Policies and Procedures
Doctorate of Public Health Degree
For Students Entering Fall 2022
Every student should become familiar with this manual and all of the above materials. It is the responsibility of each student to make sure that all academic requirements and deadlines are met. Whenever in doubt, contact the School of Public Health Graduate Program Office for further information.
### CONTACT INFORMATION

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**Epidemiology Faculty** (can serve as thesis and project committee CHAIRS & MEMBERS)

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**Epidemiology Faculty** (can serve as thesis and project committee MEMBERS only)

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Updated January 2022

- Updated information throughout to align with degree requirements, including links to recent forms and removal of obsolete degree requirements.

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Updated January 2021

Effective for students incoming Fall 2021:
- Updated degree changes as a result of CEPH accreditation changes:
  - Total credits for PhD increased to 82 credits from 81 credits
  - New required course for PhD students SPHHS 600
  - BIOSTAT 597D now a required course for PhD students (fulfills one of three seminar credits)

Other changes to the student handbook for Fall 2021:
- Added list of graduate level courses for doctoral students in SPHHS (Appendix A)
- Expanded list of second minor example topics and course work (Appendix B)
- Sample timeline for progressing through the PhD program added to Section III.
INTRODUCTION

A. Philosophy of the Program

The PhD program is a degree given within an academic concentration in Public Health. While each student chooses a major (Epidemiology) and two minor concentrations (Biostatistics and other), the PhD degree is granted in Public Health and not in an individual concentration. The course of study is focused on (1) the development of an advanced research-oriented competence in a major area in Public Health, (2) an understanding of the approaches and issues in a minor area, and (3) a familiarity with the principles and practices of Public Health in general.

B. Basic Requirements

Doctoral students have their major area of concentration in epidemiology, a minor concentration in biostatistics, and a second minor concentration of their choice. Minimal expectations are 24-credit hours of course work in the major concentration, 12 credit hours in biostatistics, 12 credit hours in a second minor area, and completion of three 1-credit doctoral seminars. Each student takes a comprehensive written examination. Upon the successful completion of the qualifying examination the student undertakes an 18-credit dissertation. A proposal outlining the dissertation must be presented orally to the dissertation committee prior to the commencement of significant work on the dissertation.

C. Residency Requirement

A doctoral candidate must spend the equivalent of at least one continuous academic year of full-time graduate work (nine credits per semester) in residence at the University. The residency year must be either in a Fall/Spring or Spring/Fall sequence. During this year, the student must spend some part of each week physically on campus. Doctoral students enrolled in recognized off-campus programs may satisfy this regulation at their off-campus site.

D. PhD Advisor

After acceptance into the PhD program and prior to starting the program in September, students will be assigned an academic advisor. Once an advisor is assigned, it is important for the student to work closely with the advisor and other relevant faculty to develop a study plan which clearly documents how the academic program will be focused. The academic advisor assigned at the beginning of study may or may not be selected as the student’s dissertation chair, who will then serve as the student’s primary advisor. Students are encouraged to meet with all members of the Epidemiology faculty during their first year(s) in the program to identify faculty with common research interests and active research projects to which the student may contribute.

E. Full-time status requirements

Information regarding academic status can be found at the website for the Graduate School in the Frequently Asked Questions section, in the Graduate Student Handbook, and the Graduate School Bulletin.

In brief, students enrolled in ≥ 9 credits/semester are considered full-time. In addition, doctoral students are considered full time if they: 1) are preparing for the comprehensive exams; or 3) have passed their comprehensive exams, are paying program fees, and are working on their dissertation; in these instances, the student’s faculty advisor needs to certify in writing to the Graduate Program Director that the work is equivalent to the effort of a full time student for each applicable semester.
F. General Chronology of Progress and Expectations

The following lists the major requirements for the PhD degree in Epidemiology and a general order in which they can and should be completed. Some deviation from this order of events is acceptable, but students should work with their advisor and/or dissertation chair ahead of time to get approval where required.

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<th>Sample Timeline for PhD Progress and Expectations for a May Graduation</th>
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<td>□ Minimum of 2 weeks before proposal defense</td>
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<td>□ Minimum of 2 weeks before final oral defense</td>
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<td>□ After successful final defense</td>
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G. Statute of Limitations

The Statute of Limitations (SOL) is the period within which all degree requirements must be completed. It is determined during the acceptance process using the following guidelines: Doctoral degrees for new doctoral students starting in or after Summer 2009, the SOL is set at six (6) years prior to achieving candidacy and five (5) years once candidacy is achieved. Candidacy is achieved after passing the Comprehensive Exam.
A. **Public Health Core (7 credits)**

Students must demonstrate mastery of introductory concepts in epidemiology, biostatistics, and public health.

- BIOSTATS 540: Introductory Biostatistics (or equivalent)
- EPI 630: Principles of Epidemiology
- SPHHS 600: Great Challenges in Public Health and Health Sciences II

B. **Epidemiology and Biostatistics Core (21 credits)**

These courses provide students with a foundation in epidemiology and biostatistics. Students are required to complete these courses prior to taking the Comprehensive Exam, with the exception of EPI 631, which should be taken after completing the Comprehensive Exam.

- EPI 600: Introduction to Management of Epidemiologic Data
- EPI 631: Scientific Writing to Thesis, Dissertation and Grant Proposals
- EPI 632: Applied Epidemiology
- BIOSTATS 640: Intermediate Biostatistics (or equivalent)
- BIOSTATS 691F: Data Management and Analysis with SAS
- EPI 700: Analysis of Epidemiology Data
- EPI 737: Intermediate Methods in Epidemiology

C. **Epidemiology Electives (12 credits)**

At least 12 credits of elective courses in epidemiology must be completed. Independent Studies supervised by Epidemiology faculty may be counted as epidemiology electives. However, no more than 6 credits of independent study are allowed. Students must complete 12 credits of epidemiology electives prior to taking the Comprehensive Exam. Up to 6 credits may be waived due to prior equivalent coursework. Examples of courses considered Epidemiology Electives are as follows:

- EHS 600: Molecular Epidemiology
- EPI 633: Infectious Disease Epidemiology
- EPI 634: Nutritional Epidemiology
- EPI 635: Social Epidemiology
- EPI 636: Epidemiological Assessment
- EPI 639: Cancer Epidemiology
- EPI 640: Reproductive Epidemiology
- EPI 680: Epidemiology of Women’s Health
- EPI 690E: Environmental Epidemiology
- EPI 690G: Genetic Epidemiology
- EPI 790M: Population Mental Health-Epidemiology and Intervention

D. **Research Seminar (3 credits)**

At least 3 credits of doctoral seminar must be completed. These must include at least one semester each of: EPI 892A (Doctoral Seminar); EPI 892BW (Advanced Methods Seminar); and BIOSTATS 597D (Introduction to Statistical Computing with R). This upper level seminar explores advanced research methods and current research issues in public health. Given that (a) public health professionals often work in interdisciplinary teams and (b) that knowledge of a broad range of methodological approaches is necessary to address evolving and changing research priorities, the doctoral seminar offers a unique opportunity for the advanced study of research issues and methods. At least one (1) credit of doctoral seminar must be completed prior to taking the Comprehensive Exam.
E. Biostatistics Minor Courses (6 credits)

A minor in Biostatistics is required for the PhD in Epidemiology. The courses taken as part of the Epidemiology and Biostatistics Core (BIOSTATS 640 and EPI 700) must be completed prior to taking the Comprehensive Exam. In addition to BIOSTATS 640 and EPI 700, 6 additional credits in biostatistics must be taken. These credits do not need to be completed prior to taking the Comprehensive Exam. Examples of courses considered appropriate for the Biostatistics minor are as follows:

- BIOSTATS 597E: Intermediate Statistical Computing (1 credit)
- BIOSTATS 590A: Advanced Statistical Computing (1 credit)
- BIOSTATS 683: Introduction to Causal Inference
- BIOSTATS 730: Applied Bayesian Statistical Modeling
- BIOSTATS 740: Analysis of Mixed Models and Longitudinal Data
- BIOSTATS 743: Analysis of Categorical Data in Public Health
- BIOSTATS 748: Applied Survival Analysis

Courses offered outside SPHHS may meet this requirement. Examples of such classes have included (check SPIRE for updated information):

- EDUC 637: Nonparametric Statistical Analysis in Ed and Psych
- EDUC 652: Mixed Methods Research
- EDUC 731: Structural Equation Modeling
- EDUC 771: Applied Multivariate Statistics 1
- STAT 525: Regression and ANOVA
- STAT 535: Statistical Computing
- PSYCH 640/1: Statistical Inference in Psychology I/II
- PSYCH 891W: Introduction to Structural Equation Models
- PSYCH 891J: Hierarchical Linear Modeling

The student’s mastery of the material in the biostatistics minor is evaluated as a component of the comprehensive exam, integrated within the three sections of the exam but primarily in the Data Analysis Section.

F. Second Minor Concentration (12 credits)

A second minor in an area relevant to the student’s area of research must be completed. These courses should fit within a unifying theme, and be relevant to the dissertation topic. No more than 6 credits of the coursework for the second minor may be from Independent Studies. The courses should be graduate level courses (see the grad school handbook for exceptions) in a focused area to constitute their second minor, and should be chosen in consultation with the student’s advisor. These credits do not need to be completed prior to taking the Comprehensive Exam. Examples of minor concentrations and associated coursework can be found in Appendix A.

G. Other elective (3 credits)

An additional 3 credits of graduate coursework must be completed prior to completion of the degree. These credits may be taken in any field relevant to the student’s research interests and do not need to be completed prior to the Comprehensive Exam. Examples of graduate-level coursework taken by doctoral students in the School of Public Health is provided in Appendix B.

H. Dissertation Research (18 credits)

Students are required to register for 18 credits of dissertation research before graduating, and may start registering for dissertation credits upon successful completion of the Comprehensive Exam.
I. Waiver of Courses Due to Previous Training in Epidemiology

Students with a previous Master’s degree in Epidemiology may petition the faculty to waive required courses and their accompanying credits, given the requirement will have already been met. Courses that may be waived (e.g., due to previous equivalent course completion) include:

- Public Health Core courses,
- Epidemiology and Biostatistics Core courses,
- Epidemiology Electives (up to 6 credits),
- Second minor concentration (up to 6 credits).

To be considered for waiver, previous coursework must have been completed within 10 years of the student’s request and must not have been already applied towards completing another requirement for the PhD in Epidemiology.

To petition for a waiver of a specific course, the student must email their academic advisor with the course(s) they wish to waive and a brief description of the previous equivalent courses completion for the waiver. Any courses that are waived should be indicated on the student tracking form. Since this coursework is an essential part of the doctoral plan of study, students waiving course requirements will still be responsible for this material on the comprehensive exam.

J. Policy for Courses Taken Outside of UMass Campus (online, UMass Worcester, etc.)

Students are strongly encouraged to take all classes on campus, even when there may be online or off-campus alternatives. There are a number of courses that potentially could count toward degree requirements offered off main campus, including online courses through Continuing Education and courses taught at UMass Medical (Worcester), both of which share course numbers and titles as those offered on campus. Students should take all Public Health Core courses and all Epidemiology and Biostatistics Core courses on campus unless prior approval is given otherwise. For other courses, students should request approval from their advisor before registering for online or off-campus courses.

K. Grading

Students must take all required coursework, except for the Doctoral Seminar (EPI 892A and EPI 892BW), for a letter-grade. To earn credit for a course, students must earn a B- or better.
The Comprehensive Examination

All PhD students must pass the written Comprehensive Exam prior to beginning serious work on their dissertation. The PhD Comprehensive Exam in Epidemiology is intended to be primarily integrative rather than a retesting of specific material already covered in course examinations.

A. Eligibility to take the Exam

Students are eligible to take the Exam after they have completed the following:

1. Public Health core classes:
   - BIOSTATS 540 (or equivalent)
   - EPI 630
   - SPHHS 600

2. Epidemiology and Biostatistics core:
   - EPI 632
   - BIOSTATS 640 (or equivalent)
   - EPI 700
   - EPI 737

3. At least 1 semester of doctoral seminar:
   - EPI 892A or EPI 892BW

4. At least 12 credits of elective courses in epidemiology

5. At least 2 semesters of residency in the doctoral program

Under extreme circumstances, students may request minor deviations from the eligibility requirements above. This request should be made in consultation with the academic advisor and must be approved by the entire Epidemiology faculty.

B. Timing and Structure of the Comprehensive Exam

The Comprehensive Exam tested student’s knowledge, understanding and ability to apply fundamental concepts in Epidemiology and Biostatistics. All material covered in course work required for the exam may be included on the Exam.

The Comprehensive Exam is given once per year and is held over three consecutive days. Beginning in 2020, the Exam is administered after the end of the Spring semester in May. The Exam consists of three sections, each of which is weighted equally. These sections are 1) Study Design, 2) Study Critique, and 3) Data Analysis. The logistics/timing of the sections may vary from year to year. Generally, the exam begins at 9am and students are given approximately 3 hours each day. One section is administered per day. Additional information regarding the content and structure of the exam will be provided by the faculty member serving as Epidemiology Doctoral Exam Coordinator.

Students will be made aware of which questions are scheduled for which days ahead of time. The faculty members who developed the questions on a given day will be available from approximately 9:00am-10:00am to clarify any questions that arise.

For the Study Critique section, students are asked to read a specific published paper prior to the examination. One week prior to the Comprehensive Exam, students will receive the paper for the study critique. This paper will be available in hard-copy at the Department office and will also be sent to students electronically via their university email address. Students may not discuss or consult with anyone regarding the study and related issues. It is neither expected nor appropriate to look up any other material on the subjects of the papers or any reviews or critiques of the papers. The marked up copy of the paper may not be brought to the exam. However, a fresh copy of the critique paper will be provided at the time of the Exam.
For the Data Analysis students may bring an 8.5”x11” sheet of paper (both sides) with formulas/text relevant to the Data Analysis exam. Any needed reference tables (e.g. normal distribution) will be provided as part of the exam.

Allowable materials

The Exam is closed book. Students are asked not to bring books or papers or other class-related materials, aside from a purse/small bag and a calculator, into the exam room. Students may use a laptop to complete the Exam instead of hand-writing their answers. A USB drive will be provided to each student to write and submit answers to the department faculty. Students may have cell phones in case of emergencies but phones should be muted and not used during the Exam.

Academic Honesty

Students do not need to erase any computer files from laptops used for the Exam but it is expected that they will not refer to them. You are expected to follow the Graduate Student Honor code found in the Graduate Student Handbook, as follows:

*It is expected that all graduate students will abide by the Graduate Student Honor code which reads as follows: We, the graduate students of the University of Massachusetts at Amherst, hereby affirm that graduate students do not lie, cheat, or steal, or willingly tolerate those who do. We do not plagiarize the work of others, falsify data, or knowingly allow false data to be generated or published with our compliance. We do not harass or discriminate against others for reasons of race (phenotype), creed, sexual orientation, or political belief, or keep faith with those who do.*

Blinding

Grading of the Comprehensive Exam is blinded. Students will be assigned an ID name by the Department Administrator prior to starting the Comprehensive Exam. This ID name should be used on all Exam answers.

C. Preparation for the Exam

A meeting to discuss the Exam will be scheduled for the Fall semester prior to the Exam. Any student interested in taking the Exam the coming Spring may attend. This meeting will cover study strategies as well as review the general structure and expectations for the Exam. Students will also be provided with a complete copy of the previous year’s exam at this time for reference, but not with an answer key. To prepare for the Exam, students have often found it useful to form study groups with one or more of their peers also taking the Exam.

D. Grading of the Exam

Faculty members will provide Exam results to students within two weeks from the end of the Exam period. Students will be notified of the Exam results in writing by letter in their campus mailboxes, along with an email notification indicating that results are available. At this time results will also be forwarded to the Graduate Program Director. After three days, results can also be emailed to the student’s university email address, upon request.

Each section is graded by the faculty member writing the question, along with one additional faculty reader. Individuals writing and grading each question are provided to students ahead of time. After faculty grade individual sections, program faculty as a whole meet to discuss exam results and determine final grades for each section.

Each section of the Comprehensive Exam is graded separately as: “Pass with Distinction,” “Pass,” “Conditional Pass,” or “Fail.” If a student receives a “Pass with Distinction” or “Pass,” they are considered to have passed the Exam and may move forward with their dissertation preparation. Students who receive a “Conditional Pass”
are expected to complete additional coursework and/or training, as specified in their Exam results. After the conditions stated in the Exam results are met, the student is considered to have passed and no additional action is required. Examples of conditions may include completion of additional coursework or seminar work, or redoing or discussing question with faculty.

If one or more sections are failed, a single re-examination of the failed section(s) is/are allowed. The retake will occur the next time the Comprehensive Exam is regularly scheduled, generally one year later. Failure to pass any previously failed section(s) on the second attempt results in an automatic dismissal from the Doctoral Program. Students failing one or more sections have up to 2 years to retake the Exam before dismissal from the PhD program.

A student who does not pass the qualifying exam on the first or second attempt may request transfer from the PhD program to the MS program in Epidemiology (non-thesis track) prior to dismissal from the program. In this situation, the advisor will review the student’s transcript to determine that all course requirements for the MS degree (non-thesis track) have been met. In addition, the faculty will re-grade the student’s most recently qualifying exam to determine if the student has demonstrated sufficient mastery of the material consistent with expectations for the MS degree. If the faculty unanimously determine that the student has passed the exam at a Master’s level, the student will be judged to have passed a Master’s General Examination. The date of passage of the exam will then be the date the exam was re-graded. The advisor will submit a memo requesting the transfer to the MS program to the Graduate Program Director. Students are then required to complete any outstanding coursework required for the MS degree prior to awarding of the MS degree.
The dissertation represents the culmination of the PhD degree program. It is intended to be a demonstration of the student’s ability to conceive, plan, execute, and analyze a substantial research project. The dissertation must contain original research. In the process the student is expected to develop both methodological and technical skills and to establish professional working relationships with the members of the dissertation committee. In addition, the student is expected to demonstrate considerable skill in communicating the results of the research at the final doctoral oral examination (dissertation defense).

A. Timing

Work on the dissertation normally begins only after successful completion of the comprehensive examinations (written). If dissertation work is begun prior to that time, the student is “at risk” for any investment of time or resources and this premature involvement constitutes neither endorsement of the project nor support for its continuation. Under no circumstances may the student register for dissertation credits prior to successfully completing the comprehensive examinations. The number of required dissertation credits in the School is eighteen (18) and is the number of dissertation credits required by the Graduate School. A student can register for a maximum of nine dissertation credits a semester.

If a student elects to begin work on a dissertation project prior to completion of the Comprehensive Exam, this work must be undertaken with the knowledge and consent of all faculty members who are likely to be included on the Dissertation Committee. The student should work closely with his/her advisor to make sure all appropriate faculty have a chance to contribute to the research and serve as coauthors prior to the submission of any work for publication.

B. Process

B1. Dissertation Committee

Planning for the dissertation research usually begins with the informal exploration of the topics that are of interest to the student and to a faculty member who is likely to be named as chair of the dissertation committee. Once a specific topic or problem has been defined, the next step is to obtain a formal commitment from a faculty member in the major area of concentration to chair the committee. In conjunction with the Committee Chair, other committee members should be recruited who can provide the expertise to help carry out the research project.

The committee must meet the following guidelines:

1) Be composed of no less than four (4) full-time graduate faculty from UMass.
2) The Committee Chair must be full-time tenure-track graduate faculty in Epidemiology (a list of eligible faculty is provided in the CONTACT INFORMATION section).
3) Two committee members must be faculty in Epidemiology (a list of eligible faculty is provided in the CONTACT INFORMATION section).
4) One member must be a graduate faculty member from another program or department. It is highly recommended that the committee include a faculty member with substantive knowledge in the specific research area most relevant to the dissertation.
5) It is highly recommended that the committee includes a Biostatistics faculty member, but is not required.
6) At least three members must have their primary appointment in the School of Public Health.

Also, additional persons who are not UMass graduate faculty or who are adjunct graduate faculty from outside the University may be appointed only as (non-voting) consultants. Once the Dissertation Committee Chair and
other Members are determined, students should provide this information to the Graduate Admissions Specialist and/or the Graduate Program Director by email, and copy their Committee Chair on the email. Subsequently, the Graduate Program Director will submit the Committee Membership to be filed with the Graduate School.

B2. Dissertation Pre-proposal /one-page prospectus

After the dissertation committee chair and members have been formally named, but prior to completing the Dissertation Proposal, students are expected to complete a pre-proposal. The pre-proposal is a concise description of the planned dissertation work, and should describe the overarching theme linking the individual dissertation papers, provide the rationale for the proposed research and basic methods, and briefly outline each of the individual papers. The pre-proposal should be roughly one page in length and provide sufficient detail for the dissertation committee to assess feasibility and suitability of the dissertation topic. Approval of the pre-proposal by all committee members is required. As this document is not required by the graduate school there are no specific formatting requirements.

B3. The Dissertation Proposal

After the one-page prospectus has been approved, students are required to satisfactorily develop and defend their Dissertation Proposal. The Dissertation Proposal should be developed in collaboration with, and must be approved by, the Dissertation Committee. Once approved, students should complete the Dissertation Proposal Signature Form and email it to the Graduate Program Director and Department Administrator. Students are encouraged to work closely with their Dissertation Committee for planning of the Proposal Defense.

Developing the Dissertation Proposal

Students should work primarily with the chair in developing the proposal and in consultation with the other committee members for their input. The proposal generally includes three chapters, each presenting one of the three papers to be included in the dissertation.

The formatting requirements for the Written Dissertation Proposal do not specify section headings or an outline. However, a recommended format for each chapter of the proposal is presented below. Because multiple chapters may include the same exposure or outcome, the same study population, etc, students and chairs may decide to shorten specific sections of individual chapters in order to avoid unnecessary redundancy in text:

1) Abstract
   - A short synopsis of the background, significance, aims, methods, and anticipated outcome of the research

2) Statement of the Problem
   - A background statement outlines the nature of the problem to be studied and indicates the contribution the study will make.

3) Brief Review of the Literature
   - A brief review of the literature should include at least several primary articles or recent review papers and should document the major issues to be addressed in the proposed project. It is expected that this section will define the conceptual background of the project.

4) Research Questions (Hypothesis)
   - A statement of the questions to be addressed, the goal(s) of the project, or the hypothesis.

5) Methods
The central feature of the proposal. This section should provide the details on how the study will be carried out. Usual sections include:

a) Study population
b) Study design
c) Definitions of dependent and independent variables (instruments, procedures, etc.)
d) Table of variables indicating which are dependent, independent, or control including level of measurement for each variable (nominal, ordinal, interval, ratio)
e) Data analysis plan
   i. General strategy of analysis
   ii. Statistical procedures to be used
   iii. Include dummy data tables for main hypothesis
   iv. Sample size and/or power calculations
f) Study Limitations: to demonstrate an understanding of the limitations of the study and any anticipated problems that may be encountered.
g) Significance: There should be some thoughtful comments explaining the importance of the anticipated outcome(s) such as contribution to program effectiveness, better understanding of the etiology of disease, improvement in prevention activities, etc.
h) Human Subject Protection: This section should indicate the procedures which will be used to insure confidentiality and protection of the privacy of the subjects. An informed consent statement should be included if original data are being collected. The section should indicate whether an outside agency Institutional Review Board (IRB) approval of the project is involved. If there is no other human subjects review, the proposal will be referred automatically by the Graduate Program Director to the School’s Institutional Review Board. In this case the student is responsible to obtain an IRB form from the Graduate Program Director to be filled out and turned in at the same time as the finished dissertation proposal. Data collection from human subjects, or use of confidential records, may not proceed until an IRB approval has been obtained.
i) Access to study population or faculty/agency database. Include a written statement from the agency (or faculty owner) or gatekeeper of a data set or population to be studied indicating their willingness to grant you access to the information or the population.

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 dissertation proposals similar to theirs as available from any faculty member. But the up-to-date outline included in this write-up should be followed.

Format for the Proposal

It 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 dissertation proposal.

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.

Timelines for the Proposal
There are no specific timing requirements regarding the written dissertation proposal. However, it is expected that students will complete the written proposal within 1 year after approval of the one-page prospectus. Although this expectation does not represent a formal deadline, students should work closely with their dissertation committee chair to ensure that the student continues to make satisfactory progress and will not exceed the statute of limitations.

Students should distribute the Written Dissertation Proposal to the Committee at least two weeks prior to the Oral Presentation and Defense.

**Human Subjects**

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.

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.

**B4. Oral Presentation/Defense of the Proposal**

Students are required to give an oral presentation of the proposed research described in the Written Dissertation Proposal. The presentation should highlight key elements of the written proposal. The formal presentation (assuming no interruptions) should take approximately 45 minutes.

As part of the Oral Defense of the Dissertation Proposal, following the presentation and a general question period non-committee members will be asked to leave the room and students are required to field questions from the dissertation committee members. It is expected that these questions largely will pertain to the proposal; however, students may be asked to answer questions to assess the student’s knowledge of the area of research relevant to their dissertation research topic. It is expected that the oral presentation plus defense should take approximately two hours, after which students will be asked to leave the room to allow the members of the dissertation committee to decide among the following grade options: pass, pass with conditions, or fail. Following that decision, the committee will ask the student to return in order to discuss their decision and provide comments and constructive feedback on the presentation and proposed research plan. It is expected that no more than two attempts at this stage will be required for a student who expects to earn a doctoral degree.

As part of the Oral Defense of the Dissertation Proposal, following the presentation and a general question period non-committee members will be asked to leave the room and students are required to field questions from the dissertation committee members. It is expected that these questions largely will pertain to the proposal - including methodological issues as well as relevant substantive matters; however, students may be asked to answer questions to assess the student’s knowledge of the area of research relevant to their dissertation research topic.

Questions pertaining to the students minor area - both substantive aspects of the proposal and general questions, comprise the **Minor Exam**. If these responses are deemed adequate, the student is considered to have successfully completed the **Minor Exam**. Failure to receive a passing grade on the **Minor Exam** will be addressed on a case-by-case basis: students should consult with their advisor for additional information.

It is expected that the **Oral Presentation/Defense** should take approximately two hours, after which students will be asked to leave the room to allow the members of the dissertation committee to decide among the following grade options: pass, pass with conditions, or fail. Following that decision, the committee will ask the student to return in order to discuss their decision and provide comments and constructive feedback on the presentation and proposed research plan. It is expected that no more than two attempts at this stage will be required for a student who expects to earn a doctoral degree.
B5. Carrying Out the Dissertation Research

The dissertation committee chair is expected to assume the major role in guiding the student through the dissertation research. Other faculty generally contribute to selected aspects of the research. It is important that the student keep each of the committee members up-to-date on significant aspects of the research. In the case of conflicting or extreme demands from the committee, the student should inform the Committee 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.

Writing the Dissertation

Be sure to strictly follow the Graduate School Guidelines for Master's Theses to the letter. 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.

The chapter headings of the dissertation are as follows: Introduction; Review of the Literature; Methods; Results; Discussion. As with all scientific writing, the writing of the dissertation 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 not their primary language.

B6. Final Doctoral Oral Examination (Dissertation Defense)

Scheduling the Defense

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 complete the Checklist for Doctoral Oral Examinations. The student can work with the Department Administrator and request that the defense be scheduled. Please note the following:

- the Graduate School must have the announcement of your final oral exam ONE MONTH before the defense;
- the date, time and location of the defense must be advertised to the public for at least 1 week; and
- cannot be held without this requisite advance notification.

Who May Attend the Dissertation Defense

The Graduate School requires that every member of the Dissertation Committee be present for the examination, or the defense must be rescheduled and re-announced in the same manner. The dissertation defense is public. Departmental faculty member and students are welcome to attend.

The Dissertation Defense Process

Note that the Graduate School requires that all members of the committee must be present for the defense to be held. Each committee member shall have received a "final" polished version of the dissertation 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/clarification are asked during the presentation, but matters of substance are held for the question period.

Outcomes of the Dissertation Defense

When the presentation is finished, the Committee 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 candidate must receive a unanimous vote. Committee members may recommend
additional minor changes to the dissertation at this time, as some new issue may have been raised during the
dissertation defense question period.

Students defending dissertations should complete the Dissertation Signature Form which will be signed by all
committee members indicating that the student has passed the defense. The committee chair signs the
signature sheet only when the final copy of the corrected thesis is received. The Department Chair will then
sign the signature sheet after the committee chair. The MS Thesis Signature Form may be signed via DocuSign
(please email the Department Administrator for assistance with this).

B7. Submission of the Dissertation

After the Dissertation defense is successfully passed, students should work with their Dissertation chair to
complete any additional revisions required by the committee. After the chair has determined that the final
draft is acceptable and signs the Dissertation Signature Form, the student should submit the dissertation to
the Graduate School electronically through Scholarworks.

Archiving of dissertation data and statistical code

After the Dissertation defense is passed and prior to graduation, students should make sure that a final version
of their dissertation 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.

Publications from the Dissertation

Where the dissertation results are publishable, the student is encouraged to write-up a first draft of a
manuscript with him/herself as first author. If the student does not prepare a draft of a 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 a co-author. If multiple manuscripts will be prepared for submission for publication, additional time
may be provided to students to prepare these drafts, as may be necessary for work incremental to that for the
first manuscript. Students should work with their dissertation chair to discuss specifics regarding manuscript
preparation timing and authorship.

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.

Final Steps

1. Review the Checklist for Doctoral Degree Form and verify that you have met all of the
   requirements for graduation.

2. Pay the commencement and placement fees at the Graduate School Office of Degree
   Requirements.

3. Fill out the Doctoral Degree Eligibility Form from the Graduate School. The Eligibility Form must be
   reviewed and signed by the Departmental 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 PhD Epidemiology Tracking Form, which will serve as an archive copy of your
   record with the Department.

5. The PhD Epidemiology Tracking Form and the Doctoral Degree Eligibility Form should both be
filled out as soon as the dissertation defense is scheduled. Do not delay until the last moment.

6. Submit your dissertation to the Graduate School through Scholarworks, following procedures described on their website.

7. Submit one original copy of your signed Dissertation Signature Form to the Graduate Student Service Center.
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). 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 financial support opportunities are available within the program, SPHHS, and the Graduate School.

B. Research and Teaching Assistantships
Graduate research and teaching assistantships may be available and typically entail 10-20 hours per week paid according to a union negotiated pay scale. Further, graduate assistantships that are at least 10 hours per week include a benefit of tuition and fee waivers for at least one semester. Whether the fee waiver is for one or two semesters depends upon the number of hours worked (e.g., as of 2014, students working 20 hours/week for a full semester qualify for a full year tuition waiver). 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).

Depending upon the student’s background and skill set, they may qualify for assistantships in other departments/schools as well (e.g., nursing, nutrition, psychology); check these departmental websites for possible opportunities.

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

- **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.

- **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 Graduate Student Travel Grant application to the Biostatistics and Epidemiology Department Chair. Students receiving the funds should keep a copy of this signed form and all travel receipts.

- **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. Students should then complete the appropriate Travel Reimbursement Form, which requires all original receipts.

See Department 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 an exception from the Epidemiology Program that an exception to this policy be made.

D. 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 to find out about any current or pending research funding opportunities. (Note, there may also be unfunded opportunities available that, although they do not provide financial support, may provide you with valuable research experience).

The National Institutes of Health also offers very competitive pre-doctoral training funds for doctoral students, e.g., through F31 Fellowships. Interested students should be sure to discuss this potential option with their advisor.

E. Teaching experience

Obtaining teaching experience is very important for doctoral students. 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.

F. Slack Guidelines/Best Practices

- Make the space welcoming. Do not share video, images, posts, or comments that include vulgarity, racial slurs, trolling, or combative language, or language that may be considered defamatory or libelous.
- Protect account credentials. Do not share the Slack group with people outside of the Department.
- Keep confidential information confidential. Abide by FERPA and don't share student, employee, or alumni data; university business; or other confidential information.
SUMMARY OF USEFUL LINKS

- UMass Graduate School: [https://www.umass.edu/graduate/](https://www.umass.edu/graduate/)
- Graduate Student Handbook: [http://www.umass.edu/graduate/policies/handbook](http://www.umass.edu/graduate/policies/handbook)
- Graduate School Bulletin: [http://www.umass.edu/graduate/policies/graduate-school-bulletin](http://www.umass.edu/graduate/policies/graduate-school-bulletin)
- SPIRE: [http://www.spire.umass.edu](http://www.spire.umass.edu)
- Moodle: [https://umass.moonami.com/](https://umass.moonami.com/)
- TA, RA positions, and other job postings: [https://www.umass.edu/sphhs/career-opportunities](https://www.umass.edu/sphhs/career-opportunities)
  - Note: “Career Opportunities” is the phrase we use across all SPHHS sites and refers to specific, individual job/internship/assistantship posts that one can apply to. The opportunity links are temporary – either expiring with time or when filled.
  - “Career Resources” usually refers to websites that have information on how to find a job in that field, job search engines, external job boards, etc. The resource links are permanent and do not expire, though the content offered on the pages does change.
- ScholarWorks: [http://scholarworks.umass.edu/theses/](http://scholarworks.umass.edu/theses/)
- Human Subjects: [https://www.umass.edu/research/compliance/human-subjects-irb](https://www.umass.edu/research/compliance/human-subjects-irb)
- UMass Writing Center: [http://www.umass.edu/writingcenter/](http://www.umass.edu/writingcenter/)
- Doctoral Degree Checklist of Requirements to Graduate: [https://www.umass.edu/graduate/form/doctoral-degree-checklist-requirements-graduate](https://www.umass.edu/graduate/form/doctoral-degree-checklist-requirements-graduate)
- Doctoral Degree Eligibility Form: [https://www.umass.edu/graduate/form/doctoral-degree-eligibility-form-phd-and-edd-degrees](https://www.umass.edu/graduate/form/doctoral-degree-eligibility-form-phd-and-edd-degrees)
- UMass Travel Registry: [https://travelregistry.umasscs.net/](https://travelregistry.umasscs.net/)
- School of Public Health and Health Sciences Financial Aid Opportunities: [https://www.umass.edu/sphhs/graduate-programs/graduate-financial-aid](https://www.umass.edu/sphhs/graduate-programs/graduate-financial-aid)
- Epi Program Student Tracking Forms, Signature Pages, and Travel Form: [https://drive.google.com/drive/u/1/folders/1w626LQqTX969ziGTu3mR7EBRj8PvR9O-](https://drive.google.com/drive/u/1/folders/1w626LQqTX969ziGTu3mR7EBRj8PvR9O-)
APPENDICES

- Appendix A. Example Second Minor Topics and Coursework
- Appendix B. Review of Graduate-Level Course Offerings Taken by Doctoral Students in SPHHS
Appendix A. Example Second Minor Topics and Coursework

Sample second minor topics are provided below. A minimum of 12 credits of coursework is needed to complete the second minor. Appropriate courses for the second minor topic may be selected from the list provided below as well as in consultation with your advisor.

<table>
<thead>
<tr>
<th>Minor area: Human reproduction</th>
<th>Minor area: Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPI 591:, Reproductive Epidemiology</td>
<td>EPI 634, Nutritional Epidemiology</td>
</tr>
<tr>
<td>VASCI 521, Physiology of Reproduction</td>
<td>NUTR 640, Public Health Nutrition</td>
</tr>
<tr>
<td>HPP 582, Family Planning and Women’s Health</td>
<td>NUTR 577, Nutrition Problems in US</td>
</tr>
<tr>
<td>BIOL 568, Endocrinology</td>
<td>NUTR 741, Methods in Nutrition Research</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minor area: Genetics</th>
<th>Minor area: Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPI 690G, Genetic Epidemiology</td>
<td>EPI 639, Cancer Epidemiology</td>
</tr>
<tr>
<td>MICROBIO 330, Microbial Genetics</td>
<td>ANIMALSCI 581H, Cancer Biology</td>
</tr>
<tr>
<td>MICROBIO 565, Lab in Molecular Genetics</td>
<td>EHS 600, Molecular Epidemiology</td>
</tr>
<tr>
<td>MICROBIO 685, Concepts in Molecular Genetics</td>
<td>EHS 588, Developmental Origins of Disease</td>
</tr>
<tr>
<td>BIOL 586, Advanced Genetics</td>
<td>BIOL 568, Endocrinology</td>
</tr>
<tr>
<td>PSYCH 891BG, Behavioral Genetics and Epigenetics</td>
<td>MOLCLBIO 642, Advanced Molecular Biology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minor area: Health Disparities</th>
<th>Minor area: Environmental Epidemiology</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPI 635, Social Epidemiology</td>
<td>EPI 690E, Environmental Epidemiology</td>
</tr>
<tr>
<td>EDUC 652, Mixed Methods Research</td>
<td>BIOSTAT 683, Introduction to Causal Inference</td>
</tr>
<tr>
<td>HPP 590B, Social and Political Economy of Health Ineq</td>
<td>BIOL 568, Endocrinology</td>
</tr>
<tr>
<td>HPP 690J, Community-Based Participatory Research</td>
<td>EHS 588, Developmental Origins of Disease</td>
</tr>
<tr>
<td>PSYCH 891W, Intro to Structural Equation Models</td>
<td>EHS 666, Environmental and Occupational Toxicology</td>
</tr>
<tr>
<td>PSYCH 891J, Hierarchical Linear Modeling</td>
<td>BIOL 528, Principles of Evolution</td>
</tr>
<tr>
<td></td>
<td>EHS 690X, Exposure Assessment in Environmental and Public Health</td>
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<tr>
<td></td>
<td>EHS 565, Environmental Health Practices</td>
</tr>
<tr>
<td></td>
<td>CE-ENGIN 690R, Environmental Remote Sensing</td>
</tr>
<tr>
<td></td>
<td>ENVIRSCI 504, Air Pollution and Climate Change Biology</td>
</tr>
<tr>
<td></td>
<td>ENVIRSCI 597EC, Analytical Methods for Energy and Climate Policy</td>
</tr>
<tr>
<td></td>
<td>ENVIRSCI 597EJ, Social Movements and Environmental Justice</td>
</tr>
<tr>
<td></td>
<td>EHS 690X, Exposure Assessment in Environmental and Public Health</td>
</tr>
<tr>
<td></td>
<td>EHS 565, Environmental Health Practices</td>
</tr>
<tr>
<td></td>
<td>CE-ENGIN 690R, Environmental Remote Sensing</td>
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<td>ENVIRSCI 504, Air Pollution and Climate Change Biology</td>
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<td>ENVIRSCI 597EC, Analytical Methods for Energy and Climate Policy</td>
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<td>ENVIRSCI 597EJ, Social Movements and Environmental Justice</td>
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</tbody>
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## Appendix B. Review of Graduate-Level Course Offerings Taken by Doctoral Students in SPHHS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Brief Description/ Learning Objectives</th>
<th>When course last offered</th>
<th>Frequency of Course Offering</th>
<th># of Students Enrolled last time offered</th>
<th>Composition of students most recently enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOEPI 691</td>
<td>Data Management and Analysis in SAS</td>
<td>An introduction to data management for research projects in the biomedical sciences using microcomputers. Topics include design of data collection forms, data entry, computer managed documentation and statistical computing using SAS</td>
<td>Spring 2020</td>
<td>Approximately yearly: Was offered in Spring 2019, Fall 2017, but not in 2016-17</td>
<td>21</td>
<td>5 MPH Epi 1 MPH HPM 4 MS Epi 1 MS Biostats 2 PhD Epi 1 PhD Biostats 3 BS PHS 2 BS Math 1 MS Statistics 1 UG non-degree (5 Colleges)</td>
</tr>
<tr>
<td>COMM-DIS 643</td>
<td>Hearing Conservation</td>
<td>Effects of noise exposure on the functioning of the auditory system; principles of noise measurement; development of industrial hearing conservation programs.</td>
<td>Fall 2018</td>
<td>Only offered once between 2016-17 and 2019-20</td>
<td>11</td>
<td>Capacity = 15</td>
</tr>
<tr>
<td>COMM-DIS 693</td>
<td>Public Health Audiology</td>
<td>This course is designed to provide audiology graduate students with an understanding of audiology from a public health perspective. Special topics will include readings, lectures, and presentations related to the global burden of disease associated with hearing loss, issues related to access to</td>
<td>Spring 2020</td>
<td>Only offered once between 2016-17 and 2019-20</td>
<td>14</td>
<td>Capacity = 20</td>
</tr>
<tr>
<td>Course Number</td>
<td>Course Name</td>
<td>Brief Description/ Learning Objectives</td>
<td>When was course last offered</td>
<td>Frequency of Course Offering</td>
<td># of Students Enrolled last time offered</td>
<td>Composition of students most recently enrolled</td>
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</tr>
<tr>
<td>EHS 691</td>
<td>Research Methods and Research Ethics</td>
<td>affordable hearing healthcare, and national priorities for increasing access to care.</td>
<td>Fall 2019</td>
<td>Yearly: was offered in Fall 2018, Fall 2017, Fall 2016</td>
<td>6</td>
<td>2 MPH EHS 1 MS EHS 1 PhD EHS 1 UG Junior PHS</td>
</tr>
<tr>
<td>EPI 631</td>
<td>Scientific Writing for Thesis, Dissertation and Grant Proposals in Epidemiology</td>
<td>Graduate students research and present one-hour seminar on a topic related to Environmental Health, and research a topic for a term paper.</td>
<td>Fall 2019</td>
<td>Yearly: was offered in Fall 2018, Fall 2017, Fall 2016</td>
<td>12</td>
<td>2 PhD Epi 1 PhD Nut 5 MS Epi 4 MPH Epi</td>
</tr>
<tr>
<td>EPI 700</td>
<td>Analysis of Epidemiological Data</td>
<td>Goal of course is to help graduate students in epidemiology write effective proposals for theses, dissertations, and grants in the field of epidemiology and preventive medicine. Prerequisite: BIOST&amp;EP 630</td>
<td>Fall 2019</td>
<td>Yearly: was offered in Fall 2018, Fall 2017, Fall 2016</td>
<td>17</td>
<td>6 PhD Epi 1 PhD Nut 1 PhD HPM 5 MS Epi 4 MPH Epi</td>
</tr>
<tr>
<td>HPP 525</td>
<td>Ethical Issues in Public Health</td>
<td>Will be offered as a multimodal course in Fall 2020. This</td>
<td>Fall 2019</td>
<td>Yearly: Offered as online course</td>
<td>10</td>
<td>8 MPH PHP 2 Grad Non-Degree</td>
</tr>
<tr>
<td>Course Number</td>
<td>Course Name</td>
<td>Brief Description/ Learning Objectives</td>
<td>When was course last offered</td>
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<td># of Students Enrolled last time offered</td>
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</tr>
<tr>
<td>HPP 753</td>
<td>Research Ethics and Public Health</td>
<td><strong>Online course.</strong> We will explore the history of research ethics and we will assess the fundamental concepts that will guide our understanding of ethics, but we will also investigate the obstacles that hinder ethical reflection in the pursuit of the public's health.</td>
<td>Summer 2019</td>
<td>Only offered once between 2016-17 and Summer 2019. Will be offered again Summer 2020.</td>
<td>4 Capacity = 15</td>
<td>All MPH PHP</td>
</tr>
</tbody>
</table>
| HPP 892D-2    | Doctoral Seminar                 | **Two semester course.** Semester one focuses on professional socialization and career development skills. Semester two                                                                                                                                                                                                                                                                                                                                                      | One section in Spring 2020  | Listed in Spire every semester since Fall 2016, but does not always have                   | Spring 2020: 1 student  
Fall 2019: Section 1: 3  
Section 2: 27 | All PhD CHE |
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Brief Description/ Learning Objectives</th>
<th>When was course last offered</th>
<th>Frequency of Course Offering</th>
<th># of Students Enrolled last time offered</th>
<th>Composition of students most recently enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 697QR</td>
<td>Qualitative Research of Physical Activity Studies</td>
<td>covers a broad range of behavioral and social theories and concepts that are used in community health sciences.</td>
<td>2019.</td>
<td>students enrolled</td>
<td>2</td>
<td>Capacity = 5</td>
</tr>
<tr>
<td>NUT 640</td>
<td>Public Health Nutrition</td>
<td>This course uses a practice-based approach to promote an understanding of and experience with key public health nutrition processes. Students will learn through readings, lectures, and active participation how to assess community needs; determine priorities, goals and objectives; and design, monitor and evaluate an intervention. Students will also offer in-person and online courses in Spring 2019, Spring 2018, and Spring 2017.</td>
<td>Yearly: In-person and online courses offered in Spring 2019, Spring 2018, and Spring 2017</td>
<td>In-person: 12 Capacity = 15 Online: 11 Capacity = 27</td>
<td>In-person: 10 MS Nut 2 PhD Nut Online: 8 MPH Nut 2 MPH PHP 1 MS Nut 1 UWW (grad non-degree)</td>
<td></td>
</tr>
<tr>
<td>Course Number</td>
<td>Course Name</td>
<td>Brief Description/ Learning Objectives</td>
<td>When was course last offered</td>
<td>Frequency of Course Offering</td>
<td># of Students Enrolled last time offered</td>
<td>Composition of students most recently enrolled</td>
</tr>
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<tr>
<td>NUT 741</td>
<td>Research Methods in Nutrition</td>
<td><strong>Offered in-person and online.</strong> This course provides an overview of laboratory and population research methodologies used in nutrition. Students will increase familiarity with nutrition research methods and study design and be able to effectively communicate scientific information to non-scientific audiences.</td>
<td>In-person: Fall 2019</td>
<td>In-person course offered every fall from 2016-2019. Spring. Online: Spring 2020 Online not offered prior to Spring 2020</td>
<td>In-person: 10 Capacity = 20 Online: 5 Capacity = 25</td>
<td>In person: All MS Nut Online: 2 MPH Nut 3 MS Nut</td>
</tr>
</tbody>
</table>