made in the health system and ways of abetting change.

HPMG 5203: Health Management Concepts (3)

Basic concepts of management and organization behavior will be explored in this course. The role of management in complex organizations and the ways in which organizations change will be discussed. Students will learn how to relate to supervisors and staff and how to encourage optimal working conditions.

HPMG 5204: Access, Cost and Quality of Care (Formerly: Access, Availability and Quality of Care) (3)

This course will look in detail at the U.S. Health care system in terms of its major components, their interactions, and how to best effect positive change that will improve health and health care services for the population.

HPMG 5205: Health Economics (3)

This course will review basic principles of micro and macro economics that are relevant to health care such as marginal analysis, moral hazard, market failure and the role of government, principles of insurance and other topics.

HEALTH POLICY AND MANAGEMENT ELECTIVE COURSES (9 credits)

Three courses at 3 credits each for 9 credits. Master's students may also take doctoral level electives with permission of instructor

HPMG 5201: Health Policy in the Delivery System (3)

This course focuses on the intersection between public health, policy, and politics. It provides an orientation to health policy, politics, and the policy in the U.S.

HPMG 5300: Health Care Finance (3)

This course will review basic principles of accounting and finance as well as how to understand basic financial reporting tools such as income statements and balance sheets. Students will learn the special features of health care finance—both the sources of funds coming into the health system as well as the micro allocation of costs within institutions and organizations.

HPMG 5301: Tools of Government (3)

This course will introduce students to how government functions, how laws get passed at both the state and federal levels, and the role of the court system.

HPMG 5302: Pharmaceuticals and the Health Care System (3)

This course will examine how the growth of pharmaceuticals impacts the health care budget and the ways in which disease is treated. The course will cover the pharmaceutical industry and its influence on the policy process, the path of drugs through the clinical trials and FDA process, and the ways in which drugs are marketed to physicians and the public.

HPMG 5303: Managing in Complex Organizations (3)

Hospitals and health systems are amongst the most complex of organizations. This course will look at how major institutions are managed, relations with boards and regulatory agencies, and the roles that a senior manager must play to run an effective organization. The course will be supplemented by guest lectures from senior managers of health institutions in the metro-area.

HPMG 5304: Health Care Reform (3)

This course will look at the options for health reform in the United States and what lessons can be learned from the experience of other countries. Proposals for reform from political candidates, health care trade and professional associations, and think tanks will be examined.

HPMG 5305: Organizational Change in Health Care (3)

Organizational Change in Health Care presents guidelines for improving the implementation of change in health care organizations. When hospitals and other healthcare organizations introduce new clinical and management practices, these efforts all too frequently result in poor compliance and incomplete implementation. Drawing on organization theory and health services research, this course will enable students to analyze some of the barriers to implementing change and apply methods designed to overcome these barriers.

Prerequisite: HPMG 5200, HPMG 5203.

HPMG 5310 (Formerly URBA 5502): Independent Study (1-3)

Independent study courses focus on a particular issue or set of issues related to a particular topic in public health. An Independent Study Program consists of assignments, research papers, clinical experiences and presentations submitted for academic credit. The student works closely with the professor(s) to determine the study focus and requirements.

CULMINATING EXPERIENCE

All MPH students entering the program as of June 2009 must complete a 1-credit Field Experience and a 2-credit Culminating Experience.

All MPH students must complete a Culminating Experience.

The Culminating Experience allows the student to demonstrate the ability to integrate knowledge and skills in a Final Project similar to some aspect of practice as a public health professional. The faculty uses the Culminating Experience to judge whether the student demonstrates proficiency in the competencies required for public health practice.

PUBH 6500: Field Experience 1 credit

This course is an opportunity for students to apply the knowledge and skills learned in the classroom directly in a fieldwork experience. After completion of an online module on professionalism, the student will work at an approved external site, typically a local or state health agency or a local organization under the supervision of a public health professional. If a student is able to do a placement only in his or her regular place of employment, the assignment must extend beyond or be something other than his or her regular work duties and allow application of knowledge and skills learned in the classroom.

PUBH 6000: Culminating Experience Planning Seminar 1 credit

For those who matriculated before June 2009, the CE Planning Seminar gives students an opportunity to create a plan for their Culminating Experience. The CE may take several forms based on the student's academic interests, the track in which he/she is enrolled, and his/her plans after graduation.

Guidelines for Preparing for the Proposal for Culminating Experience

A student may submit a proposal for a Culminating Experience (CE), previously called the Practicum, when he or she has completed at least half of all course work, including all core courses. The student should discuss possible topics well ahead of time with his/her CE advisor. Note: the CE advisor can be the student's academic advisor or another faculty member agreed upon by the student and his/her academic advisor.

The topic should be one that allows the student to apply material mastered in coursework and should not call for learning entirely new knowledge or skills. The CE may be either a research, service, or performance improvement activity. In all cases, the student must complete the Investigator Education program of the Research Foundation of SUNY, including the on-line Collaborative Institutional Training Initiative (CITI) course, and submit documentation of completion to the CE advisor. Working with the CE advisor, the student then prepares a specific proposal, about five pages, for submission.

Proposal for Service Project

The proposal must follow this outline:

- A. Title
- B. Public health significance (no more than 1 page)
- C. Evidence-base for efficacy of proposed service
- D. Goal and time-specific, measurable objectives
- E. Methods including collaborators, site, target population, strategies, and materials (1 page)
- F. Work plan with timeline of specific dates
- G. Budget and sources of support
- H. Evaluation: methods of measuring the attainment of stated objectives
- I. References (JAMA format, <http://jama.ama-assn.org/misc/ifora.dtl#References>)

Proposal for Performance Improvement Project

The proposal must follow this outline:

- A. Title
- B. Public health significance (no more than 1 page)
- C. Sponsor
- D. Specific purpose of project (intended use of results)
- E. Methods including study subjects, measurements, study design, instruments, and analytic plan (1 page)
- F. Work plan with timeline of specific dates
- G. Budget and sources of support
- H. References (JAMA format, <http://jama.ama-assn.org/misc/ifora.dtl#References>)

Proposal for Research Project

The research proposal must follow this outline:

- A. Title
- B. Public health significance (no more than 1 page)
- C. Specific aims (must be specific and measurable)
- D. Methods including study subjects, measurements, study design, instruments, and analytic plan (1 page)
- E. Work plan with timeline of specific dates
- F. Budget and sources of support
- G. References (JAMA format, <http://jama.ama-assn.org/misc/ifora.dtl#References>)

The student submits the proposal to his/her CE advisor for the project with copies to the departmental chair and the CE Coordinator. Included in the submission are:

1. The completed cover letter to the IRB (see below)

2. The Application for a New Study form (http://research.downstate.edu/forms/irb_forms/newstud.doc) with the CE advisor as principal investigator (PI)
3. The consent form and HIPPA waiver as appropriate
4. A letter of agreement from a collaborating site as appropriate.

After review, the CE advisor will approve the proposal or return it for revision. The student then has a specified period of time, agreed upon by the advisor and student, in which to revise and resubmit the proposal. When the advisor has approved the proposal, the advisor-approved proposal will be sent to the departmental chair for signature. After the departmental chair has signed the form, the student leaves copies of all paperwork with the departmental chair and the CE Coordinator and delivers the originals to the Institutional Review Board (IRB). The IRB will inform the Principal Investigator (PI)/advisor in writing of its decision. During the IRB process, the student must remain in active contact with the IRB and the PI/advisor to track the progress of the submission. The student should work with the PI/advisor to resolve any issues raised by the IRB. More details are available at http://research.downstate.edu/irb/irb_piguide.htm#

When the IRB has approved the proposal, signed copies should be delivered to the departmental chair and CE Coordinator.

The student should make every effort to initiate and complete the project within the specified time period.

Some examples of projects completed by MPH students are:

| | |
|---|---|
| A Free Nicotine Patch Distribution to Korean-American Smokers | NYC Department of Health and Mental Hygiene |
| A Logistics Manual for a Community Glaucoma Screening Program | Dept. of Ophthalmology |
| A Qualitative Study of the Attitudes of Guyanese-American Men Towards Prostate Cancer Screening | Shri Suryanarayan Mandir |
| A Qualitative Study of the Effectiveness of a Heart Health Educational Program for Chinese Americans in Manhattan's Chinatown | Charles B. Wang Community Health Center |
| A Report to the Community on the Health Status of Young Women of Color in NYC | Young Women of Color Coalition |
| Building Public Health Capacity at a Church Through a Parish Blood Drive | Church of St. Savior |
| Creating a Health Resource Guide for Brooklyn Youth | University Hospital of Brooklyn |
| Disaster Preparedness for the Pediatric Population: Planning an In-Hospital Triage System for New York City Hospitals | Center for Biological Preparedness |
| Effect of a Brief Educational Intervention on Inner-city Patients with Hepatitis C | Kings County Hospital Center, University Hospital of Brooklyn |
| Establishing a Mobile Needle-Exchange Program: Logistics and Client Education | Positive Health Project |
| Health Education Seminars for Yemeni Immigrants | Arab-American Family Support Center |
| Identifying Predictors of Serostatus Disclosure in an HIV-Treatment Population | STAR Program |
| Nursing Factors Associated with Influenza Immunization of Inpatients | University Hospital of Brooklyn |
| Pilot program for Integration of HIV Treatment at HIV Testing Sites in Addis Ababa. | African Services Committee |
| Promotion of Hepatitis C Screening in the Polish Community of Greenpoint, Brooklyn | NYC Department of Health and Mental Hygiene |
| Raising Awareness of Heart Disease in Orthodox Jewish Women | Bikur Cholim (Guardians of the Sick)/N'shei Women's Groups |
| Relationship Between Folic Acid Levels and Depressive Symptomatology in NHANES (National Health And Nutrition Examination Survey) | ----- |
| Screening and Education for Hypertension at a Senior Health Fair in Crown Heights | Christopher Blenman Senior Center |
| Trends in Cancer Screening in Asian-Pacific Islander Women: An Analysis of NHIS (National Health Interview Survey) Data | ----- |

DrPH COURSE DESCRIPTIONS

DrPH CORE COURSE DESCRIPTIONS:

Each course represents 3 credits for a total of 12.

BIOS 7200: Quantitative Research Methods for Public Health Practice (3)

This course uses an epidemiologic approach to analyze population-based studies drawn from secondary data to assist in public health decision-making. Students will work with national public datasets to address issues surrounding the analysis of epidemiologic research questions. Scientific and policy implications of the research will be addressed and the translation of results into programs and policies will be examined.

EPID 7200: Observational Study Design in Public Health Practice (3)

This advanced level course is designed to provide students with expertise in the principles and analytic methods used in epidemiologic studies. Topics covered at the introductory level are examined in more depth and breadth, with an emphasis on issues in the design, conduct and interpretation of observational epidemiologic studies. This course examines common problems in observational epidemiologic studies, including the cross-sectional, case-control and cohort study designs. Concepts of exposure and disease definitions, matching, bias, confounding, effect modification and other sources of potential errors in interpreting the validity of results from epidemiologic studies will be addressed.

HPMG 7200: Public Health Management and Ethics (3)

The Institute of Medicine has called for a public health leadership that “defines vision, focuses effort, optimizes resources, builds and sustains systems, facilitates communication and learning, fosters productive relationships and attends to success, planning, and knowledge transfer.” This seminar seeks to equip students with these public health management and ethical skills across a wide range of practice settings. Emphasis will be given to cross-disciplinary approaches to addressing and resolving public health problems through the development of key management and leadership skills. Special attention is given to ethical considerations in strategic planning, decision-making and problem solving, and the requirements governing the conduct of human research. Course content will be a mix of case studies and in-class presentations from students and invited guests.

HPMG 7205: Interdisciplinary Leadership Seminar in Public Health (3)

This seminar engages students in rigorous discussion of key public health issues and challenges locally and globally. The emphasis is on developing cross-disciplinary approaches and the leadership necessary to address them. Faculty from all the core program areas will participate along with invited guests from the public and private sector. Doctoral students are encouraged to participate in the seminar throughout their graduate studies.

COMMUNITY HEALTH SCIENCES CORE COURSES (12 credits)

CHSC 7201: Qualitative Methods in Health Programs (3)

This course offers advanced training in qualitative methods and analysis. Students will explore a range of qualitative research methods, including participant observation, unobtrusive methods, in-depth interviewing, and focus groups. They will carry out hands-on observation and interviewing during the course and will receive feedback from the instructor and other class participants. Research design issues will be discussed along with the use of qualitative data for health education theory building and program planning. Readings draw on different methodological guidelines, including Grounded Theory approaches.

CHSC 7202: Methods of Community Intervention and Research: (3)

Active academic and community partnerships are vital for improvements in community health and for reducing health-related disparities. This course will review key methods for engaging in community-based research, will involve students in active discussion and debate regarding current issues

in the conduct of community-based research, and will provide an interdisciplinary perspective on how these approaches are applied across public health disciplines.

CHSC 7203: Program Evaluation: Theory, Practice, and Research (3)

This course focuses on the application of program evaluation models and approaches. Addresses formative and summative evaluation strategies for health promotion programs, and incorporates decision-making surrounding the use of quantitative and qualitative methods of assessment. Examines the planning of evaluation, construction of instruments and strategies of measurement, and methods of effective data collection, management, and analysis.

CHSC 7204: Seminar in Health Promotion (3)

This course is an in-depth exploration of topics and issues related to the design and conduct of health promotion programs and accompanying evaluations, with a focus on programs that seek to address disparities in health outcomes and public resource allocation. Students will develop expertise on a specified topic of interest, will develop a detailed multi-level analysis of a specific risk factor, and will critically analyze the evidence-base for programs designed to reduce identified risk factors.

COMMUNITY HEALTH SCIENCES FIELD EXPERIENCE (3 credits)

PUBH 6500: Field Experience (3)

Students will gain in-depth work experience through supervised internships relevant to the student's career plans. The field practice is selected jointly by the student and the faculty advisor, and will involve opportunities to apply skills related to program planning, implementation, and/or evaluation as applied to behavior change efforts

ELECTIVE COURSES (6 credits)

CHSC 7300: Models and Theories of Health Behavior (3)

The course will involve an examination and critique of current and evolving models of health promotion and behavior change. An emphasis on this course will be the selection and utilization of health behavior theories to the design, measurement, and evaluation of public health interventions. Students will gain skills in the application of major individual, social, and community-level approaches to behavior change.

CHSC 7301: Psychosocial Behavioral Epidemiology (3 credits)

This course provides an in-depth exploration into the social, psychological, and behavioral issues that influence patterns of health and health care delivery. The focus is on the integration of the biomedical, social, psychological, and behavioral factors that must be taken into consideration when public health initiatives are developed and implemented. The course will also include the application of epidemiologic methods to the study of social, psychological, and behavioral influences on health, disease, and recovery/mortality. Students will explore in depth both micro and macro level determinants of a public health issue and explore themes of social justice as it pertains to public health disparities.

CHSC 7302: Health Communication Theory and Practice (3 credits)

This course will examine how health communication theory, marketing, and theories of behavior can be utilized to construct health communications that have the greatest impact on public health. Students will gain exposure to the practice and theory involved in communication design through critiques of health promotion interventions and campaigns and through development of communications to address public health issues.

CHSC 7303: Survey Research Methods (3 credits)

This course provides students with knowledge and skills in the design, sampling, implementation, analysis, interpretation, and presentation of results of surveys. Lectures will focus on designing and assessing the items used to assess risk and protective factors and related public health outcomes.

Students will have the opportunity to design measures and to assess survey data using statistical software packages.

CHSC 7304: Culture, Class, and Ethnicity in Health Promotion (3 credits)

This course is a series of experiential training exercises to develop skills for practitioners who will conduct interventions or research with target populations of various cultures, social classes, and ethnicities. Emphasis is on critical awareness of the practitioner's own values and presumptions, historical experiences of abuse in public health programs, in-depth understanding of the values and perspective of target populations, and the development of leaders from within the target population.

**ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES
CORE COURSES (12 credits)**

EOHS 7201: Molecular Epidemiology, Biomarkers and Toxicology (3)

This course presents the techniques used in genetic and molecular epidemiology. Emphasizes the scientific basis of molecular epidemiology and provides examples of the application of molecular biology, analytical chemistry, and toxicology to the study of chronic disease etiology and its public health application. Topics to be covered include fundamental concepts of genetics; study designs and methods of statistical analysis used to evaluate the role of genetic inheritance in the occurrence of human disease; techniques to determine the location of the gene(s) and allele responsible for a disease; ethical implications of genetic research and databanks; common genetic diseases and their control; and use of genetic and molecular techniques in human exposure assessment.

EOHS 7202: Advanced Topics in Risk Assessment and Management (3)

This course reviews the core foundations of risk assessment including hazard identification, dose response, exposure assessment, and risk characterization and provides practical experience in the study of risk management. Students will have the opportunity to explore in-depth how risk assessment and management serve as an interface between science and policy, and how risk communication can present ethical challenges to public health practitioners. Specific case studies will focus on risk management and communication issues in urban and immigrant populations.

EOHS 7203: Environmental Health Policy and Management Systems (3)

This course examines the social, political, and legal foundations of the policy and management of current environmental health issues. This course focuses on environmental and occupational health laws, regulations, and guidance concerning air and water pollution, pesticide and toxic chemical manufacture and use, worker protection, disposal of solid and hazardous wastes, and worker and community right-to-know issues. Students will gain a thorough understanding of existing occupational and environmental health management systems and regulatory requirements and through structured assignments and presentations will understand local and international environmental and occupational health issues, environmental justice, workers compensation, and state/federal agencies in a systems framework.

EOHS 7204: Organization of Work, Occupational Stress, and Health (3)

This course provides an in-depth evaluation of current topics related to psychosocial occupational and environmental health. The application of public health principles and decision-making processes will be discussed in relation to the prevention of injury and disease, health promotion and protection of worker populations from psychosocial occupational and environmental hazards.

ENVIRONMENTAL HEALTH SCIENCES FIELD PRACTICE (3 credits)

The field experience provides depth to the core DrPH by reinforcing the didactic core coursework through structured field practice. It acts as a bridge to the dissertation research through application of research methods learned in the core courses to environmental health situations that address urban and immigrant health issues in the local community. Under the guidance of the instructor and in collaboration with

community environmental health project leaders, students will have a structure hands-on experience that will call upon core skills in survey/evaluation research, monitoring and health analysis. Students will be expected to produce an environmental assessment and to communicate the findings to community participants.

ENVIRONMENTAL HEALTH SCIENCES ELECTIVE COURSES (6 credits)

EOHS 7300: Advanced Topics in Occupational Health (3)

Surveys the history of occupational health, the continuum from exposure to disease, the hierarchy of controls in the workplace, occupational health hazards, legal and regulatory issues, provision of occupational health services, and methods in comprehensive workplace health improvement. A series of case studies will examine local, national, and global issues and will provide practical up-to-date knowledge in assessing and solving occupational health problems.

EOHS 7301: Emerging Issues in Local, National and Global Environmental Health (3)

Examines current and emerging environmental health issues such as water pollution, sanitation, urban poverty, war, pollution, food security, pesticides, hazardous waste, economic globalization, global warming, and energy usage. This course will explore the connections between these issues and public policies in developing and developed countries alike as well as the implications for the health of urban and immigrant groups.

EOHS 7302: Disaster Preparedness and Response (3)

Provides a framework for the critical evaluation and management of current environmental health issues related to disaster management. Topics include disaster preparedness and response to such threats as hurricanes, tornadoes, floods, infectious disease, toxic spills, explosions, and terrorist attacks. Students will be prepared for collaborative, multi-sectorial response by learning the principles of risk assessment, modern surveillance techniques, planning, preparation, public education, incident command, and mitigation through a series of case studies. The legal, ethical and financial aspects of disaster preparedness and response will receive special attention.

EOHS 7303: Environmental Health Law (3)

Examines the constitutional, legal, and historical foundations of programs and processes aimed at protecting human health and the environment and equips students to understand the organizations, forces and governmental institutions that drive formulation and implementation of public policies at the local, state, federal, and international level. Focuses on environmental and occupational health laws, regulations and guidance, including those concerning air and water pollution, pesticide and toxic chemical manufacture and use, worker protection, disposal of solid and hazardous wastes, citizen suits, and worker and community right-to-know. Addresses international environmental and occupational health issues, environmental justice, property rights, workers compensation, land use issues, state/federal responsibilities, and administrative agencies. Explores public sector perspectives including local health departments and private sector perspectives including corporate responsibility.

EPIDEMIOLOGY CORE COURSES (12 credits)

EPID 7201: Advanced Epidemiological Research Methods I (3)

This course explores the nature of causal inferences in epidemiology, and the methods by which they may be determined. Most sessions involve student presentations of relevant examples from the epidemiologic literature to illustrate concepts and methods, followed by general discussion. Topics to be covered include assessing bias, confounding and interaction, dealing with threats to validity and issues of reporting and application of epidemiologic results.

EPID 7202: Advanced Epidemiological Research Methods II (3)

This course uses the SAS statistical software package to perform advanced quantitative methods used in the analysis of case-control studies and cohort studies. Students will acquire experience with the

following types of data analysis: stratification, Mantel-Haenszel methods, survival and life tables, Kaplan-Meier methods, logistic regression, Poisson regression, Cox regression (proportional hazards), and generalized estimating equations (GEE).

EPID 7203: Principles of Surveillance and Disease Control (3)

Public health surveillance is the continuous systematic collection, analysis, and interpretation of data essential to the planning, implementation, and evaluation of public health practice. Success depends upon the timely dissemination of these data to practitioners trained in interventions that prevent and control disease. This course reviews the major epidemiological surveillance programs, such as the National Notifiable Diseases Surveillance System, and newer approaches like syndromic surveillance. Students will have hands-on experience in utilizing selected datasets and will be expected to demonstrate competence in the accessing and management database systems.

EPID 7204: Reading Seminar in Epidemiology (3)

Issues and controversies in public health will be explored through the careful analysis of epidemiological literature, with an emphasis on analytical approaches, study strengths and limitations and implications for public health policy. Students will be expected to actively contribute to classroom discussion and will be required to participate in the selection of readings and the leading of discussions. A critical written review on a relevant topic will be required.

EPIDEMIOLOGY ELECTIVE COURSES (6 credits)

EPID 7300: Epidemiology of Communicable Disease (3)

This course reviews the use of epidemiologic methods in the assessment of selected communicable diseases of national and international importance. Students focus on methods of transmission, the role of surveillance, and methods of control and prevention. Specific disease examples to be covered will include: tuberculosis, HIV, legionellosis, SARS, influenza, measles, Lyme disease, syphilis, as well as nosocomial, food-borne, and enteric infections. The principles of controlling antibiotic-resistant organisms will receive special attention. Students use case studies to practice the skills necessary for an outbreak investigation and other common procedures in this field.

Prerequisites: BIOS 5200, EPID 5200, EPID 7204

EPID 7301: Molecular Epidemiology, Biomarkers and Toxicology (3)

This course presents the techniques used in genetic and molecular epidemiology. Emphasizes the scientific basis of molecular epidemiology and provides examples of the application of molecular biology, analytical chemistry, and toxicology to the study of chronic disease etiology and its public health application. Topics to be covered include fundamental concepts of genetics; study designs and methods of statistical analysis used to evaluate the role of genetic inheritance in the occurrence of human disease; techniques to determine the location of the gene(s) and allele responsible for a disease; ethical implications of genetic research and databanks; common genetic diseases and their control; and use of genetic and molecular techniques in human exposure assessment.

EPID 7302: Cancer Epidemiology (3)

This course reviews the concepts and methodological issues in epidemiologic studies of cancer etiology and control. Students learn the molecular and cellular basis of cancer, the role of experimental studies in assessing human risk, the classification and nomenclature of human cancer and the morphology, as well as the natural history and etiologic importance of precursor lesions. Students will examine in depth a variety of types of cancer of public health significance and discuss the role of public health practitioners in cancer control and cancer screening.

EPID 7303: Chronic Disease Epidemiology (3)

This course focuses on the epidemiologic concepts and methods appropriate to the study of chronic (mostly non-infectious) diseases and diseases of unknown etiology. Students will compare the approaches in descriptive, analytic, and experimental epidemiology for chronic disease with those for acute infectious diseases. Students will develop an extensive understanding of the epidemiologic, etiologic, pathophysiologic, and clinical features of important prevalent and emerging chronic diseases,

including cardiovascular diseases, diabetes, arthritis, chronic obstructive lung disease, neurologic disorders, and mental illness. The class will examine risk assessment and applied epidemiologic methods to prevent or limit specific chronic diseases.

HEALTH POLICY AND MANAGEMENT CORE COURSES (12 credits)

HPMG 7201: Advanced Organization and Finance (3)

This course will examine in great detail the organization and finance of health and health care in the United States and other countries. Health care systems and networks, academic health centers, public hospital systems, and public health infrastructure will be particular areas of analysis as will managed care finance and high deductible health insurance plans.

HPMG 7202: Strategic Management and Planning (3)

This course will examine recent trends in health system development to allow students to gain a greater understanding of the external environment that is shaping health care delivery as well as the best practices in management techniques and performance. Pay for Performance (PfP) and Never Event Carve Out experiments will be examined as well

HPMG 7203: Health Care Reimbursement (3)

This course will examine in great detail the Medicare and Medicaid programs and how they reimburse health care institutions. Particular focus will be placed on capital reimbursement, Disproportionate Share (DSH) Payments, Intergovernmental Transfers (IGT), bad debt and charity care programs, and health care charges.

HPMG 7204: Health Care Workforce

This course will allow students to understand the history and development of the physician, nursing, and allied health fields and the major issues confronting the health care workforce in the United States.

HEALTH POLICY AND MANAGEMENT ELECTIVE COURSES (9 credits)

HPMG 7300: Health Care Law and Ethics (3)

This course will review the fundamentals of the legal system in the United States and review major laws that relate to health care. It will cover medical malpractice issues as well as tort law and its reform. Biomedical ethical issues including stem cell research, abortion, genetic engineering, end-of-life and DNR, and other topical issues will also be covered.

HPMG 7301: Health Care Quality (3)

This course will look at ways of measuring the quality of health and medical care provided in the United States. Ways for organizations and institutions to improve quality and reduce errors will be explored.

HPMG 7302: Program Evaluation (3)

This course will teach students how to evaluate programs and policies. Students will learn how to set up and undertake an evaluation and how to evaluate the results of program evaluations to lead to better performance.

HPMG 7303: Inequalities in Health and Health Care (3)

This course will look at the growing literature on the impact of income inequalities on health care outcomes on a national and sub-national basis. The implications of growing inequalities will be examined as well as methods for reducing inequalities.

HPMG 7304: Outcomes Research Methods (3)

This course will examine the methodologies most commonly used to understand differences in health care outcomes and ways of communicating this information to patients, doctors, and the community at large.

HPMG 7305: Pharmaceuticals and the Health Care System (3)

This course will examine how the growth of pharmaceuticals impacts the health care budget and the ways in which disease is treated. The course will cover the pharmaceutical industry and its influence on the policy process, the path of drugs through the clinical trials and FDA process, and the ways in which drugs are marketed to physicians and the public.

HPMG 7306: Issues in Global Health and Health Care (3)

This course will look at health and health care in under-developed countries and study the major causes of ill health and ways of improving it. It will focus on topics such as Malaria, AIDS, Clean water supply and sanitation; and other issues. It will also examine the work of major international financing organizations such as the World Bank and International Monetary Fund and global health care philanthropies such as the Gates Foundation and the Global Health Initiative.

HPMG 7307: International Health/Comparative Health Systems (3)

This course will examine the health systems of a variety of advanced and less advanced countries around the world in a comparative framework. Lessons for the United States will be stressed.

HPMG 7308: Health Care Disparities (3)

This course will examine the racial, ethnic, and gender disparities in different diseases and treatments in the United States. The focus will be on ways to remediate disparities and the role that different health organizations can play in this process.

HPMG 7309: Topics in Healthcare Organization and Management (3)

This course will examine new developments in health care organization and the management of health care services.

HPMG 7310: Health Information Technology and Electronic Medical Records (3)

This course will explore the growth of health information technology and electronic medical records. Issues of proprietary development, interoperability, promotion of use, and privacy and confidentiality issues will be discussed.

HPMG 7311: Health Care Regulation (3)

The health care system in the United States is one of the most heavily regulated of all industries. This course will examine local, state, and federal regulatory agencies and activities to give students a perspective on the dimensions of regulation and the impact of regulation on the production of services. Infectious disease reporting, CON, the FDA, EMTALA, and hospital and nursing home inspection will be covered.

HPMG 7312: Planning for Health Services (3)

This course will focus on the techniques of planning for public health and health care services. It will include analysis of population growth, need for services, alternative delivery models and their impact, and adjustments to current supply of services.

HPMG 7313: Long Term Care (3)

The long term health care system in the United States will be explored including nursing homes, home care, and assisted living and related facilities. The growth of the elderly population and the need for services will be examined.

HPMG 7314: Mental Health Care and Services (3)

The mental health care system in the United States will be covered in this course. Institutional as well as community-based services will be explored as well as new options for treatment and care.

HPMG 7315: Health Care Capital (3)

The role of capital in health care will be analyzed in this course. Means of gaining access to capital, health care capital financing, and bond and mortgage availability will be examined.

HPMG 7320: Independent Study (1-3)**HEALTH POLICY AND MANAGEMENT FIELD EXPERIENCE (3 credits)****PUBH 6500: Field Experience (3)**

Provides depth to the core DrPH by reinforcing the didactic core coursework through structure field practice and acts as a bridge to the dissertation research through application of research methods learned in the core courses to actual public health epidemiological practice. Under the guidance of the instructor and in collaboration with governmental or community resources, students will have a structured hands-on experience. Examples of potential sites are: hospital departments of infection control or tumor registries; the New York State Department of Health Zoonoses Program; the New York City Department of Health and Mental Hygiene HIV Epidemiology Program. Students will be expected to write a written report on the experience and to make a professional presentation of their experience at the interdisciplinary Doctoral Departmental seminar.

DrPH DISSERTATION (12 credits)

PUBH 8001: DrPH Dissertation (12)

The DrPH dissertation is a twelve-credit experience extending, on average, over a three year period. The topic of the dissertation must address a significant public health problem in the student's specialty area.

Dissertation Development

The student, having advanced to candidacy, has one (1) year to develop his/her dissertation proposal and defend it before his/her dissertation committee and the public. The proposal must contain the following elements:

- Study Aims and Hypothesis
- Relevant Review of the Literature
- Design and Methods complete with statistical analysis
- Protection of Participants
- Proposed Timeline

The dissertation must represent the original thinking and analysis of the student. It does not necessarily require the collection of new data; but it must demonstrate that the candidate is capable of independent scientific analysis at an advanced professional level.

Oral Presentation of Proposed Dissertation Topic: No credit

There will also be an oral presentation of the dissertation topic - no more than 30 minutes -- by the student to his/her dissertation committee and the public. The presentation will be followed by questioning from the student's dissertation committee and the public. The purpose is to ascertain that the proposed work is appropriate and that the student has the adequate knowledge of the topic and the skills to complete the work successfully.

The Dissertation:

Throughout the development, implementation, and evaluation of the dissertation project, the student should meet regularly with his/her dissertation chair (student's advisor). As necessary, the student should also meet with other members of his/her committee to review specific portions of the proposal as appropriate to their expertise. Periodic revisions should be circulated to all members of the committee upon approval of the committee chair. Revisions should be noted in a cover memo to the committee members such that they will be kept up to date.

When the study is deemed completed and ready, final approval must be received, in writing, from the chair of the dissertation committee (student's advisor) with agreement from all members of the committee. This process must be completed at least one (1) month prior to the proposed date for the study defense. With the designated approval, the defense date will then be scheduled.

The Defense

There are two (2) portions to the defense:

- Public presentation of the student's research, 30 minutes, with questions and comments from attendees, followed by
- Closed session with dissertation committee, and any members of the DrPH Program faculty, to discuss any particular details of the dissertation and/or defense.

Note that the committee may either accept without change the student's study or, alternately, require additional clarification regarding key points of the study. The dissertation (study) achieves final approval when all members of the committee agree that the written dissertation and presentation have been satisfactorily completed. The student is strongly encouraged to prepare the study for submission to a peer-reviewed journal for publication.

PUBLIC HEALTH COMPETENCIES

The Public Health competencies incorporated into our MPH & DrPH curricula are taken directly from the Association of Schools of Public Health's webpage on Systems Thinking.

Upon graduation, all MPH & DrPH students should have mastered these competencies.

A. BIOSTATISTICS

Biostatistics is the development and application of statistical reasoning and methods in addressing, analyzing and solving problems in public health; health care; and biomedical, clinical and population based research.

Competencies: Upon graduation a student with an MPH should be able to...

- A. 1. Describe the roles biostatistics serves in the discipline of public health.
- A. 2. Describe basic concepts of probability, random variation and commonly used statistical probability distributions.
- A. 3. Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met.
- A. 4. Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions.
- A. 5. Apply descriptive techniques commonly used to summarize public health data.
- A. 6. Apply common statistical methods for inference.
- A. 7. Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question.
- A. 8. Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and in public health research and evaluation.
- A. 9. Interpret results of statistical analyses found in public health studies.
- A. 10. Develop written and oral presentations based on statistical analyses for both public health professionals and educated lay audiences.

B. ENVIRONMENTAL HEALTH SCIENCES

Environmental health sciences represent the study of environmental factors including biological, physical and chemical factors that affect the health of a community.

Competencies: Upon graduation a student with an MPH should be able to...

- B. 1. Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents.
- B. 2. Describe genetic, physiologic and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.
- B. 3. Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.
- B. 4. Specify current environmental risk assessment methods.
- B. 5. Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety.
- B. 6. Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.
- B. 7. Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity.
- B. 8. Develop a testable model of environmental insult.

C. EPIDEMIOLOGY

Epidemiology is the study of patterns of disease and injury in human populations and the application of this study to the control of health problems.

Competencies: Upon graduation a student with an MPH should be able to...

- C. 1. Identify key sources of data for epidemiologic purposes.

- C. 2. Identify the principles and limitations of public health screening programs.
- C. 3. Describe a public health problem in terms of magnitude, person, time and place.
- C. 4. Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.
- C. 5. Comprehend basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.
- C. 6. Apply the basic terminology and definitions of epidemiology.
- C. 7. Calculate basic epidemiology measures.
- C. 8. Communicate epidemiologic information to lay and professional audiences.
- C. 9. Draw appropriate inferences from epidemiologic data.
- C. 10. Evaluate the strengths and limitations of epidemiologic reports.

Competencies: Upon graduation a student with an MPH should be able to...

- D. 1. Identify the main components and issues of the organization, financing and delivery of health services and public health systems in the US.
- D. 2. Describe the legal and ethical bases for public health and health services.
- D. 3. Explain methods of ensuring community health safety and preparedness.
- D. 4. Discuss the policy process for improving the health status of populations.
- D. 5. Apply the principles of program planning, development, budgeting, management and evaluation in organizational and community initiatives.
- D. 6. Apply principles of strategic planning and marketing to public health.
- D. 7. Apply quality and performance improvement concepts to address organizational performance issues.
- D. 8. Apply "systems thinking" for resolving organizational problems.
- D. 9. Communicate health policy and management issues using appropriate channels and technologies.
- D. 10. Demonstrate leadership skills for building partnerships.

E. SOCIAL AND BEHAVIORAL SCIENCES

The social and behavioral sciences in public health address the behavioral, social and cultural factors related to individual and population health and health disparities over the life course. Research and practice in this area contributes to the development, administration and evaluation of programs and policies in public health and health services to promote and sustain healthy environments and healthy lives for individuals and populations.

Competencies: Upon graduation a student with an MPH should be able to...

- E. 1. Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice.
- E. 2. Identify the causes of social and behavioral factors that affect health of individuals and populations.
- E. 3. Identify individual, organizational and community concerns, assets, resources and deficits for social and behavioral science interventions.
- E. 4. Identify critical stakeholders for the planning, implementation and evaluation of public health programs, policies and interventions.
- E. 5. Describe steps and procedures for the planning, implementation and evaluation of public health programs, policies and interventions.
- E. 6. Describe the role of social and community factors in both the onset and solution of public health problems.
- E. 7. Describe the merits of social and behavioral science interventions and policies.
- E. 8. Apply evidence-based approaches in the development and evaluation of social and behavioral science interventions.
- E. 9. Apply ethical principles to public health program planning, implementation and evaluation.
- E. 10. Specify multiple targets and levels of intervention for social and behavioral science programs and/or policies.

F. COMMUNICATION AND INFORMATICS

The ability to collect, manage and organize data to produce information and meaning that is exchanged by use of signs and symbols; to gather, process, and present information to different audiences in person, through information technologies, or through media channels; and to strategically design the

information and knowledge exchange process to achieve specific objectives.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to...

- F. 1. Describe how the public health information infrastructure is used to collect, process, maintain, and disseminate data.
- F. 2. Describe how societal, organizational, and individual factors influence and are influenced by public health communications.
- F. 3. Discuss the influences of social, organizational and individual factors on the use of information technology by end users.
- F. 4. Apply theory and strategy-based communication principles across different settings and audiences.
- F. 5. Apply legal and ethical principles to the use of information technology and resources in public health settings.
- F. 6. Collaborate with communication and informatics specialists in the process of design, implementation, and evaluation of public health programs.
- F. 7. Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities.
- F. 8. Use information technology to access, evaluate, and interpret public health data.
- F. 9. Use informatics methods and resources as strategic tools to promote public health.
- F. 10. Use informatics and communication methods to advocate for community public health programs and policies.

G. DIVERSITY AND CULTURE

The ability to interact with both diverse individuals and communities to produce or impact an intended public health outcome.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to...

- G. 1. Describe the roles of, history, power, privilege and structural inequality in producing health disparities.
- G. 2. Explain how professional ethics and practices relate to equity and accountability in diverse community settings.
- G. 3. Explain why cultural competence alone cannot address health disparity.
- G. 4. Discuss the importance and characteristics of a sustainable diverse public health workforce.
- G. 5. Use the basic concepts and skills involved in culturally appropriate community engagement and empowerment with diverse communities.
- G. 6. Apply the principles of community-based participatory research to improve health in diverse populations.
- G. 7. Differentiate among availability, acceptability, and accessibility of health care across diverse populations.
- G. 8. Differentiate between linguistic competence, cultural competency, and health literacy in public health practice.
- G. 9. Cite examples of situations where consideration of culture-specific needs resulted in a more effective modification or adaptation of a health intervention.
- G. 10. Develop public health programs and strategies responsive to the diverse cultural values and traditions of the communities being served.

H. LEADERSHIP

The ability to create and communicate a shared vision for a changing future; champion solutions to organizational and community challenges; and energize commitment to goals.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to...

- H. 1. Describe the attributes of leadership in public health.
- H. 2. Describe alternative strategies for collaboration and partnership among organizations, focused on public health goals.
- H. 3. Articulate an achievable mission, set of core values, and vision.
- H. 4. Engage in dialogue and learning from others to advance public health goals.
- H. 5. Demonstrate team building, negotiation, and conflict management skills.
- H. 6. Demonstrate transparency, integrity, and honesty in all actions.
- H. 7. Use collaborative methods for achieving organizational and community health goals.

- H. 8. Apply social justice and human rights principles when addressing community needs.
- H. 9. Develop strategies to motivate others for collaborative problem solving, decision-making, and evaluation.

I. PUBLIC HEALTH BIOLOGY

The ability to incorporate public health biology - the biological and molecular context of public health - into public health practice.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to...

- I. 1. Specify the role of the immune system in population health.
- I. 2. Describe how behavior alters human biology.
- I. 3. Identify the ethical, social and legal issues implied by public health biology.
- I. 4. Explain the biological and molecular basis of public health.
- I. 5. Explain the role of biology in the ecological model of population-based health.
- I. 6. Explain how genetics and genomics affect disease processes and public health policy and practice.
- I. 7. Articulate how biological, chemical and physical agents affect human health.
- I. 8. Apply biological principles to development and implementation of disease prevention, control, or management programs.
- I. 9. Apply evidence-based biological and molecular concepts to inform public health laws, policies, and regulations.
- I. 10. Integrate general biological and molecular concepts into public health.

Public Health Biology Illustrative Sub-competencies are available at <http://www.asph.org/document.cfm?page=928>.

J. PROFESSIONALISM

The ability to demonstrate ethical choices, values and professional practices implicit in public health decisions; consider the effect of choices on community stewardship, equity, social justice and accountability; and to commit to personal and institutional development.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to...

- J. 1. Discuss sentinel events in the history and development of the public health profession and their relevance for practice in the field.
- J. 2. Apply basic principles of ethical analysis (e.g. the Public Health Code of Ethics, human rights framework, other moral theories) to issues of public health practice and policy.
- J. 3. Apply evidence-based principles and the scientific knowledge base to critical evaluation and decision-making in public health.
- J. 4. Apply the core functions of assessment, policy development, and assurance in the analysis of public health problems and their solutions.
- J. 5. Promote high standards of personal and organizational integrity, compassion, honesty and respect for all people.
- J. 6. Analyze determinants of health and disease using an ecological framework.
- J. 7. Analyze the potential impacts of legal and regulatory environments on the conduct of ethical public health research and practice.
- J. 8. Distinguish between population and individual ethical considerations in relation to the benefits, costs, and burdens of public health programs.
- J. 9. Embrace a definition of public health that captures the unique characteristics of the field (e.g., population-focused, community-oriented, prevention-motivated and rooted in social justice) and how these contribute to professional practice.
- J. 10. Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g. researchers, practitioners, agencies and organizations).
- J. 11. Value commitment to lifelong learning and professional service including active participation in professional organizations.

K. PROGRAM PLANNING

The ability to plan for the design, development, implementation, and evaluation of strategies to improve individual and community health.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to...

- K. 1. Describe how social, behavioral, environmental, and biological factors contribute to specific individual and community health outcomes.
- K. 2. Describe the tasks necessary to assure that program implementation occurs as intended.
- K. 3. Explain how the findings of a program evaluation can be used.
- K. 4. Explain the contribution of logic models in program development, implementation, and evaluation.
- K. 5. Differentiate among goals, measurable objectives, related activities, and expected outcomes for a public health program.
- K. 6. Differentiate the purposes of formative, process, and outcome evaluation.
- K. 7. Differentiate between qualitative and quantitative evaluation methods in relation to their strengths, limitations, and appropriate uses, and emphases on reliability and validity.
- K. 8. Prepare a program budget with justification.
- K. 9. In collaboration with others, prioritize individual, organizational, and community concerns and resources for public health programs.
- K. 10. Assess evaluation reports in relation to their quality, utility, and impact on public health.

L. SYSTEMS THINKING

The ability to recognize system level properties that result from dynamic interactions among human and social systems and how they affect the relationships among individuals, groups, organizations, communities, and environments.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to...

- L. 1. Identify characteristics of a system.
- L. 2. Identify unintended consequences produced by changes made to a public health system.
- L. 3. Provide examples of feedback loops and “stocks and flows” within a public health system.
- L. 4. Explain how systems (e.g. individuals, social networks, organizations, and communities) may be viewed as systems within systems in the analysis of public health problems.
- L. 5. Explain how systems models can be tested and validated.
- L. 6. Explain how the contexts of gender, race, poverty, history, migration, and culture are important in the design of interventions within public health systems.
- L. 7. Illustrate how changes in public health systems (including input, processes, and output) can be measured.
- L. 8. Analyze inter-relationships among systems that influence the quality of life of people in their communities.
- L. 9. Analyze the effects of political, social and economic policies on public health systems at the local, state, national and international levels.
- L. 10. Analyze the impact of global trends and interdependencies on public health related problems and systems.
- L. 11. Assess strengths and weaknesses of applying the systems approach to public health problems

FACULTY

All participating faculty hold appointments at SUNY Downstate Medical Center, School of Public Health. For more details about an individual faculty member, please consult the website: www.downstate.edu/publichealth

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