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Section 1: ADMISSIONS

A) Dates

Applications for Fall admission are typically due in February; refer to the Graduate School website (www.umass.edu/gradschool) for official dates.

In general, applications for Spring admission are discouraged, but may be considered in some circumstances. Typically, only students who have taken the introductory epidemiology (EPI 630) and biostatistics (BIOSTAT 540) courses (or equivalent courses at another institution) are accepted for Spring admission.

B) MPH vs. MS

Descriptions of the MPH and MS degree programs can be found elsewhere in this manual. Traditionally, the MPH program is intended for students with prior public health experience and/or professional degrees, or for students who are interested in careers in public health practice, while the MS program is appropriate for students without a background in public health and/or those who wish to pursue research-based careers.

Students may apply to either program, regardless of their prior degree(s). Upon enrollment, students should discuss their choice of program with their academic advisor. To switch programs (i.e., MPH or MS), the advisor submits a memo to request the change to the Graduate Program Director for final approval.

D) Applying to the PhD program while a master student

The PhD program is highly selective, and typically only 2-4 new PhD students are accepted each year. Students usually have a prior graduate-level degree, though exceptional students with only a BA/BS may be considered. Successful PhD applicants typically have strong GRE scores (i.e. above the 60th percentile).

We encourage current MPH and MS students with a strong interest in epidemiology to consider applying to the PhD program. Applications will be considered after the first year in the MPH/MS program (i.e. students may apply by February of their second year for admission to the PhD program starting the following Fall semester). In addition to the requirements described above, the student’s performance in his/her first year of coursework for the MPH and MS as well as potential fit within the Epidemiology program will be considered.

E) Financial aid

We offer a limited number of teaching assistant (TA) and research assistant (RA) positions, which include a stipend and a tuition waiver. Priority is given to PhD students and then 2nd year MS/MPH students. It is unlikely that first year students will be given positions, though some exceptional PhD applicants may be promised positions upon admission.

Available positions and an application are posted on this website: https://www.umass.edu/sphhs/career-opportunities. If none are listed currently, keep checking as they often become available throughout the semester. Additionally, our students have been successful obtaining TA/RA positions outside of our department, for example in nutrition, nursing, psychology and chemistry. Students can search for available positions on the websites of those departments and on the Graduate School’s website.

Additional information on financial aid can be found in Section 4: Student Resources.
Section 2: ADVISING

A) Who is my faculty advisor?

All students are assigned an academic advisor from amongst the epidemiology faculty at matriculation. The name of your advisor will be sent to you over the summer before matriculation, along with recommended course registration; contact the administrative assistant for epidemiology, Deb Osowski, in room 415 at 413-545-4603 with questions about the name of your advisor. Academic advisors can be consulted to address questions regarding class registration, progress monitoring, and other policy issues.

For students who register for the master’s thesis or master’s project, the chair of the thesis/project committee will serve as the research advisor and will replace the academic advisor as the primary advisor. Students who do not enroll for the thesis/project/dissertation will retain their academic advisor.

B) When should I meet with my advisor?

Students are required to meet with their faculty advisor before the end of the first week of classes each semester. Provisional students should meet with the advisor during the last week of classes for all semesters when they have ‘provisional’ status. Advisor contacts should be recorded on the tracking form, along with the date of the meeting and the advisor’s signature.

C. Am I meeting requirements to maintain full-time student status?

Information regarding academic status can be found at the website for the Graduate School in the Frequently Asked Questions section (http://www.umass.edu/gradschool/current-students/faq), in the Graduate Student Handbook: http://www.umass.edu/gradschool/policies-forms/graduate-student-handbook, and the Graduate School Bulletin: http://www.umass.edu/gradschool/policies-forms/graduate-school-bulletins

In brief, students enrolled in ≥ 9 credits/semester are considered full-time. In addition, Masters and MPH students are considered full time if they are in their last academic semester who are enrolled in ≥ 3 credits.

D. What are the requirements regarding grades?

Information regarding academic standing can be found in Section 2. Educational Records of the Graduate Student Handbook, as well as in the Graduate Bulletin (https://cesd3.oit.umass.edu/gradbulletin/2016-2017/Page12203.html). In brief: All classes that count toward the degree must be taken for a letter grade (i.e., P/F grade basis is not allowed), with the exception of PhD seminar (EPI 892).

A minimum GPA of 3.0 must be maintained. Students who have a GPA of 2.8 or lower in any two semesters (consecutive or otherwise) are classified as provisional, consistent with policies of the Graduate School. Students who are assigned provisional status are subject to academic dismissal and must raise their GPA to 3.0 to meet University minimum standards for satisfactory work (https://cesd3.oit.umass.edu/gradbulletin/2016-2017/Page12203.html) and thereby remove provisional status.

Grades lower than a B- in any of the core public health courses will not count toward the public health core requirement. Students may retake these courses. Students who receive lower than a B- a second time must petition the Associate Dean for Academic Affairs in order to retake the class again.
E. I was accepted ‘provisionally’ – what does that mean?

Students who are accepted provisionally must meet requirements described in their acceptance letter. These may vary, but generally, provisionally accepted students are required to:

1. Register for the following four classes, ideally during their first semester: BIOSTAT 540, Introductory Biostatistics; EPI 630, Principles of Epidemiology; EPI 690R, Research Methods in Epidemiology; and one of the following three public health core courses: EHS 565 Environmental Health Practice; HPP 601 Application of Social & Behavioral Theories in Public Health Interventions; or, HPP 620 Introduction to the US Health Care System.

2. Receive a grade of B or better in these courses – incompletes or withdrawals will be considered as not having met the B grade requirement, and should check with their advisor about additional requirements while under provisional status.

In certain circumstances (such as for part-time students whose work schedule impacts the number and specific course enrolment), students may receive permission to take the courses over multiple semesters. Once these conditions have been satisfied, the student will no longer be considered to be ‘provisional’. Failure to meet these requirements will result in withdrawal from the Epidemiology program.

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Links:

UMass Graduate School: www.umass.edu/gradschool
Graduate School Handbook: http://www.umass.edu/gradschool/policies-forms/graduate-student-handbook
Graduate School Bulletins: http://www.umass.edu/gradschool/policies-forms/graduate-school-bulletins
TA, RA positions, and other job postings: https://www.umass.edu/sphhs/career-opportunities
Section 3: COURSES

A. Planning your coursework on campus
Course requirements for each of the degrees in epidemiology are shown below. Suggested/sample course sequences are shown in the table on the page that follows, after which descriptions of courses are provided. The full course schedule is available on SPIRE (spire.umass.edu).

Course requirements by degree/plan

<table>
<thead>
<tr>
<th>Epidemiology Program – Degree Requirements</th>
<th>MPH [42 credits, total]</th>
<th>MS [45 credits, total]</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED CLASSES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORE ~ Epidemiology &amp; Biostatistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPI 630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOSTAT 540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[6 credits]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORE ~ other public health related</td>
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<td></td>
</tr>
<tr>
<td>EHS 565, HPP 601, and HPP 620</td>
<td></td>
<td>EHS 565 or HPP 601, or HPP 620</td>
</tr>
<tr>
<td>[9 credits]</td>
<td></td>
<td>[3 credits]</td>
</tr>
<tr>
<td>Additional Epidemiology &amp; Biostatistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPI 632</td>
<td></td>
<td>EPI 632</td>
</tr>
<tr>
<td>BIOSTAT 640/650</td>
<td></td>
<td>BIOSTAT 640/ 650</td>
</tr>
<tr>
<td>BIOSTAT 691F</td>
<td></td>
<td>BIOSTAT 691F</td>
</tr>
<tr>
<td>[9 credits]</td>
<td></td>
<td>[18 credits]</td>
</tr>
<tr>
<td>Other</td>
<td>EPI 698, Practicum</td>
<td>~</td>
</tr>
<tr>
<td>[3 credits]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE CLASSES†</td>
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<td></td>
</tr>
<tr>
<td>Epidemiology a</td>
<td>3</td>
<td>3†</td>
</tr>
<tr>
<td>[9 credits]</td>
<td>[9 credits]</td>
<td>[12 credits]</td>
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<tr>
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<tr>
<td>[6 credits]</td>
<td>[3 credits]</td>
<td>[3 credits]</td>
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<tr>
<td>CULMINATING EXPERIENCE</td>
<td>Exit exam</td>
<td>EPI 696D, MPH project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPI 699, Thesis</td>
</tr>
<tr>
<td></td>
<td>[3 credits]</td>
<td>[3 credits]</td>
</tr>
</tbody>
</table>

†MPH Students choosing the project option are strongly encouraged to take EPI631 and EPI700 as two of the 3 required epidemiology electives

a Elective classes in epidemiology , and b other classes are described on page 7.
Sample Course Sequences: course numbers and the requirement filled for sample course sequences for the MS, MPH with exit exam and with MPH project

**MS course sequence example**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall, year 1</strong> (12 credits)</td>
<td><strong>Spring, year 1</strong> (12 credits)</td>
<td><strong>Fall, year 2</strong> (12 credits)</td>
<td><strong>Spring, year 2</strong> (9 credits)</td>
</tr>
<tr>
<td>BIOSTAT 540 (Req’d BIOST)</td>
<td>BIOSTAT 640 (Req’d BIOST)</td>
<td>EPI 631 (Req’d EPI)</td>
<td>EPI 699 (thesis)</td>
</tr>
<tr>
<td>EPI 630 (Req’d Epi)</td>
<td>EPI 632 (Req’d EPI)</td>
<td>EPI 700 (Req’d EPI)</td>
<td>EPI 635 (Epi elective #3)</td>
</tr>
<tr>
<td>EPI 690 R A (other elective)</td>
<td>BIOSTAT 691F (Req’d BIOST)</td>
<td>EPI 737 (Req’d EPI)</td>
<td>EPI 640 (Epi elective #4)</td>
</tr>
<tr>
<td>HPP 601 B (other PH core)</td>
<td>EPI 639 (EPI elective #1)</td>
<td>EPI 634 (Epi elective #2)</td>
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</tr>
</tbody>
</table>

**MPH course plan: Exit Exam option**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall, year 1</strong></td>
<td><strong>Spring, year 1</strong></td>
<td><strong>Summer, year 1</strong></td>
<td><strong>Fall, year 2</strong></td>
</tr>
<tr>
<td>BIOSTAT 540 (Req’d BIOST)</td>
<td>BIOSTAT 640 (Req’d BIOST)</td>
<td>EPI 698 (practicum)</td>
<td>HPP 620 B (PH core #2)</td>
</tr>
<tr>
<td>EPI 630 (Req’d Epi)</td>
<td>EPI 632 (Req’d EPI)</td>
<td></td>
<td>HPP 583 (other elective #2)</td>
</tr>
<tr>
<td>EPI 690 R A (other elective #1)</td>
<td>BIOSTAT 691F (Req’d BIOST)</td>
<td></td>
<td>EPI 634 C (Epi elective #2)</td>
</tr>
<tr>
<td>HPP 601 B (PH core #1)</td>
<td>EPI 639 C (EPI elective #1)</td>
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</tbody>
</table>

**MPH course plan: MPH Project option**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall, year 1</strong></td>
<td><strong>Spring, year 1</strong></td>
<td><strong>Summer, year 1</strong></td>
<td><strong>Fall, year 2</strong></td>
</tr>
<tr>
<td>BIOSTAT 540 (Req’d BIOST)</td>
<td>BIOSTAT 640 (Req’d BIOST)</td>
<td>EPI 698 (practicum)</td>
<td>EPI 631 (epi elective 2)</td>
</tr>
<tr>
<td>EPI 630 (Req’d Epi)</td>
<td>EPI 632 (Req’d EPI)</td>
<td>EPI 700 (epi elective 3)</td>
<td>EHS 565 (PH core #3)</td>
</tr>
<tr>
<td>EPI 690 R A (other elective #1)</td>
<td>BIOSTAT 691F (Req’d BIOST)</td>
<td>HPP 601 B (PH core #2)</td>
<td></td>
</tr>
<tr>
<td>HPP 620 B (PH core #1)</td>
<td>EPI 639 C (EPI elective #1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: **A** EPI 690R is not currently required but strongly recommended, is an epidemiology class but fills the requirement for an “other elective” on the current tracking form; **B** PH core includes HPP 601 (fall only), HPP 620 (fall only) and EHS 565 (both semesters); **C** Epi electives tend to be taught once in the fall semester and twice in the spring and with each being offered once every two years generally. Students should plan accordingly.
**Required Core Courses**
- EPI 630 Principles of Epidemiology
- BIOSTAT 540 Introduction to Biostatistics
- EHS 565 Environmental Health Practices
- HPP 601 Application of Social & Behavioral Theories in Pub Hlth Interventions
- HPP 620 Introduction to the US Health Care System

**Additional Epidemiology and Biostatistics Courses**
- †EPI 631 Scientific Writing for Thesis, Dissertation, and Grant Proposals in Epi
- EPI 632 Applied Epidemiology
- †EPI 700 Analysis of Epidemiologic Data
- EPI 737 Intermediate Epidemiologic Methods
- BIOSTAT 640 Intermediate Biostatistics
- BIOSTAT 691F Statistical Computing in SAS

†MPH Students choosing the project option are strongly encouraged to take EPI631 and EPI700 as two of the 3 required epidemiology electives

**Elective Epidemiology Courses** *(required for all degree programs)*
- EHS 600 Molecular Epidemiology
- EPI 633 Infectious Disease Epidemiology
- EPI 634 Nutritional Epidemiology
- EPI 635 Social Epidemiology
- EPI 639 Cancer Epidemiology
- EPI 640 (formerly EPI 591L) Reproductive Epidemiology
- EPI 690EW Women’s Health Epidemiology

For MPH Students, other epidemiology courses not required for the degree (e.g., EPI 700 and EPI 737) can fill this requirement. For MS students, questions regarding whether other courses fulfill this requirement will be considered on a case by case basis. As guidance, to fill this requirement courses should be clearly epidemiological in methods and without substantial overlap with other coursework.

**Other Elective Courses** *(required for all degree programs)*
Graduate level courses offered at UMass (in SPHHS or otherwise) fulfill this requirement. Epidemiology electives can count toward this requirement. Other examples include, but are not limited to:
- EPI 690 R Research Methods in Epidemiology ††
- EHS 590TL Developmental Origins of Disease
- HPP 583 Global Health in the Developing World
- HPP 622 Program Evaluation in Health and Human Service Organizations
- HPP 638 Fundamentals of Women’s Health

†† As of 9/1/2018, EPI 690R counts toward the ‘other elective requirement’. It is an intro level course that is a prerequisite for BIOSTAT 691F

**Practicum, Seminar, MPH Project, MS Thesis, PhD Dissertation**
- EPI 698 Practicum (summer)
- EPI 696D Independent Study and/or MPH Project
- EPI 699 Thesis credits
B. Courses not offered on campus at UMass Amherst

A total of 12 credits can be transferred from other sources, combined. Additionally:
  - A maximum of 6 credits may be completed at Worcester (UMass)
  - A maximum of 6 credits may be transferred from other institutions

For credits to be considered for transfer, students must have earned a grade of B or better, and cannot have applied the credits to a previous degree. All requests for transfer credits need to be discussed and approved with your academic advisor, who may request a copy of the syllabus prior to making a final decision. If possible, request for transfer credits should be made prior to registering for the course, to prevent the student investing time and resources in a class that does not meet program criteria.

C. Policy for independent studies

Independent studies are offered at the discretion of faculty. Independent studies can be taken for 1 – 3 credits, in accordance with the number of contact hours associated with each level of credit. Working together, students and faculty should prepare a contract with expectations clearly specified. Independent study is generally taken toward satisfying the “Epidemiology Elective” or “Other Elective” and should be noted as such in tracking forms. A maximum of 3 credits of independent study can be taken toward requirements for MS/MPH.

D. Seminar attendance

The Epidemiology Seminar Series takes place roughly monthly, and provides an opportunity to learn about current research in the field beyond that taking place within the department. Attendance at Seminar is strongly encouraged for all students. In addition, you may receive extra credit in some courses for seminar attendance. You should check with your course instructors for specific details.
Section 4: STUDENT RESOURCES

A. Financial Aid

Possibilities for obtaining financial support include graduate assistantships (i.e., research or teaching assistantships) or other scholarships (e.g., the Corinne A. Johnson Memorial Scholarship). Information about financial aid opportunities at SPHHS can be found at the following website: https://www.umass.edu/sphhs/graduate-programs/graduate-financial-aid. This site includes links to the University Financial Aid website, which has detailed information on these and other financial aid opportunities (e.g., federal loan programs) and is found at: http://www.umass.edu/umfa/

Graduate research and teaching assistantships may be available and typically entail 10-20 hours per week paid according to a union negotiated pay scale. Additional information about graduate assistantships in the Department can be found at https://www.umass.edu/sphhs/epidemiology/prospective-students/financial-aid as well as at the SPHHS website (https://www.umass.edu/sphhs/graduate-programs/graduate-financial-aid) and at the Graduate School website (http://www.umass.edu/gradschool/funding-support/graduate-assistantship-office/policies-and-procedures).

B. Travel funding

Travel funds to defray the cost of attending professional scientific meetings are available to graduate students through several sources

- The Department of Biostatistics and Epidemiology: Students who are presenting their research at a meeting, in either an oral or poster presentation, are eligible for up to $500 per academic year. Students who are not presenting at the meeting are eligible for reimbursement of up to $200 per academic year. To apply for these funds, students should submit a BioEpi Student Travel Grant application to the Biostatistics and Epidemiology Department Chair. A copy of this form can be found in the appendix. Students receiving the funds should keep a copy of this signed form and all travel receipts.

- UMass Graduate School: Funding of up to $300/student also is available through the Graduate School for students who will be presenting their research at a conference. The Graduate Program Director in the Department of Biostatistics and Epidemiology administers these funds. Funds are usually awarded on a first come-first serve basis, so it is important to submit a request for these funds as soon as your abstract has been accepted for presentation.

- Travel funds also may be available through the student’s research mentor; please be sure to check with your faculty mentor regarding funding for travel.

Prior to the trip, students must complete an online pre-travel registry using their UMass username and password (https://travelregistry.umasscs.net/). Students should then complete a Travel Reimbursement Form, which requires all original receipts, and can be found at: https://www.umass.edu/sphhs/sites/default/files/SPHHS%20Travel%20and%20Expense%20Reimbursement%20Form%20010117_3.pdf

See Deb Osowski, the BioEpi Administrator, for any questions related to travel reimbursement.

Postdoctoral fellows are ordinarily not eligible for the Biostatistics and Epidemiology Department travel funds, as their travel funding would typically come from their mentor’s research grant. However, if funding is still needed, their faculty mentor may request of the Epidemiology Program that an exception to this policy be made.
C. Research funding

Research funding is generally available through a specific faculty member’s research grant. Available research assistantships are posted on the SPHHS financial-aid website noted above. Also, if you are particularly interested in the research carried out by a specific faculty member, we would encourage you to contact that faculty member directly.

The National Institutes of Health also fund pre-doctoral training for doctoral students, e.g., through F31 Fellowships. See the link below to explore these potential, though very competitive, grant opportunities. Also, interested students should be sure to discuss this potential option with their advisor.
http://grants.nih.gov/training/F_files_nrsa.htm

D. Teaching experience

Obtaining teaching experience can be very useful and rewarding for master’s students as well. There are a number of opportunities to become a teaching assistant either for courses taught by the Biostatistics and Epidemiology Department, or as part of the undergraduate program in public health. Further, there are occasional opportunities to either TA or serve as an instructor for courses offered online through the University/SPHHS continuing education program.

When teaching assistants are needed for any Biostatistics or Epidemiology course, their availability is posted on the following website for one week: https://www.umass.edu/sphhs/career-opportunities

We recommend you bookmark this website and check it weekly. Application instructions are provided on the website. Most teaching assistantships are for 10 hours per week for a semester. If you are interested in serving as a teaching assistant for a specific course, you might email the instructor directly to let them know and to find out if any opportunities are upcoming.
Section 5: Master’s of Science Thesis and Master’s of Public Health Project Guidelines

It is the student's responsibility to see that these guidelines are followed properly. Please read them carefully, and reread them often as you progress through the various stages of your thesis.

A. Required Coursework

Students must have completed first year coursework prior to registering for thesis or project credits including:

- EPI 630: Principles of Epidemiology
- EPI 632: Applied Epidemiology
- BIOSTATS 540: Introduction to Biostatistics
- BIOSTATS 691F: Data Management

Both MS Theses and MPH Projects generally include extensive scientific writing as data analysis, students are required to take the following courses in the fall of their 2nd year:

- EPI 631: Scientific Writing for Thesis, Dissertation and Grant Proposals in Epidemiology
- EPI 700: Analysis of Epidemiologic Data

B. Registering for Thesis/Project Credits

Students should register for three credits of EPI 699: Master’s Thesis (MS Students) or EPI 696: Independent Study – MPH Problem (MPH Students) during the second year of class work, generally during the spring semester. Students should arrange to register for credits using the specific EPI 696/699 designation assigned to their Committee Chair, and register for credits as Pass/Fail. In order to try to complete thesis/project work finish during the fourth semester, it is recommended the student register for a maximum of one course in addition to the thesis/project credits. Otherwise, as faculty experience has shown repeatedly, the student is diverted by the immediacy of course work and will be challenged to find adequate time to devote to the thesis.

C. Nature and Purpose of the Thesis/Project

The master's thesis provides the student with an opportunity to develop an individual research project under the guidance of a faculty committee. The student gains experience in problem identification, study design, data analysis, and interpretation of results as an investigator working in collaboration with fellow professionals. The final write-up of the thesis requires an organized presentation of the theory, methods, and results in the context of the existing literature. The final oral presentation of the project provides a collegial forum within which to present the major points of the project and defend the approaches taken.

It is expected that the thesis will have a strong theoretical foundation, and will demonstrate the student's competence in applying theory and appropriate methodology to investigating a problem. Mastery of methodology, including the understanding of the strengths and limitations of the research, has a greater emphasis than developing new information. The faculty considers the process of carrying out the study, and the integration of knowledge by the student, to be more important than the findings which result.

D. Coming Up With a Topic

Students should start considering possible thesis topics by the end of their second semester. The student considers possible topics based upon areas of personal interest, practicum or internship experience, discussions
with other students, and with faculty. One's academic advisor and/or other faculty may be approached for help in exploring possible topics. What is an appropriate project? One answer to this question is: "A project that enough faculty members find acceptable so as the student is able to constitute an appropriate committee."

Talking with your advisor and/or potential Thesis/Project Committee Chair is a good place to start. A review of MS theses recently completed by other students will help give you an idea of the range of acceptable projects. Examples of recent MS Theses can be found on the Library website at: http://scholarworks.umass.edu/theses/
The MPH Project is meant to be a culminating experience for MPH students that integrates all areas of Public Health, but with an emphasis on Epidemiology; the topic for the Project should reflect this goal.

E. Assembling the Committee

Once the specific topic is decided upon, the student should ask a faculty member to be chair of the thesis committee. As the topic is developed further, the student selects other committee members in conjunction with the chair. If the committee chair is not the same as the academic advisor, then the chair automatically assumes the role of the academic advisor and the student's advising folder should be transferred to the committee chair.

The MS thesis committee will have at least two Epidemiology faculty; the MPH Project committee will have at least one Epidemiology faculty. The chair must be a tenure-system member of the faculty in Epidemiology at the Amherst campus (see appendix for list). It is recommended but not required that the committee also include a Biostatistics faculty member. Graduate faculty from other campus Departments, or health agency adjunct faculty, are often useful contributors to a committee depending upon the topic.

Adjunct faculty, if they have a graduate level appointment, are eligible to serve as voting members of a committee but may not serve as chair of a committee if the student is registered through the Amherst campus. Other related professionals may serve on the committee and may be listed as a consultant on the cover page, but have no vote at the time of the defense even though they are expected to attend the defense.

Once the Committee has been determined, MS Students must complete the MS Thesis Committee Nomination Form (included in the appendices and on the department website) and submit this to their Committee Chair, who will then submit it to the Graduate Program Director. There is no similar form for MPH students.

F. The Thesis/Project Proposal

i. Developing the proposal: A Proposal is required by the Department. Students should work with their advisor to determine the contents of the proposal, to be presented to the other committee members for their input. The proposal must be approved by the Committee Chair before research begin. A general outline of sections commonly used for the MS Thesis and MPH Project is provided in the appendices.

The proposal represents a demonstrated readiness to conduct research on a specific topic, and the proposed hypotheses or procedures may need to be revised further, with the agreement of the committee, as the project proceeds. The proposal should be written using the future tense. Students may wish to review several recent thesis proposals similar to theirs as available from any faculty member.

ii. Format for the Proposal: There is no formal format requirement for the proposal; however, is highly recommended that the student follow the guidelines presented in the Graduate School’s Guidelines for Master’s Theses and Doctoral Dissertations even when preparing the first draft of the thesis proposal: http://www.umass.edu/gradschool/sites/default/files/thesis_and_dissertation_guidelines.pdf
Additionally, the Office of Information Technology offers workshops on thesis formatting that may be helpful in preparing the proposal and final version of the thesis. General advice on formatting and information on workshop can be found on the OIT website at: http://www.oit.umass.edu/support/workshops-training/format-a-thesis-or-dissertation-ms-word-general-advice

iii. **Timeline for the proposal:** The timelines for preparation of proposals are included in the Appendix. Students should work with their Committee Chair to ensure that they are meeting the times. In addition, students are encouraged to meet with each member of their committee in person at least once during the fall semester as they prepare the final version of their proposal.

The **Signature Page for proposal (MS Thesis or MPH Project, as appropriate)** is included in the Appendix, and must be signed by all members of the committee and then submitted along with the proposal to the Graduate Program Director for the Department. The Graduate Program Director still signs the proposal if also a member or even the chair of the committee. If the committee and proposal are appropriate, the Graduate Program Director submits the proposal with a request to the Graduate School to appoint the committee.

G. **Human Subjects Approval**

Prior to beginning any involvement with human subjects or data meeting the definition of human subjects, the student must complete training in the use of human subjects for research, as mandated by the University. Information on the University’s policies concerning the use of human subjects in research can be found at: http://www.umass.edu/research/human-research-protection-office-hrpo

Students should complete training through the CITI system, if they have not already done so for another project and/or their training is out of date. Also, appropriate IRB approval must be obtained for the student’s research. It is the responsibility of both the student and the committee chair to ensure that the student has met all University policies concerning human subjects. Information on CITI training can be found at: http://www.umass.edu/research/training-and-education

H. **Carrying Out the Project**

The committee chair is expected to assume the major role in guiding the student through the project. Other faculty generally contribute to selected aspects of the project. It is important that the student keep each of the committee members up-to-date on significant aspects of the project. In the case of conflicting or extreme demands from the committee, the student should inform the chair and request a committee meeting to resolve any issues. Any substantial change in the proposed project should trigger a meeting of the full committee.

I. **Writing**

**MS students** should be sure to strictly follow the Graduate School guidelines for Master's theses to the letter (there are not similar strict guidelines for MPH Projects). Otherwise you will have a lot of unnecessary hassle at the last minute when you need it the least. Students should use the table format, reference format, and reference citation method of the American Journal of Epidemiology. If you transfer over any of your thesis proposal text to the thesis, please change the text from the future tense to the past tense. There

The chapter headings of the thesis/project are as follows: Introduction; Review of the Literature; Methods; Results; Discussion. As with all scientific writing, the writing of the Master’s thesis or project usually involves an intense period of writing, editing, rewriting, editing, rewriting, and so forth. To maximize the clarity and
impact of the writing, students are encouraged to contact the University’s Writing Center, and meet one-on-one with a writing tutor. This may be especially beneficial for students who do not have extensive experience with scientific writing or for whom English is a second language. Information on the Writing Center can be found at: http://www.umass.edu/writingcenter/

J. Scheduling the Thesis/Proposal Defense

Timing for scheduling the **MS Thesis Defense** will vary year to year based upon the date that **Degree Eligibility Forms** and **Tracking Forms** are due to the **Graduate School**. Timing for the **MPH Project Defense** Students will vary from year to year based upon the date the grades are due to the Registrar. Sample Calendars for the MS Thesis and MPH Project are included in the appendices, and should be consulted as guidance.

For both the **Thesis** and **Project**, students should provide a complete draft of their thesis to their committee at least 10 days prior to the deadline for scheduling of the defense. Faculty members then have 10 days to review the thesis and determine whether the project is generally ready for defense. At this stage, Faculty may provide minor comments that they expect to be addressed prior to the defense. However, if major changes are required at this stage, it may not be possible to schedule a defense in time to meet the May graduation deadline.

When the committee chair affirms a consensus among the committee members that the project is essentially completed and is ready for the defense, the student should work with the Department Administrator to schedule the defense. Please note, as indicated on the sample Calendars in the appendix, **the defense must be scheduled two weeks in advance**. At least one week after the thesis defense is built into the schedule to allow for final revisions or changes to the thesis prior to submission to the Graduate School, and to allow for rescheduling of the defense in the event that an emergency situation arises.

Please be advised that the faculty have nine month appointments and are not obligated to be available during June, July, or August. Also, in your planning you should query the faculty about any sabbatical or leave of absence plans.

K. Who May Attend the Defense

The project defense is public. Departmental faculty member and students are welcome to attend. First year students are encouraged to attend MS thesis and MPH project defenses, as they will be underdoing similar projects the following year.

L. The Defense Process

Note that the Graduate School requires that all members of the committee must be present for the defense. Each committee member shall have received a "final" version of the thesis at least a week before the defense.

The committee chair oversees the proceedings of the defense. The student is expected to present, generally in about 40 minutes, a synopsis of the key elements of the project, especially emphasizing methods, analytical approach, results, limitations, and the significance of the results within the context of the literature. Usually, questions of information or clarification are asked during the presentations, but matters of substance are held for the question period.
M. Outcomes of the Defense

When the presentation is finished, the chair directs the question period. Upon completion of the question period, the committee then meets in private to discuss the student’s performance and votes for a pass or not. To pass the defense, the candidate must receive a unanimous vote. If the committee is not unanimous in voting to pass the candidate, the student is considered to have not passed the thesis defense at this time. The student is allowed one chance to re-defend the thesis at a later date. The thesis committee will determine the minimum amount of time the student must wait to redefend the thesis, as well as the latest possible date the thesis may be redefined. The chair will present the candidate with a new timeline for revision, review and rescheduling the defense. Please note, given the timeline required by the Graduate School, it is generally unlikely that a student who does not pass a defense in the spring will be able to redefend and graduate for the May graduation date. In this situation, the earliest likely graduation date will be August. In the interim, the student will receive an INC for EPI696D/EPI 699. This designation will be changed upon re-defense of the thesis.

Committee members may recommend additional minor changes to the written thesis/project at this time, as some new issue may have been raised during the thesis defense question period.

Students defending an MS Thesis should bring 3 copies of the MS Thesis Signature Page (3 copies), printed on acid-free paper to the defense, which will be signed by all committee members indicating that the student has passed the defense. If only minor changes are required in the final version of the thesis, then most members of the committee are willing to sign the cover sheets at that time. The committee chair signs the cover sheet only when the final copy of the corrected thesis is received. The Graduate Program Director will then sign the cover sheet after the committee chair.

The student should also bring a copy of the Notification of Completion of MS Thesis Defense Form, included in the Appendix, to the defense. Upon completion of a successful defense, the committee members sign the form. The student then returns the completed form to the Departmental office. This sheet initiates the Department's Graduate Program Director's formal notification to the Graduate School that you have successfully defended your thesis. The Graduate Registrar then automatically records your EPI 699 grade as a Pass.

Students defending an M.P.H Project should bring one copies of the MPH Project Signature Page printed on acid-free paper to the defense, which will be signed by all committee members indicating that the student has passed the defense. If only minor changes are required in the final version of the project, then most members of the committee are willing to sign the cover sheets at that time. The project committee chair signs the cover sheet only when the final copy of the corrected project is received. The Department Chair will then sign the cover sheet after the committee chair. Your committee chair will then communicate your grade for EPI 696 to the Department Administrator for submission.

N. Submission of the Thesis/Project

After the defense is successfully passed, students should work with their committee chair to complete any additional revisions required by the committee. After the chair has determined that the final draft is acceptable and signs the Signature Page, the student should submit the thesis to the Graduate School electronically through Scholarworks. Information on the submission process may be found at:
O. Archiving of data and statistical code

After the defense is passed and prior to graduation, students should make sure that a final version of their data set and relevant statistical code (SAS, STATA logs, etc) have been archived in the appropriate folder on the J drive, along with documentation. Students should confirm the location of data with their Chair.

P. Publications from the Thesis/Project

Where the results are publishable, the student is encouraged to write-up a first draft of the manuscript as first author. If the student does not prepare a draft of the manuscript within six months of the defense, especially where the student was using faculty or agency data, it is the prerogative of the committee chair or other committee member or agency person to prepare a first draft and include the student as an author.

In the case of the use of faculty data or data from an outside agency, it is vitally important the authorship of paper(s) resulting from the project be explicitly negotiated in writing in advance of beginning the project. Such an agreement should state the order of authorship for any potential publication(s) and the general content of such publication(s). Failure to address this issue in advance has caused unhappy complications in the past.

Q. Last Steps to Complete the Thesis/Project

1. Download the Checklist for Master’s Degree Form and verify that you have met all of the requirements for graduation. This form can be found on the Graduate School website at: http://www.umass.edu/gradschool/sites/default/files/checklist_for_masters_degrees.pdf
2. Pay the commencement and placement fees at the Graduate School Office of Degree Requirements.
3. Fill out the yellow Master’s Degree Eligibility Form from the Office of Degree Requirements. You may wish to list only those courses needed to fulfill the degree requirements. All the courses you have taken will still show up on the transcript, but courses beyond the requirements can often be transferred directly into any Doctoral program pursued in the future, but only if they were not listed for your degree requirements. The Eligibility Form must be reviewed and signed by the Department Graduate Program Director who certifies that you have met all the degree requirements. The form will then be signed by the Department chair.
4. Fill out a final copy of Epidemiology Tracking Form, which will serve as an archive copy of your record with us. The Tracking Form and the Degree Eligibility Form for the Graduate School should both be filled out as soon as the defense is scheduled. Check with the Graduate Program Director regarding due dates for these forms. Do not delay until the last moment.

MS Students – final steps

5. Submit your thesis to the Graduate School through Scholarworks, following procedures described on their website at http://scholarworks.umass.edu/theses
6. Submit one original copy of your signed MS Thesis Signature Page printed on acid-free paper to the Graduate Student Service Center.
7. Provide a hard copy of the final draft of your thesis in a modest binder to each member of your committee.

MPH Students – final steps

5. Submit one original copy of your signed MPH Project Signature Page printed on acid-free paper to the Department.
6. Provide a hard copy of the final draft of your project in a modest binder to each member of your committee.
Section 6: Master of Public Health Exit Examination

Students selecting this option will take a closed-book comprehensive exam as their culminating integrative learning experience; the exam will test their knowledge of the disciplines of the disciplines of public health with primary emphasis on Epidemiology and secondarily Biostatistics, but also including Community Health, Health Policy and Management, Environmental Health Sciences with primary emphasis on Epidemiology and secondarily Biostatistics, but also including Community Health, Health Policy and Management, Environmental Health Sciences. This exam is offered once per year, generally in the middle of the spring semester, though students should check with their advisor for specific scheduling information. MPH students choosing this option must pass this exam to graduate. MPH students are expected to have completed all courses included in the Public Health Core Curriculum prior to taking the exam. Thus, students selecting this option should have completed the following by the end of the fall semester of their second year:

- EPI 630 Principles of Epidemiology
- BIOSTAT 540 Introduction to Biostatistics (fall only)
- EHS 565 Environmental Health Practices
- HPP 601 Application of Social & Behavioral Theories in Pub Hlth Interventions
- HPP 620 Introduction to the US Health Care System

In addition, to meet the 42 total credit requirement of the program, students who opt for the Exit Exam option must take one additional 3-credit elective course (see course requirements, section 3A. The exam covers the epidemiologic and biostatistical methods covered in required courses and consists of short answer and multiple choice questions. The epidemiology part of the exam includes a section that requires you to answer questions about a journal article from the epidemiologic literature, which is provided to you prior to the exam. Questions on material from the other public health core courses named above will also be included.

The exam is 2 hours in length and is given on 1 day only. Those who do not pass the exam may re-take the exam one time when a re-take exam is held, expected to be two weeks later.
Section 7: Appendices

BioEpi Graduate Student Travel Grant information and Application

Formatting guidelines for MS thesis and MPH project (AJE format)

MS Thesis committee nomination form (alternatively, this can be sent as a memo by email to Diane Wolf (dwolf@schoolph.umass.edu) and/or the Graduate Program Director (Dr. Paula Stamps, stamps@schoolph.umass.edu) from either Committee Chair)

Signature page for MS Thesis

Signature page for MPH Project

(additional information on degree requirements and sample forms can be found at: https://www.umass.edu/gradschool/current-students/graduate-student-handbook/3-degree-certification.)

Suggested MS Thesis calendar

Suggested MPH Project calendar
Department of Biostatistics & Epidemiology
Graduate Student Travel Grant Application

Students who are presenting their research at a meeting, in either an oral or poster presentation, are eligible for up to $500 per academic year. Students who are not presenting at the meeting are eligible for reimbursement of up to $200 per academic year.

Allowed expenses include the following: all travel (including air, train, bus, car fare); conference fees; lodging; parking and/or taxi/shuttle fees. Travel funding is processed as a business expense reimbursement, and must follow the IRS rules, which state that expense reimbursements be processed within 60 days and documented with original receipts.

Please complete the attached BioEpi Student Travel Grant Application Form, including obtaining the signature of your faculty advisor, and forward it to the Department Chair.

During travel, be sure to keep all original travel receipts.

Within two weeks after travel, complete the SPHHS Travel and Reimbursement Request Form, attach your original receipts and the signed Graduate Student Travel Grant Application. Please give these documents to Deb Osowski, who will gather the necessary signatures and submit the forms for reimbursements. As long as both forms and the original receipts are received, the reimbursement process should be quick. You should keep copies of these receipts for your own records, since the originals will not be returned to you.

Questions about the process can be directed to Deb Osowski.
Student Name: ________________________     SPIRE ID#: _______________
Program: _____________________________            ____Master’s   ____Doctoral
Email:     ____________________________________

Nature of participation in conference:

   ___Presenting a paper
   ___Presenting a poster
   ___Participating in a panel presentation
   ___Other: Please specify: __________________________________________

Name of conference: _______________________________________________
Location of Conference: ____________________________________________
Scope of Conference: ____National           _____Regional       _____Local

Estimated total costs of conference: ___________________

Other sources of funds: ____Division       _____Faculty grant   _____Other (not personal)

Date of travel: ________________

Signature of faculty advisor indicating support of application:

____________________________________________________________________

Department Chair Approval       Date       Amount approved

____________________________________________________________________
TABLE FORMAT AND STYLE

Each table must be formatted by using the table feature in Word. Tables should be numbered (Arabic numerals) in the same consecutive sequence in which they are mentioned in the text. They should be concise and self-explanatory. Use a single top rule, a single rule below the headings, and a single bottom rule. Avoid using internal headings, and do not use rules within the table body. Column headings should be clearly delineated, with straddle rules over pertinent columns to indicate subcategories. Whenever possible, data in vertical columns should have the same unit of measurement. Divide overly long tables into 2 or more tables, for example, 1 table for men and 1 for women. Multipart tables are not acceptable.

Table titles should give details on the place of the study, the time of the study, and the study population (if applicable). The designation “Table 1” should be typed flush left, followed by a period and the title. In the title, capitalize all main words, including prepositions of 4 or more letters. For example, “Baseline Characteristics of Infants With Initial and Follow-up Screening, London, United Kingdom, 2001–2003.” (In the text, use an uppercase beginning letter for the words "Table," "Figure," and “Appendix.”) In the table body, leave blank spaces for no entry; avoid using dashes. Order of footnotes: 1) Abbreviations: (no footnote symbol, listed alphabetically, separated by semicolons); 2) other footnotes as necessary, each preceded by a superscript lowercase letter.

REQUIREMENTS FOR FIGURES

Letters, numbers, decimal points, and symbols should be large enough and sharp enough to be readable when figures are reduced and scanned (no smaller than 8 pt in print). All figures will be reduced to fit either in 1 column or within the 2 column width of the Journal page. On maps, add scale (in kilometers or meters) and direction north.

All multipanel figures should have locants to identify each panel. Locants should be capital letters followed by a closing parenthesis, for example, A). Locants should be approximately the same size as the rest of the text in the figure and should appear above and completely to the left of the y-axis title.

When plotting relative measures of effect (e.g., relative risks, relative odds), a logarithmic scale must be used unless there is a compelling reason to use an arithmetic scale. If bars are used to plot the relative measures, they should start at the baseline level of 1.0 rather than at zero.

Figure legends should not be included on the figures themselves but should be typed after the reference list. Each legend should be a separate paragraph and should include details on the place of the study, the time of the study, and the study population (if applicable). Define all figure abbreviations in the legend.

Authors should submit their figures with the manuscript. Color figures are not recommended; there is a per-figure charge to print in color. The charge per color figure is £350 / $600 / €525. Color figures can be published at no charge as Web-only material (refer to the Supplementary Data section of these Instructions). Figures with gray tones are not recommended either. For clarity, use polka dots, hatch marks, or other line art markings instead of grays to differentiate from either black or white. If your figures were created in Word, Excel or PowerPoint, then please submit in that format. For all other programs, please save these figures directly to either EPS or PDF files and submit in that format.

REFERENCES

Number references consecutively in the order in which they are mentioned in the text. Reference numbers in the text are full-sized Arabic numerals in parentheses within the sentence. For 3 or more consecutive references cited all at once, use, for example, (1-4). Format other references as (4, 5, 12), with spaces between the reference numbers.

When directly quoting material in the text, give the reference number followed by the page number(s) of the quotation, for example, (24, p. 65).

Important: All statements of scientific fact should be referenced. Failure to do so may cause considerable delay in processing the manuscript and may necessitate renumbering of the references.
References to personal, written communications should be inserted in parentheses in the text rather than in the reference list. Give the person’s name, institutional affiliation, "personal communication," and the year. Verbal communications are not acceptable as supporting documentation.

The reference list should be limited to published or "in press" references. No "submitted" manuscript should appear in the reference list. A manuscript submitted for publication but not yet accepted may be referenced in parentheses in the text. Give the author's name, institutional affiliation, and "unpublished manuscript." Unpublished data may also be cited in the text (e.g., communications with the paper’s coauthors). However, authors should not refer to "forthcoming" papers or promise future publication of results.

References must be verified by the author(s) against the original documents and must give the exact authors' last names, initials, and article title. Please supply the entire page range and issue number (in parentheses); see examples below. If only 1 page number is given, indicate in parentheses after the title whether the reference is a letter, an editorial, or an abstract. For manuscripts accepted (not submitted) but not yet published, designate the journal followed by a period and then “In press.” For references to papers presented at conferences, give the location (city and state or country), month and days, and year of the conference. For references published online in advance of print publication, provide the journal abbreviation followed by the digital object identifier (DOI) number in parentheses.

For articles originally published in a language other than English, indicate the language in parentheses after the article title provided in English.

Examples of correct forms of references follow. Type references double-spaced. The titles of journals should be abbreviated according to the List of Journals Indexed in Index Medicus (published by the National Library of Medicine). For more than 3 authors, list the first 3 and add "et al."

**EXAMPLES OF REFERENCE STYLE**

**Standard journal article**

**Standard journal article with a published correction/erratum**

**Journal article with digital object identifier (article not yet in print)**

**Article in an online-only journal that accounts for the lack of a page range**

**Secondary Citation**

**Secondary Quotation**

**Book**
Software manual
Stata Corporation. Stata statistical software, release 9. College Station, TX: Stata Corporation; 2005.

Media reference


Sample Form: Master’s Thesis Committee Nomination Form

From: [Graduate Program Director]

To: Dean of the Graduate School

Subject: Master’s Thesis Committee for [student’s name and ID number]

Date:

I recommend the following Graduate faculty members to serve as the Master’s Thesis Committee for [Student’s name]:

1. [name], Chairperson
2. [name], Member
3. [name], Member

_____________________________________
Signature

_____________________________________
Name and Title
Sample Form: MS Thesis Signature Page

[TITLE]

A Masters Thesis Presented

By

[Name in Full]

Approved as to style and content by:

(signature)

[Chairperson’s name, typed]

(signature)

[Member’s name, typed]

(signature)

[Member’s name, typed]

(signature)

[Department Chair’s name, Department, typed]
Sample Form: MPH Project Signature Page

[TITLE]

An MPH Project Presented

By

[Name in Full]

Approved as to style and content by:

(signature)

[Chairperson’s name, typed]

(signature)

[Member’s name, typed]

(signature)

[Member’s name, typed]

(signature)

[Department Chair’s name, Department, typed]
SAMPLE MS THESIS CALENDAR
2014-2015
Epidemiology program

Fall Semester
September 2  Fall semester classes begin

Recommended dates for preparation of components of thesis proposal and submission to Thesis Chair
September 12  Thesis topic finalized; Thesis Chair determined
September 19  Specific aims finalized; Thesis committee finalized
October 10   Literature review completed
October 24   Methods completed
October 31   Data analysis plan completed
November 7   Limitations completed

November 14  Target date to provide MS thesis committee with complete draft of thesis proposal
(allowing committee 10 days for review and candidate 1 week for changes)
December 5  Fall semester classes end

Spring Semester
January 20  Spring semester classes begin
March 10   Last possible day to provide MS committee with complete draft of the thesis
           (allows committee 10 days for review prior to approval)
March 20   Last possible day to schedule MS oral thesis defense
(late March)  Deadline for submitting abstract for Research Day
April 3    Last possible day for MS oral thesis defense
(early April)  Research Day
April 10  Degree eligibility forms and tracking forms due to Gloria Seaman
April 17  Degree eligibility forms due to Graduate School
April 29  Spring semester classes end
May 12  Grades due to Registrar
SAMPLE MPH PROJECT CALENDAR
2014-2015
Epidemiology program

Fall Semester
September 2    Fall semester classes begin

Recommended dates for preparation of components of project proposal and submission to Committee Chair
September 12  Project topic finalized; Chair determined
September 19  Specific aims finalized; Committee finalized
October 10    Literature review completed
October 24    Methods completed
October 31    Data analysis plan completed
November 7    Limitations completed

November 14    Target day to provide MPH project committee with complete draft of thesis proposal
(allows committee 10 days for review and candidate 1 week for changes)
December 5    Fall semester classes end

Spring Semester
January 20    Spring semester classes begin
   (late March) Deadline for submitting abstract for Research Day
   (early April) Research Day
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April 17     Degree eligibility forms due to Graduate School
April 24     Last possible day to provide MPH committee with complete draft of the thesis
(allows committee 10 days for review prior to approval)
April 29    Spring semester classes end
May 5        Last possible day for MPH oral thesis defense
May 12    Grades due to Registrar