

*University of Maryland School of Medicine
Department of Epidemiology and Preventive Medicine*

*Master of Public Health Program
Catalog and Student Handbook*



The **Student Handbook** has been prepared to provide our Master of Public Health Program students with a resource that includes both academic and non-academic information that is of importance and intended to enhance student success in the program. Information included in the handbook defines the curriculum requirements, policies, and procedures for the School of Medicine's Master of Public Health (MPH) Program. Students are responsible for ensuring they are aware of and comply with information and policies as well as program requirements for the MPH Program.

The MPH Program, School of Medicine (SOM) and the University of Maryland, Baltimore (UMB) reserve the right to change policies as deemed appropriate. This handbook should not be construed as a binding contract between the institution and current or prospective students. SOM's MPH Program reserves the right to amend, revise or delete any information in this handbook. As such, policy revisions will be updated on the Web site.

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Dear MPH Students:

We welcome you to the Master of Public Health (MPH) Program! Our academic home is in the Department of Epidemiology and Preventive Medicine within the University of Maryland School of Medicine at the University of Maryland, Baltimore (UMB). The MPH Program is committed to addressing the public health needs of the diverse populations in communities throughout Maryland with initiatives that have a public health focus across the professional schools and the research and clinical centers at UMB.

The MPH Program was established at the public academic health sciences campus of the University System of Maryland in 2004 as an important and logical next step to address public health needs in Baltimore and throughout Maryland. We offer dual-degree programs with all the professional schools at UMB—DDS/MPH, JD/MPH, MD/MPH, MS (Nursing)/MPH, PharmD/MPH, and MSW/MPH. Students are able to integrate their training in public health practice with training in the dental, legal, medical, nursing, pharmaceutical, social work, and allied health professions. The curriculum provides critical training in examining and understanding the root causes of disparities in disease risk, access and utilization of preventive and health care services, and health outcomes.

You will work with your advisor to develop your MPH plan of study in the concentration to which you have been admitted, Epidemiology (Laura Hungerford, PhD, DVM, MPH, academic director) or Community & Population Health (Renee Royak-Schaler, PhD, MEd, academic director). We have 15 primary faculty members who are involved in teaching the core and concentration core courses in the MPH Program, and 22 secondary faculty members throughout the professional schools at UMB whose research and teaching focuses on public health. You will develop your capstone project under the supervision of Diane Marie St. George, PhD, the MPH capstone director.

The MPH Program received a five-year accreditation in July 2009 from the Council on Education for Public Health. One of the benefits of accreditation is that alumni of accredited public health programs and schools are eligible to sit for the nation's only core credentialing exam in public health (Certified in Public Health, or CPH), www.publichealthexam.org/Exam.cfm.

Staff members for the MPH Program include Pamela DeMartino, director of student affairs; Teena Maultsby, academic coordinator; and Kassy Santoni, academic specialist. Please feel free to contact the MPH Academic Office (410-706-4576) if you have any questions or concerns. The MPH Student Handbook and other information about the MPH Program is available online at: <http://medschool.umaryland.edu/epidemiology/mph/>.

Wishing you success in the MPH Program!

Renee Royak-Schaler, PhD, MEd
Director, Master of Public Health Program

THE DEPARTMENT OF EPIDEMIOLOGY AND PREVENTIVE MEDICINE
Program Administration Director, Master of Public Health Program
Renee Royak-Schaler, PhD, MEd

Vice Chair, Graduate Programs in Epidemiology and Preventive Medicine
Patricia Langenberg, PhD

The University of Maryland School of Medicine became the first medical school to teach preventive medicine when Dr. Robley Dunglison accepted the new chair of the Department of Materia Medica, Therapeutics, Hygiene, and Medical Jurisprudence in 1833.

Preventive medicine continued to be an important part of the medical curriculum through changing departmental configurations; in 1954, the department was named Medicine and Rehabilitation followed successively by Preventive Medicine, Social and Preventive Medicine, and finally to Epidemiology and Preventive Medicine (DEPM).

In 1982, the Maryland Higher Education Commission (MHEC) approved a graduate program in DEPM leading to the Master of Science degree in epidemiology and preventive medicine and the PhD degree in epidemiology.

In 2004, the University of Maryland Board of Regents and MHEC approved a professional degree program in DEPM, the Master of Public Health (MPH).

ACCREDITATION

The Master of Public Health Program in the University of Maryland School of Medicine at the University of Maryland, Baltimore received accreditation for a five-year term, until July 1, 2014, from the Board of Councilors of the Council on Education for Public Health (CEPH) at its June 17-20, 2009, meeting. The CEPH is an independent agency recognized by the U.S. Department of Education to accredit schools of public health and certain public health programs offered in settings other than schools of public health. The MPH Accreditation Self Study and the CEPH Accreditation Report are publicly available through links on the MPH Web page: <http://medschool.umaryland.edu/epidemiology/mph>.

If you wish to learn more about CEPH, please contact:
Council on Education for Public Health
800 I St., NW, Suite 202
Washington, D.C. 20001-2710
Phone: 202-789-1050
Web site: <http://www.ceph.org>

INTRODUCTION: PROGRAM OVERVIEW, VALUES, AND GOALS

THE MASTER OF PUBLIC HEALTH PROGRAM AT UMB

The MPH Program is part of the comprehensive academic community of professional schools in Baltimore at UMB. UMB is accredited by the Middle States Association of Colleges and Secondary Schools and is a member of the Association of American Universities. This unique environment has provided the opportunity to establish an MPH Program that is closely aligned with existing degree programs in the UMB professional schools and to offer the following dual degrees: JD/MPH, MD/MPH, MS in Nursing/MPH, MSW/MPH, PharmD/MPH, and DDS/MPH.

We enroll three groups of students in the MPH Program: (1) health care and human services professionals at UMB, those employed in state, city, and county health departments, and others throughout Maryland; (2) students applying to the MPH Program through the dual health professional degree programs; and (3) students with professional degrees and/or college degrees and a minimum of two years of relevant public health experience. In this way, the MPH Program serves as an educational resource to the University, the City of Baltimore, the State of Maryland, and the broader community. The DEPM faculty who teach in the MPH, MS, and PhD programs are multidisciplinary and dedicated to improving the health of the public by training students, conducting research, and serving as a resource to the University, the city, the state, and the broader national and international communities.

MPH VALUES

The MPH Program values the improvement of the health status of populations and reduction of health disparities along the continuum of health care, from outreach to prevention, diagnosis, treatment, and follow-up care. These values are operationalized in interdisciplinary research and service activities across the professional schools at UMB that address the root causes of health disparities. The MPH curriculum incorporates the following core public health values that are operationalized in case studies, assignments, and class discussions presented in the core courses, the Epidemiology and Community & Population Health concentration core courses, and the capstone project:

- social justice, cultural diversity, and the elimination of health disparities
- quality and integrity of teaching, research, and service

- lifelong learning of public health professionals
- service to communities, nonprofit organizations, governmental and international agencies, industries, health care systems, and other constituencies
- community engagement to build public trust and address some of the historical challenges that prevent the development of academic-community partnerships
- multidisciplinary approaches to public health problems that use strategies that are ethical, population focused, and culturally appropriate
- integration of public health practice into health and human services professional activities
- respect for all individuals and the communities in which they live

MPH MISSION

The mission of the Master of Public Health Program at the University of Maryland, Baltimore is to advance the health of diverse populations in Maryland and elsewhere by providing graduates with the knowledge and skills necessary to: (1) investigate the causes, prevention, and treatment of health problems; (2) integrate public health practice into their professional lives; (3) develop collaborative public health initiatives in teaching, research, and service; and (4) serve as public health leaders at the community, state, and national levels.

MPH GOALS AND OBJECTIVES

Goal 1. Education and Training. Provide an interdisciplinary MPH Program that delivers a curriculum that addresses the core areas of public health, including public health ethics, and delivers training in methods from the two concentration areas of Epidemiology and Community & Population Health. This goal will be accomplished by offering coursework and a culminating practicum experience designed to provide the necessary skills to analyze the impact of socioeconomic, cultural, political, behavioral, biological, and environmental factors on population health, and translate data into evidence-based public health recommendations, interventions, and policies.

Objective 1.a. Recruit new faculty to increase the numbers of primary faculty in each of the concentrations.

Objective 1.b. Increase the number of secondary and additional faculty in the professional schools at UMB

INTRODUCTION: PROGRAM OVERVIEW , VALUES, AND GOALS

who teach in the MPH Program, and serve as faculty mentors and on-campus site preceptors for MPH students.

Objective 1.c. Increase the diversity of primary and secondary faculty.

Objective 1.d. Recruit well-qualified students who are ethnically and culturally diverse.

Objective 1.e. Increase the number of student field placement sites, and the number of community-based research, training, and service projects.

Objective 1.f. Develop continuing education training opportunities for professionals in the public health work force.

Objective 1.g. Implement new interactive and innovative teaching methods (e.g., distance learning; Internet-based teaching).

Objective 1.h. Review educational objectives, academic curricula, and teaching resources on an annual basis using evaluation tools with objective measures to ensure that they meet and/or exceed accreditation criteria.

Goal 2. Service and Outreach. Address public health issues by being a source of public health knowledge and resources for Maryland's citizens and communities, and building community capacity for monitoring, addressing, and protecting the populations' health. This goal will be accomplished by increasing opportunities for community outreach through campus-community partnerships and providing training in public health practice to MPH students and the UMB academic community.

Objective 2.a. Increase collaborations between faculty and students in the MPH Program and the UMB professional schools to deliver educational, training, and outreach programs to local communities.

Objective 2.b. Involve students in community-based educational and outreach programs across the professional schools at UMB that target the elimination of health disparities.

Objective 2.c. Increase the number of collaborations with advocacy groups across the various communities and constituencies served by the faculty, students, and programs at UMB.

Goal 3. Research. Promote an interdisciplinary research environment that addresses the public health needs of the diverse populations in communities throughout Maryland by expanding initiatives that have a public health focus across the professional schools, research, and clinical centers on the UMB campus.

Objective 3.a. Increase opportunities for faculty to conduct and publish high-quality public health research by developing mechanisms for public health research collaborations across the schools at UMB.

Objective 3.b. Increase the number of opportunities for student involvement in public health research.

Objective 3.c. Increase the opportunities for faculty to conduct interdisciplinary community-based research that targets the elimination of health disparities, and the involvement of local communities in these initiatives.

Goal 4: Program Growth and Development. Build an infrastructure that supports the growth and development of the MPH Program, and provides adequate resources for its educational, service, and research goals and objectives.

Objective 4.a. Continue to increase financial resources to the MPH Program.

Objective 4.b. Increase the classroom space and invest in computer equipment for online course delivery and other resources for the teaching and administration of the MPH Program.

Objective 4.c. Increase the visibility of the MPH Program through targeted student recruitment efforts in the public health and human services communities throughout Maryland.

Objective 4.d. Develop linkages with government, industry, and other external funding sources to support the growth of the MPH Program.

The University of Maryland, Baltimore does not discriminate on the basis of race, religion, national origin or ancestry, sex, sexual orientation, physical or mental disability, marital status, veteran's status or age in its programs and activities (<http://hr.umaryland.edu/diversity/nondisc.htm>).

ADMISSION STUDENT STATUS

Degree-Seeking Students

Once admitted to the MPH Program, degree-seeking students have the obligation to continue a course of study and must register every semester in the academic year (fall and spring semesters) unless on a leave of absence and have appropriately followed the procedures for an approved leave of absence (see form in back pocket) and submitted paperwork to the MPH Academic Office.

Provisional Students

Provisional students will be granted full degree-seeking status only if the provisions outlined in the offer of admission have been satisfied. Provisionally admitted students who fail to meet the terms of their provisional admission will be dismissed.

Coursework Only (non degree-seeking students)

The coursework only status is for students seeking the opportunity to register for coursework to enhance their knowledge by completing one or more graduate courses. Students may not use the coursework status to obtain full-degree status at the University. Should students subsequently apply and be admitted to the program, there is no assurance that the MPH Program will accept credits earned while in this status. In cases where the program does grant such a request, no more than 6 credits will transfer to the degree as determined applicable to the program. Students must obtain a B or better in the accepted courses.

International Requirements

International students who receive an offer of admission are required to contact the UMB Office of International Services (OIS) to coordinate materials, forms, and documentation. Please learn more by calling 410-706-7488 or visit the Web site at <http://www.umaryland.edu/ois>.

FACULTY ADVISORS

All students are assigned a faculty advisor at matriculation to help guide their progress toward achieving their degree. Students are required to seek the advice, counsel, and approval of their faculty advisors in developing their Individual Study Plan (see form in back pocket) during the first semester. Students admitted to the dual-degree MPH Program will have advisors in both the "home school" and the MPH Program. Both advisors must approve and sign off on students' Study Plans. Students are responsible for scheduling regular meetings with their advisors to assess progress and address any questions or concerns. Students are responsible for their progress in the program and for being in compliance with the program policies, procedures, and all other graduation requirements.

INDIVIDUAL STUDY PLAN

Students are required to complete an Individual Study Plan in the first semester after admission to the MPH Program. Faculty advisors work with MPH students to develop Individual Study Plans (see form in back pocket) that reflect the students' career interests and fulfill the requirements for the MPH Program. All of the courses students take must be reflected on their Individual Study Plan. The Study Plan must be approved and signed by the faculty advisor. Dual-degree students must attach their Study Plan from their "home school." Students should retain a copy and send the original to the MPH academic coordinator.

Should students wish to change something on their Study Plan, they must complete a Change in Study Plan form (see back pocket) and seek approval from their faculty advisor. This approved form must be submitted to the MPH academic coordinator. Courses taken for the degree that are not approved by the faculty advisor (or, in the case of dual-degree students, by both advisors) may not qualify for the MPH degree.

ACCESS TO MPH STUDENT FORMS

Most forms students will need during the course of the MPH Program are available through one or more of the following sources:

- the back pocket of this Student Handbook
- the MPH Program Web site at <http://medschool.umaryland.edu/epidemiology/mph/>
- the MPH Student Services and Academic Office, located in Howard Hall, Suite 135

COMMUNICATION BETWEEN PROGRAM AND STUDENTS

Electronic mail (e-mail) is the official medium by which program faculty and administrative staff communicates with students. MPH students are assigned a UMB e-mail account when they matriculate. Students are responsible for checking their e-mail account regularly to receive departmental information and respond promptly.

SURFS – STUDENT USER FRIENDLY SYSTEM

SURFS is a Web-based information utility that allows you to perform functions such as:

- access enrollment records, including courses, grades, and grade point average
- register for classes
- request transcripts
- submit name, address, telephone number, and e-mail address changes
- complete application for diploma
- complete enrollment verification and degree certification requests

To activate and access your account, go to the SURFS Web site at <http://simsweb.umaryland.edu/> and follow the directions for accessing the system.

To log in, enter your UMID and PIN and click on the Login button. UMID is your Social Security number or the nine-digit number assigned to you by the University. The initial value of your PIN is your date of birth, using the mmddyy format. To change your PIN, simply click on the "Change Pin" button or "Forget PIN?" button.

SURFS accounts are managed by the Office of Records and Registration. If you have questions about or problems with SURFS, contact them at 410-706-7480.

OFFICE OF THE REGISTRAR

All students must register each semester and term in accordance with current policies established by the Office of the Registrar. Academic records (transcripts) should serve as the students' academic history. Academic records and official transcripts are maintained in the Office of the Registrar. Official transcripts must be requested in advance. Under no circumstances will the academic records change because of dissatisfaction with a grade or other academic accomplishment. Additionally, this office is responsible for determining student residency in the State of Maryland. Contact information is as follows:

Office of the Registrar
Health Sciences and Human Services Library
601 W. Lombard St., Suite 240
Baltimore, MD 21201
410-706-7480
Fax 410-706-4053
<http://umaryland.edu/orr>

CALENDAR

Registration dates and other UMB academic calendar information are available from the Office of the Registrar at <http://www.umaryland.edu/orr/calendar/>.

COURSE REGISTRATION

Single-degree and coursework only MPH students must register for courses with the MPH academic coordinator. Dual-degree students may register through SURFS. Should students wish to register for a course not on their study plan, they must secure the permission of their faculty advisor; dual-degree students must seek approval from the faculty advisor from their home school as well. The Individual Study Plan must be updated accordingly and submitted to the MPH academic coordinator. Students must be approved for admission to be eligible for registration; only those who have been approved to enroll may attend classes.

SCHEDULE ADJUSTMENT PROCEDURES (ADD/DROP)

Students who wish to add or drop courses after their initial semester registration must complete an Add/Drop form (see back pocket) and submit this form to the MPH academic coordinator. Classes may not be dropped after the eighth week of the fall and spring semesters. During the summer term, students cannot drop a class after the first week of classes. Should there be any change that deviates from the Individual Study Plan, students must seek approval from their faculty advisors. Changes will be complete and official only after the form is appropriately completed and submitted within the designated time frame to the MPH academic coordinator. Students must adhere to the calendar published by the registrar's office.

REFUND SCHEDULE

Refunds for dropped courses will be issued only if the courses are dropped in accordance with the refund schedule. Students should refer to the registrar's office (<http://www.umaryland.edu/orr/refund.html>) for details on the refund schedule. Students are liable for all charges applicable at the time of withdrawal.

Please note:

- When making changes in registration, international students must be aware of the requirements for maintaining full-time status and should contact the Office of International Students at <http://www.umaryland.edu/ois>.
- Students who are receiving financial aid may be affected by their change in enrollment and must consult with their financial aid contact at 410-706-7347 or visit the Web site at <http://www.umaryland.edu/fn>.

AUDIT

Courses taken for Audit (AU) do not count toward the minimum credit requirement for degree completion. Charges for audit courses are the same as credit courses.

TRANSFER OF CREDITS

Students who wish to receive transfer credit for a course taken at another institution must apply for transfer credit. Consideration of transfer of credit will be reviewed according to the following criteria:

- Courses must have been taken at a regionally accredited institution no more than five years before applying for the MPH Program.
- No more than 6 credits of graduate coursework, with a grade of B or better, before matriculation in the program may be considered for transfer to the MPH degree.
- Students must complete and submit a Transfer of Credit form (see back pocket) along with their transcripts seeking consideration by the faculty advisor and course master.
- Credit cannot be transferred for courses that were used to fulfill requirements for any other degree, correspondence courses or “credit by examination” courses taken at other universities.
- Students who are matriculated in the MPH Program and wish to take a class at another university must seek approval, using the Transfer of Credit form (see back pocket), which must be signed by their faculty advisor and course master. When students have obtained the appropriate signatures, the form must be submitted to the MPH academic coordinator. When a request for transfer of credit from other institutions is approved, the credits—but not the grades—will be transferred.
- Transfer credit is not included in the cumulative grade point average.
- In the MPH Program, transferred credits may not substitute for PH 610 Foundations of Public Health or PH 789 Capstone Experience.

COURSE WAIVERS

A maximum of 6 credit hours can be waived for the MPH Program. For the MPH degree, the following courses cannot be waived:

- PH 610 Foundations of Public Health
- PH 789 Capstone Experience

The instructor of the course to be waived has responsibility for assessing the students’ knowledge of the material and may authorize approval of the waiver. Approved requests

must be in writing, using the Course Waiver form (see back pocket) and on file in the MPH Academic Office. Exceptions to this policy may be granted only with the approval of the program director, and are made on a case-by-case basis. Permitting students to waive courses does not reduce the total number of credits required for the degree. Therefore, students must consult their faculty advisor to select another course and update their Study Plan accordingly. A copy of the Change in Individual Study Plan form (see back pocket) must be provided to the MPH Program academic coordinator.

REPEATING A COURSE

- Students must repeat core and concentration courses in which they receive a grade of less than a B (B- is considered less than a grade of B).
- Students are able to repeat two different core or concentration courses
- Only one repeat per course is allowed.
- The grade for the repeated course, whether higher or lower, replaces the original grade on the academic record.

MIDTERM ALERT

The director of student affairs will track student success at the middle of the semester or term by communicating with faculty teaching core and concentration courses, requesting notification of any students who are not achieving a grade of B or better. Correspondence will be sent to these students reminding them of the required 3.0 GPA and a copy will also be sent to the faculty advisor.

WITHDRAWAL FROM CLASS

Classes may not be dropped after the eighth week of the fall and spring semesters. During the summer term, students cannot drop a class after the first week of classes. Students must complete a Student Withdrawal from Classes form (see back pocket) and receive approval from the instructor and faculty advisor. Students must submit the form with appropriate signatures to the MPH academic coordinator.

SECTION TWO: REGISTRATION AND ENROLLMENT

WITHDRAWAL FROM THE PROGRAM

Once admitted to the MPH Program, students must maintain continuous registration throughout their degree program unless they are on a leave of absence.

- Students who wish to cease pursuing their degree after registration must submit a Withdrawal from Program form (see back pocket), bearing proper signatures to the MPH academic coordinator.
- The date used in computing a refund is the date the document requesting a withdrawal is postmarked or received.
- Students who withdraw during a semester and do not file an application for withdrawal will receive marks of F in all courses and forfeit the right to any refund that they would otherwise receive.
- Students who withdraw before the beginning of the semester or term will have no record of that semester on their transcripts.
- Students who withdraw after the semester begins will receive a “WD” notation on their transcripts for all courses attempted and a refund of tuition based on the refund schedule.
- Students seeking to re-enter the MPH Program following withdrawal must reapply for admission.

LEAVE OF ABSENCE

Students who wish to continue in the degree program but choose not to register in a particular semester or term up to one year are required to take a leave of absence (see back pocket).

- Prior to returning from a leave of absence, students should contact the MPH academic coordinator requesting approval to return to the program. This request must be received no later than four weeks prior to the beginning of the semester or term in which they want to return.
- This request must be reviewed and approved by both the faculty advisor and program director.
- A leave of absence will not be granted for more than one year at a time.
- Retroactive leaves of absence are not permitted.
- A leave of absence does not extend the maximum time permitted for completion of degree requirements.

REINSTATEMENT FOR UNEXCUSED LEAVE OF ABSENCE FOR “STOP OUT” STUDENTS

Students who “stop out,” that is leave their studies for longer than a semester or more without formally withdrawing or on an approved leave of absence, are required to complete a Request for Reinstatement form (see back pocket). Students who “stop out” for a year or more may be required to submit a new application and nonrefundable application fee in order to be reviewed for reinstatement. Students may be reinstated only one time. A reassessment of the relevancy and applicability of prior course toward the degree will occur as part of this process. Please note:

- Students who stop out and are not in good standing (described in Grades section), have Incompletes (I) or No Mark (NM) designations on their record or on academic probation will have certain provisions in their reinstatement letter, should this be approved.
- Students who stop out and are in good standing will be considered more favorably.
- Students who fail to file a Leave of Absence form and want to return to their studies must petition the MPH Program coordinator to facilitate requests for consideration to be reinstated no later than four weeks prior to the beginning of the semester or term.

TIME LIMITS

All the requirements for the completion of the MPH degree whether students are enrolled in the program on a full-time or part-time basis must be completed within five consecutive calendar years. This includes any leaves of absence.

INFORMATION FOR GRADUATING STUDENTS

Students are responsible for obtaining and completing all forms required for graduation and submitting them by the deadline to the MPH Academic Office. The MPH Program staff and faculty will review students’ records to ensure all required courses are successfully completed. Students must complete the Fulfillment of Course Requirements form, the Certification of Completion of MPH Degree form, and the Degree Audit form (see back pocket). At program completion, students also will be asked to complete the MPH Program Exit Survey and the Evaluation of Public Health Competencies. These two documents are important components of the ongoing assessment of the MPH Program.

DEGREE CERTIFICATION AND DIPLOMAS

Students in the last semester of their degree program are responsible for submitting forms and meeting requirements for graduation and are advised of the following:

- MPH students are responsible for meeting these deadlines.
- Students who have applied for a diploma but are not able to complete degree requirements as planned must inform the MPH academic coordinator. These students must then reapply in the semester or term in which they expect to graduate.
- Students do not need to pay another diploma fee, but they must register for at least 1 credit per semester or term in which they plan to graduate.
- To apply for the diploma, log in to SURFS (Student User Friendly System) for the application form. Please note SURFS information will be found in the Student Services and Campus Resources section. SURFS accounts are automatically created when students are admitted. In order for students to activate and access their account, visit the SURFS Web site at <http://simsweb.umaryland.edu/> and follow the directions for accessing the system. SURFS accounts are managed by the Office of Records and Registration. If you have questions or problems with SURFS, contact this office at 410-706-7480.

ACADEMIC EXPECTATIONS

The MPH Program expects students to meet the highest standards of academic integrity; the success of the entire academic enterprise depends on their doing so. Cheating, plagiarism, fabrication, falsification or abetting the academic dishonesty of another may result in sanctions and may lead to academic dismissal.

ACADEMIC PERFORMANCE AND PROGRESS

The MPH Program requires all graduate students to remain enrolled and maintain satisfactory academic progress. The MPH Program has established standards and requirements with regard to minimum grade point average, enrollment, and time to degree, academic integrity, and other elements of satisfactory academic progress and degree completion. All MPH degree candidates are expected to review and comply with these standards and requirements.

GRADES

Final grades are assigned using the “plus or minus” grading system. The available letter grades and corresponding quality points used for grade point average calculations are as follows:

A	4.0	A-	3.67	B+	3.33	B	3.0
B-	2.67	C+	2.33	C	2.0	C-	1.67
D+	1.33	D	1.0	D-	0.67	F	0.0

Dual-degree students should note that while they may earn “plus or minus” grades in MPH courses, the plus or minus option may not be available in their home schools. As such, their transcripts may not reflect the plus or minus designations. Students should contact their home schools to determine how their grades will be recorded on their transcripts.

If no grade is issued, students automatically receive a No Mark (NM) on their record at the end of the semester or term. The NM remains on the record until a final letter grade is submitted. All No Marks and Incompletes on a student’s records must be reconciled (i.e., given the appropriate terminal grade) before the student graduates. Students are responsible for consulting with faculty who taught the course to reconcile the No Mark or Incomplete.

MINIMUM GRADE POINT AVERAGE

The MPH Program requires all students to maintain a minimum, cumulative grade point average of 3.0 on a 4.0 scale during their studies in order to remain enrolled. The academic progress of students will be reviewed each semester by the Admissions and Progression Committee. Failure to maintain the minimum of the 3.0 GPA requirements may result in academic probation or academic dismissal.

SECTION THREE: GRADES, STANDARDS, AND DEGREE REQUIREMENTS

GRADES FOR CORE COURSES AND CONCENTRATIONS

Students enrolled in the program must earn a grade of B (3.0) or better in all core and concentration courses and a minimum cumulative GPA of 3.0 to graduate. A grade of B- (2.67) is not acceptable for core and concentration courses. In order to enroll in any course for which one or more core courses are prerequisites, the student must have attained a grade of B (3.0) or higher in core and concentration courses. A student who earns a grade below a B in a core course may be given one opportunity to repeat the course in order to replace the grade. The grade from the repeated course replaces the original course grade. There are only two opportunities for students to repeat courses and an individual course may not be repeated more than one time.

GRADES FOR ELECTIVES

The MPH Program requires that students must maintain an overall B grade point average (a B- does not constitute satisfactory academic progress). Therefore, every grade of C earned in elective coursework must be balanced by a grade of A, so the required overall GPA of 3.0 is achieved.

INCOMPLETE GRADES

Students must be in “good standing” to be eligible for an Incomplete grade, i.e., have a passing grade in the course and may be issued an “I” only when a small segment of the coursework is missing. Students must complete coursework and faculty must assign letter grades to replace the incomplete no later than one year from the time the grade of I is issued. Incomplete grades not resolved within the designated time period will be converted to the grade of F. Students are ultimately responsible for completing coursework within the one-year period. A Change of Grade form must be submitted to the MPH academic coordinator in order for a grade change to take place. No student may graduate with an Incomplete.

SATISFACTORY ACADEMIC PROGRESS

The Admissions and Progression Committee will review student records at the end of each semester or term to ensure they are successfully maintaining satisfactory progress.

There are several instances when a student may not be maintaining appropriate academic progress:

- students who fail to earn less than a grade of B in their core and concentration courses and are required to repeat the course
- students who receive a grade of C or lower upon repeating a core or concentration course in which they earned a grade of less than a B

Students who do not have a cumulative GPA of 3.0 will be placed on academic probation and may be subject to certain sanctions for a stated period of time to remediate their coursework and improve their academic progress. Students on academic probation must meet with their advisor to determine a specific plan for improvement of their academic performance in order to stay in the program. Students who fail to meet the conditions of these terms may be dismissed from the program.

ACADEMIC DISMISSAL

Students who fail to meet the terms of satisfactory academic progress and remediate probation/sanctions as determined by the Admissions and Progression Committee may be subject to dismissal.

MPH students are expected to comply with the SOM Code of Conduct and with all SOM, UMB, and USM policies.

APPEALS PROCESS

The appeals process regarding grades and academic dismissal is available through the School of Medicine’s Web site: <http://medschool.umaryland.edu>.

ACADEMIC OFFICE

Student Services is part of the Academic Office. The mission of Student Services is to provide high-quality, individualized services to all students by:

- providing proactive, personalized services and making referrals that enhance the students' academic experience in the MPH Program
- maintaining accurate records
- ensuring confidentiality of student records and issues
- delivering timely, efficient, and courteous services
- supporting individual goals of students while remaining fair and consistent in implementing policies and procedures

Student support services include providing guidance and information in person, on the telephone, and online. One of our primary modes of communication with students is via e-mail. Students are required to have connectivity and maintain these accounts accordingly.

The Academic Office is located in Howard Hall, Suite 135.

Director, Student Affairs

Pamela DeMartino
HH132E
Phone 410-706-3338
pdemarti@epi.umaryland.edu

Academic Coordinator

Teena Maultsby
HH132A
Phone 410-706-0539
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Academic Program Specialist

Kassy Santoni
HH 132
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ADDITIONAL DEPARTMENTAL EDUCATIONAL OPPORTUNITIES AND RESOURCES

Student Affairs Committee

The Student Affairs Committee is chaired by the director of student affairs and its membership includes a primary faculty member, academic coordinator, and two student representatives. This committee develops and facilitates student interest in the MPH Program and the field of public health, and elicits student feedback regarding student issues, activities, and non-academic policies. The Student Affairs Committee meets bimonthly to explore a broad range of non-academic student issues. Based upon input from students through the committee's student representatives and interactions with the MPH student body, the Student Affairs Committee develops recommendations for enhancing student engagement and programmatic improvements for review and approval by the MPH Executive Committee.

Brown Bag Lunch

The monthly Brown Bag Lunch meeting was initiated in fall 2007 at the request of students. The meeting is designed as a forum for sharing information, addressing student concerns, and learning about career opportunities and developments in the field of public health. The MPH Student Affairs Committee solicits students for topics of interest.

Monthly Seminar Series

The series is planned by a faculty committee that distributes announcements in advance of the seminar. Students in the graduate degree program are expected to attend.

Journal Club

Journal Club meets weekly during fall and spring semesters on Mondays at noon in the Entwisle Conference Room, HH103D.

The Journal Club serves several important purposes.

- It provides an opportunity for faculty and graduate students to interact as colleagues and discuss stimulating papers.
- It provides an educational opportunity for students to gain skills in presentation, obtain experience reading and critiquing scientific papers, and hear diverse viewpoints from faculty and other students.

- It helps students and faculty keep abreast of major developments in epidemiology, preventive medicine, and public health.

Discussion leaders primarily consist of graduate students and residents, but each semester there will be several weeks when the discussion leader is a faculty member. The first discussion of the fall semester will be led by a faculty member and it will provide an orientation to Journal Club by example.

- o **Faculty Mentors:** When a student is the discussion leader, the student will work with a faculty mentor to choose the paper, develop the brief presentation and identify interesting points of discussion. Mentors will be selected from a list of faculty who express willingness to be Journal Club mentors, and who are informed about the goals and format of the Journal Club.
- o **Choice of Papers for Discussion:** Students should choose recent papers of interest that will lead to discussion. One good source for articles is those reported in the lay press. The faculty mentor should be fully involved in the choice of the paper.
- o **Format:** The paper should be presented in 15 minutes, as it would be in a national meeting, and contain five to 10 PowerPoint slides at most. The paper would then be opened to discussion led by the leader. PowerPoint slides listing each review point could be used to facilitate the discussion. The leader should try to stimulate discussion by identifying some interesting issues that the paper gives rise to. Discussion leaders should end the discussion at 12:50 p.m. so that 1 p.m. classes can start on time.

Computing Resources

Students are set up with an e-mail account that accesses the DEPM Local Area Network (LAN). Two computer lab/study areas designed specifically for students are available in Howard Hall: one is on the mezzanine and the other is located within Suite 135. Computer support staff are available to help with any questions or problems encountered on the DEPM LAN; contact the academic office to place your request in the HelpStar system.

SECTION FOUR: STUDENT SERVICES AND CAMPUS RESOURCES

Departmental Access

Classrooms, student study areas, and computer labs are open weekdays between 8:30 a.m. and 5 p.m. Access to classrooms and to the student computer lab is controlled. Access codes are given to students during Student Orientation; they are also available in the MPH Academic Office.

Departmental Library

The department maintains a limited library of books and journals; these collections are kept in several locations in the department. Books and reference materials are kept in the Trudy Bush Library. Books and journals specific to biostatistics are kept in the Howard Hall mezzanine area, opposite Room 111. Reference materials may only be used in their designated locations and may not be checked out.

Photo Identification Badges

All students are required to carry the UMB One Card, the official form of identification for the campus. The photo ID provides access to buildings. For more information on the One Card, visit www.umb-one.umaryland.edu or call 410-706-6943.

Student Telephone Access

The telephone in the mezzanine computer lab (410-706-4493) is available for students to use for local calls.

Photocopying

Should students desire photocopying privileges, they must be assigned an account number for photocopy machines located in the department. Please see Tamara Burrus at tburrus@epi.umaryland.edu or in the MPH Academic Office, Room HH109, to have an account established. You will receive a monthly bill charged at the rate of .065 cents per copy.

Web Sites

The DEPM Web site, www.medschool.umaryland.edu/departments/epidemiology, contains information about the department, its academic programs, and faculty research. The UMB Graduate School Web site is www.graduate.umaryland.edu.

UMB Campus Resources

For more detailed information about such issues as parking, security, support resources, campus health, and other matters that involve the entire campus community, you may wish to consult the UMB Answer Book (www.umaryland.edu/student/sab). Many of these additional resources may be of use to support our MPH students.

MASTER OF PUBLIC HEALTH PROGRAM

The MPH Program at the University of Maryland School of Medicine is a two concentration program that emphasizes the development of public health skills in core and concentration courses that are skills based. The MPH degree requires 42 credit hours, including 17 credits from core courses and a 6-credit supervised project, the Capstone Experience. In addition, each concentration has specific course requirements that are described on the following pages. Students can select electives to facilitate tailoring their program of study to their academic interests and career goals.

MPH CONCENTRATION IN EPIDEMIOLOGY

The MPH concentration in Epidemiology is designed for students who desire quantitative research skills in epidemiologic study design and data analysis. The Epidemiology concentration provides skills in risk factor analysis, specifically understanding the distribution, characteristics, causes, risk factors, and prevention of disease, disability, and mortality in the population. Students will be trained in ecological approaches to public health, including strategies for understanding and assessing the impact of political, socioeconomic, cultural, and behavioral factors on population health. The academic director for the Epidemiology concentration is Laura Hungerford, DVM, PhD, MPH.

Upon graduation, MPH students in the Epidemiology concentration will be able to:

- select the most appropriate and efficient design for a specific research problem
- articulate appropriate research questions and hypotheses to investigate public health problems
- select measurement instruments appropriate for a research question
- demonstrate familiarity with evidence-based principles of data management
- identify potential sources of bias, describe the direction and magnitudes of bias and its effect on measures of association, and develop strategies for reducing bias
- identify variables that are potential confounders with respect to an association of interest
- use statistical software packages to conduct descriptive analyses and examine bivariate associations
- estimate measures of disease occurrence and of association and associated confidence intervals
- use advanced statistical methods such as logistic regression, survival analysis, and proportional hazards models
- draw appropriate inferences based on results of analysis
- be prepared to participate in the implementation and management of a clinical trial

SECTION FIVE: MPH DEGREE REQUIREMENTS

Required Core Courses (23 credits)		Credits
PH/PREV 600	Principles of Epidemiology	3
PH/PREV 620	Principles of Biostatistics	3
PH/PREV 668	Environmental and Occupational Health	3
PH/PREV 648	Introduction to the Health System and Health Policy Management	3
PH/PREV 610	Foundations of Public Health	3
PH/PREV 623	Public Health Ethics	2
PH 7892	Capstone Experience	6

Required Concentration Courses (9 credits)		Credits
PREV 803	Clinical Trials/Experimental Epidemiology	3
PREV 659	Observational Studies in Epidemiology	3
PREV 720	Statistical Methods in Epidemiology	3

Electives (10 credits)

Select your electives from the approved elective courses listed on the following pages. You can also select your electives from the required courses for the other concentration, i.e., you can select PREV 758 (Health Survey Research Methods) as an elective, even though it is a required course for the Community & Population Health concentration. Other elective courses may be selected, but must be approved by the student's advisor and the MPH Curriculum Committee.

MPH CONCENTRATION IN COMMUNITY & POPULATION HEALTH

The MPH concentration in Community & Population Health (CPH) is designed to prepare students to apply the conceptual and methodological approaches of the social and behavioral sciences to public health practice and research. This concentration will focus on developing an understanding of the influence of the political, economic, socio-cultural, and behavioral contexts and processes on population health. Particular attention will be given to examining the root causes of disparities in disease risk, access and utilization of preventive and health care services, and health outcomes. A major goal of this concentration is to train students in the skills and knowledge needed to apply mixed methods (qualitative and quantitative) approaches in designing, implementing, and evaluating public health programs and translation of public health approaches to health policy. The academic director for the Community &

Population Health concentration is Renee Royak-Schaler, PhD, MEd.

Upon graduation, MPH students in the Community & Population Health concentration will be able to:

- recognize and assess the social, biological, psychological, and behavioral factors that affect the health of individuals and populations
- identify and assess the individual, family, organizational, community, and societal level factors that are associated with the onset and solution of public health problems
- comprehend the basic theories, concepts, and models from the social and behavioral sciences that are used to address health issues at the individual, family, organizational, community, and population levels in public health research and practice
- integrate and apply qualitative and quantitative mixed research methods for understanding phenomena in population health, and developing and evaluating public health assessments and interventions
- develop community partnerships for the planning, implementation, and evaluation of health promotion programs
- employ the steps and procedures of planning social and behavioral assessments, interventions, and policies
- advocate for the use of social and behavioral science approaches to address public health issues
- use the basic concepts, skills, and methods involved in culturally appropriate community engagement and empowerment with diverse communities
- identify key stakeholders for the planning, implementation, and evaluation of health promotion programs
- apply social justice and human rights principles when addressing community needs

Required Core Courses (23 credits)		Credits
PH/PREV 600	Principles of Epidemiology or	3
NURS 671	Epidemiologic Assessment Strategies	
PH/PREV 621	Biostatistical Methods or	3
PH/PREV 620	Principles of Biostatistics (substituted only with permission of instructor)	
PH/PREV 668	Environmental/	

SECTION FIVE: MPH DEGREE REQUIREMENTS

PH/PREV 648	Occupational Health Introduction to the Health System and Health Policy Management	3 3
PH/PREV 610	Foundations of Public Health	3
PH/PREV 623	Public Health Ethics	2
PH 789	Capstone Experience	6

Required Concentration Courses (9 credits) Credits

PREV 758	Health Survey Research Methods	3
NURS 732	Program Planning and Evaluation in Community/Public Health	3
PREV 625	Community-based Participatory Research: Theory & Methods	3

Electives (10 credits)

Select your electives from the approved courses listed below. You can also select your electives from the required courses for the other concentration, i.e., you can select PREV 659 (Observational Studies in Epidemiology) as an elective, even though it is a required course for the Epidemiology concentration. Other elective courses may be selected, but must be approved by the student's advisor and the MPH Curriculum Committee.

Approved Electives Credits

PREV 702	Advanced Quantitative Methods	2
PHSR/PREV 722	Advanced Topics in Pharmacoepidemiology	1
TOXI 601	Advanced Toxicology I	3
PREV 601	Applied Epidemiology	2
PSYC 656	Applied Social Psychology (UMBC)	3
PREV 619	Biostatistical Computing	2
PREV 716	Chronic Disease Epidemiology	3
SWOA 704	Community Organization	3
SOWK 720	Comparative Social Policy	3
PHAR 522	Context of Health Care	2
PREV 611	Disease Modeling in Epidemiology	3
GERO 742	Economic Issues in Aging	3
NURS 730	Environmental Health	3
PREV/GERO 681	Epidemiology of Aging	3
PREV 638	Ethical Issues in International Research	3
TOXI 611	Exposure, Risk and Public Health	3
PREV 711	Genetic Epidemiology	3
PREV 664	Global Health: Critical Issues	3
LAW 564	Health & International Human Rights Seminar	3

LAW 586	Health Law Seminar: Food and Drug Law	3
NURS 630	Health Promotion Disease Prevention	2
PREV 789	Independent Study	1
PREV 749	Infectious Disease Epidemiology	3
PREV 715	Injury Epidemiology & Prevention	2
NURS 750	Interdisciplinary Seminar in Environmental Health	1
PHSR 620	Introduction to Health Behavior Theory	3
GERO/SOCY 672	Issues in Aging Policy	3
PUBL 613	Managing Public Organizations (UMBC)	3
PHMY 502	Medication Safety in Health Care	2
PREV 780	Molecular Epidemiology	3
PREV 631	Molecular Epidemiology of Infectious Diseases	3
SOWK 764	Multicultural Practice in Organizations and Communities	3
SOWK 765	Nature of Health and Illness	3
PHSR 704/ PREV 705	Pharmacoepidemiology	3
PHSR 610	Pharmacy, Drugs, and the Health Care System	3
NURS 761	Populations at Risk in Community/Public Health	3
PHSR 670/ PREV 650	Principles of Health Education and Health Promotion	3
SOWK 783	Qualitative Ethnocultural Research	3
SOWK 826	Qualitative Research Methods in Social Work	3
PREV 721	Regression Analysis	2
PREV 706	Research Informatics: Data Management in Research	2
PHSR 701	Research Methods I	3
NURS 697	Seminar in Health Policy	3
NURS 769	Society, Health, and Social Justice	3
GERO 700	Sociocultural Gerontology	3
SOCY 658	Sociology of Mental Health and Illness (UMBC)	3
PREV 723	Survival Analysis	2
PUBL 603	Theory and Practice of Policy Analysis (UMBC)	3
TOXI 618	Toxicology Seminar	1

SECTION FIVE: MPH DEGREE REQUIREMENTS

MPH DUAL-DEGREE PROGRAM

The purpose of the MPH dual-degree program is to facilitate the process of UMB professional school students in obtaining a Master of Public Health (MPH) degree. Students must fulfill all of the respective degree requirements to receive both degrees and will be able to earn both degrees in a lesser amount of time by applying some of their course credits toward both degrees. Students are urged to plan for an additional year to complete the requirements for both degrees.

Students admitted to the dual-degree program will have academic advisors both in the “home” school program and in the MPH Program. Advisors must jointly approve and sign off on a student’s Individual Study Plan.

The MPH Program will allow students to apply 6 credits from their primary degree program in their “home” schools (i.e., University of Maryland School of Nursing, School of Social Work, etc.) to the MPH degree as shared credits. The programs in the “home” schools will determine how many MPH credits will be attributable to their degrees. The MPH Program advisor must approve the courses that the student wishes to have applied to the MPH degree.

DUAL-DEGREE ADMISSIONS

Each degree program awards its own degree and has its own admissions process. Students interested in participating in the dual-degree program may apply for entrance to the MPH Program at the same time they apply to the UMB professional school or during any one of the years of their professional program. Students must adhere to the DEPM admissions procedures and deadlines. Students applying to this program need the equivalent of a bachelor’s degree (i.e., either a degree or 120 semester hours of college). Admission to the MPH Program is contingent upon the student’s acceptance into the UMB professional school.

To continue in the MPH Program, students must remain in good standing in their home school program. If a student withdraws or is dismissed from the home school for any reason, he/she may not continue in the MPH Program.

Students will submit GRE scores to the MPH Program’s admissions committee along with college transcripts and other material. LSAT, MCAT, and PCAT scores may be substituted for GRE scores.

SHARED CREDITS FOR MPH DUAL DEGREES

The MPH Program will accept 6 credits toward the MPH degree from the student’s home program. There are six approved dual-degree programs:

PharmD/MPH

The School of Pharmacy allows students to count credits earned in MPH courses toward their 17 elective credits.

MSW/MPH

The School of Social Work allows 6 credits earned in MPH courses to be applied toward their 6 required research credits.

JD/MPH

Students must earn 85 credits to complete the JD degree. The School of Law will allow students to use 9 credits obtained in the MPH Program in fulfilling this 85-credit requirement.

MS Nursing/MPH

The School of Nursing will allow students to use 9 credits obtained in the MPH Program as electives in fulfilling credit requirements of specialty nursing programs that include electives.

MD/MPH

The School of Medicine will allow students to count credits earned in MPH courses toward their elective credits for the MD degree.

DDS/MPH

The Dental School offers a dual-degree program in which students may simultaneously earn a Master of Public Health (MPH) degree with their Doctor of Dental Surgery (DDS) degree. Students must meet the requirements of both programs to earn both degrees.

KEY TO COURSE OFFERINGS

Course Preface	Location
CIPP	Courses in Inter-professional Program
ECON	UMBC Department of Economics
GERO	UM School of Medicine, DEPM
GPLS	UM School of Medicine, Graduate Programs in Life Sciences
IS	UMBC Department of Information Systems
LAW MEDT	UM School of Law UMB Graduate School Program in Medical and Research Technology
NURS PH	UM School of Nursing UM School of Medicine, DEPM
PHAR, PHSR, PHMY	UM School of Pharmacy
PREV	UM School of Medicine, DEPM
PSYC	UMBC Department of Psychology
PUBL	UMBC Department of Public Policy
SOCY	UMBC Department of Sociology and Anthropology
SOWK, SWOA	UM School of Social Work
TOXI	UM School of Medicine, DEPM

PH/PREV 600 Principles of Epidemiology [3]

This introductory course presents a comprehensive overview of the concepts and methods of modern epidemiology. A major emphasis is placed on understanding the strengths and limitations of the various epidemiologic study designs. Bias, confounding, effect modification, and causal inference are covered in detail and the students are given the opportunity to apply these concepts in critiques of the published epidemiologic literature. Learning approaches include lectures, readings, discussions, in-class exercises, and workshops.

PREV 601 Applied Epidemiology [2]

An introductory course designed to challenge students to apply epidemiologic concepts and methods to analysis of data on current issues. Students will choose a relevant question, develop testable hypotheses, conduct descriptive analyses, report and discuss results, and consider study limitations. Each step of the process is supported by lectures and student presentations of their findings to the class. The primary source of data for student projects will be adverse event reports to the Food and Drug Administration (FDA). *Prerequisites: PREV 600 and PREV 620 or consent of instructor.*

PH/PREV 610 Foundations of Public Health [3]

This course will examine the complex set of factors that are associated with the health and disease of diverse populations, including the individual, organizational, community, and population. To encourage an appreciation of the wealth of conceptual and methodological approaches and disciplines that inform public health practice and research, course content will highlight the social and behavioral sciences, communication and informatics sciences, and public health ethics. We will go beyond the individual risk factor approach to health and disease, applying multidisciplinary models and social epidemiology to elucidate the economic, sociocultural, political, and behavioral context and processes underlying health care access and health outcomes. A primary goal is to better understand how, where, and why inequalities contribute to health disparities, and facilitate an appreciation of the health management processes that may reduce inequities in health. *Prerequisites: none.*

PH/PREV 620 Principles of Biostatistics [3]

This is an introductory course in statistics with an emphasis on methods and applications to medical, health, and epidemiological research. General topics covered in the first half of the course include: descriptive statistics and graphics, basic probability theory, sampling distributions, theory of estimation and significance testing. Second half of the course applies the theory and methods of the first part to common data analysis problems such as: estimating the mean, comparing two means, comparing two proportions, analyzing two-way tables, and simple linear regression. This course emphasizes theoretical principles that underlie all statistical methods. *Prerequisites: Knowledge of college algebra required. Calculus recommended.*

SECTION SIX: COURSE DESCRIPTIONS

PH 621 Biostatistical Methods [3]

This course is designed to introduce the students to a broad range of methods commonly used in biomedical and public health research, and to provide some hands-on data analysis experience. Topics to be covered include the role of statistics in science, properties of distributions, exploratory data analysis, inference about means, proportions and survival distributions, and introduction to multivariable methods. *Prerequisites: Knowledge of college algebra required. Calculus recommended.*

PH 623 Ethical Issues in Public Health [3]

The goal of this course is to provide students with both content and skills in the field of the ethics of public health and the concept of health and human rights. This course begins with an introduction to the field of public health and the underlying ethical framework that governs its existence and importance for society. The course next builds upon the theory linking health and human rights together in order to examine in depth the impact of health policies and programs on human rights; the impact of human rights violations on health and the synergistic relationship that flows between the two fields. Flowing from this synergy will be an exploration of power, health disparities, and health inequities and the possible solutions that can bridge the gap between such inequities. In essence, through a uniquely public health approach, this course will examine a spectrum of issues related to health and human rights including health as a human right, measurement and justifiability of the right to health, vulnerable populations and implications for public health practice. Case studies in each of these topics will be utilized throughout the course to support critical inquiry into the burgeoning field of health and human rights. *Prerequisites: none.*

PH/PREV 648 Introduction to the Health System and Health Policy Management [3]

Lectures, readings, and discussions are designed to convey an understanding of the U.S. health care system, its history, evolution, structure, function, and effectiveness. The course examines the underlying foundations of health policy and explores the political factors that contribute to its creation. Topics include: municipal, state, national, and foreign organizational systems; health maintenance organizations (HMOs); health care costs; cost containment and quality; regulations; planning and evaluation; data

sources; health manpower, and applied problem-solving. This is a 3-credit hour lecture and discussion course, with a graduate-level paper that provides in-depth exposure to a student-selected topic in health policy. *Prerequisites: none.*

PH/PREV 668 Environmental and Occupational Health [3]

Environmental exposures play a significant role in disease causation, particularly as risk factors for cancer, asthma, and other chronic diseases; and exposures in the occupational settings are an important part of environmental exposures. To gain a basic background in public health principles, it is important to understand the public health context of such exposures. The present class addresses the different components of the environment, the potential hazardous exposures and their implications, and the best practices to prevent and control them. It is a 3-credit hour course, taught once per week, over one semester. It consists of didactic lectures, in-class discussions, student presentations, and visits to environmental and occupational sites. *Prerequisites: none.*

PH 789 Capstone Experience [6]

This is a supervised public health field experience that requires substantive application of the knowledge and skills acquired in the MPH core courses and in courses taken in the area of concentration. The course requires at least 240 contact hours in the field placement experience. It may be completed in a six-week block or over a longer period but course registration is limited to two semesters. *Prerequisites: Students must complete all core and concentration core MPH courses before they may register for and begin the Capstone.*

PREV 611 Disease Modeling in Epidemiology [3]

Mathematical models are an important tool for understanding infectious disease epidemics. Each student in the course will develop and analyze a basic mathematical model on a system of their choice. In addition, we will introduce students to the core theory for infectious diseases, teach some basic skills needed to read a theory paper, and cover special topics selected by the students. *Prerequisites: PREV 600 and PREV 620.*

PREV 614 Year-long Seminar Series in Global Health [1]

This course is a series of seminars that crosses the summer and fall semesters. Guest speakers are invited from UMB and other academic institutions. Specific topics may

include and are not limited to environmental health, maternal and child health, refugee health, infectious diseases, nutrition, multicultural communication. Students are required to read the assigned readings prior to class, to participate in the discussion asking presenters informed questions about their work, and to prepare a brief written summary of the topic and discussion. *Prerequisites: none.*

PREV 617 Design and Implementation of Research Studies (Grant Writing) [2]

During the semester, students will select a research topic, develop a research plan, and write a grant application in appropriate format for submission to a funding agency. Grant sections, as they are written, will be presented to the class by the students for critique and discussion. As part of this process, students will consider research strategy and requirements of funding agencies; gain familiarity with various grant formats; discuss ethical issues in study design; and consider the practical aspects of data management. Student evaluation is based on class presentations and the final grant application. *Prerequisites: Enrollment limited to MS Clinical Research track students.*

PREV 619 Biostatistical Computing [2]

This course provides the student with comprehensive experience in the application of epidemiological and biostatistical methods available in the Statistical Analysis System (SAS). Hands-on experience in weekly workshops is gained by conducting analyses of existing data designed to answer a research question. *Prerequisites: PREV 620 previously and PREV 720 concurrently, or consent of the instructor.*

PREV 625 Community-based Participatory Research Methods [3]

This course will provide a comprehensive understanding of the ways in which social scientists, health professionals, and community members can collaborate to address public health problems through research that leads to improvements in health and quality of life, and organizational or community change. Students and faculty from multiple scholarly disciplines will examine the approaches to community-based participatory research that go beyond the domain of any one discipline. Students will receive training in the skills and knowledge needed to apply mixed methods (qualitative and quantitative) approaches in designing, implementing, and evaluating public health

programs and community-based participatory research. Attention will be given to the scholarly debates and practical/logistical issues in conducting community-based participatory research. Ethical principles of social justice will be applied to public health program planning and evaluation that uses community-based participatory methodology. *Prerequisites: none.*

PREV 627 Vaccinology [2]

Vaccinology is an emerging science that deals with all aspects of the development and implementation of vaccines and vaccination programs. The Center for Vaccine Development (CVD) at the University of Maryland School of Medicine is a world-famous research center that creates vaccines in the laboratory, then tests these vaccines at all levels, including pre- and post-licensure field studies. This course is taught by the faculty of the CVD and experts from other institutions. The full range of issues in vaccinology is covered, including the current status of vaccines and vaccination programs. There is particular emphasis on policy in vaccine implementation. *Prerequisites: none.*

PREV 631 Molecular Epidemiology of Infectious Diseases: Methodological Approaches and Their Practical Applications [1]

This course consists of lectures and laboratory rotations dealing with the theoretical concepts and practical applications of methodologies and approaches commonly used in molecular epidemiology. A historical overview of typing methodologies will be part of the course, and it will be presented on the context of ongoing advancements in biological sciences and technology. The pros and cons of various typing methodologies will be explained, and their comparative suitability for specific epidemiological investigations will be discussed. The students should have a background in the biological sciences, and a basic understanding of the structure and organization of prokaryotic genomes will be particularly helpful. The course will be designed to guide the students in a stepwise, easy-to-understand manner, from basic principles of strain genome organization to more complex issues of how to utilize that knowledge during epidemiological investigations. *Prerequisites: A basic knowledge of microbiology. Knowledge of basic molecular biology techniques will be advantageous, but is not required. Also, the PREV 780 course (taken previously or concurrently) will be helpful.*

SECTION SIX: COURSE DESCRIPTIONS

PREV 633 Legal and Regulatory Issues in Clinical Research [1]

The course will be co-taught by faculty from the School of Medicine and the School of Nursing. The course is required for the Master of Science in Clinical Research in the School of Medicine and the Master of Science in Clinical Research Management in the School of Nursing. This mixture of students will promote the multidisciplinary interactions integral to successful clinical research. *Prerequisites: Health professional degree and clinical research experience.*

PREV 634 Introduction to Health Informatics [4]

The course provides a comprehensive introduction into the field of health informatics, combining perspectives into medicine, public health, social science, and computer science. Particular attention is given to diverse use of computers and information technology in health care and the biomedical sciences, including specific applications and general methods, current issues, capabilities, and limitations of health informatics. Health Informatics studies the organization of medical information, the effective management of information using computer technology, and the impact of such technology on medical research, education, and patient care. The field explores techniques for assessing current information practices, determining the information needs of health care and biomedical research professionals and other workers and patients, developing systems using computer technology, and evaluation of the impact of these systems. The course covers a wide range of health informatics applications relevant for health care delivery organizations, government agencies, biomedical researchers, and commercial entities. The course provides an overview of major health informatics techniques aimed to optimize the use of information in order to improve the quality of health care, reduce cost, provide better education for providers and patients, and to conduct medical research more effectively. *Prerequisites: Some experience with computers and a passing familiarity with biology and/or medicine will be useful.*

PREV 635 Topics in Health Informatics [1]

The goal of this course is to provide students with a systematic review and evaluation of recent scientific publications in the major health informatics areas. The major areas pertinent to the development and assessment of computer applications for health care and biomedicine include 1) health and clinical management; 2) computer-based patient records; 3) health information systems; 4)

medical signal processing and biomedical imaging; 5) decision support, knowledge representation and management; 6) computer-assisted education and consumer informatics; 7) bioinformatics. The course will be in a seminar format and will consist of the evaluation of assigned readings of recent literature that may be relevant to the field of medical informatics and that might be expected to lead to further computer use in medicine and biology. This format will provide an opportunity to learn to critically evaluate medical informatics literature and to develop oral presentation skills essential to function as a leader in medical informatics projects. *Prerequisites: none.*

PREV 637 Ethical Issues in Clinical Research [3]

This course begins with the birth of contemporary bioethics in famous research scandals and ends with some current problems on the cutting edge of scientific research ethics. In between, we shall examine the regulatory structure designed to curb the abuse of patient/subjects; specifically, this will consist of the role and functions of Institutional Review Boards (IRBs). The approach will be primarily philosophical but with attention to history and regulation. Many of the great cases (such as the Nazi Doctors' Trial, the Tuskegee syphilis study, Willowbrook, Milgram's authority experiments, and the recently revealed U.S. government-sponsored radiation studies) will be examined with an eye both to historical detail and to ethical analysis. The course will emphasize controversies concerning the ethical design of research studies (e.g., randomization, placebos, informed consent, coercive inducements, gauging risk and benefit, etc.) as well as problems posed by specific "subject populations" such as medical students, prisoners, developing world subjects, and cognitively impaired patients. Throughout the course, we will have practical experiences in the ethical review of research protocols. *Prerequisites: none.*

PREV 638 Ethical Issues in International Research [3]

This course will examine the ethical and philosophical issues raised by research involving human subjects; particularly as such research is conducted in an international setting. The course assumes that the student has had at least some elementary acquaintance with basic concepts in research ethics. (This acquaintance may consist of prior or concurrent study of research ethics or some experience in conducting or assessing human subject research. The student should contact the instructor if further clarifica-

tion is needed.) The course begins with a survey of some cases of research that, some argue, would be unethical to perform in the U.S. but would be ethical to perform in other countries. This sets the stage for a discussion about the broad issues regarding the universality of bioethics and the professional role and obligations of a scientific or biomedical researcher. The course then turns to specific issues—e.g., informed consent; risk assessment; the just selection of research participants; genetic research; issues in vaccine research; ethics and human rights; issues in social science research, appropriate use of placebos; what is owed to research participants communities and countries after research is completed, and science and academic integrity—in the context of international research. In sum, the course will present the students with some of the standard disputes in international research ethics as well as some of the tools needed to assess these disputes. *Prerequisites: none.*

PREV 639 Institutional Review Boards [2]

The development of Institutional Review Boards (IRBs) has played an integral role in the protection of research subjects and has also served as an important regulatory mechanism in the review and conduct of research. This course will explore the history that brought about the development of IRBs as well as the purpose, structure, and function of IRBs. Accordingly, the course will examine the necessary elements of standard operating procedures, including constitution of membership, elements of review, and issues involved with conflicts of interests. Other lectures will explore mechanisms of expedited and exempt reviews, elements of a waiver of consent, the continuing review process, the dynamics of IRB decision-making, and different models for the review of research, e.g., local versus centralized IRBs. The course will explore the relationship between members of the research team and the IRBs and explore Good Clinical Practice Guidelines. Practical exercises will include submission of an FWA, review of consent forms, and mock IRB exercises. Each class participant will obtain pre-meeting IRB materials and observe the conduct of four IRB meetings. *Prerequisites: none.*

PREV 640 Ethics of Globalization [1]

This seminar course is designed to introduce students in the identification and evaluation of moral dilemmas in the context of changes and development in an increasingly globalized world. Students will be introduced to the spec-

trum of prominent moral theories, and their application to critical development challenges in developing countries. The course will also ask how the leaders of tomorrow can ethically face the challenges globalization poses for the common life of the future. The course will also focus on the relative inability of moral theory to penetrate development analyses; theory and practice may be changing, a premise that warrants close scrutiny from the outset of the course and repeated consideration in the weeks that follow. This course adopts a global perspective toward and examines the social consequences of contemporary economic, social, and spatial restructuring and examines how globalization is associated with widening social and spatial inequalities. *Prerequisites: none.*

PREV 645/LAW 648B Critical Issues in Health Care [3]

This interdisciplinary course is open to students from the Schools of Law, Medicine, Social Work, Nursing, Pharmacy, Dentistry, and the graduate schools at UMB and UMBC. The course is designed to: (1) provide students with an opportunity to reflect on the legal, ethical, and policy issues surrounding a number of health care delivery problems; (2) expose participants to the basic skills necessary to analyze problems from a legal, ethical, and policy perspective; and (3) offer participants from different disciplines an opportunity to interact and share information and perspectives about their professions with one another. A variety of teaching techniques, including case studies, simulations, and panel discussions, will be used to explore such topics as medical malpractice, rights of patients to refuse treatment, informed consent, and substituted consent in medical decision-making, confidentiality versus duty to disclose medical information, regulation of experimental drugs, and health care reform. During the course, students will have an opportunity to work in multidisciplinary teams to analyze a particular health care problem and develop a position paper on a health care policy issue. *Prerequisites: none.*

PREV 649 Introduction to Preventive Medicine [2]

This is a seminar course that emphasizes the applications of epidemiology, statistical reasoning, and preventive medicine to clinical practice. The role of the physician and other health professionals in the primary and secondary prevention of disease is discussed. Topics include relationships among physicians, hospitals, nursing homes, regulatory agencies, third party payers, and the law. Preventive

SECTION SIX: COURSE DESCRIPTIONS

Medicine residents only. *Prerequisites: PREV 600 and PREV 620 and consent of instructor.*

PREV 650/PHSR 670 Principles of Health Education and Health Promotion [3]

This course presents a scientific process designed to achieve voluntary behavioral change to improve health status. Health promotion utilizes health education to promote health and prevent disease. The analytical process used to explore health problems, the identification of factors associated with them, and the development and evaluation of interventions are covered. *Prerequisites: none.*

PREV 651 Molecular Biology in Public Health Research [1]

This course will review the basics of molecular biology as the basis for a discussion of molecular methods frequently utilized in population-based health studies. The course is tailored toward students who are planning to take advanced epidemiology courses, such as Molecular Epidemiology, Cancer Epidemiology, and Epidemiology of Infectious Disease but that might be unfamiliar with recent developments in molecular biology. While details of molecular techniques are introduced during the lectures, students will only be expected to achieve competence in understanding the principles of molecular techniques as applicable to population-based research. Through discussions of relevant publications, students will be enabled to better judge issues associated with utilizing molecular analysis methods in population studies. *Prerequisites: none.*

PREV 659 Observational Studies in Epidemiology [3]

This course provides an in-depth examination of study designs, including case-control and cohort studies. Special emphasis will be placed on possible biases that can occur in epidemiologic research. Some special topics also will be addressed in detail, including screening, misclassification, and questionnaire construction. *Prerequisites: PREV 600.*

PREV 664 Critical Issues in Global Health [3]

This course is a series of seminars, lectures, and reading assignments designed to give students an overview of the global health problems facing the world today and equip them with tools to navigate the world of international health. The course focuses on teaching students about the global burden of disease and pattern of disease variations between and within countries. It addresses cross-cutting

issues such as poverty, environmental degradation, and the impact of globalization on health. Topics covered include maternal and child health, gender and violence, nutrition, water and sanitation. It will review both pandemics such as HIV, TB, Avian flu and malaria, as well as non-communicable diseases such as smoking, cancer, and mental health. The course will also introduce the student to the key players in global health and critical issues in global health governance that impact implementation of international programs. Guest speakers will be invited from UMB, USAID, WHO, World Bank, and NGOs. Evaluations will be based on student participation and presentations and two papers that critically assess a global health issue. *Prerequisites: none.*

PREV 681 Epidemiology of Aging [3]

This course involves students learning how the principles and methods of epidemiology and preventive medicine can be applied to the study of aging. There is a review of health assessment techniques that are potentially useful for conducting epidemiological studies of older persons; the epidemiology of selected diseases common to old age; primary, secondary, and tertiary prevention, as applied to older persons, focusing on psychosocial and environmental aspects of health; differing conceptions of long-term care, and its role in the prevention, intervention, and treatment of illness in older persons. Students learn how to critically evaluate and present research in a specific area of gerontological epidemiology with faculty supervision. *Prerequisites: PREV 600 or consent of instructor.*

PREV 702 Advanced Quantitative Methods in Epidemiology [2]

Students will discuss each session one or two papers related to an advanced quantitative method in epidemiology. Discussion will be led by either a student or a faculty member. Students will write a seven- to 15-page paper on the topic that they lead. *Prerequisites: PREV 620 and PREV 720.*

PREV 703 Complex Disorders Seminar [2]

This seminar series includes speakers from both inside and outside the University of Maryland, Baltimore. The individual speakers focus on topics including the difficulties of defining phenotypes, the problems involved in identifying genetic variation, and the statistical issues involved in correlating multiplicity of genotype data with that of phenotypic data. Speakers address these topics by discussing their research including leukodystrophies, bipolar disorder,

prostate cancer, and eye diseases. Faculty-led discussions follow seminars. *Prerequisites: none.*

PREV 704 Molecular Epidemiology Practicum (Lab Rotation) [3]

The course involves three three-month assignments across the nine-month school year and should be taken after completion of the first year of coursework. *Prerequisites: completion of first-year courses.*

PREV 705/PHSR 704 Pharmacoepidemiology [3]

The course serves as an introduction to the field of pharmacoepidemiology, a biomedical science that applies quantitative research methods to examine questions of benefit or risk of marketed medications. Through didactic presentation, students will be given knowledge of the state of development of this relatively new field and provided with opportunities to examine and critique the literature in this area. The course is intended to offer techniques to medical/health researchers who wish to examine questions of marketed drug therapy utilization, effectiveness or safety. *Prerequisites: none.*

PREV 706 Research Informatics: Data Management in Research [2]

Clinical research frequently requires the efficient collection, storage, and manipulation of data sets of varying sizes. Researchers must be adept at selecting and using appropriate computer-based tools to aid in this process. *Prerequisites: PREV 600, PREV 620 previously or concurrently or with permission of the course master.*

PREV 707 Cost-Effectiveness in Prevention and Treatment [3]

A 3-semester-hour graduate course for master's and doctoral students in the health sciences. This course is a component in the core methods for public health sciences, especially focusing on the preventive measures in health care. Cost-effectiveness analysis (CEA) is an integral part of the design and development of interventions, so that optimal decisions can be made in selecting the alternative to be implemented. Additionally, the evaluation of outcomes should include an empirical CEA to improve the body of knowledge available to future work. These techniques are also applied in randomized clinical trials. This course examines principles and techniques of CEA in health care from a prevention perspective. Participants learn key elements of the economist's analysis of costs, and effect,

in order to achieve a comparative and incremental CEA. Students learn to design and conduct a hypothetical and empirical CEA. *Prerequisites: PREV 600, PREV 720 or the equivalent.*

PREV 711/HGEN 711 Genetic Epidemiology [3]

The course will provide the student with an overview of basic methods used in genetic epidemiology. The course will begin with a review of basic human genetics and then proceed to a description of some of the principal methods used to dissect the genetic contribution to human disease. The emphasis will be on methods applicable to the study of common complex diseases such as coronary heart disease, type 2 diabetes, and obesity. Topics will include methods for assessing familial aggregation, heritability and segregation analysis, linkage analysis, and family-based association studies. The class will involve a computer lab designed to allow students "hands-on" exposure with the use of several different genetic analysis programs. *Prerequisites: PREV 600, PREV 619, PREV 620 or their equivalents or consent of instructor. Background in basic human genetics helpful.*

PREV 715 Injury Epidemiology and Prevention [2]

The purpose of this course is to help students understand basic models of injury causation, principles of injury prevention and control, how to design epidemiologic studies of risk factors for injury, and how to evaluate public health interventions designed to address the problem of injuries. The faculty of this course are committed to addressing injuries as a major public health problem throughout the world. Together with epidemiologic findings and methods relating to injury research, the many issues involved in trying to control injuries will be discussed. Injury epidemiology and control is an exciting subject, and students will be strongly encouraged to express their ideas and suggestions throughout the course. The course is 2 credits and an additional credit may be available for students who prepare a research proposal or conduct a mini-study as part of their coursework. *Prerequisites: PREV 600.*

PREV 716 Chronic Disease Epidemiology [3]

The course addresses chronic disease burden and its implications, and the best practices to prevent and control them. It is a 3-credit hour course, taught once per week, over one semester. It consists of didactic lectures, in-class discussions, and student presentations.

SECTION SIX: COURSE DESCRIPTIONS

PREV 720 Statistical Methods in Epidemiology [4]

This course provides instruction on the specific statistical techniques used in the analysis of epidemiological data. Topics include: treatment of stratified and matched data, detection of interaction, linear regression, conditional and unconditional logistic regression, survival analysis, and proportional hazards models. *Prerequisites: PREV 600, PREV 620, and consent of instructor.*

PREV 721 Regression Analysis [2]

This course covers basic principles and theory of regression techniques. Topics include simple and multiple linear regression, robust regression, regression diagnostics, logistic and poison regression analysis. The emphasis of this course is on learning the biomedical research application and interpretation of regression techniques. *Prerequisites: PREV 620 or consent of instructor.*

PREV 722/PHSR 722 Advanced Topics in Pharmacoepidemiology [1-3]

Provides students with the opportunity to study a topic of interest and includes classes on a variety of special interest topics or topics of an interdisciplinary nature. *Prerequisites: PREV 600, PREV 620, and PREV 705.*

Product Safety and FDA Regulation [3]

The purpose of this course is to engage students in the techniques of pharmacoepidemiology through case studies and by working through an actual drug safety investigation. Drug safety will be addressed in the context of science and the law through readings, debates, and discussions with invited guests from the Food and Drug Administration (FDA), a pharmaceutical company/consulting agency, and a law firm. Students will work together as an investigative team under the direction of the instructor. Using the FDA's Adverse Event Reporting System database and the medical literature, students will work up the epidemiological characteristics of a drug safety signal. Based on the characteristics of the signal, the team will design a pharmacoepidemiological study to further evaluate the safety signal. *Prerequisites: PREV 600, PREV 620, PREV 705/PHSR 704, or permission of the instructor.*

Veterinary Applications in Pharmacoepidemiology [3]

The additional credits require the completion of an additional research project and written paper. The purpose of this course is to engage students in the techniques

of pharmacoepidemiology through case studies and by working through an actual drug safety investigation. Drug safety will be addressed in the context of science and the law through readings, debates, and discussions with invited guests. Using the FDA's Adverse Event Reporting System database and the medical literature, students will work up the epidemiological characteristics of a drug safety signal. Based on the characteristics of the signal, the team will design a pharmacoepidemiological study to further evaluate the safety signal.

PREV 723 Survival Analysis [2]

Examines methods of analysis for time to event data, including non-parametric methods, Kaplan-Meier analysis, log-rank and Wilcoxon tests, Cox proportional hazards models, time-dependent covariates, discrete time models; parametric methods. *Prerequisites: PREV 620 or consent of instructor.*

PREV 747 and PREV 748 Epidemiology and Preventive Medicine Research Practicum I & II [5]

Provide guided experience in epidemiologic research over two semesters. Students are expected to complete a data-based project that includes analysis of data and preparation of manuscript to report findings. *Prerequisites: PREV 619, PREV 720 (or concurrent enrollment), and PREV 600 previously.*

PREV 749 Infectious Disease Epidemiology [3]

This 3-credit course is taught through lectures, discussions of case examples, including outbreak investigations, and assigned readings during 15 three-hour sessions. Following an introduction to basic principles of infectious disease epidemiology, the topics will be covered according to mechanisms of transmission: contact and air-, vehicle-, and vector-borne. The students will critique and discuss papers selected from the literature and there will be sessions on nosocomial infections and hospital infection control and vaccines to prevent infectious diseases along with discussions of problems based upon outbreak investigations. Grading will be based on class attendance; presenting an oral and written report on an infectious disease of interest; taking a short written exam; and performing a progressive review of an unknown infectious disease outbreak. Students are encouraged to attend other conferences and seminars with infectious disease epidemiology topics during the semester. *Prerequisites: A basic knowledge of medical microbiology.*

PREV 750 Epidemiology, Ecology and Control of Parasitic Disease [3]

Through a series of lectures, case discussions, and presentations by students, this course covers public health aspects of major parasitic diseases in the developing world. Emphasis is on the factors that determine the distribution of protozoan and helminthic diseases within human populations and the conceptual basis for current control programs. For each pathogen, the prospects for elimination, eradication or successful control at a global level are examined. Principles covered in this course can be applied to the study of other infectious diseases. *Prerequisites: Previous course in biology and completion or concurrent enrollment in a basic epidemiology course required; knowledge of microbiology or infectious diseases desirable.*

PREV 758 Health Survey Research Methods [3]

This class is intended for graduate students in the health sciences who want an in-depth introduction to survey methods. Students will be led through the steps in survey research from developing a survey questionnaire, to administering it and analyzing the data. The final results of the survey are presented in a paper. *Prerequisites: PREV 620 or consent of instructor.*

PREV 780 Molecular Epidemiology [3]

The purpose of this course is to provide students with an understanding of the integration of state-of-the-art molecular tools in epidemiologic studies. In recent years the use of biomarkers has provided epidemiologists with increased power to identify disease, exposure and human susceptibility, and to reduce misclassification. Topics will include general principles of molecular epidemiology as well as a discussion of its practical applications in addressing public health problems. *Prerequisites: none.*

PREV 789 Special Studies and Research in Preventive Medicine [1-6]

This individually planned and closely supervised course provides experience in the epidemiology of significant preventive medicine topics. *Prerequisites: PREV 600 and 620 or equivalent.*

PREV 801 Longitudinal Data Analysis [2]

Analysis of longitudinal and clustered data includes topics in matrix algebra, longitudinal data analysis including the multivariate linear model, marginal and mixed effects

general linear models, residual analysis and diagnostics, generalized linear models, including marginal (GEE methods) and mixed effects models for repeated measures and other clustered data. *Prerequisites: PREV 620 and PREV 721 (721 may be taken concurrently).*

PREV 802 Statistics for Molecular Biology [2]

Three topics are covered in this course: statistical design and analysis of experiments; DNA or protein sequence alignment; and analysis of gene expression data from microarray experiments. *Prerequisites: PREV 720 and 721 or permission of instructor.*

PREV 803 Clinical Trials and Experimental Epidemiology [3]

This course will describe, review examples of, and engage in problem-solving workshops for clinical trials at levels of detail and theory that will qualify students to participate in clinical trials research leadership. Fundamentals of clinical trials (target population, recruitment, randomization, intervention, blinding, outcome ascertainment, statistical design, informed consent and ethical concerns) are addressed in the context of the congruity of clinical trials with other epidemiology research. We go beyond the simple ability to criticize clinical trial manuscripts. Controversies in the conduct and interpretation of clinical trials are addressed in terms of the trade-offs that must be balanced for those to which there are several possible resolutions that are neither ideal nor unacceptable and in terms of insisting on the single correct approach for those to which there is only one acceptable resolution. A primary goal is to integrate principles of biostatistics, ethics, computer science, and medical practice. Leading clinical trials experts present examples of their work to the class. *Prerequisites: PREV 600 or equivalent and at least one semester of biostatistics.*

PREV 808 Substantive Topics in Epidemiology [3]

This course is an individual program of study undertaken with faculty supervision in one or more substantive areas of epidemiology. Through assigned reading and critical discussion, the student becomes knowledgeable in a specialized area of epidemiology, with particular emphasis on recent advances. Preparation of a critical review of the literature suitable for publication is required. *Prerequisites: instructor consent.*

SECTION SIX: COURSE DESCRIPTIONS

CIPP 909 Responsible Conduct of Research [1-2]

A campuswide course that prepares students for the ethical responsibilities of research. Topics include scientific integrity; research ethics and the ethical decision-making process; data handling and management; authorship; peer review; conflicts of interest; defining, identifying, and handling fraud and misconduct; animal and human research; genetics and reproduction; ownership of data and intellectual property; and the role of the scientist in society. The course includes lectures, seminar discussions, and class exercises. Grading is based on class participation and a written paper.

GERO/SOCY 672 Issues in Aging Policy [3]

This is an upper-level undergraduate or introductory graduate course. Its purpose is to provide an overview of the salient issues in aging policy and provide the student with a context for understanding the public policy process. The course will provide basic information and knowledge that will be useful to the student in more advanced policy-related studies in aging and health. *Prerequisites: none.*

GERO 700 Sociocultural Gerontology [3]

A required advanced interdisciplinary seminar addressing the fundamental concepts, theories, and interests of social scientific inquiry on aging and the aged. Topics include: social demographic aspects of aging in the United States and elsewhere; the cultural contexts of age as a basis for social status, stratification, and social organization; societal change and aging; the history and development of social scientific theory; and methodology in gerontology. *Prerequisites: none.*

GERO 742 Economic Issues in Aging [3]

The main objective of this course is to provide students with the basic tools necessary to understand, critique, and evaluate alternatives to issues in aging that have economic implications. The course is divided into four main sections. The first part of the course familiarizes students with tools used in micro-economic analysis. The second part of the course will focus on understanding issues at the macro level. Accordingly, this part will address the nature and magnitude of the current issues, implications of these issues for the future, and issues that need to be addressed to increase income and health security in old age. The third part of the course will examine the circumstances under which current programs such as Social Security, Medicare, Medicaid, and other related welfare

programs that address economic and health security in old age were implemented, their performance under current circumstances, and issues related to their continuation. The final part of the course is designed to view issues discussed in prior units through an aging or life-course perspective that emphasizes the impact of events and issues in younger ages on income and health security in old age. *Prerequisites: none.*

LAW 564 Health and International Human Rights Seminar [3]

This course examines the contribution of international human rights law and process to the promotion and protection of the right to health. It explores rights-based approaches to contemporary international health issues, including, for example, global tobacco control, land mine survivor rights to rehabilitation and socio-economic reintegration, violence against women and female genital mutilation, access to medicines in developing countries, the health rights of people with disabilities, and HIV/AIDS interventions and the role of physicians in armed conflict. It also aims to provide students with an understanding of the international human rights issues that are most relevant to health professionals. Emphasis is placed on developing a critical understanding of the core health and human rights law documents and the role of the principal state and non-state actors engaged in health and human rights interventions. A range of teaching methodologies is utilized in the course, including case studies, reading and critique of literature, guest lectures by expert health and human rights practitioners, film viewing, in-class participatory exercises, and student research presentations.

LAW 565 Health and International Human Rights [3]

This course focuses on the dynamic relationship between health and international human rights law. The course begins with an overview of the historical and legal origins of the field of health and human rights, including the atrocities of Nazi human experimentation, the Nuremberg Code, and the evolution of health and human rights law in the United Nations system. The course moves on to critically examine the meaning and significance of the right to health in international law as well as the contemporary relationship between health and human rights, including the impact of health policies and programs on human rights and the health impacts resulting from human rights violations. We will consider the strengths and

limitations of the human rights framework by introducing a number of case studies and issues, focusing on vulnerable populations (women, children, persons with HIV/AIDS) and specific population health threats and issues (the right to health care, access to life-sustaining pharmaceuticals, female genital mutilation), and practice and develop new ways of conflict resolution. The course will include a multidisciplinary faculty from the schools of law, medicine, nursing, and social work.

LAW 586 Food and Drug Law [3]

This seminar considers the Food and Drug Administration (FDA) as a case study of an administrative agency that must combine law and science to regulate activities affecting public health and safety. The class is designed both for students who expect to become involved in food and drug matters and for those who are interested in the interplay of law and science. Topics to be discussed may include: history of the FDA; food law, misbranding, and economic issues; nutritional policy and health claims; regulation of carcinogens, food additives, and color additives; drug regulation; drug approval process; breakthrough drugs and ethics of drug testing; medical device regulation; and regulation of biotechnology. Course requirements include a seminar paper.

NURS 628: Work, Stress, and Health Disparities [3]

This course allows students to study a topic of professional interest within the sphere of indirect nursing with a graduate faculty member who has special competence in the subject area. Specific objectives and requirements are determined by contractual agreement prior to registration.

NURS 630 Health Promotion and Disease Prevention [2]

Focuses on health promotion and disease prevention strategies for culturally diverse clients across the life span. The course addresses the health promotion role of the family nurse practitioner in primary care and integrates the goals of Healthy People 2010. By emphasizing the multi-dimensionality of health promotion and disease prevention within emergent family systems, the course teaches students to synthesize data to formulate a comprehensive management plan for clients across the life span. *Prerequisites: NURS 605 and 610. Concurrent: NURS 631.*

NURS 671 Epidemiological Assessment Strategies [3]

Provides a contemporary approach to epidemiological ideas and methods. The course covers general considerations and laboratory application to data in specific situations. Open to non-nursing majors with consent of instructor. *Prerequisites: Statistics.*

NURS 730 Environmental Health (3)

The course is an overview of environmental areas for study, emerging environmental issues, major environmental health hazards, and identification of responsibilities for advanced practice nurses and other health professionals. The history of environmental health legislation and regulatory agencies will be reviewed. A framework for analyzing major environmental health issues will be used to explore how the environment can influence health. Recognition of the need for interdisciplinary teamwork in assessment, diagnosis, and community-wide or population-based health promotion/disease prevention interventions will be identified. *Prerequisites or Concurrent coursework skills: National Library of Medicine–Toxicology Tutorial (basic principles) – <http://www.sis.nlm.nih.gov/ToxTutor.html> (three-hour computer-based introduction to toxicology).*

NURS 732 Program Planning and Evaluation in Community/Public Health [3]

Focus is on the systematic inquiry of the foundations of advanced practice in community/public health program planning and evaluation. Emphasis is on the assessment, planning, and evaluation of population/community focused health promotion/disease prevention programs and projects. *Prerequisites: NURS 622, NURS 701 or Co-requisites: NURS 762, NURS 671, and permission of the faculty.*

NURS 750 Interdisciplinary Seminar in Environmental Health (1)

This interdisciplinary course will introduce students to various roles that occupational and environmental medicine physicians, occupational health nurses, environmental health nurses, industrial hygienists, toxicologists, and environmental health epidemiologists, attorneys, and journalists play in promoting environmental health. Students from these various disciplines will work together on case studies in environmental health designed to demonstrate the interdependent activities of all disciplines in effectively promoting the environmental health of a community. *Prerequisites: NURS 730 and NURS 735 or permission of the instructor.*

SECTION SIX: COURSE DESCRIPTIONS

NURS 761 Populations at Risk in Community/ Public Health [3]

Students will learn about the mission of public health and the various organizations that support the responsibilities of public health at the international, national, and local level. Processes and dynamics, such as family systems, support, and risk communication that influence public health and populations at risk, will be explored. A risk assessment analysis will be used to select a population at risk. Factors that influence the effectiveness of health promotion/disease prevention programs and projects targeted to aggregates, families, and populations will be analyzed. Responsibilities of community/public health practitioners, including clinical nurse specialists, will be explored in relation to core public health functions: assessment, policy development, and assurance.

NURS 769 Society, Health, and Social Justice [3]

This course examines social, cultural, and political-economic determinants of health from sociological and social epidemiological perspectives. The concept of social justice is used as a conceptual framework to investigate population health inequities that exist in social class, race, ethnic, and gender groups in the United States. The course addresses the central question: "How does the structure of the society influence the health and illness experience of its population?" The course examines what a 'society' is, how it works, and what the pathways are through which social forces differentially impact class, race, and gender groups. The course will focus on specific mesosocial contexts, such as the workplace, the community, and the physical environment that are particularly important in transmitting macrosocietal forces to the individual. The course concludes by examining innovations in health policy and practice that are currently emerging in an effort to address the adverse health impact of inequitable social environments. *Prerequisites: None for master's or doctoral level students; permission of instructor for undergraduate students.*

NURS 898 Special Topics in Nursing Science (1-3)

This course allows pre-candidacy students to study a topic of professional interest with a graduate faculty member who has special competence in the subject area. Specific objectives and requirements are determined by contractual agreement prior to registration.

PHAR 522 Context of Health Care (3)

Students actively develop a contemporary definition of health care and critically examine the health care system with special emphasis on relevant legislation, traditional and nontraditional providers of health care, the organization and financing of health care delivery, and the dynamics of pharmaceutical care within the system. The social, legal, and professional implications of informatics and computer proliferation in our society are discussed with special emphasis on pharmacy practice.

PHMY 502 Medication Safety in Health Care (2)

This course is designed to provide students in the health care professions (medicine, nursing, and pharmacy) with a basic introduction to medication safety. The course will introduce the student to important issues and current concepts in medication safety. Medical error will be distinguished from unintended drug effects such as adverse events and side effects. The student also will learn key strategies related to identifying, reporting, managing, and preventing medication errors, as well as current legislative and professional issues.

PHSR 610 Health Care System (3)

This course encompasses an examination of the principal components of the U.S. health care system with special emphasis on their relationship to the provision of drugs and pharmacy services.

PHSR 620 Introduction to Health Behavioral Theory [3]

This course covers medical sociology, psychology, social psychology, and interpersonal communication theories and research as they address medicine use and health-related behaviors involving patients, pharmacists, physicians, nurses, and other health care professionals. Students are acquainted with select health behavior theories and learn about research issues specific to the field of behavioral science.

PREV 650/PHSR 670 Principles of Health Education and Health Promotion [3]

Health education is the applied science that utilizes educational strategies, grounded in theory or based upon empirical evidence, to achieve voluntary behavioral change(s) predicted to have a beneficial health outcome. Health promotion is the application of a combination of educational, behavioral, and ecological strategies for actions and condi-

tions of living conducive to health. The course prepares students to be educators of patients, practitioners, and populations by the application of the theories and principles of health education, health promotion, and disease prevention. The course deals with problem identification, behavioral analysis, educational interventions and evaluation and has multiple foci: the individual, the family, and the community at large. Special emphasis is placed on the patient since in most clinical encounters, the relationship between the practitioner and patient is often a major determinant of the outcome. A patient assessment is the essential element in determining the practitioner's decision (i.e., diagnosis and treatment), but an often neglected element in that assessment is a behavioral diagnosis to factor in patient/client prior behaviors as potential predictors of their willingness and/or ability to follow the recommendations of that encounter. *Prerequisites: none.*

PHSR 701 Research Methodology (3)

This course is designed to introduce the student to the concepts of scientific research in pharmacy practice and administrative science. Topics to be discussed include the scientific method and problem-solving processes, social science measurement, and several specific methods of research. *Co-requisite: Introduction to Biostatistics.*

PHSR 704 Pharmacoepidemiology [3]

An introduction to the field of pharmacoepidemiology using quantitative research methods to examine the benefits or risks of marketed medications. The course is intended to offer techniques to medical and health researchers who wish to assess the utilization, effectiveness, and safety of marketed drug therapies. *Prerequisites: none.*

PHSR 722/PREV 722 Advanced Topics in Pharmacoepidemiology [1-3]

This course provides students with the opportunity to study a topic of interest and includes classes on a variety of special interest topics or topics of an interdisciplinary nature.

Product Safety and FDA Regulation [3]

The purpose of this course is to engage students in the techniques of pharmacoepidemiology through case studies and by working through an actual drug safety investigation. Drug safety will be addressed in the context of science and the law through readings, debates, and

discussions with invited guests from the Food and Drug Administration (FDA), a pharmaceutical company/consulting agency, and a law firm. Students will work together as an investigative team under the direction of the instructor. Using the FDA's Adverse Event Reporting System database and the medical literature, students will work up the epidemiological characteristics of a drug safety signal. Based on the characteristics of the signal, the team will design a pharmacoepidemiological study to further evaluate the safety signal. *Prerequisites: PREV 600, PREV 620, PREV 705/PHSR 704 or permission of the instructor.*

Veterinary Applications in Pharmacoepidemiology [1-3]

This course will present the basic concepts and tools of pharmacoepidemiology with considerations for its application to animal population health. Topics include clinical trials; special populations; adverse event reporting; data mining; active surveillance; cohort studies; case-control studies; confounding, bias and other threats to validity. In addition to lectures, which can be attended from any location via Internet, attendance is required at four exercises. Students may attend exercises at either CVM (animal focus) or University of Maryland (human focus). Grading is based on exercises and a final presentation/paper. The course is being offered at 1 credit. Students may take the course for up to 3 credits (with instructor permission). The additional credits require the completion of an additional research project and written paper.

PSYC 656 Applied Social Psychology [3]

This course covers the application of theories and findings of experimental social psychology to individual and social problems. Examples of topics covered: the role of dissonance, reactance and attribution processes in behavior change in applied settings; intrinsic motivation; misattribution techniques and the alleviation of dysfunctional behavior; issues in attitude behavior congruence; media influences; and value self-confrontation and behavior change.

PUBL 603 Theory and Practice of Policy Analysis [3]

This course focuses on the basic principles and techniques of policy analysis. Most of the course attends to activities involved in policy analysis. In addition, the relationship between policy analysis and policymaking, along with emerging professional and ethical issues, will be addressed. The themes that run through the course center on the following questions: What is the function and purpose of

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policy analysis? What do policy analysts do? How do they conduct policy analysis? What contribution does policy analysis make to the policymaking process? To society? What are the limitations to policy analysis? *Prerequisites: consent of instructor.*

PUBL 613 Managing Public Organizations [3]

The purpose of this course is to introduce students to the world of public management and public managers. The course focuses on who public managers are, what they do, the environments within which they operate, the tasks that they perform, the roles that they play in their organizations, and more. The major premise of the course is that management matters—it matters to what occurs within organizations, to organizational outputs, and to organizational outcomes.

SOCY 619 Qualitative Methods in Social Research [3]

This course is designed to teach students how to do qualitative research, including design, data collection, and analysis. We will begin with an overview of major research paradigms including the ontology and epistemology of qualitative inquiry. We then study methods and will consider several major approaches to qualitative research including grounded theory, ethnography, and case study. For this class, I hope that you will carefully read and think about each of the assigned readings as well as other readings in qualitative methods that interest you. I encourage you to think about the overall purpose of the readings, individually and as a group, and that you critically consider whether you agree or disagree with the authors. Think about the meaning of the content as well as the meaning of unfamiliar words, which you should look up in a dictionary.

SOCY 658 Sociology of Mental Health and Illness [3]

The course examines the social history of mental illness, the concepts and treatments employed, the professional's role, the role of social class in mental illness, social factors in psycho-pathology, stress, social support and coping processes, along with sociological critiques of mental health practices. More currently, the course examines deinstitutionalization and the community mental health movement, the relationship between mental illness and the criminal justice system, and the mental patients' rights movement.

SOWK 706 Mental Health and Social Policy [3]

This course examines the growth of community mental health in the United States and its relationship to sociological and psychological approaches to various communities and cultural groups. Approaches to mental health, mental illness, problems of service delivery, professional roles, and the possibilities and problems of community mental health are discussed.

SOWK 720 Comparative Social Policy [3]

The course will emphasize the comparative analysis of respective national approaches to social policy provision in a variety of societies. It will examine different societies and a number of dimensions of the social welfare system: Social Security, social services, and health care policy. This course will initially be concerned with the methodology of comparative analysis. It will pay particular attention to the nature of governmental involvement in social policy, the nature of public/private sector relations, and the assessment of social policy with regard to such analytical concepts as adequacy, equity, and efficiency. It will consider theories that relate social policy outcomes to factors such as resource development, ideology, and historical/cultural tendencies. Research projects will reflect areas of student interest. This is a seminar open to social work MSW students who have completed SOWK 600, an elective in the MPH Program and the PhD Program in social work.

SOWK 764 Multicultural Perspectives: Implications for Practice [3]

This course is an intensive examination of the dynamics of racism and other forms of oppression in our society and within ourselves, and how those dynamics are intertwined with social welfare policy and social work practice. The course places racism, sexism, ethnocentrism, and other forms of oppression in the historical and current economic, political, and social context of the United States. It is designed to prepare students to analyze racism, sexism, and ethnocentrism as they operate at the individual, community, and institutional levels, and to understand how they shape the lives of men and women of all backgrounds and identities. A major theme of the course is the social worker's professional responsibility to help achieve a non-racist, multicultural, and egalitarian society. This course fulfills the diversity requirement.

SOWK 765 The Nature of Health and Illness [3]

There has been an increased recognition of the importance of cultural and socioeconomic factors in health in recent years. Also, holistic models of health and illness that are much broader than the traditional medical model are widely accepted. This is based in part on research that is demonstrating relationships between psychological, social, and cultural factors and health and illness. There is a need for social workers to be familiar with this knowledge base, which provides the rationale for social work positions in the health field. More than one-fifth of all social workers work in health care settings. Rapid change is occurring in many health settings due to changes in the funding of health care. Changing population demographics, including increases in the elderly population and rapid rise in the number of minorities and immigrants, have also required rapid adaptation of the health system to meet new needs. Finally, changes in medical technology and medical knowledge mean constant change in the services being offered. As a result of these and other changes, tremendous demands are being made on social workers in health settings. These workers need to be able to coordinate care in an increasingly complex system, to communicate with other health professionals, and to advocate for attention to the psychosocial aspects of health care. This course demonstrates the importance of cultural and socioeconomic factors in the creation of major health disparities in the United States. It also develops a multi-factorial model of health and illness. Physiological, psychological, social, and environmental factors are considered in relationship to cultural and socioeconomic factors in explaining both etiology and consequences of disease. The framework is applied to common diseases in the life course.

SOWK 783 Qualitative Ethnocultural Research [3]

Always a nation of diverse cultural groups of immigrants from all over the world, the United States is increasingly becoming heterogeneous in the 21st century. A lack of cultural competence among social workers is one of the greatest barriers to effective working relationships with clients and communities and in advocating for effective social work practice at micro, mezzo, and macro levels, which include work with individual clients, program development, and policy formulation/changes. Culturally responsive social work practice thus demands ethical commitment to strive for promoting social justice in this country. Qualitative research methods are a tool for social workers

to learn from insiders' experiences and viewpoints that are not understood by the outsiders due to our limited professional and personal knowledge and/or may not be fairly represented, portrayed or illustrated in textbooks, scholarly articles, mass media or local and federal policies. This course provides students with the beginning level of knowledge and skills in planning, implementing, and writing up a research project that uses a qualitative method based on the grounded theory. This educational process enhances students' awareness of the critical role of research in social work practice that informs our work with clients at micro, mezzo, and macro level. Students take on the role of a qualitative researcher as one who learns from members of different cultural backgrounds in order to develop an ability to develop understanding from insiders' perspectives.

SOWK 826 Qualitative Research Methods in Social Work [3]

This doctoral course is designed to introduce students to the principles and methods of qualitative methods and research. The course will cover the theoretical and disciplinary origins as well as application of qualitative methods relevant to social work practice, programs, and policy. We will examine the family of research strategies that fall under the rubric of qualitative inquiry (such as auto-ethnography, ethnography, narrative analysis, text or discourse analysis, visual analysis, case study, grounded theory, oral/life history, focus groups, phenomenology, symbolic interactionism, participatory action research, etc.).

SWOA 704 Community Organization [3]

This methods course in community organization is aimed at students who want to expand and refine their skills in organization building and collective action. It builds on foundation knowledge and skills from the prerequisite introductory level practice courses in the curriculum. This course is particularly relevant to direct practice with advocacy for disempowered groups in society, such as ethnic, racial, and other minorities, low-income people, women, the aged, and the disabled. This course is required of all MACO concentrators.

SWOA 706 Multicultural Practice in Organizations and Communities [3]

This course is designed to provide students with an understanding of multicultural practice in organizational and community settings. It examines concepts and techniques

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of multicultural macro practice and considers and evaluates relevant strategies and tactics that promote multiculturalism, including pluralistic coalition building, empowerment processes, intercultural communication, diversity training, and cross-cultural supervision. This course will help prepare students for the roles that social workers can expect to serve in building a multicultural society. This course fulfills the diversity requirement.

TOXI 601 and 602 Advanced Toxicology I and II [3, 3]

Lectures and discussions cover principles of toxicology. Topics include major classes of toxic agents, principal target organs of toxicity, and mechanisms of toxicity. A two-semester course. *Prerequisites: biochemistry and physiology at the 300 or higher level, or consent of instructor.*

TOXI 611 Exposure Risk And Public Health [2]

When hazardous chemicals are released into the environment, we need to determine what constitutes safe levels. When disease clusters are suspected, we need a method to evaluate potential links to environmental chemical exposures. In both instances, risk assessment is used as a tool to evaluate possible links between environmental exposures and public health outcomes. This course is designed to introduce students to the principles of chemical risk assessment and how risk is used in the development and implementation of regulatory policies to protect public health. The course begins with a review of the four components of risk assessment: hazard identification, dose-response assessment, exposure assessment, and risk characterization. Exposure assessment, often considered to be the most challenging component of the risk assessment process, will be a primary focus of the course. It is essential to be able to develop accurate estimates of exposure routes, dose, and duration. Case studies will be used to demonstrate different approaches to this problem. The primary goal of this course is to provide students with the basic risk assessment tools with which to evaluate the adequacy of public health protection in the regulatory environment. Examples of public health problems will be discussed to illustrate the challenges we face in evaluating potential links to chemical exposures and strategies to address these challenges. *Prerequisites: none.*

TOXI 618 Seminar in Toxicology (1)

Students, guests, and faculty members review and discuss original research and recent advances in toxicology. *Prerequisites: none*

The capstone is designed to be a supervised public health learning experience and a demonstration of the substantive application of the knowledge and skills that have been acquired in the core and concentration courses taken as part of the MPH Program. The capstone functions as both the practice experience and the culminating experience for the program.

The MPH capstone experience includes the following components:

1. development of a capstone proposal
2. completion of a 240-hour supervised field placement
3. delivery of an oral presentation at UMB, and at the field placement site as appropriate
4. preparation of a capstone portfolio

ELIGIBILITY FOR THE CAPSTONE FIELD PLACEMENT

In order to begin the capstone, students must meet the following criteria:

1. minimum GPA of 3.0 prior to beginning the capstone field placement
2. satisfactory completion of MPH core courses (17 credit hours)
3. satisfactory completion of MPH concentration courses (9-10 credit hours depending on concentration)
4. approved capstone proposal on file with the MPH Program Office

ELEMENTS OF AN MPH FIELD PLACEMENT

The capstone field experience functions as an educational partnership between the MPH Program and the site agency for the purpose of providing supervised field placements for students. The MPH capstone is designed to be an individualized learning experience, so placements will differ according to the needs of the student. However, all capstones will:

1. be consistent with the mission and values of the MPH Program
2. have specified learning objectives consistent with the capstone and other relevant MPH competencies
3. require at least 240 contact hours
4. be supervised by a qualified preceptor

PLANNING A CAPSTONE EXPERIENCE

Students should begin the process of planning the capstone as early as possible, but no later than the beginning of the term prior to the one in which they will begin the field placement. This timeline may be significantly longer and require additional steps if the student is planning a project with special circumstances, e.g., outside of the country, one that requires external funding, etc. However, at the minimum, the planning process will include the following steps:

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- ☑ One or more meetings with the MPH faculty advisor (and home school advisor if a dual-degree student). The outcome of that meeting(s) should include:
 - determination of eligibility to begin the capstone (minimum GPA, required coursework completed)
 - ideas for the types of capstones that will best advance the student's career goals
 - a list of the types of projects that would be of interest
 - one or more meetings with the capstone director
- ☑ The outcome of that meeting(s) should include:
 - ideas for potential sites and preceptors
 - understanding of how the capstone will advance the student's career goals
 - a determination of next steps for students in working with the preceptor to develop a capstone proposal
- ☑ One or more meetings with the site preceptor. The outcome of that meeting(s) should include:
 - a shared understanding of the capstone project being proposed
 - a list of competencies to be addressed in the capstone
 - explicit expectations of the student and the site preceptor in completing the capstone proposal
 - a mutually convenient project timeline that includes a minimum of 240 contact hours
 - a plan for supervision that meets the criterion of at least one meeting per week (or per 40 hours as appropriate)
- ☑ Development of a capstone proposal. The proposal must be approved by the site preceptor, capstone director, and faculty advisor(s) before the student may begin working on the project. The criteria are described in the section titled Preparation of the Capstone Proposal.
- ☑ Registration for 6 credits of PH 789. See details in section titled Registration for the Capstone Project.

LENGTH OF CAPSTONE FIELD PLACEMENT

The capstone placement requires a minimum of 240 contact hours, exclusive of the time devoted to preparation of the

capstone proposal, preparation and delivery of the final oral presentation at UMB, and preparation of the capstone portfolio. Based on a number of factors such as the needs of the student, the preceptor, and the project, and/or the agency's operating hours, those 240 hours may be completed in a six-week block or spread over a longer period of time. The student and the preceptor will work together during the capstone planning phase to determine the timeline for the capstone. At the completion of the capstone placement, the site preceptor will be asked to certify the student's completion of the capstone hours.

COMPETENCIES TO BE MET DURING THE CAPSTONE

As the culminating and practice experience for the MPH Program, the capstone enables the student to integrate learning from across the curriculum and apply it in a professional setting. In addition to offering an opportunity to further develop any one or more of the other MPH Program core or concentration competencies, students will acquire the following specific competencies during the capstone experience:

1. analyze the strengths and weaknesses of published articles that address public health issues within the program concentration area
2. characterize the health of a population/community
3. develop and implement plans to address specific public health issues related to the program concentration area
4. integrate and apply public health knowledge to practice within the relevant program concentration area
5. identify ethical, social, and cultural issues related to policies, risks, research, and/or interventions in public health contexts
6. identify processes whereby priorities are established and decisions are made within public health organizations or agencies
7. communicate public health content to various target audiences clearly and effectively both orally and in writing

Students will demonstrate their mastery of these competencies in the proposal, field placement, oral presentation, and written portfolio.

Suitable projects for the field placement would fulfill one or more of the three functions of public health, as articulated in *The Future of Public Health* by the Institute of Medicine (1988): assessment, policy development or assurance. The activities subsumed under these three functions were developed under the auspices of the Public Health Functions Project and produced as the Ten Essential Public Health Services (<http://www.health.gov/phfunctions/public.htm>):

1. monitor health status to identify community health problems
2. diagnose and investigate health problems and health hazards in the community
3. inform, educate, and empower people about health issues
4. mobilize community partnerships to identify and solve health problems
5. develop policies and plans that support individual and community health efforts
6. enforce laws and regulations that protect health and ensure safety
7. link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. assure a competent public health and personal health care work force
9. evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. research for new insights and innovative solutions to health problems

IDENTIFICATION OF A CAPSTONE FIELD PLACEMENT SITE

The MPH capstone field placement may take place in any of a wide variety of agencies that conduct public health activities, such as city, county or state health departments; federal agencies; nonprofit organizations; or programs in one of the schools at UMB or other universities. A student who wishes to do a capstone at his/her place of employment and/or a site in which a previous field training placement was completed may be permitted to do so provided the MPH capstone experience is separate and distinct from those other activities. Details are provided in the

section titled Capstone Project at Work Site or Previous Field Placement Site.

The MPH capstone director maintains a list of agencies that have indicated an interest in hosting our students and/or have served as placement sites for previous MPH students. All such sites will have a designated site liaison and/or site preceptors who will be familiar with the UMB MPH Program. While electing a placement at any of those agencies should enable the student to move more quickly through the process of receiving placement site and site preceptor approval, students are not restricted to selection of sites from that list. Should a student be interested in another agency, he/she will work with the capstone director to seek approval of the proposed placement site.

In rare situations, certain agencies may provide stipends to program “interns.” However, in general, students should neither expect to receive payment nor pay for their capstone placements.

Capstone sites are expected to provide students with resources necessary for their work at the agency. The resource requirements may vary considerably by agency and project. However, those resources may include work space, computers, office supplies, parking spots, facility identification badges, etc. The University recognizes that, in certain cases, agency resource availability may be limited, and we will strive to work with the agency and the student to devise plans to accommodate them wherever possible.

CAPSTONE PROJECT AT WORK SITE OR PREVIOUS FIELD PLACEMENT SITE

Students may wish to undertake a capstone project within their current or previous work site, and/or an agency in which they had completed a previous field placement. While this is highly discouraged, this is permissible as long as it addresses a problem that is pertinent to the public health educational goals of the student as previously formulated with her/his advisor(s). The capstone project must have a specific scope of work that extends beyond the scope of, or is something other than, the student’s duties related to the job and/or the other field training activity. In making this determination, the capstone director will look for indicators such as: a field placement in a different administrative unit, supervision by a different agency staff member, and a field placement with substantively different responsibilities.

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IDENTIFICATION OF A SITE PRECEPTOR

The field placement must be supervised on-site by a staff member of the field agency. Site preceptors may be nominated by students, faculty members, site liaisons, or themselves. The site preceptor must have education and/or experience that qualify him/her as a public health professional and the ability to mentor students. The site preceptor is approved by the capstone director and must be in good standing with the MPH Program, which is defined as having satisfactorily completed the MPH site preceptor orientation and having satisfactory evaluation ratings from previous students.

PREPARATION OF THE CAPSTONE PROPOSAL

Once a student has worked with her/his advisor(s) and the capstone director to identify a suitable field placement site and preceptor, the student will begin development of a proposal for the capstone project. The proposal must be fully approved before the student may begin work on the capstone field placement. In order to ensure that the student can be ready to begin his/her field placement on time, the proposal must be submitted no later than one month prior to the term start date. The proposal template is included in the back pocket.

The capstone proposal will include the following elements:

1. background and public health significance of the proposed project
2. description of the project; the structure of this section will depend on the nature of the project being proposed
3. learning objectives to be met during the capstone
4. assessment of how these objectives will meet the capstone competencies
5. project timeline
6. CV for the site preceptor
7. signed site preceptor agreement (see back pocket)

The capstone proposal must:

1. demonstrate the student's ability to plan a feasible, relevant, public health project that will enable him/her to achieve specified measurable learning objectives
2. demonstrate the student's ability to integrate the scholarly literature and agency goals in a written document that provides adequate justification for the project

3. clearly link the capstone learning objectives to the MPH capstone and other relevant competencies
4. be approved by the site preceptor, the capstone director, the MPH faculty advisor(s), and, for dual-degree students, the home school faculty advisor

INSTITUTIONAL REVIEW BOARD

All persons affiliated with UMB who conduct research with human subjects must receive Institutional Review Board (IRB) approval prior to data collection. Due to the nature of the capstone experience, in most cases, students involved in research at the capstone site will work on existing projects that have already received IRB approval by the principal investigator or project director. Inclusion of the student may require an amendment to the IRB protocol. Students should receive required training (CITI and HIPAA) if they will participate in research with human subjects. Students will work with their site preceptors and the capstone director to ensure that all required IRB clearances are received.

REGISTRATION FOR THE CAPSTONE PROJECT

After the student obtains approval of the capstone proposal, he/she is eligible to register for capstone credits for the term(s) in which the capstone hours will be completed. Six credit hours of PH 789 are required. Since a student must be continuously registered for credit while working on the capstone, should a capstone spanning more than one term be planned, the 6 credits may be divided among the terms during which the project will be undertaken. Since a project timeline is included in the capstone proposal, students should know how long their capstone will last and should register for PH 789 credits accordingly. However, in extenuating circumstances, a student's capstone may take longer than anticipated and they may complete their PH 789 credit requirement before completing the capstone field hours and all reporting requirements. In those cases, students will be required to register for continuing credit through PREV 789 (1 credit per term) until all capstone requirements are complete. All students must be enrolled for course credits the semester in which they graduate.

SITE VISITS AND PROGRESS MEETINGS

The capstone director will make one site visit per term during the course of a student's field placement. The visit will be arranged in advance with the site preceptor, and

will be scheduled for a time when the student is on-site. This site visit will serve as the midterm evaluation.

In addition to the site visit at the placement agency, student progress will be evaluated during two progress meetings with the capstone director. Ideally one will be held soon after the student begins the field placement and the second will be held closer to the end of the project when the student is working on preparing the final portfolio. Those progress meetings will usually take place on campus, but alternate arrangements will be made with students with out-of-town placements.

RESOLUTION OF ISSUES ARISING WITHIN THE CAPSTONE PLACEMENT

We do not anticipate that students will encounter any major issues at the placement sites. However, should issues arise, we recognize that the ability to resolve conflict at the work site is a valuable skill and we encourage students to work with their site preceptors to address the concerns. Should the student feel uncomfortable doing so or feel that the problem remains unresolved, he/she should immediately report the issue to the capstone director. Similarly, site preceptors should initiate contact with the capstone director should the issue require additional intervention.

CAPSTONE REPORTING REQUIREMENTS

At the completion of the field placement, each student will be required to complete a final oral presentation and submit a capstone portfolio. If a student plans to graduate in the term in which the capstone project is completed, the portfolio must be fully approved and the oral presentation completed no later than two weeks before the last day of the term.

Required sections for the written report and oral presentation:

- a. overview of the agency in which the field placement was undertaken
- b. Full description of the capstone project—the required subsections will vary depending on the nature of the project. However, students should consider for inclusion all relevant content such as:

- I. statement of the public health problem or issue addressed by the capstone project
 - II. background, justification, public health significance
 - III. specific project/research goals and objectives
 - IV. conceptual/theoretical framework
 - V. methods/program implementation
 - VI. results
 - VII. conclusions, discussion, strengths and limitations, lessons learned
 - VIII. recommendations for future research and/or practice
- c. assessment of the extent to which proposed learning objectives were met
 - d. MPH competencies developed during the capstone experience
 - e. contribution of the project to public health
 - f. references

GUIDELINES FOR THE ORAL PRESENTATION

The student must submit a draft written report and oral presentation (PowerPoint slides) to the capstone director for review. The oral presentation summarizes the highlights of the written report. It should last one hour, inclusive of a 15-minute question and answer period. Upon approval of the draft report and presentation, the student contacts the MPH Program Office to schedule the presentation. The MPH Program Office will be responsible for inviting MPH faculty and students. The student should also invite other stakeholders including the site preceptor, other agency staff, and the home school advisor (for dual-degree students).

Students are highly encouraged to present their capstone project at the agency. However, that presentation will not substitute for the one to be held on the UMB campus.

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GUIDELINES FOR THE CAPSTONE PORTFOLIO

The capstone portfolio should present a full record of the capstone experience and demonstrate the achievement of the capstone and other MPH Program competencies. The following elements should be included in the portfolio:

1. **Copy of the approved capstone proposal.** The original proposal will remain on file in the MPH Program Office.
2. **Written capstone report.** The final report will document the project completed at the field placement site. Depending on the nature of the project, the content of the report will vary. However, students should view this report as an opportunity to demonstrate their mastery of the MPH Program competencies and the learning that took place during the field project. The final report must be approved by the site preceptor, the MPH capstone director, and the MPH faculty advisor(s).
3. **PowerPoint slides used for the UMB oral presentation.** A printed copy of the slides used, as well as any handouts, should be included.
4. **An activity log.** The template for the log is in the back pocket. This log should document all activities completed during the field placement and participation in periodic supervision meetings. The log must be certified by the site preceptor.
5. **Artifacts from the capstone field placement.** Students who participate in the development of brochures, plans, reports, etc., should include copies in the portfolio. The portfolio should make clear what each artifact is and the role the student played in creating it. Confidential information should not be included. The site preceptor should review the artifacts before submission.

EVALUATION OF THE CAPSTONE EXPERIENCE

Students will be asked to complete an evaluation of the capstone experience and site preceptors will be asked to complete an evaluation of the student. Forms are included in the back pocket.

GRADING OF THE CAPSTONE PLACEMENT

The capstone is graded on a Pass/Fail basis. The capstone director makes the final determination of the student's grade taking into consideration the quality of the proposal, oral presentation, and portfolio; the preceptor's evaluation of the student's performance; and the extent to which the capstone learning objectives were met. That final assessment will be documented on the form shown in the back pocket.

ROLES AND RESPONSIBILITIES

Responsibilities of the student

The MPH student will be responsible for working in collaboration with his/her faculty advisor(s), the capstone director, and the site preceptor to plan and implement a capstone experience that best meets his/her educational and career goals.

Before the Field Placement

1. meet with the capstone director and the faculty advisor(s) to identify a capstone field placement site
2. in collaboration with the site preceptor, prepare a capstone proposal that meets the MPH Program guidelines
3. obtain all necessary approvals and signatures on the capstone proposal
4. register for the appropriate number of capstone credit hours (PH 789)

During the Field Placement

5. schedule regular supervision meetings with the site preceptor
6. complete all capstone activities included in the approved proposal
7. take advantage of other learning opportunities at the agency
8. be professional in all dealings with the agency, their staff, and clients
9. document all capstone activities in the activity log
10. meet with the capstone director at least twice per term

After the Field Placement

11. prepare a draft of the oral presentation slides for review
12. obtain approval from the capstone director to schedule the oral presentation

13. work with the MPH academic coordinator to identify a suitable time for the capstone oral presentation
14. complete a capstone portfolio
15. obtain all necessary approvals and signatures on the capstone portfolio

Responsibilities of the site preceptor

Site preceptors are integral members of the MPH Program who are responsible for helping the program to meet its instructional and service goals. A preceptor fulfills this role by serving as the field instructor for a given student(s) at the capstone site. Preceptors also serve the program by participating in ongoing program evaluation and improvement efforts, both informally and formally.

Before the Field Placement

1. become familiar with the requirements of the MPH capstone as described in the capstone manual
2. review and provide substantive comments on the capstone proposal
3. submit for inclusion in the capstone proposal a current CV documenting the education and experience necessary to support his/her designation as a qualified public health professional
4. for continuing preceptors, this need be updated only once per year; submit for inclusion in the capstone proposal a signed site preceptor agreement

During the Field Placement

5. provide level of orientation to the agency necessary for student to function efficiently during the placement
6. provide the student with the agreed-upon resources necessary to complete the capstone project
7. supervise and provide feedback to the student during the field placement, including regular meetings with the student at least once each week (or once per 40 hours)
8. allow the student to maximize learning at the agency by including the student on relevant meetings, introducing him/her to a variety of public health professionals, and exposing him/her to other projects being undertaken at the agency
9. communicate with the capstone director about any unforeseen issues that might arise during the placement, including student performance concerns, inability to complete preceptor responsibilities, etc.

After the Field Placement

10. complete a summary evaluation of the student
11. review and provide written approval for all content in the capstone portfolio
12. attend the student's UMB oral capstone presentation, when possible

Ongoing involvement with the program

13. Attend annual site preceptor workshop held in conjunction with the fall MPH student orientation. This workshop will serve as the new preceptor orientation, and will provide opportunities for all site preceptors to keep abreast of the MPH Program. Preceptors also will share information about their sites with the newly enrolled MPH students.
14. recommend other public health professionals who may be qualified to serve as site preceptors
15. provide input to the MPH Program to assist with program evaluation, including suggesting ways in which to maximize our ability to prepare our students for careers in public health
16. provide feedback to the capstone director on areas for capstone improvement
17. volunteer to serve on the MPH Community Advisory Committee, as available.

Responsibilities of the faculty advisor(s)

Each student is assigned a faculty advisor upon enrollment in the MPH Program. Dual-degree students also will have advisors in their home schools. In most cases, the assigned MPH faculty advisor will work with the student to provide guidance on development of the capstone project idea and the proposal. In some cases, students will pursue a capstone project for which a different faculty member will be better positioned to serve as advisor. In those cases, students may work with that faculty member on the project and have her/him co-sign the proposal and final report.

Advisors work with students to plan the capstone experience and maintain contact with the students while in the field to maximize learning and provide assistance with the project as needed. The advisor will communicate with the capstone director should problems arise during the capstone.

SECTION SEVEN: CAPSTONE EXPERIENCE

Responsibilities of the capstone director

The capstone director is a faculty member of the MPH Program and has overall responsibility for administration of the capstone experience. The capstone director responds to the MPH Program director and the MPH Curriculum Committee on matters related to capstone design and evaluation. Other stakeholders such as MPH faculty, students, site preceptors, site administrators/liaisons, the MPH Interdisciplinary Steering Committee, and the MPH Community Advisory Committee also provide input to the capstone process by sharing feedback and recommending sites and preceptors.

Before a Field Placement

1. assist in planning the student's capstone experience
2. determine the acceptability of activities, agencies, and site preceptors
3. review and approve capstone proposal

During a Field Placement

4. monitor student progress during the capstone (includes two progress meetings with students and one agency site visit)
5. assist with problem-solving at the capstone site

After a Field Placement

6. review drafts of the oral presentation slides
7. moderate the oral capstone presentation
8. review drafts of the capstone portfolio
9. approve the final capstone portfolio
10. submit capstone final grade to the MPH Program Office
11. solicit and take action on evaluations received from students and site preceptors

General Responsibilities

12. identify and maintain contact with a variety of public health agencies that can offer valuable public health field experiences for MPH students
13. serve as the liaison between the capstone stakeholders and the departmental program evaluation process
14. update the capstone manual in response to stakeholder feedback and program changes

The following policies of the University of Maryland, Baltimore may be found in the UMB Answer Book, distributed to all students each fall and available at (<http://www.umaryland.edu/student/sab>):

UMB Policy for Review of Alleged Arbitrary and Capricious Grading
(<http://www.usmd.edu/regents/bylaws/SectionIII/III120.html>).

The Academic Handbook, cited above, contains procedures for reporting alleged arbitrary and capricious grading within the School of Medicine.

UMB Procedures on Sexual Assault
(<http://cf.umaryland.edu/hrpolicies/section6/t60130Asa.html>)

UMB Policy on Sexual Harassment of Students
(<http://cf.umaryland.edu/hrpolicies/section6/t60120Bsa.html>)

UMB Student Sexual Orientation Non-Discrimination Policy and Procedures
(<http://cf.umaryland.edu/hrpolicies/section6/t60105Bsa.html>)

UMB Substance Abuse Policy
(<http://cf.umaryland.edu/hrpolicies/section7/t70110Asa.html>)



UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE

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