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Master of Public Health Program
Capstone Manual

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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 an integrative experience that encompasses both the practice experience and the culminating experience required for the program.

COMPONENTS OF THE CAPSTONE EXPERIENCE
The capstone includes the following four components that allow for students to develop and demonstrate their public health core and concentration competencies:
2. Completion of a 240-hour supervised field placement at a public health agency.
3. Oral defense of the capstone.
4. Preparation of a capstone portfolio.

DURATION OF THE CAPSTONE EXPERIENCE
The length of time it takes to complete the entire capstone experience varies widely. Students should anticipate that it will take several months to plan the capstone, write and revise the capstone prospectus, complete the field placement and write and revise the final capstone report in preparation for assembling the portfolio.

The actual capstone field placement requires a minimum of 240 contact hours, exclusive of the time devoted to preparation of the capstone prospectus, preparation for and delivery of the final oral defense 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. This timeline must be present in the capstone prospectus for review and approval by the student’s capstone director. At the completion of the capstone placement, the site preceptor will be asked to certify the student’s completion of the capstone hours.

PLANNING FOR THE CAPSTONE EXPERIENCE
Students should begin the process of planning the capstone experience as early as possible, but no later than the beginning of the term prior to the one in which they plan to begin the field placement. The length of time needed for the planning process varies widely. The timeline will depend on a myriad of factors, such as whether the project is based outside of the US, requires funding and/or the student needs to be added to the IRB protocol, whether the field agency has a lengthy clearance process, etc.

The first step in the process is to attend a Capstone Advising Session. Students may attend these at any time after admission to the Program. The sessions are held once a month, at varying days and times, to accommodate as many schedules as possible. During the Advising Session, students will review all of the capstone policies and procedures and have the opportunity to ask any questions they may have.
Students are encouraged to meet with their faculty advisor(s) and a capstone director to discuss potential capstone ideas, vis-a-vis career goals, areas of interest, existing skills, skills to be developed/honed, etc. After students have selected a potential capstone field placement agency, site preceptor and project, they must seek capstone director approval. The guidelines and criteria for approval of each of these components are described below.

IDENTIFICATION AND APPROVAL 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; or nonprofit organizations. 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 entitled Capstone Project at Work Site or Previous Field Placement Site.

Students are free to select any public health agency that meets their interests and career goals and must work with the capstone directors to seek approval of the proposed placement site. If a student is having difficulty identifying a field placement agency independently, the capstone directors maintain contact information for 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 preceptor(s) who will be familiar with the UMB MPH Program. While considering a site from that list may potentially enable the student to move more quickly through the planning process, there is no guarantee that that will be the case.

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 field placements outside of the costs associated with the academic course credits required. 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. The capstone director 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 or an agency in which they have completed a previous field placement. While this is not necessarily encouraged, such a placement 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 directors will look for indicators such as: substantively different responsibilities, a field placement in a different administrative unit and supervision by a different agency staff member. Students will also be required to specifically
document in the prospectus how this experience differs from previous placements or jobs at the agency.

IDENTIFICATION AND APPROVAL OF A SITE PRECEPTOR
Students must nominate a site preceptor to mentor them during the project. The site preceptor must be willing and able to mentor students and must have a combination of education (minimum Masters-level required) and experience that qualifies him/her as a public health professional (with 5 or greater years of public health experience). The site preceptor must submit a resume/CV and a signed site preceptor agreement to the capstone directors who are responsible for reviewing and approving the nominee. In situations where it is necessary, students may be approved to have more than one, but no more than two preceptors.

The site preceptor and capstone directors will meet to review the responsibilities and expectations of their role in supervising the capstone student prior to the start of the student’s field hours.

IDENTIFICATION AND APPROVAL OF A CAPSTONE PROJECT
The capstone is designed to be an individualized learning experience, so projects differ according to the needs of the student. However, all capstones must:
1. Be consistent with the mission and values of the MPH Program.
2. Center around a specific project for which they will have responsibility.
3. Fulfill one or more of the core functions of public health (see Appendix).
4. Have pre-specified learning objectives which are mapped to the required competencies (see Appendix).
5. Be relevant to the student’s career goals.

After identification of an agency, preceptor and project, the student submits via email the name of the agency, the preceptor’s CV and a 1-2 paragraph description of the project. The student will then be assigned a capstone director who will work with him/her for the remainder of the process.

DEVELOPMENT OF THE CAPSTONE PROSPECTUS
After the capstone director has approved the field placement agency, site preceptor and project, the student drafts a prospectus using the guidelines outlined in the Capstone Prospectus Template. The prospectus should demonstrate the student’s ability to outline a feasible, relevant, public health project that will enable him/her to achieve specified measurable learning objectives. Essential components of the prospectus are the proposed timeline, specific learning objectives for the project linked to the capstone competencies, and a description of how the project complements the student’s career development.

The prospectus draft is circulated for review to the site preceptor and capstone director. Drafts will need to be revised and re-reviewed until the prospectus receives approval by both parties.
ELIGIBILITY TO BEGIN THE CAPSTONE FIELD PLACEMENT
Students may begin the field placement if the following criteria are met:
1. Overall MPH GPA of 3.0 or better
2. Satisfactory completion of all MPH core courses
3. Satisfactory completion of all MPH concentration courses
4. Approval of the capstone prospectus by their site preceptor and capstone director
5. Completion of any field placement site requirements, e.g. training, security clearance, etc.
6. Registration for PH 789

REGISTRATION FOR THE CAPSTONE EXPERIENCE
Students must register for six credit hours of PH 789 in order to graduate. These credits may be taken in one semester or divided among multiple semesters, as needed. Since a project timeline is included in the capstone prospectus, students should know how long their capstone project will last and should register for PH 789 credits accordingly. If capstones take longer than anticipated, students must still register for continuing PH 789 credit (at least one credit per term) until all capstone requirements are complete.

Please note that the university requires that all students be enrolled for at least one credit hour during the academic term in which they graduate. In addition, students who are receiving financial aid or who are registered as international students are responsible for assuring that they comply with those enrollment requirements, in addition to MPH Program requirements. For details, students should contact the relevant UMB offices: Student Financial Assistance and Education Office (http://www.umaryland.edu/financial) or Office of International Services (http://www.umaryland.edu/ois).

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. 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 as required.

Due to the nature of the capstone experience, in most cases, students involved in research at the capstone field placement 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 by the principal investigator or a member of his/her research team. Students should not plan for a project that requires a new IRB submission to the UMB IRB.

SITE VISITS AND PROGRESS MEETINGS
The capstone director will make one site visit 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 and has completed approximately half of the field hours. This site visit will serve as the mid-course evaluation. The site visit allows the student to update the capstone
director on project progress. In the site visit, there will also be a discussion of timeline and plans for completion of the remaining field hours and reporting requirements.

In addition to the site visit at the field 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. Those progress meetings will usually take place on campus, but alternate arrangements will be made with students with out-of-town placements. In addition to the required progress meetings, the capstone director and student should remain in contact throughout the process via email, telephone, or additional in-person meetings.

RESOLUTION OF ISSUES ARISING WITHIN THE CAPSTONE PLACEMENT

We do not anticipate that students will encounter any major issues at the field 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

After the completion of the field placement, each student will be required to: (1) write a final report, (2) orally defend the capstone project and (3) assemble a capstone portfolio. The guidelines for each of these requirements are described below.

Written Final Report

Upon completion of the field placement students should begin to draft the final written report using the guidelines outlined in the Capstone Final Report Template. The report is both a scientific document that describes the capstone project and a student self-assessment of the learning experience. The report draft(s) will be reviewed by the student’s capstone director and the preceptor must certify that the work completed is as described in the final report. When the report is complete and approved, students may advance to the next phase (oral defense).

Oral Defense

The oral defense will only be scheduled after the written final report has been approved. Students must identify a 2 hour date/time slot for the defense that would fit within the schedules of the capstone director, site preceptor and director of the MPH Program. Students will arrange for a conference room for the oral defense by contacting the MPH Office of Student Affairs.

The oral defense presentation will be on the UMB campus and will be open to UMB faculty, staff, students, representatives of the capstone site and other guests of the student. Other MPH students are highly encouraged to attend their peers’ defense presentations. No later than two days before the oral defense date, the student must provide a copy of the draft presentation slides to the capstone director for review and approval.
Students must plan for a 45-minute defense with accompanying slides. Students must bring enough copies of the slides (handouts with four slides per page) to share with the capstone director, site preceptor and program director; additional copies for other attendees may also be provided. A draft of the portfolio (without the final report) must also be brought to the final defense.

The oral defense should address all of the components included in the written report with the exception of the project summary and the competencies. After the presentation, there will be a question and answer period. Following that, the capstone director and site preceptor will have a closed session and then, the student will return to receive their feedback about the oral defense and written final report. Any further edits to the report which must be included in the portfolio will be discussed at this time.

Students are highly encouraged to present their capstone project at the field placement agency. It is an opportunity for students to showcase the work they have done, for preceptors to receive recognition for the efforts they have put into mentoring the work, and for the student to provide professional development to the other agency staff. The presentation at the agency cannot substitute for the one to be held on the UMB campus.

**Capstone Portfolio**

After the oral defense, students should assemble and bind the capstone portfolio which is a full record of the capstone experience and should demonstrate the achievement of the capstone competencies. The following elements are included in the portfolio:

1. Original approved capstone prospectus.
2. Approved capstone final report.
3. Copy of the slides (and handouts) used for the UMB oral defense.
4. Approved activity log.
5. Artifacts from the capstone field placement, including developed materials, IRB approval letters for research projects, copies of slides from onsite presentation(s) and any other relevant materials. When needed, there should be a cover sheet describing the artifacts and the roles the student played in developing them. Confidential agency and/or client information should not be included. Therefore, the site preceptor should review the artifacts before the portfolio is bound.

The portfolio must be bound and submitted to the capstone director by the due dates below:

- Fall semester – last day of the semester
- Spring semester – 2 weeks prior to commencement
- Summer semester – last day of the semester

To ensure that all required components are included, the capstone director conducts a pre-review of the document at least two business days before it is taken to be bound.

The bound portfolios are kept in the MPH Office of Student Affairs for a minimum of five years, during which time they may be reviewed by faculty, students and accreditation site visitors. After that time, they may be shredded.
EVALUATION OF THE CAPSTONE EXPERIENCE
The capstone experience is evaluated in multiple ways:
1. Students evaluate the capstone experience.
2. Site preceptors evaluate the student.
3. Faculty in attendance at the student’s oral defense are also asked to complete an evaluation.
4. The capstone director evaluates the student.

These evaluations are reviewed by the capstone director who uses them to improve the process and summarizes them for program-level planning and decision-making.

GRADING OF THE CAPSTONE EXPERIENCE
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 site preceptor’s input.

ROLES AND RESPONSIBILITIES
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. Identify a capstone field placement site, preceptor and project that meet MPH Program guidelines.
2. In collaboration with the site preceptor, prepare a capstone prospectus that meets the MPH Program guidelines.
3. Obtain all necessary approvals for the capstone prospectus.
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 prospectus.
7. Take advantage of other learning opportunities at the agency.
8. Be professional in all dealings with the agency staff and clients.
10. Keep in contact with the capstone director about progress.
11. Initiate the site visit meeting with the site preceptor and capstone director.

After the Field Placement
12. Prepare an outline of the written final report for review by the capstone director.
13. Prepare the written final report for review by the capstone director.
14. Schedule and deliver the oral defense presentation to the UMB faculty, students, and campus community.
15. Complete a capstone portfolio.
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 students 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. Submit a current CV documenting the education and experience necessary to support his/her designation as a qualified public health professional.
3. Assist the student to identify a project that meets the needs of the agency and satisfies the MPH Program criteria.
4. Complete the site preceptor agreement.
5. Review, provide comments, and when satisfied, approve the capstone prospectus.

During the Field Placement
6. Provide the level of orientation to the agency necessary for the student to function efficiently.
7. Provide the student with the agreed-upon resources necessary to complete the capstone project.
8. 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).
9. 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.
10. 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.
11. Participate in the mid-course site visit meeting.

After the Field Placement
12. Facilitate the student’s delivery of an oral presentation at the agency, if possible.
13. Complete a summary evaluation of the student using the form provided.
14. Review and certify the work documented in the written final report.
15. Certify completion of the field hours in the activity log.
16. Approve artifacts to be included in the capstone portfolio.
17. Attend the student’s UMB oral capstone defense, if possible.
18. 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, ways to improve the capstone experience, etc.
**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 reports to the MPH Program Director and the MPH Curriculum Committee on matters related to capstone design and evaluation.

**Before the Field Placement**
1. Assist in planning the student’s capstone experience.
2. Determine the acceptability of activities, agencies and site preceptors.
3. Review, provide comments, and when satisfied, approve capstone prospectus.

**During the 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 the Field Placement**
6. Review, provide comments, and when satisfied, approve written final report.
7. Review drafts of the oral defense presentation slides.
8. Moderate the oral capstone defense.
9. Review pre-binding draft of the capstone portfolio.
10. Submit capstone final grade.
11. Solicit and take action on evaluations received from students, site preceptors and faculty.
Core Functions of Public Health
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 following 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.

Capstone Competencies
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 the capstone experience, students will undoubtedly further develop any number of program core and concentration competencies; those will vary based on the project selected. However, all students will be required to develop seven capstone-specific competencies, as well as selected competencies specific to their concentration area.

Competencies to be included in all capstones:
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.
Community and Population Health concentration competencies for the capstone:
1. Use the concepts, skills, and methods involved in culturally appropriate community engagement and empowerment with diverse communities.
2. Employ the steps and procedures of planning social and behavioral assessments, interventions, and policies.
3. Integrate and apply qualitative and quantitative mixed research methods for understanding phenomena in population health, and developing and evaluating public health assessments and interventions.

Epidemiology concentration competencies for the capstone:
1. Articulate appropriate research questions and hypotheses to investigate public health problems.
2. Conduct descriptive analyses and examine bivariate associations using statistical software.
3. Draw appropriate inferences based on results of analysis.

Global Health concentration competencies for the capstone:
1. Outline the global burden of disease, and compare the roles of major organizations, governments and communities in disease management and global development.
2. Apply public health skills and principles of research methods and analysis to health problems in the developing world.
3. Describe the epidemiology, ecology, and control of infectious and non-communicable diseases.