

# Academic Policies

2011 -- 2012



Department  
of  
Epidemiology

Gillings School  
of  
Global Public Health

University  
of  
North Carolina  
at  
Chapel Hill

Advising

Honor Code

Degree Requirements

Calendar of Events

Learning Objectives

...and more



## IMPORTANT DATES FOR THE 2011 – 2012 ACADEMIC YEAR

DATE	EVENT
Aug 20	<b>Last day to register for September Substantive Doctoral Qualifying Exam</b>
Aug 23	First day of classes (Fall 2011)
Aug 29	<b>Last day to register or add a course</b>
Sep 5	Labor Day holiday
Sep 6	<b>Last day to drop a course to have tuition adjusted</b>
Sep 16	Spring 2012 course listing available over the web
Sep 20 (8:45-3:00)	<b>Doctoral Qualifying Exam – Substantive Components</b>
Oct 7	<b>Last day to apply for December graduation</b>
Oct 12	University Day (classes cancelled from 10:00 am to 1:00 pm)
Oct 20	Fall break
Oct 21	Fall break
Nov 1	Registration begins for Spring 2012 term
Nov 17	Pre-payment or Financial Aid proof period begins for Spring 2012 registration
Nov 18	<b>Final signed copies of masters papers due to Student Services Office by 4:00 pm for December graduation candidates</b>
Nov 21	<b>Final signed copies of dissertations and reports of masters paper due to Graduate School by 4:00 pm for December graduation candidates</b>
Nov 21	<b>Last day to drop a course</b>
Nov 23	Thanksgiving holiday
Nov 24	Thanksgiving holiday
Nov 25	Thanksgiving holiday
Dec 6	Last day to register for Master's Comprehensive Exam
Dec 7	Last day of classes
Dec 13	Tuition and fees due to Spring 2012 term
Dec 8	Reading day
Dec 9-10, Dec 12-13	Exams
Dec 14	Reading day
Dec 15-16	Exams
Dec 18	December commencement
Jan 6	Master's Comprehensive Exam
Jan 9	First day of classes (Spring 2012)
Jan 13	Last day to register or add a course
Jan 16	Martin Luther King holiday
Jan 23	<b>Last day to drop a course to have tuition adjusted</b>
Feb 10	<b>Last day to apply for May graduation</b>
Mar 5-9	Spring break
Apr 6	<b>Final signed copies of masters papers due to Student Services Office by 12:00 pm for May graduation candidates</b>
Apr 6	Spring holiday
Apr 7	<b>Last day to register for Methods Component of Doctoral QE</b>
Apr 9	<b>Last day to drop a course</b>
Apr 9	<b>Final signed copies of dissertations and reports of masters paper due to Graduate School by 4:00 pm for May graduation candidates</b>
Apr 25	Last day of classes
Apr 26	Reading day
Apr 27-28, Apr 30, May 1	Exams
May 2	Reading day
May 3-4	Exams
May 7	Doctoral Qualifying Examination – Methods Component
May 12	Doctoral Hooding Ceremony
May 13	Commencement

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## INTRODUCTION

Academic Policies provides comprehensive information on policies and requirements for Master's and Doctoral programs in the Department of Epidemiology. It is intended for the use of students and advisors, and is updated annually. Many forms are referenced throughout this document and can be found at the links below or in the Student Services Office. **You need to pay close attention to the instructions in this document regarding which forms you complete and which ones the Student Services Office will complete.**

[http://www.sph.unc.edu/epid/department\\_of\\_epidemiology\\_forms\\_2381\\_2655.html](http://www.sph.unc.edu/epid/department_of_epidemiology_forms_2381_2655.html)  
<http://gradschool.unc.edu/forms/>

Every effort is made to ensure that the information presented herein and on our website is accurate and complete. However, students should be aware that errors and omissions do sometimes occur; for this reason, minor changes and/or clarifications may be required at a later date.

Use the EPID website ([www.sph.unc.edu/epid](http://www.sph.unc.edu/epid)) – learn to love it because there's a wealth of information there.

There are several other references with which you need to be familiar. They contain important information about UNC policies and procedures. These references include:

- **The Graduate School Handbook**  
Graduate School policies for degree programs. Available online at <http://handbook.unc.edu/>.  
**You are responsible for adhering to these policies.** They are not necessarily re-stated in this document.
- **Directory of Classes**  
Can be found online at <http://registrar.unc.edu/> and click on Courses and then Schedule of Classes or do a Class Search from the “Resources” list.
- **The Graduate School Theses and Dissertation Guide**  
Available online at <http://gradschool.unc.edu/etdguide/>
- **Connect Carolina**  
Go to the UNC web site at [my.unc.edu](http://my.unc.edu) to enter the Student Portal. From this site you can register, check grades and billing info, print transcripts, update your address, etc. Information about student groups such as the Epidemiology Student Organizations (ESO), GPSF, Minority Student Caucus, and Student Union Board can also be found on UNC, SPH and departmental websites.

### QUESTIONS? →

### Student Services Office

Nancy L. Colvin  
Assistant to the Chair for Graduate Studies  
Department of Epidemiology  
2106-B McGavran-Greenberg Hall  
(919) 966-7459  
email: [ncolvin@unc.edu](mailto:ncolvin@unc.edu)

Carmen A. Woody  
Student Services Specialist  
Department of Epidemiology  
2106-C McGavran-Greenberg Hall  
(919) 966-7458  
email: [carmen\\_woody@unc.edu](mailto:carmen_woody@unc.edu)

FAX: (919) 966-4914

## **Departmental Committees**

The Department of Epidemiology has three standing committees of its own: Admissions, Graduate Studies, and Chair's Council. In addition, there is faculty representation to several SPH committees: IRB, Academic Programs Committee, Research, Space, and Academic Promotion and Tenure.

The Admissions Committee is chaired by Dr. Marilie Gammon and handles all aspects of the admissions and recruitment process. Membership consists of faculty from the major focus areas, as well as student services staff.

The Graduate Studies Committee provides oversight for the department's graduate program with respect to overall curriculum development and evaluation, requirements, qualifying examinations, new course and program approval, and other academic matters. Membership consists of departmental faculty representing both methods and substantive areas and is chaired by Dr. Stephen Cole. In addition, 2 to 3 student representatives are identified by the Epidemiology Student Organization.

The Chair's Council exists to provide service to the department for a range of specific needs on an ad-hoc basis.



## ***COURSES OFFERED IN THE DEPARTMENT OF EPIDEMIOLOGY***

### I. METHODS COURSES

- EPID 600: Principles of Epidemiology
- EPID 700: SAS and Data Management
- EPID 705: Introduction to Logic and Probability Logic in Epidemiology
- EPID 710: Fundamentals of Epidemiology
- EPID 711: Clinical Measurement and Evaluation
- EPID 715: Theory and Quantitative Methods in Epidemiology
- EPID 718: Epidemiologic Analysis of Binary Data
- EPID 719: Readings in Epidemiologic Modeling
- EPID 722: Epidemiology Analysis of Time-to-Event Data
- EPID 725: Research Planning Workshop
- EPID 726: Epidemiologic Research Methods
- EPID 730: Readings in Methods for Epidemiology
- EPID 733: Clinical Trials in Epidemiology
- EPID 801: Data Analysis in Oral Epidemiology
- EPID 806: Clinical Research Skills (Translational Research Curriculum only)  
[http://tracs.unc.edu/index.php?option=com\\_content&view=article&id=133&Itemid=196](http://tracs.unc.edu/index.php?option=com_content&view=article&id=133&Itemid=196)

### II. SUBSTANTIVE COURSES

- EPID 620I: Aging and Health
- EPID 735: Cardiovascular Disease Epidemiology
- EPID 737: Advanced Cardiovascular Epidemiology
- EPID 743: Genetic Epidemiology: Methods and Applications
- EPID 745: Molecular Techniques for Public Health Research
- EPID 750: Fundamentals of Public Health Surveillance
- EPID 751: Emerging and Re-Emerging Infectious Diseases
- EPID 752: Introduction to Methods in Infectious Disease Epidemiology
- EPID 753: Prevention and Control of Infectious Diseases at the Level of the Community
- EPID 754: Mathematical Modeling of Infectious Diseases
- EPID 756: Control of Infectious Diseases in Developing Countries
- EPID 757: Epidemiology of HIV/AIDS in Developing Countries
- EPID 758: Methods and Principles of Applied Infectious Disease Epidemiology
- EPID 759: Methods in Field Epidemiology
- EPID 765: Methods and Issues in Pharmacoepidemiology
- EPID 770: Cancer Epidemiology and Pathogenesis
- EPID 771: Cancer Epidemiology Methods
- EPID 772: Cancer Prevention and Control (crosslisted as HPAA 765, HBHE 765; HPAA administratively responsible)
- EPID 775: Advanced Cancer Epidemiology: Classic and Contemporary Controversies in Cancer Causation
- EPID 780: Occupational Epidemiology
- EPID 783: Injury as a Public Health Problem (crosslisted as HBHE 725, HBHE administratively responsible)
- EPID 785: Environmental Epidemiology
- EPID 786: Community-Driven Research for Environmental Justice

- EPID 800: Epidemiology of Medical Care  
 EPID 805: Clinical Epidemiology and Clinical Research Methods (Translational Research Curriculum only)  
[http://tracs.unc.edu/index.php?option=com\\_content&view=article&id=133&Itemid=196](http://tracs.unc.edu/index.php?option=com_content&view=article&id=133&Itemid=196)  
 EPID 810: Physical Activity Epidemiology and Public Health (crosslisted as NUTR 810, EPID administratively responsible)  
 EPID 813: Nutritional Epidemiology (crosslisted as NUTR 813, NUTR administratively responsible)  
 EPID 814: Obesity Epidemiology (crosslisted as NUTR 814, NUTR administratively responsible)  
 EPID 815: Diet and Cancer (crosslisted as NUTR 815, NUTR administratively responsible)  
 EPID 818: Analytical Methods in Nutritional Epidemiology (crosslisted as NUTR 818, NUTR administratively responsible)  
 EPID 825: Social Determinants of Health: Theory, Method & Intervention (crosslisted as HBHE 802, HBHE administratively responsible)  
 EPID 826: Social Epidemiology: Concepts and Measures  
 EPID 827: Social Epidemiology: Analysis and Interpretation  
 EPID 851: Perinatal Epidemiology (crosslisted as MHCH 851, EPID administratively responsible)  
 EPID 853: Advanced Topics in Perinatal & Pediatric Epidemiology (crosslisted as MHCH 853, EPID administratively responsible)

### III. CREDIT SEMINARS

- EPID 764: Hospital Epidemiology  
 EPID 891: Doctoral Seminar  
 EPID 892: Interdisciplinary Seminar in Health Disparities (crosslisted as MHCH 892, EPID administratively responsible)  
 EPID 893: Pharmacoepidemiology Seminar  
 EPID 894: Infectious Disease Seminar  
 EPID 895: Seminar in Oral Epidemiology  
 EPID 896: Seminar in Clinical Research  
 EPID 897: Advanced Seminar in Cardiovascular Research  
 EPID 898: Global Health Ethics Seminar

### IV. TUTORIALS AND RESEARCH SECTIONS

- EPID 690: Section 001 -- Problems in Epidemiology  
 EPID 883: Teaching Internship in Epidemiology  
 EPID 900: Epidemiology Practice (Master's Practicum)  
 EPID 905L: Epidemiology Laboratory Practice  
 EPID 910: Research in Epidemiology  
 EPID 992: Master's Paper  
 EPID 994: Doctoral Dissertation

\* NOTE: New courses in all categories are offered for the first time as sections of EPID 690 (Problems in Epidemiology)

## **INDEPENDENT STUDY, INDEPENDENT RESEARCH, AND LAB PRACTICE REGISTRATION:**

Independent study, independent research, and field training are options available to the advisor and the trainee to introduce individualized and flexible learning opportunities into a student's training path. The distinctive features that define each of these are listed below:

Independent Study (EPID 690-section 001) is a course organized between faculty and one student (or fewer than five students) with defined learning objectives, an evaluation, and credit hours to meet a student's training objectives outside/beyond the established courses and seminars. Independent study can include review of the substantive and/or methodologic knowledge base in a particular area, and/or their application. Independent study is not intended to support research hours.

Independent Research (EPID 910) provides a mechanism for training opportunities based on active participation in research with faculty. It is based on defined learning objectives for this activity, their evaluation, and a pre-established number of credit hours. The student's time is allocated primarily to an active role in research activities as part of a research team, as opposed to a review of the scientific background and/or knowledge base pertinent to the research.

Independent research is a training activity for academic credit. Remuneration as a research assistant for the student's participation in a research project related to this learning activity is an option, to the degree that the objectives and responsibilities for the independent research and the research assistant activity are specified and do not overlap. Both the learning activity and its objectives, as well as the funding implications, must be discussed explicitly at the outset of this activity and established in writing.

Epidemiology Practice (EPID 900) provides credit for the required Master's practicum experience. The Master's practicum provides students with the opportunity to apply their academic training to experientially address master's competencies in the context of public health practice. Students must register under the section that matches their practicum advisor. If that person does not have a section, the student registers for section 001 through the Student Services Office.

Epidemiology Lab Practice (EPID 905L) is any learning activity conducted off-campus, designed to support the student's training goals. Such activities are either formal training activities listed on the curriculum, or designed specifically for the student with approval by the advisor, specifying learning objectives, number of credit hours, an evaluation, and the student's responsibilities.

A student's participation in (either) independent study, independent research, or lab practice requires approval by the supervising faculty.

## **INFORMATION RELEVANT TO ALL EPIDEMIOLOGY STUDENTS**

### **ACADEMIC CALENDARS**



Students will frequently need to consult the [Academic Calendar](#) to be aware of all pertinent deadlines, holidays, etc. University calendars (including registration deadlines, drop dates, final exam schedules) are available online at <http://registrar.unc.edu/AcademicCalendar/index.htm>.

### **DEPARTMENTAL COMMUNICATION**

#### **Student E-Mail Accounts**

Much of the communication between students and the Student Services Office, faculty and other offices/individuals on campus will be through e-mail. Each student is provided with a departmental e-mail account upon enrollment. These e-mail addresses are made available to UNC faculty, staff and other students. Frequently, students have other e-mail accounts on campus and elsewhere; however, you should be aware that **your UNC account is the one which will be used for communications from faculty, staff and other students.**

Communications to the entire list of students will take place via an e-mail listserv. The address for sending messages to this list is: [epidstudents@unc.edu](mailto:epidstudents@unc.edu). All student accounts have automatically been subscribed to this listserv, as well as to the [epidsems@unc.edu](mailto:epidsems@unc.edu) listserv for seminar announcements.

**Since UNC e-mail is the primary mode of communicating information to students, it is imperative that your e-mail be checked regularly. Students are held responsible for information disseminated via email, regardless of time of year.**

#### **Listservs (electronic mailing lists)**

Several other listservs are available for student use. Within the EPID department, job announcements for research and teaching assistantships are sent to the "epidjobs" listserv. Information on seminars, doctoral defenses, master's presentations, etc. is disseminated via a listserv called "epidsems." "Epidsocial" is used for non-academic announcements. All students are automatically subscribed to epidstudents and epidsems. Details on these listservs are presented in Appendix I.

### **THE ADVISING PROCESS**

#### **Advisor Assignments**

When a student is offered admission to the EPID program, an advisor assignment is made based on factors such as mutual interests and faculty advising load. Within the student and faculty population, there is great diversity in work styles. While in most instances the original assignment will prove to be a satisfactory and fulfilling relationship, there are many reasons why these first matches may not always be the best pairing to meet the needs of the student. For this reason, there may be times when the student and/or the advisor feel that the student's needs can be better served by another advisor. Change is encouraged to facilitate the best possible advising experience.

## **Changing Advisors**

Changing advisors is simple. Once the student identifies a new faculty member who is willing to serve as advisor, the student asks the faculty member to sign an [Advisor Assignment/Change Form](#) indicating that s/he has agreed to advise the student. This form is then filed with the Student Services Office. A student who is considering a change in advisors is encouraged to discuss the situation with the current advisor. If for any reason the student is not comfortable doing this, s/he should consult someone from the Student Services Office about how to proceed, depending on the specific circumstances. When a change in advisors is made, the student should notify the now-prior advisor as a matter of courtesy. However, if this proves to be a problem, the Student Services Office should be asked to assist.

## **Communication**

The advisor/advisee relationship benefits from good communication. Establishing expectations of both the faculty member and the student at the outset of the advisor/advisee relationship is a major component of good communication. Listed below are some suggestions for topics for discussion between advisor and advisee, beginning at the first meeting:

- preferred method of communication (telephone, email, walk-in, sign-up at door, schedule appointment with secretary)
- frequency of meetings
- responsibility for initiation of meetings
- how the advisor will communicate which of his/her suggestions are recommendations and which are requirements
- how much course planning should be done with the advisor (i.e., is it necessary to meet with the advisor prior to registration for courses)
- who will be responsible for ensuring that the student has met all degree requirements
- to what extent the advisor will assist in identifying funding opportunities
- to what extent the advisor will assist in identifying master's paper and/or dissertation topics
- what the advisee's expectations are in terms of faculty involvement in identifying topics and funding opportunities
- what the advisor's expectations are in terms of professional development opportunities (i.e., manuscript review, proposal writing, data analysis, literature reviews, presentations at meetings, etc.)
- how often the student and advisor should meet to assess the student's progress, and in what manner that assessment will be made
- how often the student and advisor should meet to assess the appropriateness of the advisor/advisee match, and in what manner that assessment should be made

## **Process Evaluation**

It is recommended that the advisor and advisee regularly assess the advising relationship to evaluate the appropriateness of the match and to identify areas where improvement can be achieved. Students and advisors are encouraged to discuss openly the concerns of either party and to try to negotiate solutions to any problems.

## **Conflict Resolution**

Most differences can be resolved through open communication and should be addressed early on. In the event that the student or faculty member feels that intervention is needed by a third party, s/he is encouraged to first seek the assistance of the Student Services Office in dealing with the problem issue(s). If a mutually satisfactory plan for resolving differences cannot be developed, the student or faculty member may opt to

consult the departmental ombudsman for assistance (see description below of "Role of the Departmental Ombudsman"). Alternatively, either party may choose to seek the guidance of the Chair of the Department. Students as well as faculty should feel free to seek support and assistance, whenever necessary, without fear of negative repercussions.

### **Role of the Departmental Ombudsman**

A faculty member whose primary appointment is in the Department of Epidemiology is designated to serve in the capacity of an ombudsman for issues involving student-faculty relationships. The role of this ombudsman is to be of assistance to students and faculty of the Department who perceive themselves to be in conflict with one another, and require advice and/or mediation in the resolution of such a conflict. Currently Dr. Gerardo Heiss serves as the department's ombudsman.

The ombudsman is available to any student or faculty member, both for consultation and to play an active role in the resolution of a conflict that places either party in a vulnerable position and/or requires mediation. Conflicts arising out of inter-personal or academic matters can be brought to the attention of the ombudsman, if either party feels that the channels for advising and conflict resolution have been exhausted (e.g., they cannot be resolved by consultation with an advisor, by a change in advisor, or in consultation with the Office of Student Services). The role of the ombudsman does not extend to issues related to exams, conflicting time-lines, or any other routine academic matters.

Interactions with the ombudsman constitute confidential information. Initiatives by the ombudsman in response to a problem presented to him/her by a student or faculty member are taken only after consultation with the parties involved.

### **THE HONOR CODE ([honor.unc.edu](http://honor.unc.edu))**

*The Instrument of Student Judicial Governance* (<http://instrument.unc.edu>) is the definitive document on student conduct and the judicial system. In an effort to ensure academic integrity, this document stipulates that students must sign a pledge on all written work. **The pledge reads "On my honor, I have neither given nor received unauthorized aid on this assignment."** Instructors may allow the option of simply writing on your work "Pledge" and signing your name. **When in doubt about instructor expectations regarding team work on projects, crediting the work of others, using previously submitted work, etc., ask the instructor to clarify.** Faculty members are bound by University regulations to report to the Student Attorney General any suspicion of a violation of the Honor Code. Private action by faculty regarding suspected or admitted Honor Code violations is prohibited by faculty policy. If you have any concerns or questions regarding the Honor Code you should contact the Office of the Dean of Students (966-4042; <http://deanofstudents.unc.edu>) or the Office of the Student Attorney General (966-4084).

Many violations of the Honor Code occur due to an improper or insufficient understanding of procedures and expectations rather than an attempt to deceive. When in doubt, it is imperative that students consult with instructors or other appropriate resources. **Even though ignorance is often the cause, it does not excuse the act of Honor Code infringement.**

Areas that are frequently troubling include the following:

- submission of work previously submitted and graded for another course (It is the nature of some courses to build upon work previously submitted. Always check with the instructor before doing so.)
- failure to properly cite own work from previously developed materials. (You must cite yourself if re-using your own writing for another purpose.)

- cultural differences in understanding the Honor Code (Some cultures view the word-for-word copying of another’s work to be not only acceptable, but desirable, even without appropriate source identification. International students in particular may need to seek guidance from campus resources.)
- lack of a clear understanding of plagiarism (What constitutes plagiarism can vary from discipline to discipline. Refer to the Graduate School policy on academic integrity and ethics, found in the Graduate School Handbook at [gradschool.unc.edu/students\\_current.html](http://gradschool.unc.edu/students_current.html). An additional source of clarification is The Writing Center’s handout at <http://www.unc.edu/depts/wcweb/handouts/plagiarism.html>)

## **COURSE REGISTRATION**

For information about online course listing and registering in classes, please refer to the Office of the Registrar website at [registrar.unc.edu](http://registrar.unc.edu). The following section highlights questions frequently asked of the Student Services Office. Details and further information can be found in the Graduate School Handbook.

### **Dropping Courses**

Graduate students may drop courses using the registration system during the first two weeks of classes. After the second week of classes and before the end of the twelfth week of classes, graduate students must obtain a **Registration/Drop/Add Form** from the EPID Student Services Office (see the University Registrar's Calendar for the Last Day for Graduate Students to drop courses). In most cases, the Student Services Office will sign off as the advisor. Registration changes requested after the last day for graduate students to drop courses require approval of the Graduate School.

**Important:** Students receiving tuition awards must remain in the same tuition credit bracket (0-2.9; 3-5.9; 6-8.9; 9 or more). Any registration changes after the “last day to add” may result in a tuition change that is not covered by the in-state tuition award. Consult with Student Services Office before making changes.

### **Proof of Enrollment/Transcript Requests**

For proof of enrollment or transcripts, go to [registrar.unc.edu](http://registrar.unc.edu) and click on Transcripts and Certifications in the “Resources” menu.

### **Exemption from Required Courses**

Exemption from any course requirement is on the basis of equivalent work. A student seeking exemption from, or substitution for, a School of Public Health core requirement must submit for approval the School of Public Health Core Course Exemption Application ([http://www.sph.unc.edu/student\\_affairs/taking\\_classes.html#corecourseexemption](http://www.sph.unc.edu/student_affairs/taking_classes.html#corecourseexemption)). To be exempted from a departmental requirement, the student submits a departmental exemption request form to the Student Services Office. The petition must first be signed by the student’s advisor, and should describe clearly the equivalent experience. These forms are online at [http://www.sph.unc.edu/epid/department\\_of\\_epidemiology\\_forms\\_2381\\_7407.html](http://www.sph.unc.edu/epid/department_of_epidemiology_forms_2381_7407.html)

Exemptions are not granted for substantive courses. We expect our students to meet the substantive epidemiology course requirements by choosing topical areas, and course levels within a program area, that complement the knowledge base that they bring to the program.



## REGISTRATION REQUIREMENTS (from the Graduate School Handbook)

When all residence credit and course requirements have been completed, students using University resources to conduct their **master's research** and/or who need to maintain full-time status **must register for three credit hours of EPID 992 (Fall/Spring)**. Students using University resources\* to conduct their **dissertation research** and/or who need to maintain full-time status for other reasons **must register for three credit hours of EPID 994 (Fall/Spring)**. This constitutes full-time enrollment (with or without additional courses). Full-time student status must be maintained for loan deferment or student visa status. Students not using University resources may either apply for a leave of absence (which "stops the clock" for time to degree) or simply not register (both require readmission to the Graduate School). These forms can be found at <http://gradschool.unc.edu/forms.html>. **Students must be registered for at least 3 hours in order to receive a stipend, and/or qualify for University Graduate Student Health Insurance.** Refer to the Graduate School Handbook for additional details.

## LEAVES OF ABSENCE AND EXTENSIONS

Students may request a leave of absence if they will not be making progress towards their degree for a period of time. A leave of absence "stops the clock" so that the time does not count against your time to degree. When extenuating circumstances warrant, The Graduate School may grant an extension of the degree time limit. The degree time limits are 5 years for the MPH and MSCR program and 8 years for the PhD program, including the MSPH/PhD program. Extensions and leaves are not automatic and require both departmental and Graduate School approval. They must be initiated through the Student Service Office. See Graduate School handbook for additional details or consult with Student Services Office.

**If a student remains unregistered for five years or longer and wishes to resume graduate study, s/he will need to formally apply for admission (application, application fee, GRE scores, etc.) by the Graduate School designated deadlines.**

## UNIVERSITY GRADING POLICIES

### Grading

**The graduate school operates on the HLP system.** Graduate students enrolled in courses numbered 400 or above must receive one of the following grades:

#### Graduate Permanent Grades

**H** High Pass

**P** Pass

**L** Low Pass

**F** Fail

#### Special Grading Symbols

**F\*** Fail-Administratively Assigned; equivalent to F

**S** Satisfactory progress on research courses, thesis, dissertation, and courses taken to fulfill language requirements

**NG** No grade assigned

#### Temporary Grades

**AB** Absent from final examination

**IN** Work incomplete (converts to an administrative F if not resolved within one year)



### **Policy on “IN” Grades**

‘IN’ or an incomplete grade is given when a student took the final exam but did not complete some other course requirement. An IN will revert to an F\*(administratively assigned grade) if the grade is not cleared within one year from the original examination. However, if the grade is changed, the IN grade does not stay on the student’s academic record. The student is responsible for ensuring that the grade change occurs and should correspond with the course department and follow up with faculty accordingly.

## **DEPARTMENTAL GRADING POLICIES**

### **Policy on “L” Grades**

A grade of P is the lowest acceptable grade in core methods courses (EPID 705, EPID 710, EPID 715, EPID 718, and EPID 722). A grade of L in one of these courses requires re-taking the course if the student is to continue in the program. Students are expected to attain a grade of P in EPID 725 also, but a grade of L in this course does not require re-taking it. Instead, consultation with the advisor and the course instructor is required prior to taking EPID 726 (see Implementation, below).

### **Diagnostics**

It is each student’s responsibility to assess his/her performance in courses and the need for remedial action. For this, students are encouraged to seek help from their advisor, course instructors or others, as needed. In addition, a grade of L in an Epidemiology core methods course requires that a meeting among the student, the advisor, the course instructor, and the Student Services Office take place within two weeks. The purpose of the meeting is to ascertain the factors associated with the poor performance and to implement the steps described below. The Student Services Office will notify the student’s advisor of the L grade. The advisor is then responsible for initiating this meeting at the earliest convenience of all involved. A grade of L often reflects the need for an adjustment in workload, study habits, or other activities rather than a lack of aptitude. Many students go on from L grades in core courses to have great success in the remainder of their academic program and future careers.

### **Implementation**

Students who receive a grade of L in a core methods course must re-take the course and receive a minimum of a P, unless exempted as described above and below. The student is expected to retake the course – or to be granted an exemption by the Graduate Studies Committee (GSC) – within one year of taking the core methods course that resulted in an L grade. If this time line is not met the student must ask his/her advisor to present an alternative time line to the GSC.

### **Conditional advancement to a higher-level course for a student who receives a grade of L in a core methods course**

Students who receive a grade of L in a core methods course may advance to the pertinent higher-level methods course in epidemiology (prior to re-taking the course in which they received an L) only if approved by the instructor of the higher-level course and endorsed by the student’s advisor.

### **Exemption from the requirement to re-take a core methods course**

A high performance in the higher-level course (above the 85<sup>th</sup> percentile) allows the student to submit a request to the GSC to be exempted from having to re-take the lower level course graded as ‘low pass’ (L).

## AUDIT POLICY

Students may audit courses at the discretion of the professor. As a general rule, faculty are receptive to auditors provided space is available in the classroom. Recitation (lab) sections are typically not open to auditors. As per the University Registrar's policies, "Students auditing a course do not write examinations or papers and do not participate in class discussions unless otherwise directed by the course instructor. They do not appear on the instructor's class roll and may not request grades."

## STATISTICAL COMPUTING AND DATA MANAGEMENT

Competence in statistical computing and data management is a requirement of the program. Statistical computing using SAS is a component of several of the methods courses, and is required for one's own research, as well as for many research assistantships. (Stata is an acceptable substitute for SAS, except for EPID 722.) Various training resources are available for students without prior experience. Some of these are:

- EPID 700: SAS and Data Management (3 credits)
- BIOS 511: Introduction to Statistical Computing and Data Management (3 credits)
- Non-credit short courses offered by the UNC Odum Institute for Research in Social Sciences ([http://www.irss.unc.edu/odum/jsp/content\\_node.jsp?nodeid=3](http://www.irss.unc.edu/odum/jsp/content_node.jsp?nodeid=3))

An exemption exam is offered in August for those students not enrolling in EPID 700 or BIOS 511.

Adequacy in statistical computing is assessed as part of the intradepartmental review discussion for doctoral students.

## HUMAN SUBJECTS REVIEW

All students – without exception - must complete training in the protection of human research subjects. The website for this training is [www.citiprogram.org](http://www.citiprogram.org). Students should select training in either Group 1 or Group 2. Group 3 does not suffice. Students may obtain a copy of their CITI training verification online at [https://apps.research.unc.edu/training\\_comp](https://apps.research.unc.edu/training_comp). The "Responsible Conduct of Research" course offered by the N.C. Translational and Clinical Research Sciences Institute (<http://tracs.unc.edu/events/responsible-conduct-of-research.html>) during the summer can be taken in lieu of the CITI training.

## ***INFORMATION SPECIFIC TO MPH and MSPH DEGREE STUDENTS***

### **COMPETENCIES FOR THE MPH AND MSPH**

#### **MPH**

The MPH program enrolls students who have a terminal professional degree (such as MD, DDS, DVM) or an academic degree (PhD). The program is designed to add to their existing expertise a knowledge of the concepts and skills of epidemiology, to strengthen their research capabilities, to develop their understanding of public health concepts and the population perspective, and to enable them to be more sophisticated readers of clinical and epidemiological studies. The master's competencies in the Department of Epidemiology fully meet with core competencies set out by the **ASPH Education Committee**.

**Upon satisfactory completion of the MPH degree program the student will be able to:**

1. Apply the core competencies in public health as set forth in the learning objectives for the School of Public Health core curriculum;
2. Discuss the major obstacles and challenges to public health in the nation and the world, contrast the clinical and population perspectives on improving public health, and articulate the role of epidemiology in preserving and improving public health;
3. Explain fundamental epidemiological concepts, such as natural history, prevalence, incidence, relative risk, attributable risk, direct standardization, standardized mortality ratio, cohort, case-control, precision, bias, confounding, and effect modification and recognize these concepts even when they are referred to with different terminology;
4. Discuss basic issues in the definition, classification, and detection of pathologic states as these issues arise in the study of diseases in populations and the problems such issues present for disease surveillance and comparative studies; natural history and spectrum of disease, when is a condition the disease, operational classification, changing definition with greater understanding, limitations on accuracy of cause of death designation, among others;
5. Define, compute, and interpret epidemiological measures of prevalence, incidence, association, and impact;
6. Explain and apply methods of standardization or adjustment for factors such as age or sex, and discuss the advantages and limitations of different methods of standardization;
7. Explain major epidemiological descriptive and analytic study designs, the epidemiological measures that can be estimated from each, and their relative strengths and limitations;
8. Explain major categories of bias, recognize the potential for their occurrence in specific study situations, and propose measures to assess and/or reduce their influence on the measures of major interest;
9. Present the concepts, purpose of and problems in the evaluation of diagnostic tests, and of interpretation in surveillance for acute and chronic diseases and other factors important for public health;
10. Explain the concept of the multifactorial nature of disease and how the observed association between one factor and disease can be affected by the distribution of other independent and non-independent risk indicators, and be able to control for these influences in situations involving multiple risk indicators;

11. Prepare computer files of raw epidemiological data, and analyze, present, summarize, and interpret epidemiological data and parameters presented in tables, figures, and graphs. Analyses may employ statistical tests and confidence intervals based on means, rates, proportions, and ratios for contingency table analyses involving the control of one or two categorical variables or for modeling analyses employing linear or linear logistic regression;
12. Weigh the evidence in favor of and against the likelihood that an association observed in epidemiological studies is causal;
13. Apply the above knowledge in critically reading epidemiological and clinical studies;
14. Write a thesis-equivalent that demonstrates proficiency in critically reading the epidemiological literature, and in analyzing, reporting, and interpreting epidemiological data.

### **MSPH**

The MSPH degree is required for students admitted to the PhD program without a prior master's degree in a relevant area. The program provides them with knowledge of the concepts and skills of epidemiology to serve as a foundation for building competencies to become an independent public health investigator. Like the MPH program, the MSPH program develops the students' understanding of public health concepts and the population perspective, and enables them to become sophisticated readers of clinical and epidemiological studies. In contrast to the MPH program, the MSPH program assumes that graduates' primary area of expertise will be in the field of epidemiology, rather than in some other profession. The MSPH degree in the field of epidemiology is not considered a terminal degree and is not intended to provide sufficient preparation for assuming leadership in the practice of epidemiology.

Because the content in regard to concepts and skills of epidemiology and public health are the same for the two masters' degrees, competencies for the MSPH and MPH degrees are very similar (and are not repeated here). The only exceptions are criteria #13 and #14 where an allowance is made for the fact that students in the MSPH degree program don't possess a specific area of professional expertise as in the case of students in the MPH degree program.

### **SUMMARY OF DEGREE REQUIREMENTS FOR THE MPH AND MSPH**

For a checklist of master's milestones, go to <[http://www.sph.unc.edu/epid/degree\\_audit\\_8227\\_7417.html](http://www.sph.unc.edu/epid/degree_audit_8227_7417.html)>.

### **School of Public Health Core Curriculum**

The UNC School of Public Health has established a set of core competency requirements for students enrolling in MPH, MSPH, MHA, and DrPH degree programs. The curriculum requires that all professional public health degree recipients acquire knowledge in five core areas: environmental health, social and behavioral science, biostatistics, epidemiology, and health policy and administration.

### **Purpose**

- To insure that all students are knowledgeable in the five basic public health content areas (listed above);
- To help students integrate and apply what they learn to solving important public health problems in an interdisciplinary manner; and

- To help students understand the larger public health perspective, including the history, mission, objectives, and ethics of public health, and the relationship of the perspective to the various scientific and professional disciplines within public health.

The Core Curriculum

The core will consist of courses in each of the following five areas:

- Epidemiology
- Biostatistics
- Health Policy and Administration
- Environmental Health Sciences
- Social and behavioral sciences

To meet the core competency requirements, students will take approved courses in each of the five areas. Courses that meet the requirement will be approved by both the relevant SPH department and the School's Academic Programs Committee. Each department will maintain a list of approved courses in each of the five areas.

CORE AREA	BASIC COURSE REQUIREMENT(S)	APPROVED ALTERNATIVE(S)	
Biostatistics	BIOS 600	BIOS	Any 3 or 4 credit BIOS course above 540
		HPM	470 (HPM majors only)
		SOWO	510 and 911 (sequence restricted to students enrolled in joint MPH/MSW program)
Epidemiology	EPID 600 or 710	EPID	711 (for clinicians)
		PUBH	760 (for clinicians only)
Environmental Health	ENVR 600	ENVR	430
Health Administration	HPM 600	HPM	660, 564 or 754 (564 & 754 are for HPM majors only)
		MHCH	701&702
		PUBH	600 (PHLP majors only)
Social and Behavioral Science	HBHE 600	HBHE	700, 730 and 772 (HBHE majors only)
		MHCH	700, 701, 702 & 723 (MHCH majors only)
			859/860 (MHCH DrPH students only)
			SOWO 500, 505, 510, 517, 530, 570 (MSPH/MSW only)
		PHYT 824 (MHCH DPT/MSPH students only)	
NUTR	715		
PUBH	750 (for clinicians)		

## **Departmental Minimum Course Requirements for both Master's Degrees:**

[be sure to use the [Degree Audit](#) form to monitor your requirements]

- EPID 705: Introduction to Logic and Probability Logic in Epidemiology
- EPID 710: Fundamentals of Epidemiology [EPID 711 may be substituted by clinicians]
- \*BIOS 600: Principles of Statistical Inference **Or**  
BIOS 550: Elements of Probability and Statistical Inference I  
[BIOS 541 may be substituted by those in the Translational Research Curriculum]
- BIOS 545: Principles of Experimental Analysis **Or**  
BIOS 663: Intermediate Linear Models  
[BIOS 542 may be substituted by those in the Translational Research Curriculum]
- EPID 715: Theory and Quantitative Methods in Epidemiology
- EPID 718: Epidemiologic Analysis of Binary Data
- One epidemiology course (minimum) in a substantive research area\*\*
- One of the following:
  - ◊ EPID 806: Clinical Research Skills (for those enrolled in the Translational Research Curriculum)
  - ◊ EPID 733: Clinical Trials in Epidemiology
  - ◊ A second substantive EPID course
- Competency in statistical computing and data management; may be satisfied by:
  - ◊ EPID 700: SAS and Data Management
  - ◊ BIOS 511: Introduction to Statistical Computing and Data Management, or
  - ◊ BIOS 541/542
  - ◊ a comparable SAS or Stata course on this campus (i.e., through IRSS) or elsewhere, or
  - ◊ prior experience using SAS or Stata (exemption exam required)
- EPID 900: Epidemiology Practice (supervised practicum: 4 credit hour minimum)
- EPID 992: Master's Paper (3 credit hour minimum)

## **Other Program Requirements**

- Completion of a minimum of 42 credit hours
- Comprehensive written examination (offered every January)
- Oral presentation of master's research
- Completion of an acceptable Master's Paper

**A sample schedule for the two-year masters and the 18-month MPH program can be found in Appendix II.**

\*\*See Appendix III for courses that serve to satisfy the requirements for a course in a substantive research area.

\*See Appendix IV for additional information regarding BIOS courses.

## **CREDIT TRANSFER**

Upon approval by the Graduate School, up to 8 of the 42 minimum required hours (20%) may be transferred from another accredited institution, or from this institution for courses taken before admission to the Graduate School, or from a different master's program at this institution. [Exception: Up to 12 credit hours of SPH core certificate courses may transfer in, with the exception of EPID 600.] Transferred credit will be accepted by the Graduate School only upon recommendation by the student's major curriculum, department or school. Transfer of credit does not reduce the minimum residence requirements for a master's degree. See Carmen or Nancy for more information.

## “RESIDENCY” REQUIREMENTS [not the same as residency for tuition purposes]

Master’s candidates are required to complete a minimum residence credit of two semesters, either by full-time registration, or by part-time registration over a large number of semesters. The residence credit hour requirement requires UNC-Chapel Hill registration (i.e., transfer credit and credit from certificate programs are excluded).

## MASTER’S PRACTICUM REQUIREMENT

For information about the Master’s Practicum, please refer to the online Master’s Practicum Guide at [http://www.sph.unc.edu/epid/masters\\_practicum\\_12084\\_9840.html](http://www.sph.unc.edu/epid/masters_practicum_12084_9840.html). All relevant requirements are contained in that document. Please review carefully.

## THE MASTER'S COMPREHENSIVE EXAMINATION

The Master's Comprehensive Examination is a formal requirement of the Graduate School, and is covered by the campus Honor Code. The student must be registered at the time of the examination.


Past examinations, with their answer keys, are kept in the epidemiology student room, 2106 McGavran-Greenberg Hall . Students are encouraged to review these. Past exams can also be found online on the departmental webpage.

Registration deadline for 2012 offering:	December 6, 2011
Examination date:	January 6, 2012 from 8:45 am – 1:00 pm
Students informed of outcome:	by letter in mailbox within 2 weeks of exam.

### Purpose:

The Master's Comprehensive Examination is intended to provide an opportunity to demonstrate mastery of basic epidemiologic concepts and methods and to diagnose any major areas of deficiency. A passing score on the examination is a requirement both for the MPH and the MSPH degrees.

### Timing:

 The examination is given each January. **Master's students are expected to take the exam in the second year of the program after completing EPID 718.** A student who does not earn a passing score may take the examination a second time, when it is next offered.

A maximum of 4 hours is allowed for the examination. The format is generally short answer (true-false, multiple choice, and open-ended questions). A medical dictionary will be available from the Student Services Office upon request. A student may bring into the examination:

- a calculator,
- a foreign language dictionary, and
- not more than two pages of the student's own notes (this can be one two-sided page, or two one-sided pages)

Submission of an exam is final. Students should review their exams carefully prior to submitting them to the Student Services Office.

The examination emphasizes mastery of the basic curriculum in epidemiologic concepts and methods, such as are covered in EPID 705, EPID 710, EPID 711, BIOS 600, EPID 715, BIOS 545, and EPID 718, as well as in substantive courses and seminars. Familiarity with material normally covered during the first year of the program is expected. Some degree of substantive knowledge may be needed, since epidemiologic concepts and methods are applied in a biomedical or biobehavioral context. However, substantive knowledge itself is not a focus of the examination.

The competencies that Master's students should possess by the end of their first year in the Department can be characterized largely in terms of "epidemiologic literacy." This includes:

1. Being conversant with epidemiologic terminology and concepts;
2. Familiarity with the major epidemiologic research designs and their strengths and weaknesses;
3. Ability to compute and interpret rates, measures of effect (RR, OR), and confidence intervals.
4. Awareness of problems of measurement and selection, and biases that may affect study results;
5. Familiarity with concepts of confounding and options for controlling same;
6. Familiarity with the concept of effect modification and methods of assessing this, including incorporating effect modification into design and analysis strategies;
7. Understanding of use and interpretation of basic statistical procedures for epidemiologic data;
8. Appreciation of the need to consider biological, psychosocial, and health care factors in studying epidemiologic phenomena; and
9. The ability to read, understand, and critique a report of an epidemiologic study which is written for a sophisticated audience, such as readers of the American Journal of Epidemiology, Epidemiology, the Journal of Chronic Disease, New England Journal of Medicine, American Journal of Public Health, or similar journals.

The examination will be based on a single article each year. The article will not be known to the students in advance.

Most questions will be drawn or adapted from a panel of "generic" questions that may change little from year to year. See Appendix V for a list of these questions. The best way to prepare for the exam is to peruse back issues of the relevant journals, pick an article or two and answer the "generic" sample questions.

### **Appeal of Failing Grade:**

An appeal of a failing grade is considered by the Graduate Studies Committee.

An appeal must be brought within 10 working days from the date of notice of the examination grade unless there are compelling reasons for delay. Appeals must be made in writing and should be presented in such a way that the appeal can be considered without revealing the identity of the student involved. The appeal should be self-contained (other than references to standard textbooks or examination materials). We request that a student intending to appeal notify the Student Services Office as soon as possible to facilitate scheduling of a Graduate Studies Committee meeting. Such notice is optional however, and does not obligate the student to make an appeal.



Students are expected to decide on their own whether to appeal an examination outcome. The examination can be discussed with the advisor and/or other faculty members. However, faculty should not be consulted, nor should they offer an opinion on whether to appeal an examination result. In preparing an appeal, students should neither solicit nor receive assistance.

Appeals are regarded as part of the examination, and therefore subject to the Honor Code. The appeal must be the student's own work and be accompanied by a signed pledge. To preserve anonymity, the pledge will be separated from the appeal itself and retained in the Student Services Office.

The Examination Committee will decide the appeal without knowledge of the student's identity. To preserve anonymity, all communication between the student and the Committee will take place through the Student Services Office until the appeal has been decided. The Committee will render its decision within 10 working days after the appeal is received, or as soon thereafter as a quorum of the Committee is available.

In reaching its decision the Committee will award full credit to answers that are judged to be equally as good as those originally proposed. The Committee decision is final with respect to the substantive issues. The student may appeal to the Department Chairperson only on grounds of alleged irregularities in procedure.

## **THE MASTER'S PAPER and ORAL PRESENTATION OF MASTER'S RESEARCH**

The Master's Paper is a thesis substitute and is a major requirement for both the MPH and the MSPH degrees. The purpose of this capstone experience is to challenge the student to apply epidemiologic principles and methods to a specific clinical or public health issue. In carrying out the project, the student will be expected to select a scientifically relevant, feasible topic, review the body of epidemiological knowledge on the issue, formulate an informative study question and its associated hypothesis(es), and analyze a dataset to evaluate the study question. Master's Papers are filed with the Student Services Office and are available for student and faculty reference. The research is also presented orally in an appropriate forum.

### **Master's Paper Committee**

Development of the master's paper is supervised by a committee consisting of a master's paper advisor and a second reader. **At least one must have a primary appointment (neither adjunct nor clinical) in the Department of Epidemiology.** The composition of this committee should be decided at the time of initial planning for the project.

### **Content and Form of the Master's Paper**

In the master's paper the student should demonstrate proficiency in the subject matter(s) pertinent to the study question of the Master's paper and competency in the application of epidemiological concepts and methods as relevant to the topic of the Master's paper. The scope of Master's paper project and the depth of its conceptual, methodologic and analytic treatment are gauged by the standards of a publication of the paper in the peer-reviewed literature. Submission of the Master's paper for publication is not required, but encouraged.

The Master's Paper is a thesis substitute that demonstrates command of epidemiologic principles and methods, by means of a research project focused on a specific clinical or public health issue, and based on extant data resources. The Master's Paper requires a proposal approved by both members of the Master's Paper committee, completion of an analytic project, and preparation of a scientific report. Following approval by the two committee members, the completed Master's Paper is submitted to the Department as a scientific report formatted as a manuscript for publication following the guidelines below. The Master's paper proposal does not have to be submitted to the Student Services Office.

In implementing this aspect of the Master's program, the student is expected to select a scientifically relevant, feasible topic, based on a fully developed rationale that addresses its scientific and/or public health merits as reflected in the Master's Paper proposal. Also included in the proposal are the hypothesis(es) to be tested, the proposed study design and its rationale, an analysis plan, and an outline of the potential interpretation of the anticipated result(s). A proposal template is available from the Student Services Office or online through the Department's web site.

Exceptions to the above requirements may be proposed with approval by the student's academic advisor, but must be approved by the Graduate Studies Committee.

### **Identifying a Master's Paper Topic**

Selecting an appropriate topic can sometimes be a stumbling block for students. Although the advisor will assist in topic identification, it is the student's responsibility to initiate the process by offering some preliminary ideas to the advisor. Appendix VI provides suggestions for defining the topic.

### **Human Subjects Review**

Please refer to section relevant to all students for specific IRB training requirements [above](#).

**All proposed master's paper research must be submitted to the School of Public Health Institutional Review Board (IRB) as soon as the project has been approved by the advisor and reader** (see above). This applies to all proposals, whether sponsored or not sponsored. While practice in the context of training is not subject to review by IRB, generalizable research conducted by students and/or faculty is subject to a determination whether review by the IRB is required. This determination is the purview of the IRB. Since the master's paper is a research activity that takes place under the leadership of the student with support from an advisor, safeguarding the ethical conduct of this research activity is a responsibility shared by the student.

Student research is defined online at <http://ohre.unc.edu> and guidance for any IRB action required for student research is also found in the "student\_research\_irb\_guidance" document ([http://research.unc.edu/ccm/groups/public/@research/@hre/documents/content/ccm3\\_020943.pdf](http://research.unc.edu/ccm/groups/public/@research/@hre/documents/content/ccm3_020943.pdf)). (Refer to Appendix VII.) Registration of Master's paper proposals and dissertation proposals follows the rules for IRB action presented in the IRB guidance document referred to above. The student is listed as the lead investigator for the research activity and a faculty advisor is identified who holds ultimate responsibility for ensuring that this project complies with all University, regulatory, and fiscal requirements.

Depending on the data and research environment of the Master's paper project it may not be possible or desirable for student research to be subsumed under an existing IRB approval extended to the lead investigator of a "parent study" that supports a student's research. *The decision about what is reasonable and whether the student's proposed research meets this Institution's guidelines for ethical conduct of research involving human subjects is made by the IRB.* Students should consult with their advisors in preparing IRB applications.



**Upon receipt of IRB exemption or approval, the student must complete the [Verification of Compliance with Institutional Review Board Requirements form](#). A copy of the IRB committee's decision must be attached to the form. In addition, the title page of the Master's Paper must reflect the date of IRB approval (or exemption).**

The Co-Chairs of the Public Health IRB are Professors Trude Bennett, Ruth Humphry and Mary Lynn. The Administrative Assistant is Ms. Barbara Griese. Inquiries and requests for forms, status of application and other questions should be routed through her. She may be reached at 966-8143, or by email at [griese@email.unc.edu](mailto:griese@email.unc.edu). See web site at <http://ohre.unc.edu>.

## **Data Use Agreements**

If data are used for the master's paper that are not publicly available, the IRB and the Department require a [data use agreement form](#). A sample form is available online through the Department's web site. This form should be signed by the Principal Investigator of the study that provides access to the data, or the person legally authorized to release it.

## **Schedule for Completing the Master's Paper**

**At least two months before the anticipated date for approval of the Master's Paper the student will file with the Student Services Office a written schedule for revision and approval of the Master's Paper.** The schedule should carry the approval of both committee members. In preparing the schedule the student should take any potential conflicts into account.

Sufficient time should be allowed for the following:

- a thorough first review of the entire paper by both committee members;
- revision time required by the student;
- a second review by the committee members, at least four weeks prior to anticipated date for final approval of the complete, revised Master's paper, to permit final modifications that may be requested.

The following is offered as an example of such a time schedule:

8 weeks prior to the anticipated date for final approval, the completed major paper is received by the committee members. At this time the student should arrange an appointment with each member to discuss their critique of the paper and revisions desired. The appointment would optimally be 2 or 3 weeks after the committee members have received the complete draft.

4 weeks prior to the anticipated date for final approval, the final draft of the Master's Paper is received by the committee members. Final comments and suggested revisions are provided to the student within two weeks so that final revisions can be made.

1 week prior to the anticipated date for final approval, the finished Master's Paper is received by both committee members so that they can read the final product and verify that all revisions have been made satisfactorily.





In preparing this schedule, the student should note Graduate School deadlines for the desired graduation date. (<http://regweb.oit.unc.edu/calendars>).

## **Format and Submission of the Master's Paper**

The Master's Paper is submitted to the Department in the format of a manuscript submitted for publication. There are no space limits, nor other constraints to demonstrating mastery of the subject, the sophistication of the analytic treatment, and the discussion of the results. These specifications apply unless both members of the Master's Paper Committee agree on an alternate. If the Master's Paper is submitted for publication, it is recommended that the student follow the authorship guidelines promulgated by the International Committee of Medical Journal Editors (ICMJE), which are posted at <http://www.icmje.org>. IRB approval status as well as financial disclosures of the authors should be mentioned. For the latter, criteria for financial disclosure can be consulted at N Engl J Med 2002; 346(24):1901-2, Jun 13, 2002.

There is not a departmental requirement at present for publication of the master's paper, although publication by students is strongly encouraged. Students choosing to publish their Master's paper research should refer to Appendix VIII for publication practices.

The **master's paper is not a thesis, but rather a "thesis substitute."** Thus, many of the formal thesis requirements do not apply. Specifically, there is no final examination, defense of the master's paper, or fee, and the paper itself is not filed with the Graduate School.

-  • **Formatting Guidelines:** Use Arial or Times New Roman font; use a type size of 11 or 12; page numbers centered on the bottom of the page in a footer; margins of left margin of at least 1¼ inch; other margins at least one inch. The Graduate Schools handbook, "A Guide to the Preparation and Submission of Theses and Dissertations," does not apply since this is not a formal thesis.
-  • **Funding sources should be acknowledged in a statement such as:** "This research was supported in part by a grant from [name of institution]." **Disclosure statements must also be added, as applicable to potential conflicts of interest related to individual authors' commitments and project support. If there are none, this should be specified, e.g., "the author(s) have no conflicts to declare."**
-  • **One copy of the Master's paper is submitted to the Student Services Office** in accordance with the University schedule. This is the official copy, and must carry the signatures of both members of the student's master's committee on the title page, **as well as date of IRB approval.** Copies of the final paper are also given to the members of the student's committee, if desired.
-  • The departmental copy of the paper **must be bound in the "velo" style.** This type, with the plastic strip binding (not spiral) and a good quality heavy cover, is available at copy centers for a nominal cost. **The cover of the paper must be labeled with the student's name and the title of the paper. Students need to follow the exact format of the sample cover page found in Appendix IX.**
- Once the master's paper is complete, a "Report of Approved Substitute for Master's Thesis" form must also be filed with the Student Services Office. Please see the "Master's Paper Report" section below.

**Students must be registered for 3 credit hours of EPID 992 at the time the master's paper is turned in.**

Master's papers are kept in the department dissertation room (2106A), and are available to students and faculty for use within the building. See Carmen or Nancy for access.


### **Oral Presentation of the Master's Paper Research**

Presentation of the Master's paper at a seminar, scientific, or professional meeting is required. The leaders of each program area are responsible for providing an adequate forum for this presentation for Master's students in the program. Students not affiliated with a program area work with their advisor to identify an equivalent opportunity for presentation of the Master's paper. The student's master's paper committee is responsible for verifying that the requirement has been met satisfactorily.

Guidelines for the presentation are as follows:

- a. The student must be primarily responsible for preparation for the presentation. For example, presentation of slides prepared by a co-investigator is not allowed if the presentation is to fulfill the Master's requirement.
- b. The topic must be epidemiological.
- c. The audience must be knowledgeable in both epidemiology and the substantive area, so that a meaningful, probing discussion is possible.

The forum for a Master's presentation could be a program area seminar or affiliated program seminar series (e.g., Translational Research Curriculum). In some instances, presentation at a regional, national, or international meeting would meet this requirement. Individually-scheduled presentations could be held at any time throughout the fall and spring semesters. Use of the Wednesday afternoon seminar period (3:30-4:30 p.m.) is particularly encouraged for this purpose, on dates when no seminar or department meeting is scheduled. In general, individual presentations during the summer are discouraged.

 The student and committee are responsible for scheduling and announcing the presentation to achieve an appropriate forum. Audience attendance should be encouraged by prominent announcements of student presenters, research topics, and advisors. **The presentation must be announced via the Epidsems distribution list ([epidsems@unc.edu](mailto:epidsems@unc.edu)) at least one week in advance. The announcement should include student name, title of presentation, indication that this is a master's presentation, name of advisor, date, time, and location.** Program areas are encouraged to issue specific invitations to colleagues outside the department, citing the paper titles.

**To reserve the EPID conference room, email Chandra at [ccaldwel@email.unc.edu](mailto:ccaldwel@email.unc.edu). To reserve a room in the SPH, go [http://www.sph.unc.edu/rooms\\_av/](http://www.sph.unc.edu/rooms_av/)**

The following sequence is recommended:

1. Student prepares preliminary draft of the masters' presentation and provides to each of the two readers at least two weeks prior to anticipated date of master's paper presentation.
2. Student discusses draft presentation with each of the two readers. Suggestions are provided.
3. Master's paper presentation (as work in progress, not as a final defense).

At least one of the two readers attends the presentation, provides feed-back to the student and signs the [Oral Presentation form](#) indicating that this step has been completed satisfactorily (or otherwise). If neither reader can be present at the presentation, it is the responsibility of the primary reader to identify a substitute among the faculty. If the presentation is not satisfactory, a meeting of the two readers and the student is required prior to proceeding with the masters' paper.

4. Student completes master's paper **after the oral presentation**, and submits it to both readers at least one month prior to the date established by the Graduate School for completion of masters' programs in the pertinent semester. **(Graduate School completions deadlines can be found at <http://gradschool.unc.edu/graddeadlines.html>).**

5. Student responds to comments from both readers, and submits final version of masters' paper to both readers according to the schedule previously established with both readers (but at least two weeks prior to the date of completion of masters' program established by the Graduate School).
6. In order for the readers to approve a masters' paper, a meeting of the student and the two readers may be needed. Such a meeting may be requested by either of the two readers or the student, but is not required.

### **Master's Paper Report**



When the master's paper has been completed and approved by the student's committee AND the work has been presented in an appropriate forum, a "Report of Approved Substitute for a Master's Thesis" must be completed by the student and signed by the advisor. This report completes the student's master's degree program and must be submitted to the Student Services Office along with the final, signed, and bound Master's Paper. This form can be found at: <http://gradschool.unc.edu/forms/>. This form is filed with the Graduate School and verifies completion of this requirement.

### **Suggested Milestones and Time Table for Preparation of the Master's Paper**

<u>Milestone</u>	<u>Suggested Time Table*</u>
1. Selection of Topic	1st Year, Summer, 1st session
2. Literature Review	1st Year, Summer, 2nd session
3. Data Analysis or Synthesis of Issues	2nd Year, Fall & Spring
4. Oral Presentation	2nd Year, Spring
5. Final Draft	2nd Year, Summer
6. Completion of Paper	2nd Year, Summer

\* This timetable is appropriate for students enrolled in the standard two-year master's program. MPH students who must work within a shorter time frame will need to carefully plan their program with their advisor(s) in order to ensure fulfilling all requirements within the time allowed.

### **MASTER'S DEGREE APPLICATION FOR GRADUATION**



To be eligible for graduation in a given semester a Master's student must apply for the degree early in that semester. **Degree application forms and deadlines can be found at <http://gradschool.unc.edu/graddeadlines.html>.** If a student fails to graduate in the term applied for, s/he must re-apply; no prior application will suffice.

### **PROMOTION OF MSPH STUDENTS TO THE DOCTORAL PROGRAM**

Doctoral students who are required to first obtain the MSPH must complete all requirements for the master's degree, including the master's comprehensive examination and master's paper, before proceeding with doctoral research. A recommendation for the promotion of a master's student to the doctoral program is brought to the faculty by the student's prospective doctoral advisor as a representative of a promotion committee of three, to

include the student's master's advisor. The faculty and chairperson consider the recommendation and make a final determination as to whether the student may proceed in the doctoral program.

Students must be approved for promotion prior to continuing on after completion of the Master's Paper. Consult with Nancy or Carmen to determine the deadline for your promotion committee meeting.

### **Criteria for Promotion**

- The applicant has identified a doctoral advisor. In addition to the established function of an academic advisor, the doctoral advisor assists the student in identifying a doctoral research topic, may serve as the chair of the doctoral committee or assist in identifying a chair, and helps in developing the doctoral research proposal until the chair of the doctoral committee has been identified.
- The advisor indicates that this student has achieved a satisfactory level of professional development consistent with doctoral research.
- All masters-level course requirements have been met satisfactorily or are in progress toward satisfactory completion.
- At least one satisfactory, complete draft of the Master's Paper has been submitted to the advisor and second reader.
- The advisor and faculty are satisfied that the applicant has a clear potential for graduate work at the doctorate level and independent work as an epidemiologist at the doctoral level.

### **Procedure**

The student arranges the promotion committee to discuss the promotion request. This committee should consist of three faculty members, to include the master's advisor if this person is different than the doctoral advisor, and is chaired by the prospective doctoral advisor. The third member of the committee is selected from the members of the Graduate Studies Committee (names available from Student Services Office), and should not be one of the advisors. In the event that the master's and doctoral advisors are the same, the student should identify an additional faculty member to serve on the committee, ideally someone who has had extensive interaction with the student. If the doctoral advisor is an adjunct or clinical member of the faculty, the student must identify a chairperson who has a primary appointment in the Department of Epidemiology to serve on the promotion committee.

In advance of the promotion committee meeting, the student should provide (in no particular format) the following materials to the committee members:

- Coursework results, including numerical grades for EPID 710, EPID 715 and EPID 718 (available from Student Services Office)
- Master's examination results (available from Student Services Office)
- Summary of Master's paper progress
- Names of faculty with whom the student has worked
- Statement of dissertation plans as they appear at that time
- Student's CV
- Copy of student's transcript (You can print your "Course History" in your MyUNC Student Center.)
- [Form](#) -- "Record of Committee Action for Promotion from MSPH to PhD"



The student meets with the Promotion Committee long enough to answer any questions and is then excused. Following discussion by the full faculty, the student is informed of the outcome by letter.

**A copy of the complete promotion packet must be submitted to the Student Services Office.**

### **ADVANCEMENT FROM THE MPH TRACK TO THE PhD TRACK**

Since students are admitted for the MPH degree with the assumption that it will be a terminal degree, there is no promotion option. Those who are interested in continuing for the PhD must apply for admission to the PhD program through the Graduate School. The faculty and admissions committee review the application with the pool of doctoral applicants for that year and a recommendation is forwarded to the Graduate School.



## ***INFORMATION SPECIFIC TO MSCR DEGREE STUDENTS***

For a checklist of MSCR milestones, go to <[http://www.sph.unc.edu/epid/degree\\_audit\\_8227\\_7417.html](http://www.sph.unc.edu/epid/degree_audit_8227_7417.html)>.

### **MSCR (Masters of Science in Clinical Research)**

The MSCR program is an interdisciplinary research degree program housed within the Department of Epidemiology in the Gillings School of Global Public Health but jointly sponsored by the TraCS (North Carolina Translational and Clinical Sciences) Institute (<http://tracs.unc.edu>). The program is designed to develop the skills necessary for a successful career as a principal investigator and collaborator in clinical/translational research. The MSCR requires a minimum of 36 semester hours of credit and is designed as a two-year program. The program may be completed on either a part-time or full-time basis.

The MSCR is for individuals who have already completed a doctoral degree (MD, DDS, PharmD, etc.). It is intended to complement the substantive training in these primary areas by enhancing the student's ability to apply appropriate research methodologies to their chosen/established field of research. Students who currently hold academic appointments or are employed must have arranged sufficient protected time to complete the coursework.

### **MENTORS**

All participants in the MSCR should have a clear relationship with a mentor in their research field. This research mentor should be in addition to the assigned academic advisor. In some cases, a training program director will serve as the research mentor during the training period.

Mentors will be involved directly in some of the coursework, for example, providing feedback on other student's research proposals.

### **BASIC STRUCTURE OF THE MSCR PROGRAM**

Core courses in the curriculum will address issues pertinent to all areas of clinical and translational research. To accommodate the special needs of different areas in clinical and translational research, participants will select one of three tracks:

1. Translational ("Bench to Bedside") - Persons with experience in basic science who are intending to continue work that will have a strong component of basic science
2. Clinical Trials - Persons with a specific career interest in the conduct of traditional clinical trials
3. Health Services/Population Studies - Persons with primary interest in health services and population studies, including health services interventions, observational studies, medical decision-making, health behavior and pharmacoepidemiology

### **CORE COURSES FOR MSCR**

- EPID 711: Clinical Measurement & Evaluation(3 credits, Fall)
- BIOS 541: Quantitative Methods for Health Care Professionals (4 credits, Fall)
- EPID 690 (section TBA): Design of Clinical Research (3 credits, Spring)

- BIOS 542: Quantitative Methods for Health Care Professionals. Course is required for persons in either Clinical Trials or Health Services/Population tracks (4 credits, Spring), strongly recommended for others.
- EPID 805: Clinical Epidemiology and Clinical Research Methods (4 credits, Fall)
- EPID 806: Clinical Research Skills (4 credits, Spring)
- EPID 896: Seminar in Clinical Research (1 credit, Fall/Spring, must be enrolled in the seminar throughout enrollment in MSCR program, typically 4 semesters, but a minimum of 2 semesters)
- EPID 992 (Masters Paper). The paper will be original work in the form of primary data collection and analysis, secondary data analysis, or systematic review (or meta-analysis) of previously conducted studies.
- All students will be required to have training in the ethical conduct of research.
- Note: BIOS 600 and 545 may be substituted for BIOS 541 and BIOS 542.

### TRACK-RELATED COURSE OPTIONS

Students must complete a minimum of two courses from one track.

Approved track-related courses are listed below. Note that EPID 733, Clinical Trials in Epidemiology, is listed for all three tracks. We strongly encourage students to take this course. If a student identifies another course that s/he feels is suitable to their needs and should be included as an option for a track-related course, the student may provide the syllabus of the course, along with a request for consideration to the program director.

#### Tracks:

##### ***Approved Track-Related Courses***

Course #	Course Title	Credits	Semester
<b><i>Translational Track – At least two of the following or approved alternative</i></b>			
DPET 832	Pharmacogenomics	2	S
DPET 855	Principles of Pharmacokinetics	3	F
ENVR 442	Biochemical and Molecular Toxicology	3	S
EPID 690	Biomarkers in Population Research	2	F
EPID 690	Study Design and Analysis for Translational Researchers		New course/not yet offered
EPID 733	Clinical Trials in Epidemiology	3	S
EPID 743	Genetic Epidemiology: Methods And Applications	3	S
PATH 723	Translational Pathology & Laboratory Medicine	2	S
PATH 725	Cancer Pathobiology	3	S
PSYC 701	Biological Basis of Behavior I	3	F
<b><i>Clinical Trials Track – At least two of the following or approved alternative</i></b>			
DPET 830	Development and Clinical Investigations of Drugs	2	F
DPET 833	Experimental Design Considerations in Clinical Research	2	S
EPID 690	Quantitative Evaluation of Public Health Interventions	2	F
EPID 733	Clinical Trials in Epidemiology	3	S
HPM 650	Pharmaceutical Research, Development, and Marketing	3	F
PUBH 747	Project Management Principles and Practices	3	S
<b><i>Health Services/Population Track – At least two of the following or approved alternative</i></b>			
CRP 259	Decision Sciences in Clinical Research	2	F
DPOP 804	Informatics: Use of Large Health Care Databases	3	F
DPOP 805	Patient Reported Outcomes: Theory, Methods, Applications	3	S

EPID 690	Biomarkers in Population Research	2	F
EPID 715	Theory and Quantitative Methods in Epidemiology	5	S
EPID 733	Clinical Trials in Epidemiology	3	S
EPID 765	Methods and Issues in Pharmacoepidemiology	3	S (alternate)
EPID 800	Epidemiology of Medical Care	3	
HBHE 753	Qualitative Evaluation & Research Methods	3	F
HPM 496	Seminar in Comparative Effectiveness Research	3	F/S
HPM 510	Global Perspectives on Ethical Issues in Health Policy and Management	3	S
HPM 757	Health Reform: Political Dynamics and Policy Dilemmas	3	S
HPM 766	Cancer Care Quality	3	F
HPM 772	Economic Evaluation of Health Care Technologies; Policy Analysis and Technology Assessment	3	F
NURS 933	Methods for the Evaluation and Improvement of Health Care Systems	3	
PUBH 747	Project Management Principles and Practices	3	S
PUBH 750	Strategies of Prevention for Clinicians	4	F

## **ELECTIVE COURSES**

In most circumstances, a student will require additional credits to obtain the 36 credit hours necessary for graduation. These elective credits may be selected from any relevant course on campus with approval by the student's advisor. Elective credits may be obtained for research activities with supervision of a faculty member.

## **CREDIT TRANSFER**

Upon approval by the Graduate School, up to 7 of the 36 minimum required hours (20%) may be transferred from another accredited institution, or from this institution for courses taken before admission to the Graduate School.

## **“RESIDENCY” REQUIREMENTS [not the same as residency for tuition purposes]**

MSCR candidates are required to complete a minimum residence credit of two semesters, either by full-time registration for two semesters, or by part-time registration over a large number of semesters. The residence credit hour requirement requires UNC-Chapel Hill registration (i.e., transfer credit and credit from certificate programs are excluded). The program is designed to be completed over two years. Registration in at least three semesters is required.

## **MASTER’S PRACTICUM REQUIREMENT**

The MSCR does not currently require a formal practicum. However, all participants in the MSCR are expected to participate in research activities with their research mentor and/or other research supervisors.

## **THE MASTER'S COMPREHENSIVE EXAMINATION**

The Master's Comprehensive Examination is a formal requirement of the Graduate School, and is covered by the campus Honor Code. The student must be registered at the time of the examination.

### **Purpose:**

The Master's Comprehensive Examination is intended to provide an opportunity to demonstrate mastery of basic clinical research concepts and methods and to diagnose any major areas of deficiency. A passing score on the examination is a requirement for the MSCR degree.

**Timing:**

The Master's Comprehensive Examination is offered in May of each year. Generally, students are expected to complete the examination at the end of their first year of study.

The date of the examination will be announced during the spring semester.

**Format:**

The examination is offered as a take home examination. Students are given 24 hours to complete the examination. Students may use text books and class notes in completing the examination.

The examination is typically based on a single clinical research article. The article will not be provided to students prior to the exam.

**Appeal of Failing Grade:**

Please see the section on Appeal under the MPH and MSPH Comprehensive Examination. Identical procedures apply to the MSCR.

**THE MASTER'S PAPER**

The Master's Paper is a thesis substitute and is a major requirement for the MCSR degree. The purpose of this experience is to challenge students to apply their clinical research training to a specific clinical issue and to demonstrate scientific writing skills.

The paper is filed with the Student Services Office and is available for student and faculty reference.

**Master's Paper Committee**

Development of the master's paper is supervised by a committee consisting of a master's paper advisor and a second reader. It is expected that one reader will be the student's mentor from their "home" department or program. The other reader will typically be the student's assigned academic advisor.

**Content and Form of the Master's Paper**

In carrying out the project, the student will be expected to select a scientifically relevant, feasible topic; review the medical literature; formulate an informative study question; and complete the relevant data analysis to address the study question. Master's papers may address a wide variety of clinical issues, from pharmacokinetics to health behavior, depending on the student's needs and interests. Formalized systematic reviews and meta-analyses are acceptable as Master's papers. Submission of the Master's paper for publication is expected, but not a formal requirement.

Following approval by the two committee members, the completed Master's Paper is submitted to the Department as a scientific report formatted as a manuscript for publication. The Master's paper also requires a specific cover page and binding.

**Identifying a Master's Paper Topic**

Selecting an appropriate topic can sometimes be a stumbling block for students. Although the advisor will assist in topic identification, it is the student's responsibility to initiate the process by offering some preliminary ideas to the advisor.

## **Human Subjects Review**

Please refer to section relevant to all students for specific IRB training requirements [above](#).

**All proposed master's paper research must be submitted to the Public Health or Biomedical Institutional Review Board (IRB) as soon as the project has been approved by the advisor and reader** (see above). This applies to all proposals, whether sponsored or not sponsored. Since the master's paper is a research activity that takes place under the leadership of the student with support from an advisor, safeguarding the ethical conduct of this research activity is a responsibility shared by the student.

Please note that even if a research activity has been approved previously, whether at UNC or elsewhere, specific IRB approval for the Master's paper must be obtained.

Student research is defined online at <http://ohre.unc.edu> and guidance for any IRB action required for student research is also found in the "student\_research\_irb\_guidance" document ([http://research.unc.edu/ccm/groups/public/@research/@hre/documents/content/ccm3\\_020943.pdf](http://research.unc.edu/ccm/groups/public/@research/@hre/documents/content/ccm3_020943.pdf)). (Refer to Appendix VII.) Registration of Master's paper proposals and dissertation proposals follows the rules for IRB action presented in the IRB guidance document referred to above. The student is listed as the lead investigator for the research activity and a faculty advisor is identified who holds ultimate responsibility for ensuring that this project complies with all University, regulatory, and fiscal requirements.

**Upon receipt of IRB exemption or approval, the student must complete the [Verification of Compliance with Institutional Review Board Requirements form](#). A copy of the IRB committee's decision must be attached to the form. In addition, the title page of the Master's Paper must reflect the date of IRB approval (or exemption).**

See web site at <http://ohre.unc.edu>.

## **Data Use Agreements**

If data are used for the master's paper that are not publicly available, the IRB and the Department require a [data use agreement form](#). A sample form is available from the Student Services Office or online through the Department's web site. This form should be signed by the Principal Investigator of the study that provides access to the data, or the person legally authorized to release it.

## **Typical Schedule for Completing the Master's Paper**

Sufficient time should be allowed for the following:

- a thorough first review of the entire paper by both committee members;
- revision time required by the student;
- a second review by the committee members, at least three weeks prior to anticipated date for final approval of the complete, revised Master's paper, to permit final modifications that may be requested.

In preparing this schedule, the student should note Graduate School deadlines for the desired graduation date. (<http://regweb.oit.unc.edu/calendars>).

## **Format and Submission of the Master's Paper**

The master's paper is not a thesis, but rather a “thesis substitute.” Thus, many of the formal thesis requirements do not apply. Specifically, there is no final examination, defense of the master's paper, or fee, and the paper itself is not filed with the Graduate School.

- Formatting Guidelines: Use Arial or Times New Roman font; use a type size of 11 or 12; page numbers centered on the bottom of the page in a footer; margins of left margin of at least 1¼ inch; other margins at least one inch. The Graduate Schools handbook, "A Guide to the Preparation and Submission of Theses and Dissertations," does not apply since this is not a formal thesis.
- **Funding sources should be acknowledged in a statement such as: "This research was supported in part by a grant from [name of institution]." Disclosure statements must also be added, as applicable to potential conflicts of interest related to individual authors' commitments and project support. If there are none, this should be specified, e.g., “the author(s) have no conflicts to declare.”**
- **One copy of the Master's paper is submitted to the Student Services Office** in accordance with the University schedule. This is the official copy, and must carry the signatures of both members of the student's master's committee on the title page, as well as date of IRB approval. Copies of the final paper are also given to the members of the student's committee, if desired.
- The departmental copy of the paper must be bound in the "velo" style. This type, with the plastic strip binding (not spiral) and a good quality heavy cover, is available at copy centers for a nominal cost. The cover of the paper must be labeled with the student's name and the title of the paper. Students need to follow the exact format of the sample cover page found in Appendix IX.
- Once the master's paper is complete, a “Report of Approved Substitute for Master's Thesis” form must also be filed with the Student Services Office. Please see the “Master's Paper Report” section below.

**Students must be registered for 3 credit hours of EPID 992 at the time the master's paper is turned in.**

Master's papers are kept in the department dissertation room (2106A), and are available to students and faculty for use within the building. See Carmen or Nancy for access.

## **Master's Paper Report**

When the master's paper has been completed and approved by the student's committee AND the work has been presented in an appropriate forum, a “Report of Approved Substitute for a Master's Thesis” must be completed by the student and signed by the advisor. This report completes the student's master's degree program and must be submitted to the Student Services Office along with the final, signed, and bound Master's Paper. This form can be found at: <http://gradschool.unc.edu/forms/>. This form is filed with the Graduate School and verifies completion of this requirement.

## **RESEARCH GRANT PROPOSAL**

All MSCR students are required to complete a research grant proposal. This proposal may be for a career development award or an investigator-initiated research grant. Most proposals will be in the form of an NIH grant. However, foundation grant proposals are also acceptable. Although not a formal requirement of the program, it is strongly encouraged that the research grant proposals are submitted to a funding agency. The research proposal will be developed in the context of EPID 805/6.

## **MASTER'S DEGREE APPLICATION FOR GRADUATION**

To be eligible for graduation in a given semester a Master's student must apply for the degree early in that semester. **Degree application forms and deadlines can be found at <http://gradschool.unc.edu/graddeadlines.html>**. If a student fails to graduate in the term applied for, s/he must re-apply; no prior application will suffice.

**A sample schedule for MSCR program can be found in Appendix X.**

This program is jointly administered by the Department of Epidemiology and the TraCS Institute. Questions related to clinical aspects of the program should be directed to Susan Pusek, Director, Education Programs, TraCS Institute (919-966-0128, [suspusek@med.unc.edu](mailto:suspusek@med.unc.edu)). Questions related to academic aspects of the program should be addressed to Nancy or Carmen.

## ***INFORMATION SPECIFIC TO DOCTORAL DEGREE STUDENTS***

### **COMPETENCIES FOR THE PhD**

The PhD program enrolls students who have a master's degree in epidemiology or another advanced degree and/or experience such that they have acquired most of the knowledge and competencies provided in the MPH or MSPH programs. The PhD program has a public health orientation and is designed to equip persons to function as independent researchers in academia, research institutes, government, or industry. While graduates often seek additional experience by way of a postdoctoral training, a graduate of the PhD program is prepared to function as a faculty member of a graduate program in a university or in a position in a public health organization, multi-disciplinary setting, government or industry of comparable independence and responsibility. The PhD program presupposes a foundation of knowledge of concepts and skills of epidemiology, an understanding of public health concepts and the population perspective, and the ability to read with sophistication reports of clinical and epidemiological studies. However, it is anticipated that students may need additional work in one or more of these areas, depending upon their background before entering the program. The PhD program assumes that graduates' professional identity and primary area of expertise will be in epidemiology, though the student may possess a prior area of professional expertise (such as medicine, nursing, or pharmacy). The competencies of the doctoral program in Epidemiology fully meet the competencies set out for doctoral education at the UNC School of Public Health.

**In addition to the ability of carrying out the competencies of the masters degree programs, upon satisfactory completion of the PhD degree program the student will be able to:**

1. Critically review the scientific literature, synthesizing the findings across studies, and rendering an informed judgment on the state of knowledge in that area, presenting appropriate implications for policy, professional practice, or personal behavior, and deriving implications and avenues for further research.
2. Identify researchable study questions that will advance scientific knowledge about a topic of public health significance.
3. Design epidemiological studies to address questions of public health importance.
4. Be familiar with the principles of ethics in research and the ethical conduct of research involving human subjects.
5. Develop a research proposal that states a study question or questions, presents a scientific and public health rationale for their significance, and specifies a detailed methodology for carrying out an epidemiological study to answer the question or questions.
6. Design and conduct, supervise, or collaborate in the conduct of the data collection, data management, and study management activities for epidemiological studies in a clinical, occupational, or community setting.
7. Manage or supervise the management of the data from epidemiological studies, including quality control, documentation, and data security procedures;
8. Analyze data from epidemiological studies using cross-sectional, case-control, or cohort designs. Be a skilled data analyst able to use state-of-the-art statistical methods appropriate for the study design, and



able to incorporate categorical or continuous variables, control for covariates, and examination of effect modification.

9. Interpret data from statistical analyses of epidemiological studies, in the context of findings from other studies and relevant information and theories from biological, physical, and social sciences.
10. Present the findings of an epidemiological investigation, in writing and orally, to a scientific audience.
11. Submit the findings of the doctoral research for external peer reviewed publication.
12. Critically review scientific manuscripts and research proposals.
13. Explain complicated epidemiological concepts and teach epidemiology courses at the graduate level.
14. Following graduation, read the literature and understand the benefits and limitations of methodologic developments and scientific advances.

### **SUMMARY OF REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY (PhD)**

The PhD in Epidemiology is the academic doctoral degree. It is a research degree, centered around a major research project within a broad public health orientation and seeking to integrate related disciplines. The program averages three to five years following a master's or other advanced degree. Coursework and preliminary examinations normally require two years, with the remainder of the time devoted to the research and completion of the dissertation. The Department specifies degree requirements within a framework prescribed by the Graduate School.

For a checklist of doctoral milestones, go to <[http://www.sph.unc.edu/epid/degree\\_audit\\_8227\\_7417.html](http://www.sph.unc.edu/epid/degree_audit_8227_7417.html)>.

#### **Required Core Methods Courses**

- EPID 705: Introduction to Logic and Probability Logic in Epidemiology
- EPID 710: Fundamentals of Epidemiology [EPID 711 may be substituted by clinicians]
- BIOS 600: Principles of Statistical Inference **Or**  
BIOS 550: Elements of Probability and Statistical Inference I  
[BIOS 541 may be substituted by those in the Translational Research Curriculum]
- BIOS 545: Principles of Experimental Analysis **Or**  
BIOS 663: Intermediate Linear Models  
[BIOS 542 may be substituted by those in the Translational Research Curriculum]
- EPID 715: Theory and Quantitative Methods in Epidemiology
- EPID 718: Epidemiologic Analysis of Binary Data
- EPID 722: Epidemiologic Analysis of Time-to-Event Data
- EPID 725: Research Planning Workshop
- EPID 726: Epidemiologic Research Methods

**See Appendix III for a list of substantive epidemiology courses.**

**See Appendix IV for additional information regarding BIOS courses.**

### **Additional Courses**

- Substantive epidemiology courses, minimum of two, each in a separate discipline area. See Appendix III for a list of specific courses.
- Higher level biostatistics course/s as determined with advisor and specified by intradepartmental review committee (e.g., BIOS 664, BIOS 665, BIOS 667, etc.)
- Other coursework as determined with advisor and specified by intradepartmental review committee.
- EPID 994: Dissertation, minimum of a total of six credit hours required (Typically three credits when defending proposal and three credits at final defense. Additional credit hours as needed.).

### **Other Degree Requirements**

- One semester teaching experience in epidemiology (see page 37 for list of approved courses)
- Practicum requirement demonstrating experience in a minimum of two study implementation activities
- Competence in statistical computing and data management; may be satisfied by:
  - ◊ EPID 700: SAS and Data Management
  - ◊ BIOS 511: Introduction to Statistical Computing and Data Management, or
  - ◊ BIOS 541/542
  - ◊ a comparable SAS or Stata course on this campus (i.e., through IRSS) or elsewhere, or
  - ◊ prior experience using SAS or Stata (exemption exam required)
- Competence in scientific writing
- Intradepartmental Review planning session
- Presence on campus until after successful defense of doctoral proposal
- Preliminary Doctoral Examinations:
  - Written examination: The Doctoral Qualifying Examination
  - Oral Examination: On the dissertation proposal primarily
- Specific written questions on research area (at discretion of student's dissertation committee)
- Submission of a minimum of one manuscript from dissertation research to an external peer review mechanism (see page 48)
- Doctoral Dissertation
- Final Defense of Dissertation

Doctoral students plan coursework beyond the core requirements in consultation with the advisor and the intradepartmental review committee. Doctoral students are expected to take some higher level biostatistics. Additional substantive epidemiology courses are strongly recommended.

Students proceeding from the master's program in this department complete many of the doctoral course requirements during the master's phase. These courses will already be part of the student's record. No formal waiver is necessary.

**A sample schedule for the PhD program can be found in Appendix XI.**

### **Scientific Writing**

Clarity of expression is one of the elements evaluated in all written work, particularly in the doctoral written examinations and the dissertation. Some training possibilities for students who believe they might benefit from additional experience in this area are:

- The Writing Center (<http://www.unc.edu/depts/wcweb/>): provides free individual tutorials, campus workshops; writing conferences, grammar hotline, etc. to help students improve writing skills. They are located in the Student Academic Services Building. Call for an appointment at 962-7710.
- English 303: Advanced Expository Writing/Natural Sciences [This is an undergraduate course, and will not count toward a graduate degree, but may be helpful.]
- Duke University Continuing Education: courses in scientific writing offered from time to time--request catalog by calling 684-6259.
- Work with an editor or study group.
- Consult textbooks and style books. Two useful references (among many others available) are: Robert A. Day, How to Write and Publish a Scientific Paper, 3rd ed., Phoenix (Oryx Press, 1988) Kate L. Turabian, Manual for Writers of Term Papers, Theses, and Dissertations, 5th ed., Chicago (University of Chicago Press, 1987)

## CREDIT TRANSFER

A doctoral student may request transfer of relevant graduate courses from accredited institutions or from other graduate programs within this institution (contact the Student Services Office). The doctoral student may be examined on all transferred coursework at the time of the doctoral oral examination. The examining committee then makes a recommendation to the Graduate School, which has the final responsibility for approving the transfer.

## “RESIDENCY” REQUIREMENTS [not the same as for tuition purposes]

The Graduate School requires a minimum of four full semesters of residence credit. At least two of these semesters must be earned in continuous registration of no fewer than 6 credit hours on this campus. This requirement may be fulfilled by two regular semesters of full-time registration (nine or more credit hours) or by less than full-time registration over a larger number of continuous semesters. The residence credit hour requirement requires UNC-Chapel Hill registration (i.e., no transfer credit). A total of at least six semester hours of credit must be earned for dissertation (EPID 994).

\*If you are defending your proposal, meeting with your advisor, etc., you are using University resources and must be registered.

It is important to remember that a doctoral program in Epidemiology is individually planned, and involves more than the relatively small number of courses listed as required for all students. A student will need at least four semesters on campus to complete coursework, preliminary written and oral examinations, and to secure approval of the dissertation proposal.

## MINOR PROGRAMS

A minor is not a requirement of the doctoral program, but may sometimes be desirable. Provisions for minor programs are given in the Graduate School Handbook (<http://gradschool.unc.edu>):

If a student does offer a formal minor, it must include at least 15 credit hours. To count for the minor, all credits must be for courses listed (or cross-listed) in programs other than that of the major. A minor may consist of a set of related courses, some of which are listed by one program and some of which are listed by another. In the latter case, at least six semester hours must be taken in each program. The minor must be approved in advance by authorized faculty in the major and the minor programs. When a satisfactory minor has been planned and approved by both programs, a copy of the proposed minor course of study

shall be signed by the appropriate persons (dean, chairperson or director of graduate studies) in the major and minor programs and sent to the Graduate School to become a permanent part of the student's record.

If the dissertation involves the minor field, Graduate School policy requires the dissertation committee include at least one faculty member from the minor program.

Students wishing to complete a minor need to contact the minor department for information on its requirements.

## **TEACHING REQUIREMENT**

The teaching experience is a requirement for students admitted into the doctoral program. The purpose of the teaching requirement is to make available to all doctoral students a learning experience in effective communication in their field of scientific work, and a tutored practice in the teaching of epidemiology. These skills and their application are part of the department's goals in the training of an epidemiologist leading to the PhD degree.

The student's advisor(s) is/are responsible for assisting in the development of a plan and timing that best fits the student's training path. The teaching experience may be paid (Teaching Assistant, or TA). For students who are not eligible to receive pay, or who choose not to, the experience may be reflected in credit hours by registering for EPID 883 (Teaching Intern, or TI).

Additional details can be found on the web at TA Central ([www.sph.unc.edu/epid/ta\\_central\\_2424.html](http://www.sph.unc.edu/epid/ta_central_2424.html)).

### **Roles and Responsibilities**

TAs work with faculty in the preparation of course material, the preparation of the class schedule, the assembly of course-packs, and in the pre-testing of evaluation instruments. During the courses, TAs observe lectures and make themselves available to students for clarification of the concepts and terms used in those lectures; they provide consultation to students for clarification of concepts and to review the exercises used in course materials and/or textbooks; they conduct question-and-answer sessions structured around examples and exercises used in various sections of applied courses; and they make themselves available to answer questions from students in clarification sessions prior to quizzes, tests, and final examinations.

### **Options for Satisfying the Teaching Requirement**

Most of the TA opportunities are for EPID 600, a service course for non-majors that satisfies the SPH core requirement. TAs for this course may have the option of assisting with the on-campus version or the distance-learning version. Students who have completed more advanced training may serve as TAs for EPID 700; EPID 710 or EPID 711/PUBH 760, the introductory level courses for majors; EPID 715, 718, and 722, the advanced methods courses; and EPID 725/726, the research proposal development course. TAs in the advanced level courses usually serve at the invitation of the primary course instructor; however, the instructors will always welcome an inquiry from students who have a strong interest in a particular course.

Other options for satisfying the teaching requirement are: BIOS 541 and BIOS 542 with Dr. Joanne Garrett ([joanne\\_garrett@med.unc.edu](mailto:joanne_garrett@med.unc.edu)), EPID 759 with Dr. Lorraine Alexander ([lorraine\\_alexander@unc.edu](mailto:lorraine_alexander@unc.edu)) and MEDI 220 with Dr. Jeffrey Sonis ([jsonis@med.unc.edu](mailto:jsonis@med.unc.edu)).

### **Training and Development**

**All TAs complete three types of training** as a requisite for serving in a Teaching Associate role. An orientation and training session organized by the Center for Teaching and Learning serves as a general

preparation on teaching techniques and the skills needed to serve as a discussion leader. An additional, and more extensive training, takes place in preparation for each course as a responsibility of the respective course instructor. A series of meetings between the course instructor and the TA(s) takes place to review the course objectives, contents, structure, and the role of the TA in each phase of the course. In this process, faculty remain attentive to the apprenticeship role of the TA(s) and provide guidance in this learning experience which allows the student to assume the role of an associate in teaching under the supervision of the course instructor. **Finally, students serving as TAs must complete FERPA (Family Educational Rights and Privacy Act) training. Go to <http://connectcarolina.unc.edu/news/erp-news/update-ferpa-training.html> for more information.**

Doctoral students who have acquired comparable experience in the teaching of epidemiology prior to entry into the doctoral program may request an exemption from this requirement by documenting their past experience in this respect. Requests for exemptions to the teaching requirement are submitted to the Graduate Studies Committee through the Student Services Office. A request should carry the co-signature of the student's advisor.

**International students who plan to TA should first enroll in GRAD 810, Communication in the American Classroom.**

## **DOCTORAL PRACTICUM REQUIREMENT**

The field conduct of studies and related activities is an integral part of the life of an epidemiologist. Practical aspects of study conduct can include everything from designing questionnaires and subject recruitment to the collection of biologic samples and laboratory analysis. These activities are challenging and require a number of skills and experiences. Moreover, failure to properly conduct studies can waste precious resources and potentially invalidate study findings. Because students often conduct their dissertation research based on secondary analysis of data, this requirement will ensure that doctoral students in the Department of Epidemiology have been directly involved in at least two hands-on experiences in the practical conduct of studies.

### **Requirement Details**

All students in the PhD program must demonstrate adequate practical experience in a minimum of two study implementation activities. *Adequate practical experience will be defined as a meaningful field experience, study conduct or implementation activity during one semester.* The student's advisor will assist with the selection of eligible activities, the time and effort required, and provide the final approval. The advisor is not required to supervise the actual activities. These activities can be part of the dissertation project. Pay is neither required nor prohibited.

### **Options for Satisfying the Practicum Requirement\***

- Development and testing of study protocols
- Staff Training and Certification
- Subject Recruitment
- Questionnaire Design and Pretesting
- Interviewing
- Working with the Community to implement research
- Coding
- Medical or Other Records Abstraction
- Designing and implementing quality control activities
- Biospecimen Collection
- Laboratory Analysis

- Environmental, occupational, or personal exposure monitoring
- Collection of measurements on study participants
- Other activity as approved with advisor

\*Does not include activity that is part of existing course.

### **Format**

No exemptions based on practical experience prior to entrance into the doctoral program will be allowed; the student will have to choose an activity not performed in the past.

Checkpoints: (a) Planning and scheduling of this activity with the advisor, (b) Intradepartmental Review and proposal defense. The deadline is the final defense of the dissertation.

### **Report of Completion**

A brief (1 page) final report is to be turned in to the advisor, along with the [“Verification of Completion of Practicum Requirement”](#) form for *each* activity separately. The report should summarize the activities conducted to satisfy the requirement and refer specifically back to the doctoral competencies. Copies of both the report and the verification form are then to be submitted to the Student Services Office.

**The Master’s Practicum Guidelines do not apply to the doctoral practicum.**

### **THE INTRADEPARTMENTAL REVIEW**

The Intradepartmental Review (IDR) is a planning session, bringing together the student and key faculty members in his or her research area for review of the student's progress and to plan the remainder of the work. The IDR is scheduled at a time when the student has completed most or all coursework and has decided on a dissertation area (see Appendix XII for guidelines on how to choose a topic).

Composition of the intradepartmental review committee is decided in consultation with the doctoral advisor, and consists of three members of the epidemiology faculty. A subject matter expert can be substituted for one member with departmental approval. At least one must have a primary appointment (neither adjunct nor clinical) in the Department of Epidemiology.

At least a week before the intradepartmental review the student provides each participant with the following (in no particular format):

- An updated C.V.
- Information on progress to date, including courses completed, research activities, etc.
- A summary or outline of the proposed dissertation project.
- IRB Training Certificate
- Practicum Requirement verification (if complete)
- An item-by-item description of the degree to which the student has met each of the doctoral learning competencies (as listed in Academic Policies on page 33-34) and those of the program area, if applicable.



**A copy of the entire packet given to your Committee must be provided to the Student Services Office.**

The student must obtain the [Intradepartmental Review form](#) through the Departmental web site. The form will be completed by the Committee Chairperson during IDR. During the session the student and committee plan the training needs and opportunities best suited to the doctoral research identified by the student. The student is responsible for giving a copy of the signed checklist to each member of the IDR committee and filing the original copy with the Student Services Office.

## **PRELIMINARY DOCTORAL WRITTEN EXAMINATION: THE DOCTORAL QUALIFYING EXAM**

Preliminary Doctoral Examinations in the Department of Epidemiology are designed in accordance with Graduate School requirements for a written and an oral examination, together constituting a comprehensive examination of the student's command of his or her field. The student must be registered at the time the preliminary examinations are taken. The examinations are covered by the Honor Code.

### **Purpose**

The written examination is the Doctoral Qualifying Examination. It is a diagnostic tool designed to indicate to the Department whether the student has the substantive knowledge and the methodologic skills to engage in doctoral research and proceed in the doctoral program. The purpose of the examination is to yield diagnostic information on the student's command of several skills and competencies considered necessary for doctoral research.

### **Content and Structure of the Qualifying Examination**

The Doctoral Qualifying Examination is administered in two independently graded portions. The methods component is a standardized test of proficiencies in applying epidemiologic methods at the level of EPID 715/718/722. The substantive component consists of topical questions related to the program area declared by the student, prepared (and graded) by a committee established by the program area leader. The two components of the Qualifying Examination can be taken independently, but students need to pass both parts prior to the preliminary oral examination. An outline of each part of the Doctoral Qualifying Examination follows.

The **methods component** of the Doctoral Qualifying Examination consists of written responses to questions designed to test the student's ability to apply the concepts and methods covered in the required epidemiology and biostatistics courses. It is administered as an in-class examination, and questions may call for short essay answers; computations and set up of computations; interpretation of software output; construction, analysis and interpretation of results in tabular form; and analysis of data provided.

The **substantive component** of the Doctoral Qualifying Examination consists of written responses to questions designed to assess the student's command of the topical/programmatic area declared for the intended doctoral research. It is administered as an in-class, closed book examination. Program areas are those defined by the Department of Epidemiology as providing training in a substantive/topical area. The objectives of the substantive portion of the examination are to ascertain:

- (1) the degree of sophistication of the student's knowledge base in the study area,
- (2) his/her awareness of a salient area of research, reflecting familiarity with the current literature,
- (3) the student's ability to apply epidemiologic methods to a topical issue in the study area, and
- (4) the student's ability to identify and discuss the public health implications of a topical issue in the area selected for the proposed doctoral research.



## Expected Competencies

To achieve a “pass” level on the Doctoral Qualifying Examination students must demonstrate (a) mastery of and the ability to apply the epidemiologic concepts and methods covered by the core methods curriculum, and (b) a command of the knowledge base, topical issues, and public health applications in the substantive area selected for the proposed doctoral research.

## Planning

In the course of a student's Intradepartmental Review (IDR) a time line is identified for the optimal time to take each part of the Doctoral Qualifying Examination, if not already taken.

Students prepare for the **methods component** of the examination by reviewing the pertinent course materials and publications cited in the course materials, textbooks, and by reviewing the past examinations made available by the Office of Student Services. At the discretion of the examining committee, additional guidelines *may* be provided prior to the exam.

To assist students in preparing for the **substantive component** of the Doctoral Qualifying Examination program areas are responsible for providing a “study guide” for students, to include the learning objectives of the program area and recommended readings for developing the minimally necessary expertise in the area (not selected solely for the purpose of addressing specific exam questions).

Previous guidelines and past examinations are posted online at [http://www.sph.unc.edu/epid/student\\_central\\_8217\\_7409.html](http://www.sph.unc.edu/epid/student_central_8217_7409.html). Click on “exams” in the left menu.

## Timing

Given the qualifying nature of this examination, the Doctoral Qualifying Examination should be taken before work on doctoral research is begun. The Methods and Substantive components must be completed satisfactorily for a student to continue in the doctoral program.

**The methods component of the qualifying exam will be offered on May 7 (registration deadline April 7) for the 2011-12 academic year. It should be taken after completion of EPID 722. The student is** required to consult with the advisor before registering for the methods component of the doctoral qualifying examination, to confirm the student’s readiness to take the examination at that time.

The substantive component of the Doctoral Qualifying Examination is offered during the Fall semester (late September or early October). Special interest area examinations (i.e., genetic, physical activity, etc.) are also scheduled at that time. **For the 2011-2012 academic year, substantive exams are scheduled for September 20 from 8:45 am – 3:00 pm, with a registration deadline of August 20.**

The program area director will make study guidelines available through the Student Services Office no later than three months prior to the date of the examination.

The substantive component of the Qualifying Examination should be taken after a student has selected a topical/programmatic area for the doctoral research and has completed the relevant courses defined in the learning objectives of each program area, but can be taken before the methods component. The student's advisor should be actively engaged in the student’s decision about when to take the substantive component. However, no documentation of completed requisites is needed for a student to register for the substantive component of the Doctoral Qualifying Examination.

For either component, a student may terminate the exam prior to submission with no penalty.



## Administration

The **methods component** of the Doctoral Qualifying Examination is prepared by the Doctoral Qualifying Examination Committee of the Graduate Studies Committee, drawing on other faculty as needed. For each examination a committee of three faculty is established, with responsibility for developing, testing, and grading the examination. The committee includes at least one member of the GSC.

For the **substantive component** of the Doctoral Qualifying Examination the program area director forms a committee consisting of three faculty members, at least one of whom will have a primary appointment in the Department of Epidemiology. Inclusion of adjunct faculty of the Department is permissible and desirable. The program area director is responsible for providing study guidelines in advance.

To be examined in areas that are not established program areas, the student must file a request through the Student Services Office justifying the need for a “special interest” examination. If approved by the Graduate Studies Committee, the student’s advisor will form an *ad hoc* examining committee. At least one of these must have a primary appointment in the Department of Epidemiology. *The advisor plays an important role in selecting the questions, but does not take part in grading.* However, to aid in standardization of the examination across program areas, special interest area questions require prior approval of the Graduate Studies Committee.

This *ad hoc* committee does not constitute a dissertation committee - since approval of both parts of the Qualifying Examination is a requisite for setting up a doctoral committee - but it can serve as the core around which the dissertation committee is subsequently established. The *ad hoc* committee is responsible for grading its questions and for providing diagnostic feed-back to the student. The latter is channeled through the Doctoral Qualifying Examination committee of the Graduate Studies Committee and the Office of Student Services.

## Format

The methods component is an in-class exam, designed to be completed within a four hour time period. However, a total of six hours will be allowed. Students must bring a pocket calculator and may bring only the following written material: Rothman KJ, Greenland S. Lash TL. Modern Epidemiology. Third edition. Philadelphia: Lippincott Williams & Wilkins, 2008. **Annotations from coursework are allowable, but annotations for the purpose of the exam are not.** The exam will be 20-25 questions, some of which may be clustered in multi-part questions based on a Table, Figure, abstract, or scenario. All items are to be answered, and their point values will sum to 100.

The substantive component of the Doctoral Qualifying Examination is administered as an in-class, closed book examination. Page limits are defined for each question, and the full examination is designed to be answered in three to five hours. The time limit for this part of the Doctoral Qualifying Examination is six hours. Two pages of notes (personally prepared, one piece of paper, two sides) of the student's choice, a foreign language dictionary, and a calculator are allowed. The student will be given three questions to answer. The examining committee may: (1) ask the student to choose two of the three; (2) require the student to answer all three and the best two grades will be submitted; or (3) specify for the student one question to answer and allow the student to choose which of the two remaining questions to answer.

Submission of an exam is final. Students should review their exams carefully prior to submission to the Student Services Office.

Copies of past exams and answer keys are online at  
[http://www.sph.unc.edu/epid/student\\_central\\_8217\\_7409.html](http://www.sph.unc.edu/epid/student_central_8217_7409.html). Click on Exams in the menu to the left.

## **Grading**

An overall grade of Pass on the Doctoral Qualifying Examination (DQE) requires a Pass on both the Methods component and the Substantive component.

The Methods component will be assigned a score from 0-100% by the examining committee. Examination answers are graded by a member of the examining committee without knowledge of the student's identity. In cases where there is some question about the appropriate grade for an answer, the primary grader consults with another faculty member. The overall score is the sum of the points awarded for the answers to each of the approximately 20-25 questions on the examination, divided by the total points available. The examining committee may add an upward adjustment if deemed appropriate to shift the score distribution. A Pass on the Methods component requires a score of 70%.

For the Substantive component, each of the two questions chosen is graded by one member of the examining committee, if possible without knowledge of the student's identity. In cases where there is some question about the appropriate grade for an answer, the primary grader consults with another faculty member. A Pass on the Substantive component requires a Pass on each of the two questions chosen by the student.

## **Report of Outcome**

Within 3 weeks of the examination (either part), notification of the outcome is communicated to the student by the Doctoral Qualifying Examination Committee of the Graduate Studies Committee.

A student who fails either component of the examination is required to consult with her/his advisor and conduct an in-depth review of diagnostic information related to his/her performance and any additional feedback or advice from the Doctoral Qualifying Examination Committee. Following this review, the student submits a brief report to the Graduate Studies Committee, with a copy to the advisor, assessing the reasons for the sub-standard performance and outlining an itemized plan for remedial action. This analysis and plan are due to Student Services within one month of the report of the examination outcome unless a longer time is agreed to by the Chair of the Graduate Studies Committee. A reply from the Graduate Studies Committee will ordinarily be provided within four weeks of receiving the student's plan. Unless a different timing is recommended by the Graduate Studies Committee, the student must obtain a grade of Pass the next time that component of the Doctoral Qualifying Examination is offered in order to remain in the doctoral program,

## **Appeal of Failure**

A failing report from either part of the Qualifying Examination can be appealed. An appeal of a failing report is heard by the Qualifying Examination Committee, based exclusively on the student's performance on the pertinent portion of the Doctoral Qualifying Examination. An appeal must be brought within 10 working days from the date of delivery of the critique by the graders, unless there are compelling reasons for delay (requires prior approval by the Chair of the Qualifying Exam Committee). Appeals must be made in writing and should be presented in such a way that the appeal can be considered without revealing the identity of the student involved. **Appeals are submitted directly to the Student Services Offices.** Other than references to standard textbooks or examination materials the appeal should contain all the pertinent information; appendices or accompanying documents are not permitted. It is requested that a student intending to appeal notify the Student Services Office as soon as possible to facilitate scheduling of a Qualifying Examination Committee meeting. Such notice does not obligate the student to make an appeal.



Students are expected to decide on their own whether to appeal an examination outcome. The comments from Qualifying Examination graders should be considered in making this decision. **The examination should not be discussed with the advisor and/or faculty members before an appeal,** nor should faculty offer an opinion on

whether to appeal an examination result. In preparing an appeal students should neither solicit nor receive assistance.

Appeals are subject to all terms of the Honor Code, so that the appeal must be the student's own work and be accompanied by a signed pledge. The pledge will be separated from the appeal itself and retained in the Student Services Office.

The Qualifying Examination Committee (in consultation with a substantive area expert, if necessary) will decide the appeal without knowledge of the student's identity. *To preserve anonymity, all communication between the student and the Committee will take place through the Student Services Office until the appeal has been decided.* The Committee will render its decision within 10 working days after the appeal is received, or as soon thereafter as a quorum of the Committee is available.

The Committee decision is final with respect to the substantive issues. The appellant may appeal to the Department Chairperson only on grounds of alleged irregularities in procedure.

## THE DISSERTATION COMMITTEE

The Dissertation Committee is established after both components of the doctoral qualifying exam have been passed. The Dissertation Committee is composed of five or more members, a majority of whom must be “regular” members of the University of North Carolina Graduate School Faculty. All tenured and tenure track faculty at the ranks of assistant, associate and full professor are automatically “regular” members of the Graduate Faculty (this includes tenure track faculty School of Medicine, School of Pharmacy, other SPH Departments, etc.). Per Graduate School guidelines, “other persons may be appointed to the Graduate Faculty for “fixed” term membership; these appointees may include: faculty emeriti, clinical or research professors, scholars from other institutions, independent scholars, and practitioners.” Confirmation of any individual's status can be obtained online at <http://gradschool.unc.edu/policies/faculty/>.

At least three committee members must be faculty of the Department of Epidemiology (this would include research track faculty and those with adjunct appointments). Research track faculty, adjunct faculty, and committee members from outside the UNC-CH system will need to email to [epidemiology@unc.edu](mailto:epidemiology@unc.edu) an electronic copy of their current CV so that they can be given a fixed-term appointment with the Graduate School for the purpose of serving on committees. **Committee members from outside the UNC-CH system DO NOT have to be given adjunct appointments to serve on a student’s committee.** The role of the Committee Chairperson is to follow the student's progress throughout the dissertation process and to ensure that all departmental policies and expectations are adhered to. For this reason, the Committee Chairperson must be someone whose primary appointment is in the Department of Epidemiology. Graduate School policy requires that the Committee Chairperson be a “regular” member of the Graduate Faculty.

The Committee should also include a biostatistician or someone who can function in that capacity. Inclusion of members from outside the department is encouraged when their point of view is warranted by the research question. Such members may be drawn from any of the disciplines bearing on the study of the distribution and determinants of human health and disease.

Committee members are proposed by the student and approved by the dissertation advisor using the **“Request for Doctoral Dissertation Committee Approval” form**. The student submits this form to the Student Services Office for departmental approval. The Student Services Office then completes and submits the Graduate School’s “Report of Doctoral Committee Composition” form. **The Committee composition must be constituted and submitted for approval at least 2 weeks prior to the Preliminary Oral Examination.**




## THE PRELIMINARY ORAL EXAMINATION


**Off-site doctoral work is acceptable ONLY after a successful defense of the doctoral proposal, inclusive of an off-site work plan and a timeline approved by the doctoral committee.**

The Preliminary Oral Examination is the second of the preliminary doctoral examinations. It is held after the Qualifying Examination has been passed, at a time when the student's dissertation committee determines that the dissertation proposal has reached a suitable stage, and in accord with Graduate School regulations. The Graduate School policy requires that by the time of the second preliminary examination the student must have fulfilled all required coursework and the minimum residence requirements for the doctorate, or will fulfill these by the end of the semester in which the examination is taken. **A student must be registered for 3 credits of EPID 994 at the time of the preliminary oral examination.**

The purpose of the preliminary oral examination is to review a structured proposal of the student's doctoral research that includes its objectives, hypotheses, and work plan, submitted for formal approval by the doctoral dissertation committee. **The content and format of the dissertation proposal is defined by the student and the doctoral advisor/doctoral committee chair** at an early stage of this process. At a minimum, the doctoral research proposal includes a comprehensive statement of the background and critical assessment of the literature, a statement of objectives and their rationale, the study hypothesis(es) and design, and a proposal plan of analysis. Formal approval of the dissertation proposal and pertinent supporting materials by the doctoral committee takes place during the oral examination. Sample proposals are available online at [http://www.sph.unc.edu/epid/dissertations\\_12050\\_9822.html](http://www.sph.unc.edu/epid/dissertations_12050_9822.html).

 The preliminary doctoral examination includes a presentation by the student of the proposed doctoral research. Discussion of the proposal during the preliminary doctoral examination is not constrained by the contents of the proposal. Members of the doctoral committee are free to pose questions on any substantive or methodologic subject related to the proposed doctoral work, a minor program, or aspects of another program or curriculum which is transferred into the candidate's doctoral program.

Also during this examination, the committee should review and discuss manuscript authorship issues with the student.

 The student should submit a draft of the proposal to each committee member well in advance of the date planned for the examination, to allow time for review and comment. **The committee must approve the proposal before the student may proceed with the doctoral research.** After the approval of the proposed research, the "Report of Approval of Dissertation Project" and the "Report of Oral Examination" are signed by committee members. These forms are obtained from the Student Services Office and should be returned after the examination. **Do not print these forms from the Graduate School website. They are multi-use forms that have already been filled out and printed by the Student Services Office.**

Following the oral examination the student must submit a tentative schedule for completion of the dissertation to each committee member. A copy should be filed with the Student Services Office.

## RESEARCH AREA QUESTIONS

Significant weaknesses in the dissertation proposal or in the level of preparation of the candidate may result in a failed examination, which can be repeated as defined in the Graduate School Handbook. If the deficiencies are less severe and lead the doctoral committee to require supplementary or remedial work, written questions can be identified during the preliminary doctoral examination for completion by the candidate on a pre-established timeline (including a review procedure by Chair and Committee). These research area questions are not part of the preliminary examinations, but serve as a means to clarify or amplify specific issues identified during the oral

examination. Any such questions are considered part of the student's program, and must be completed before the student applies for candidacy for the degree.

## **ADMISSION TO CANDIDACY**

Admission to candidacy for the doctorate is a certification that the student has completed all requirements for the degree except for the dissertation and/or defense. This is an optional form, completed only if the student needs to establish official candidacy.

A doctoral student may apply for candidacy at any time after all requirements have been met, but no later than the application to graduate deadline (<http://gradschool.unc.edu/graddeadlines.html>). The student must have completed all course work required by the program and the dissertation committee, completed all minor program requirements if a minor has been declared, passed both the doctoral oral and written examinations, submitted an acceptable dissertation proposal, and completed research area questions if these have been assigned by the dissertation committee. Doctoral candidacy forms are available in the Student Services Office or online at the Graduate School's web site.

## **THE DOCTORAL DISSERTATION**

According to Graduate School policy, the doctoral dissertation "is expected to be of such scope, independence, and skillful presentation as to indicate that the candidate has acquired a command of the subject, has the demonstrated ability to contribute fresh knowledge or a fresh outlook to the subject, and has mastered the research methodology of the discipline."

The student is expected to consult with members of the dissertation committee at frequent intervals throughout the progress of the research, and is **required under Graduate School policy to submit a progress report to each member of the committee at least once a year**. More frequent reporting is desirable, and may be specified by an individual committee.

The Graduate School requirements for dissertation format are specified in the publication, [A Guide to the Preparation and Submission of Theses and Dissertations](#). This booklet is online at <http://gradschool.unc.edu/etdguide/>.

### **Human Subjects Review**


Please refer to section relevant to all students for specific IRB training requirements [above](#).

**All proposed doctoral research must be submitted to the School of Public Health Institutional Review Board (IRB) as soon as the project has been approved by the doctoral committee.** This applies to all proposals, whether sponsored or not sponsored. While practice in the context of training is not subject to review by IRB, generalizable research conducted by students and/or faculty is subject to a determination whether review by the IRB is required. This determination is the purview of the IRB. Since the dissertation is a research activity that takes place under the leadership of the student with support from an advisor, safeguarding the ethical conduct of this research activity is a responsibility shared by the student.

Student research is defined online at <http://ohre.unc.edu> and guidance for any IRB action required for student research is also found in the "student\_research\_irb\_guidance" document ([http://research.unc.edu/ccm/groups/public/@research/@hre/documents/content/ccm3\\_020943.pdf](http://research.unc.edu/ccm/groups/public/@research/@hre/documents/content/ccm3_020943.pdf)). (Refer to Appendix VII.) Registration of Master's paper proposals and dissertation proposals follows the rules for IRB action presented in the IRB guidance document referred to above. The student is listed as the lead investigators

for the research activity and a faculty advisor is identified who holds ultimate responsibility for ensuring that this project complies with all University, regulatory, and fiscal requirements.

Depending on the data and research environment of the dissertation project it may not be possible or desirable for student research to be subsumed under an existing IRB approval extended to the lead investigator of a “parent study” that supports a student’s research. *The decision about what is reasonable and whether the student’s proposed research meets this Institution’s guidelines for ethical conduct of research involving human subjects is made by the IRB.* Students should consult with their advisors in preparing IRB applications.

 **Upon receipt of IRB approval, the student must complete the [Verification of Compliance with Institutional Review Board Requirements form](#). A copy of the IRB committee’s decision must be attached to the form.**

The Co-Chairs of the Public Health IRB are Professors Trude Bennett, Ruth Humphry and Mary Lynn. The Administrative Assistant is Ms. Barbara Griese. Inquiries and requests for forms, status of application and other questions should be routed through her. She may be reached at 966-8143, or by email at [griese@email.unc.edu](mailto:griese@email.unc.edu). See web site at <http://ohre.unc.edu>.

### **Data Use Agreements**

If using data that is not publicly available, the IRB Committee requires a [data use agreement form](#). This form is available online through the Department’s web site. This form should be submitted to the study’s Principal Investigator.

### **Standards and Expectations for Doctoral Research in the Department of Epidemiology**

The research question for a dissertation in Epidemiology can be substantive, methodologic, or theoretical. In any case, it should have a demonstrable potential for advancing the state of knowledge or practice. Standards for an adequate doctoral dissertation are expressed by expectations for a high level of achievement in the following areas:

1. **Originality** is expected in doctoral research. It may be achieved through innovation in theory, methods or substantive content, or by creative application of existing theory or knowledge to a new problem. Research that replicates findings of others without this kind of innovation, while often a worthwhile contribution, is not sufficiently original to satisfy the expectations for the dissertation.
2. **Depth** in the definition and treatment of the research topic is a requirement for doctoral-level research. It implies both technical competence and intellectual sophistication. Depth is to be gauged by the doctoral committee against standards of work publishable in peer-reviewed communications.
3. **Scholarship**. The dissertation should be competent in scholarship, as well as in scientific technique. The problem should be introduced, the study justified, and the results discussed in such a way as to place the work in its academic context. That is, the dissertation should demonstrate familiarity with the work of others, awareness of important developments and controversies, and an ability to critically synthesize and convey such knowledge.
4. **Writing Skills**. Competence in scientific writing is among the evaluation criteria for the doctoral dissertation.



## **Publication Requirement**

The program leading to the Doctor of Philosophy in the Department of Epidemiology is research oriented, and the candidate's doctoral research is expected to make a scientifically meaningful contribution to methodology and/or substantive knowledge. Peer review in assessing whether these standards have been met is the responsibility of the doctoral committee, acting in the capacity of an internal review body.

Peer reviewed communication of research findings is both a yardstick by which the merit of scientific work is measured, and a mandate for scientists in the field of public health. The acquisition of the skills that will enable a scientist to implement these expectations should be an integral part of the doctoral training in epidemiology.

A mentored application of new skills is the preferred and most effective mode of learning, and is applied to as many components of the doctoral training in the department of Epidemiology as is feasible. The publication of research findings, and encountering external peer review should be first experienced in the didactic and supportive environment of a training program. Postponing these experiences until after graduation can be a significant hurdle to career development.

## **Implementation**

As part of the doctoral research proposal approved by the doctoral committee, a minimum of two manuscripts intended for publication must be proposed. The choice of topics and an outline of the scope of the manuscripts are prepared with input from the doctoral advisor, and are approved by the doctoral committee.

The doctoral committee, or the doctoral advisor and at least one member of the doctoral committee, serve as an internal peer review group for the final drafts of these manuscripts.

**Completion of the doctoral program requires that one manuscript be submitted to an external peer review mechanism approved by the doctoral advisor.** Unless an exception is requested by the doctoral advisor, the default external peer review mechanisms are either a scientific journal or a publication/ scientific peer review group established by a parent study that has sponsored the doctoral research. Verification of submission is required at the time of the final defense by completing the [“Verification of Submission of Dissertation Manuscripts” form](#). Review of the manuscript by a co-author who is not a member of the doctoral committee does not substitute for external peer review.

Neither completion of peer review by a journal nor acceptance for publication is required prior to scheduling the doctoral defense. Timely submission of manuscripts resulting from the doctoral research process is encouraged, to give the candidate an opportunity to receive external peer review comments and to experience the interaction with external peers and journal editors. Rejection of a manuscript by a journal (or equivalent external peer-review process) does not preclude a successful completion of the doctoral program. Conflicts that may emerge between recommendations from external peer reviewers and the doctoral committee are resolved by the doctoral committee, according to the academic requirements of the doctoral program. The doctoral committee is the only, and final arbiter of the acceptability of the doctoral dissertation.

If doctoral research is proposed that does not lend itself to publication according to the process outlined above, an alternative pathway to publication needs to be approved at the time of the Preliminary Oral Doctoral Examination, in order to provide an equivalent learning opportunity to this student. If in the opinion of the doctoral committee the analytic results of the doctoral research do not merit publication, this committee develops an alternative to meet the expectations of the doctoral program and to make available to the student the experience of the publication process.

## **Authorship Expectations from Doctoral Research**

The doctoral candidate is expected to assume the role of lead investigator for his/her doctoral research, exercising these responsibilities and decision-making prerogatives with guidance from the dissertation committee Chair. Consistent with this role, the doctoral student is expected to serve as lead author on publications that originate from doctoral research, unless an alternative is stipulated at the time of the doctoral dissertation proposal defense as required by access to data or resources. Under these circumstances, the student's record should indicate in writing his/her agreement with the data use specifications as well as the advisor's endorsement. Service on the doctoral committee does not confer authorship to faculty; contributions to a publication that deserve authorship recognition should be measured individually. Authorship recommendations from the scientific editors of the major health sciences journals serve as the guidelines for this process, as summarized in JAMA 1993; 269:2282-2286 and the instructions to authors provided by the major journals.

Assuming lead authorship responsibility and its roles is part of the career development competencies acquired as part of the doctoral training. The doctoral advisor is responsible for assisting the candidate in negotiating authorship issues, particularly in the case of multi-site collaborations, and for studies that have established publication and authorship policies. Guidelines to assist in this process are found in JAMA 1997; 278:579-85, and others.

**If the doctoral research is conducted in collaboration with another institution, scientist(s) or agency supplying the data, negotiations should take place early in the planning of the doctoral research and no later than at the time of the defense of the doctoral dissertation proposal. Expectations of authorship for all publications resulting from the doctoral work should be made explicit as part of such negotiations.** Such negotiations should include the student, the doctoral advisor, and the collaborating scientist(s). A written confirmation or understanding of the agreement should follow these negotiations. (Refer to Appendix VIII for publication practices.)

It is recommended (not required) that the doctoral advisor and at least one member of the doctoral committee be willing to assume co-author roles on each of the two manuscripts, to guarantee full involvement and timely critical input.

## **Format of the Dissertation**

The traditional dissertation format is a single document with no page limit. Despite its greater length, less careful and time-consuming editing is typically required than for journal publication. However, it has the disadvantages of being time-consuming to read and difficult to reduce to publishable proportions. In the preferred format, often referred to as a "manuscript dissertation," the results chapters are prepared as manuscripts ready to be submitted for external peer review. This collection of related manuscripts is preceded by two or three chapters that present a unified review of the literature, the study questions, their rationale, the corresponding hypotheses, and the general methods common to the results chapters/manuscripts. Although each manuscript has its own discussion section, a common discussion is included as the last chapter of this type of dissertation. This format is attractive in many ways, and is encouraged. Although more demanding in the writing stage, the use of this format will result in a shorter, more readable dissertation, and more importantly, it leads more quickly to its submission for publication.

The "manuscript dissertation" is strongly recommended by the Department and is used almost without exception. A minimum of two manuscripts must be prepared by the student, in collaboration with members of the doctoral committee in supporting roles. These manuscripts must be of a quality sufficient to have the potential to be published in a first rate, peer-reviewed journal. *Even if a monograph style is chosen as the format for the dissertation, a minimum of two manuscripts must be prepared by the student, one of which needs*



*to be submitted for external review prior to the defense.* Exceptions to the format should be specifically applied for (to the advisor).

While the actual manuscripts are formatted as stand-alone documents ready to be submitted for external peer review, for the purpose of the dissertation they must be integrated into a coherent document that meaningfully links these manuscripts to the aims of the doctoral research. Thus the complete doctoral dissertation document includes the following elements (all but an introduction are required).

1. Abstract
2. Introduction
3. Critical review of the literature
4. Specific aims or statement of the study questions, and their rationale
5. Hypotheses to be tested
6. Study design, population, measurements/instruments, quality assurance
7. Analytic approach
8. Results (manuscripts)
9. Overall discussion and interpretation of findings (with reference to overall aims of the doctoral research)

**See Appendix XIII for a sample Table of Contents for a dissertation.** For details on table of contents, pagination, typeface, etc., consult the Graduate School's Guide to Theses and Dissertations (<http://gradschool.unc.edu>).

### **Data Source**

The source of data or study material for dissertation research is determined by the study question. Primary data collection and secondary analysis of existing data may be acceptable, as determined in collaboration with the advisor.

### **Breadth**

Innovation rather than breadth is a requirement for the dissertation research question. The dissertation may be narrowly focused on a specific problem, if it has the potential to advance the state of the science in a substantive, methodologic, or public health area. However, consideration of the wider implications of the research question and results in the Introduction and Discussion portions of the dissertation is expected.

### **Time Line and Interaction with the Doctoral Committee**

1. The doctoral committee convenes with the student at least on three occasions. These meetings are required, formal milestones in the student's doctoral research and preparation of a doctoral dissertation. They are
  - i. Preliminary oral examination (defense of the doctoral research proposal).
  - ii. One or more interim meetings.

At least one interim meeting of the committee is held approximately six months prior to final defense (a minimum of four months prior to final defense) to review progress and to provide input from the full committee for the remaining stages of the doctoral research and publication process leading to the final defense. The interim meeting includes a presentation by the candidate to the committee. A majority of the committee must convene on the UNC campus; off-site members of the committee may participate via a mutually agreeable conferencing

medium. Exemptions from the requirement to hold an interim meeting of the doctoral committee due to exceptional circumstances require approval by Graduate Studies Committee.

iii. Final doctoral defense.

The preliminary oral examination and the final doctoral defense are addressed elsewhere in this document. The purpose of the interim meeting is to provide an opportunity for the student to obtain direct consultation with the entire committee prior to completion of the doctoral research process and the dissertation. Issues to be addressed in the interim meeting include reaching consensus on the scope, completeness, and time line of the dissertation, clarifying outstanding issues of analysis and interpretation, and to set up a dissertation close-out schedule. At that time, the Chair of the doctoral committee also asks each committee member to identify any concerns regarding the status of the doctoral research. Following this meeting a brief summary of the decisions and recommendations is distributed by the student and the committee chair to the full committee and a “Documentation of Interim Doctoral Committee Meeting and Dissertation Close-out Schedule” is submitted by student to the Student Services Office. **A final defense may not be scheduled without a prior interim meeting of the committee.**

2. Notification of final defense.

The dissertation close-out schedule, signed by the advisor and the student, constitutes the notification of final defense, and is filed with the Student Services Office.

The student submits the final dissertation document to the committee at least two months prior to the final defense. **Failure to meet this timeline requires re-scheduling of the doctoral defense.** The student contacts each member of the committee at that point to establish a schedule that allows (a) time for each committee member to read the dissertation, (b) time for the student to meet with each committee member if needed, and (c) an opportunity for the student and advisor to rehearse the defense presentation.

3. Responsibilities of the Committee Members

**The student must provide adjuncts or committee members from other departments with a copy of the departmental policies (available from Student Services Office or online at [http://www.sph.unc.edu/epid/policies/handbook\\_8233\\_7429.html](http://www.sph.unc.edu/epid/policies/handbook_8233_7429.html)).** At the preliminary oral examination, the committee Chair will review the process described above, the roles and expectations, and the time line. The student is then authorized to proceed with the proposed doctoral research.

**Submission of Doctoral Dissertations**

The policy adopted by the Epidemiology faculty for submission of the dissertation follows:



**The written dissertation document must be in final form prior to the final defense.** This implies that all pages, references, and appendices are in place and that a thoughtful discussion has been completed. The dissertation will have been thoroughly proofread and editorial problems corrected. It is expected that following the defense, substantive changes in the written document will be minimal. Any subsequent retyping should at most involve a few pages so that the student would not be put to undue expense. This being the expectation of the student, the implication is that each committee member will have reviewed thoroughly the entire finalized document well in advance of the defense.

REMINDER: Do not use forms from Graduate School for report of defense. These pre-filled forms need to be picked up from the Student Services office before the proposal defense.

## APPLICATION FOR GRADUATION

The student must apply for the degree for a specific graduation term by the Graduate School deadline. **Degree application forms and deadlines can be found at <http://gradschool.unc.edu/graddeadlines.html>.** The Graduate School can make no exceptions to this deadline. If a student fails to graduate in the term applied for, they must re-apply; no prior application will suffice.

## THE FINAL DEFENSE OF THE DISSERTATION

The Final Defense (the final doctoral oral examination) is a formal requirement of the Graduate School. **The student must be registered for 3 credits of EPID 994 at the time it is held, and all committee members are required to be in attendance.** Once a date and time have been agreed upon by the student and committee members, the student should arrange for a room for the defense. **The defense must be announced via the Epidsems distribution list ([epidsems@unc.edu](mailto:epidsems@unc.edu)) at least one week in advance.** From this announcement, the Student Services Office will prepare a flyer for posting in the department. The announcement should include student name, title of presentation, indication that this is a doctoral defense, name of advisor, date, time, and location. Program areas are encouraged to issue specific invitations to colleagues outside the department, citing the paper titles.

To reserve the EPID conference room, email Chandra at [ccaldwel@email.unc.edu](mailto:ccaldwel@email.unc.edu). To reserve a room in the SPH, go to <http://www.sph.unc.edu/rooms>

The final defense includes a presentation of the results of the doctoral research to the doctoral committee, other faculty, and students. This is followed by discussion and criticism of the scientific work presented and the final written document.

The first portion of the Final Defense is open, and is announced several days in advance. The candidate presents the research, and a general discussion period follows. Following this open meeting, the student and Committee meet in closed session for a final examination of the work. The final results are reported to the Graduate School after all committee members have signed the “Report of the Final Oral Examination” obtained from the Student Services Office. **The Chair of the dissertation committee should not sign this document until the dissertation is in final form. This form will not be submitted to the Graduate School until all corrections/modifications to the final document have been completed.**

## SUBMISSION OF THE DISSERTATION TO THE GRADUATE SCHOOL

The student should consult [A Guide to the Preparation and Submission of Theses and Dissertations](#) for information on preparation of the dissertation for submission to the Graduate School. These guidelines should be strictly adhered to, as failure to do so will result in rejection of the final product by the Graduate School. Dissertations may now be submitted to The Graduate School in electronic format. Refer to The Graduate School website (<http://gradschool.unc.edu/etd/>) for specific details.

## ***RESEARCH PROGRAM AREA LEARNING OBJECTIVES***

Each major program area has established guidelines to ensure that the curriculum successfully addresses those issues that are specific to that area of research. This includes identification of learning objectives, methods for satisfying those learning objectives and monitoring of evidence of achievement of the learning objectives.

Learning objectives are provided for the following program areas: cancer, cardiovascular disease, environmental/occupational, injury, health care, infectious diseases, pharmacoepidemiology, reproductive, and social epidemiology. The learning objectives can also be found online at

<http://www.sph.unc.edu/epid/research.html>. Click on the program area of interest and follow link to “Learning Objectives and Course.”

## MISCELLAENEOUS NON-ACADEMIC INFORMATION

The following section contains other, non-academic, but useful information for all students, including employment resources, tips on getting in state residency (for tuition purposes) and tips for success from the Student Services Office and other students.

### EMPLOYMENT RESOURCES

There are two primary sources of information about student job opportunities –

- the epidjobs listserv, as described in the Listserv section
- School of Public Health Career Services Office at: ([http://www.sph.unc.edu/student\\_affairs/career\\_services.html](http://www.sph.unc.edu/student_affairs/career_services.html)). The SPH Career Services Office provides assistance with resume preparation, interview techniques, internships, and postgraduate job searches.

#### Locating a TA/RA position

Emails indicating available TA/RA positions are sent through the EpidJobs listserve. For information on how to sign up, please refer to Appendix I. (FALL ONLY: Students interested in obtaining an RA position should also complete an RA application online at [http://www.sph.unc.edu/epid/ra/ta\\_information\\_14502\\_10826.html](http://www.sph.unc.edu/epid/ra/ta_information_14502_10826.html). Click on Enter/Update/Review RA Applications.) Other methods of finding a TA/RA position include meeting with your advisor or other faculty members both within and outside of the department who may have a teaching/research opportunity of interest. Students should take a proactive role in finding a TA/RA position. This includes networking with other students and professors. Also you can refer back to the [TA requirement section](#) on page 37 for information on courses that use TAs.

Refer to [http://www.sph.unc.edu/epid/faculty/staff\\_ra/ta\\_hiring\\_11486\\_9842.html](http://www.sph.unc.edu/epid/faculty/staff_ra/ta_hiring_11486_9842.html) for hiring instructions.

### ADVICE FROM THE STUDENT SERVICES OFFICE

#### Communication

Administrative:

Read the emails that are sent out by Nancy or Carmen! It's extremely frustrating for us when we send information out via the listserve only to have students asking us for the very same information a couple of days later. (And the faculty are just as guilty!). On your end it may "take just a minute" but on our end that's often multiplied by 10 or 20 or 30 students, which is extremely disruptive to our work. Sometimes the consequences are more serious, such as cancelled registrations because you didn't pay attention to our memos. We're here to help you, but you also need to help yourselves.

Professional:

Get to know your colleagues. Networking is a critical skill that serves many purposes: epidemiologic knowledge sharing, job connections, resource identification, etc. While your advisor plays an important role, you should also get to know other faculty (especially those within your research area!). It's okay to make an appointment to talk with faculty just to learn about their research. It's also important to get

to know your peers. They often have very helpful insight into how to navigate the program. In addition, project staff members can be a valuable resource.

### **Document Sharing**

Do NOT email multi-page documents (course papers, proposal, etc.) to faculty without first asking them if they're willing to accept them electronically.

### **Graduating**

The Problem:

Most students decide on a graduation date, determine the last day to complete requirements for that date, and then work backwards in scheduling their defense. The result is that those students find themselves in the position of always racing to meet an unrealistic last minute deadline. This creates a tremendous amount of stress for both students and committee members.

The Solution:

Give yourself some breathing room. If you want to graduate in May, you should be confident that you'll have a complete draft of your master's paper by March 1 or your dissertation by February 1. The target dates for August graduation would be June 1 (master's) and May 1 (doctoral). Target dates for December graduation would be October 1 (master's) and September 1. While these timelines may seem excessive to you, experience has shown that students are not good at judging the time needed to complete the master's paper and dissertation.

Relax. If you finish earlier than anticipated you can always use the time to get out some more publications and search for jobs!

### **Tuition Remissions for TAs and RAs**

Tuition awards cannot be finalized until after the semester begins. Students who anticipate receiving tuition awards should be sure to submit the online deferment request through Connect Carolina by the announced date. Once you receive confirmation that you have qualified for tuition awards, you should allow several weeks for the awards to post to your account. Don't panic about bills you're getting for tuition. Tuition remission awards (out-of-state students only) will post first. However, in-state awards don't post for several weeks until money actually moves from the project accounts to the cashier's account. If your bill is for the amount you're sure we're paying for you, you can disregard your bill. However, if you owe fees or other charges they must be paid immediately. **Students must remain in the same tuition bracket throughout the semester.**

### **Loans from the Office of Scholarships and Student Aid**

Loans are typically processed before departmental tuition awards are made. This can sometimes cause confusion about exactly how much of a loan award a student is eligible for. Therefore, also use caution in spending your loan money. **Make sure that your tuition awards have been processed before spending your loan money. That will help to ensure that you don't have to pay back the excess.**

### **Managing Stress**

Managing and relieving stress is an important part of succeeding in graduate school, and necessary for your health. Campus Health Services offers a wealth of information on recognizing stress and finding

ways to cope

([http://campushealth.unc.edu/index.php?option=com\\_content&task=view&id=670&Itemid=167](http://campushealth.unc.edu/index.php?option=com_content&task=view&id=670&Itemid=167))

## **SURVIVAL TIPS FROM STUDENTS**

### **General Advice**

- Get input from your fellow students, especially those one or two years ahead in the program and those in your substantive area about courses, instructors and work loads.
- Attend journal clubs, seminars, and other meetings related to your area of interest

### **Advice for Working in Groups**

During graduate school, you will be required from time to time to work on class assignments in groups. This is good experience for future employment and an opportunity to build relationships with fellow students. Following are some useful tips for working successfully in groups and making the most of your team experience:

- **Develop common expectations** – at the beginning of a team project, communicate with other team members to set common expectations. Find out when others are most available to work and to meet, what skills they bring and what their interests are in the work, and what their preferences are for communication (e.g., meet in person or communicate via email).
- **Be punctual to team meetings** – it can be difficult to find a time when all students can meet, so when a meeting has been set, be sure to be punctual and to show up with all the necessary materials to work with the team.
- **Be accountable for the work you are assigned** – when dividing up the work load, be sure that you will have the time to do all the work that you are assigned, or bring up your concerns or adjust the deadline so that all team members have the same expectation regarding what will be done and when. Whatever work you agree to do for the team, be sure to accomplish it within the deadline or let students know as soon as possible if any unexpected issues arise. Communication is essential.
- **Be respectful of the opinions of others** – take the time to listen carefully to other group members' thoughts and ideas, and ask questions to ensure that you understand what is said. Show support for others' contributions and try to build your ideas on what is said. If you disagree, try to find a common ground or interest that can be satisfied, or work toward a compromise.
- **Balance control with contribution** – it can be tempting to want to dominate the discussion or influence the direction of the group in the way you feel is best, or take on more of the work to make sure it is done "right." However, this can be counterproductive for team development and can lead to other members being less involved and you feeling overburdened or not supported. Try to balance the desire to control the outcome of the project with the recognition that all team members need to contribute equally to the project, and that developing productive team skills is as important as (or more important than) getting the highest grade.

### **Connecting with Other Students**

Forming a student study group is an excellent way to build friendships while getting and sharing help on coursework. The earlier that you seek out a study group, the better. Some tips for forming study groups include:

- **Seek diversity** – each student will have a different perspective and mastery of the coursework, depending on their background. Look for students who come from different backgrounds and who can complement your skill set and knowledge base.

- **Be flexible** – the more flexible your schedule, the easier it will be to find a common time to meet with other students. If you have a heavy course or work load, it may be more difficult finding time to meet during the day. In this case, try to find students with similar schedules or those who are willing to meet in the evenings or on weekends.
- **Be persistent** – even if you cannot attend every study session, ask your study group members to keep you on the list and let them know that you hope to participate in the future.

For additional tips on being a successful graduate student, refer to [www.successfulacademic.com](http://www.successfulacademic.com).

## ESTABLISHING RESIDENCY FOR TUITION PURPOSES

Under North Carolina General Statute Chapter 116.143.1, to qualify for in-state tuition an applicant (legal resident) must demonstrate a preponderance of evidence:

- *that s/he established and maintained a bona fide domicile in North Carolina at least twelve months before the first day of classes,*
- *with the intent to make North Carolina a permanent home indefinitely, and*
- *that s/he was not in North Carolina solely to attend college.*

Graduate students are able to apply through an online application process. The online application and information on filing deadlines can be found at <http://gradschool.unc.edu/student/residency/>.

### Myths and Misconceptions (from the Residency PowerPoint Presentation)

- Homeownership guarantees residency
- I must have a Driver's License
- I cannot leave during the first 12-months
- I must attend a church
- After my first year I'm guaranteed residency

**NOTE:** It is not the day you step foot in North Carolina that starts your clock, but the accumulation of evidence that starts it.

### Other advice

- Talk to some of your fellow students who have been through the process.
- Be careful how you phrase things on your application. For example, do not say you went "home" to Montana for the holidays or they'll conclude that "home" is there and not in North Carolina even though we all know that you meant you went to visit family. The committee interprets that as meaning "your home" and sees it as an easy way to deny you residency.
- Try to show connections to the community that are NOT part of an SPH or UNC project/activity (e.g., you volunteer with Habitat for Humanity, as opposed to "as part of an SPH student group, I volunteer with...").
- Has a local employer told you that they'd love to have you work with them after graduation? Then note that you have a local job offer.
- Try to demonstrate that you have a commitment to the state. Make travel plans within the state.
- If your out-of-state parents claimed you on their tax return for the past year, you will not be eligible for in-state status.



## ***CONTACT INFORMATION FOR CAMPUS RESOURCES***

### Audio/Visual Services

[http://www.sph.unc.edu/iis/audio\\_visual\\_equipment\\_1100\\_4434.html](http://www.sph.unc.edu/iis/audio_visual_equipment_1100_4434.html)

### Business Cards

To order business cards, go online at <http://www.printing.unc.edu/PrintingRequests.aspx>

### Campus Services

Cashier: [cashiers.unc.edu](http://cashiers.unc.edu), 962-5856, [funded@unc.edu](mailto:funded@unc.edu)

University Registrar: [registrar.unc.edu](http://registrar.unc.edu), 962-3954

International Student and Scholar Services: <http://oiss.unc.edu/>, 962-5661

Graduate School: [gradschool.unc.edu](http://gradschool.unc.edu)

Enrolled Students: Pam Dixon, 962-6316, [pbdixon@email.unc.edu](mailto:pbdixon@email.unc.edu)

### Payroll Issues

EPID Fiscal Office – MC 2107

- Courtney Andrews, Accounting Tech, for Student Payroll 919-966-1658, [Courtney\\_andrews@unc.edu](mailto:Courtney_andrews@unc.edu)
- Carolyn Cooke, Fiscal Manager, 919-966-7461, [Carolyn\\_cooke@unc.edu](mailto:Carolyn_cooke@unc.edu)
- Vicki Moore, Business Manager, 919-966-7470, [Victoria\\_moore@unc.edu](mailto:Victoria_moore@unc.edu)

### Room Scheduling

EPID Conference Room:

Email Chandra at [ccaldwel@email.unc.edu](mailto:ccaldwel@email.unc.edu)

SPH Classrooms (whether for a course or a presentation):

[http://www.sph.unc.edu/rooms\\_av/](http://www.sph.unc.edu/rooms_av/)

### Student Health

Campus Health Services, 966-2281, <http://studenthealth.unc.edu/>

Health Insurance, <http://studenthealth.unc.edu> and click on Insurance Information in the left menu

### Tech Support

[help.unc.edu](http://help.unc.edu)

<http://www.sph.unc.edu/iis/>

## APPENDIX I

<b>DEPARTMENTALLY "OWNED AND OPERATED" E-MAIL MAILING LISTS</b>			
<b>LISTNAME/ PURPOSE</b>	<b>TO SUBSCRIBE, SEND E-MAIL TO THE ADDRESS BELOW...</b>	<b>...WITH THE MESSAGE</b>	<b>TO SEND E-MAIL TO PEOPLE SUBSCRIBED TO THE LIST</b>
<b>EPIDADJ</b> (Global distribution of messages to all local adjunct and clinical Epid faculty)	Contact Sharon Sullivan (sharon_sullivan@unc.edu)		epidadj@unc.edu
<b>EPIDADJDISTANT</b> (Global distribution of messages to all distant adjunct and clinical Epid faculty)	Contact Sharon Sullivan (sharon_sullivan@unc.edu)		epidadjdistant@unc.edu
<b>EPIDFACULTY</b> (Global distribution of messages to all Epid faculty)	Contact Sharon Sullivan (sharon_sullivan@unc.edu)		epidfaculty@unc.edu
<b>EPIDPOSTDOC</b> (Global distribution of messages to all Epid postdocs)	Contact Sharon Cullivan (sharon_sullivan@unc.edu)		epidpostdoc@unc.edu
<b>EPIDSTAFF</b> (Global distribution of messages to all Epid staff)	Contact Sharon Sullivan (sharon_sullivan@unc.edu)		<a href="mailto:epidstaff@unc.edu">epidstaff@unc.edu</a>
<b>EPIDSTUDENTS</b> (Global distribution of messages to all Epid students)	<a href="mailto:listserv@unc.edu">listserv@unc.edu</a>	subscribe epidstudents yourfirstname yourlastname	<a href="mailto:epidstudents@unc.edu">epidstudents@unc.edu</a>
<b>EPIDALL</b> (Combines epidfaculty, epidstudents, epidstaff, and epidpostodcs)	N/A	N/A	<a href="mailto:epidall@unc.edu">epidall@unc.edu</a>
<b>EPIDSEMS</b> (To announce upcoming Epid department seminars, doctoral dissertation defenses, master's paper presentations, etc)	<a href="mailto:listserv@unc.edu">listserv@unc.edu</a>	subscribe epidsems yourfirstname yourlastname	<a href="mailto:epidsems@unc.edu">epidsems@unc.edu</a>
<b>EPIDJOBS</b> (To assist current Epid students in learning about research assistant and teaching assistant positions)	<a href="mailto:listserv@unc.edu">listserv@unc.edu</a>	subscribe epidjobs yourfirstname yourlastname	<a href="mailto:epidjobs@unc.edu">epidjobs@unc.edu</a>
<b>EPIDSOCIAL</b> (For non-academic matters of potential interest to students. Students must enroll themselves)	<a href="mailto:listserv@unc.edu">listserv@unc.edu</a>	subscribe epidsocial yourfirstname yourlastname	<a href="mailto:epidsocial@unc.edu">epidsocial@unc.edu</a>

## APPENDIX II

### SAMPLE SCHEDULE FOR 2-YEAR MASTERS PROGRAM

(assumes full-time enrollment of 9 or more hours per semester)

Course #	<b>FALL</b>	# Credits
EPID 705		2
EPID 710 (EPID 711)		4 (3)
BIOS 600		3
Substantive EPID course or SPH core elective		3
EPID 700 (SAS)		3

Course #	<b>SPRING</b>	# Credits
EPID 715		5
BIOS 545		3
Substantive EPID course or SPH core elective		3

Course #	<b>FALL</b>	# Credits
EPID 718		3
Substantive EPID course or SPH core elective		3
EPID 900		4

Course #	<b>SPRING</b>	# Credits
EPID 992		3
Substantive EPID course and/or SPH core electives		6

Substantive and SPH core courses can be taken in any order or combination.

Summer registration is not routinely required by the department. However, certain types of funding may require that the student continue as a formally enrolled student throughout the summer terms.

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### SAMPLE SCHEDULE FOR 18-MONTH MPH PROGRAM

(assumes full-time enrollment of 9 or more hours per semester)

Course #	<b>FALL</b>	# Credits
EPID 705		2
EPID 710 (EPID 711)		4 (3)
BIOS 600		3
EPID 700 (SAS)		3
Substantive EPID course		3
SPH core elective		3

Course #	<b>SPRING</b>	# Credits
EPID 715		5
BIOS 545		3
Substantive EPID course		3
SPH core elective		3
SPH core elective		3

Course #	<b>FALL</b>	# Credits
EPID 718		3
EPID 900		4
EPID 992		3

Substantive and SPH core courses can be taken in any order or combination.

## APPENDIX III

### List of EPID Substantive Courses

\*\*The following courses serve to satisfy the requirements for a course in a substantive research area:

- EPID 620I: Aging and Health
- EPID 735: Cardiovascular Disease Epidemiology
- EPID 737: Advanced Cardiovascular Epidemiology
- EPID 743: Genetic Epidemiology: Methods and Applications
- EPID 745: Molecular Techniques for Public Health Research
- EPID 750: Fundamentals of Public Health Surveillance
- EPID 751: Emerging and Re-Emerging Infectious Diseases
- EPID 752: Introduction to Methods in Infectious Disease Epidemiology
- EPID 753: Prevention and Control of Infectious Diseases at the Level of the Community
- EPID 754: Mathematical Modeling of Infectious Diseases
- EPID 756: Control of Infectious Diseases in Developing Countries
- EPID 757: Epidemiology of HIV/AIDS in Developing Countries
- EPID 758: Methods and Principles of Applied Infectious Disease Epidemiology
- EPID 759: Methods in Field Epidemiology
- EPID 765: Methods and Issues in Pharmacoepidemiology
- EPID 770: Cancer Epidemiology and Pathogenesis
- EPID 771: Cancer Epidemiology Methods
- EPID 772: Cancer Prevention and Control (crosslisted as HPAA 765, HBHE 765; HPAA administratively responsible)
- EPID 775: Advanced Cancer Epidemiology: Classic and Contemporary Controversies in Cancer Causation
- EPID 780: Occupational Epidemiology
- EPID 783: Injury as a Public Health Problem (crosslisted as HBHE 725, HBHE administratively responsible)
- EPID 785: Environmental Epidemiology
- EPID 786: Community-Driven Research for Environmental Justice
- EPID 800: Epidemiology of Medical Care
- EPID 805: Clinical Epidemiology and Clinical Research Methods (Translational Research Curriculum) ([http://tracs.unc.edu/index.php?option=com\\_content&view=article&id=133&Itemid=196](http://tracs.unc.edu/index.php?option=com_content&view=article&id=133&Itemid=196))
- EPID 810: Physical Activity Epidemiology and Public Health (crosslisted as NUTR 810, EPID administratively responsible)
- EPID 813: Nutritional Epidemiology (crosslisted as NUTR 813, NUTR administratively responsible)
- EPID 814: Obesity Epidemiology (crosslisted as NUTR 814, NUTR administratively responsible)
- EPID 815: Diet and Cancer (crosslisted as NUTR 815, NUTR administratively responsible)
- EPID 818: Analytical Methods in Nutritional Epidemiology (crosslisted as NUTR 818, NUTR administratively responsible)
- EPID 825: Social Determinants of Health: Theory, Method & Intervention (crosslisted as HBHE 802, HBHE administratively responsible)
- EPID 826: Social Epidemiology: Concepts and Measures
- EPID 827: Social Epidemiology: Analysis and Interpretation
- EPID 851: Perinatal Epidemiology (crosslisted as MHCH 851, EPID administratively responsible)
- EPID 853: Advanced Topics in Perinatal & Pediatric Epidemiology (crosslisted as MHCH 853, EPID administratively responsible)

## **APPENDIX IV**

### **Additional Information on BIOS Courses**

- Bios 600, 511, 545, 662, 663, 664, 665, 668 are considered applied courses and should be appropriate for most EPID students.
- BIOS 600 is the intro BIOS course taken by all EPID students.
- BIOS 511 is a very useful SAS computing course.
- BIOS 662 and 663 are essentially required of BIOS PhD students.
- Bios 550, 660, 661 are more theoretical courses taken by BIOS Masters and PhD students.
- BIOS 757 and 767 are more advanced courses, which may be suitable for very strong EPID students.
- An average to good student in EPID should be able to handle BIOS 600, 511, 545, 664, 665, 668.
- A good to very good EPID student should be able to do well in BIOS 550, 662 and 663.
- An excellent EPID student with a strong background in theoretical statistics should be able to manage in BIOS 660 and 661.
- Outstanding students in EPID with a strong background in both theoretical and applied statistics, or with a previous Masters degree in statistics, should be able to manage in BIOS 765 and 767.
- One possible option for a minor for average to good EPID students is: BIOS 511, 550, 545, 668, 665
- A second option for good to very good to excellent EPID students is: BIOS 511, 550, 662, 663
- A third option for a minor for excellent to outstanding theoretical students is BIOS 550, 660, 661, 662 (or 663).
- A minor in Biostatistics consists of 15 credit hours. For more specific requirements for the BIOS minor, please contact the BIOS department located on the 3<sup>rd</sup> floor of McGavran-Greenberg building.

## APPENDIX V

### Recurring "Generic" Questions in the Masters Examination

All questions should be answered using information in the article or the first three semesters of coursework. Unless otherwise stated, answers are expected to be 2-4 sentences in length.

1. State the primary research question or conceptual hypothesis and briefly summarize its rationale (i.e., what the question is and why it is appropriate and important to study).
2. Identify the study design (i.e., case-control, cohort, cross-sectional, randomized trial, etc.) and justify your choice.
3. How appropriate is the design of this study for addressing the research question?
4. Evaluate the suitability of the study population for addressing the research question with regard to:
  - a. Validity and feasibility (i.e., what are strengths and limitations of this particular investigation)
  - b. Generalizability (i.e., what are strengths and limitations for generalizing to other populations)
5. What evidence do the investigators provide that the number of subjects was adequate to address the study hypothesis?
6. How do the authors define the exposure variable/study factor in the present study? How well does their method of measurement succeed in operationalizing this definition? (You do not need to address biochemical or laboratory issues here.)
7. How do the authors define the disease/outcome variable in the present study? How well does their method of measurement succeed in operationalizing this definition?
8. Briefly describe quality control features of the study and comment on their adequacy.
9. Identify the primary measure of effect (e.g., risk ratio, odds ratio, incidence density ratio) used for testing the hypothesis, state its definition in words, and give its algebraic formulation.
10. Calculate an OR (RR) for specific strata within the study population.
11. Calculate a confidence interval and give an interpretation as to the magnitude and precision of effect.
12. Briefly assess the appropriateness of using the primary measure of effect for this study question and data; give the arguments for and against using this measure.
13. Briefly discuss the adequacy of the procedure for assessing the statistical evidence for a crude association (refer, as appropriate, to such issues as level of measurement of the variables,

appropriate use of statistical hypothesis tests or confidence intervals, significance level, impact of violation of assumptions, etc.).

14. How did the investigators control for confounding in this study?
15. Assess the adequacy of control for confounding in the assessment of the primary relationship, considering the state of knowledge in the field as reflected in the article.
16. Is effect modification important in this study? Your answer should refer to the rationale for investigating effect modification, the adequacy of the investigators' approach to the question, and your evaluation of the evidence for and against the investigators' conclusion concerning effect modification.
17. Evaluate the procedures used for matching in this study.
18. Evaluate each of the following sources of bias (selection bias, information bias, confounding) and describe the magnitude and direction of possible bias in effect estimation.
19. Identify and briefly assess the probable impact on the results and conclusions of the one or two primary threats to the (internal) validity of the study. Briefly assess their likely impact on the results.
20. Identify a major improvement that could be made in the study methodology. Indicate how and to what degree the change would improve the results of this and future studies.
21. Succinctly state and evaluate the authors' primary conclusion. Your answer should present at least two specific points or pieces of evidence from the article (beyond the fact that a significant association was observed) and how each bears on validity of the conclusion.
22. On the assumption of a causal relationship, assess the public health importance or potential impact of the relationship observed. (Cite or compute a basic measure of impact if possible.)
23. What public health recommendations would you make based upon the results of this study?

## APPENDIX VI

### Guidelines for Choosing Master's Topics

1. Student and advisor have preliminary meeting to discuss the process of identifying a topic area. The student should bring to this meeting a list which includes: (i) broad areas of interest; (ii) previous experiences which can be used to formulate a thesis plan. The advisor brings a list of: (i) on-going projects or datasets which lend themselves to a master's thesis; (ii) suggestions for ways of identifying topics, including recent journal articles, discussions with adjunct faculty, etc.
2. Student presents list of ideas for master's paper to advisor: 5 - 10 topics are listed based upon interest, readings, ongoing discussion with faculty and other students. Advisor and student discuss these options and other potential topic areas.
3. Advisor and student reach consensus on one or two topic areas. Student writes one paragraph idea statement further exploring each topic area.
4. Advisor and student agree on topic. Student writes detailed outline for the topic.

**[Note: It is understood that choice of topic area may require changing of advisors.]**

5. Second reader identified by student and advisor.
6. First draft of master's paper presented to advisor.
7. Next draft of master's paper presented to advisor and second reader.
8. Scheduling of master's paper presentation (Note: presentation can be work in progress).
9. Final draft of master's paper approved by advisor and second reader.



## APPENDIX VII

### IRB GUIDANCE FOR STUDENT RESEARCH AND CLASS PROJECTS

Federal regulations and university policies require Institutional Review Board (IRB) approval for research with human subjects. This applies whether the research is conducted by faculty or students, or by individuals or a group. *Failure to obtain proper approval in advance may jeopardize your data, prevent you from publishing the results, and place you and the university in violation of federal regulations.* However, most class projects are conducted for educational purposes and not as research, and will not require IRB approval. This guidance will help you determine whether you need to get approval from the IRB before conducting a given activity. All forms and additional guidance are available at <ohre.unc.edu>

#### STUDENT RESEARCH

Student research activities include undergraduate honors theses, masters theses or projects, doctoral dissertations, or comparable activities. IRB approval is generally required if humans subjects are involved, either directly or through use of data about them. The student researcher may apply as Principal Investigator (PI), with a faculty advisor as co-signator. Below are some common scenarios, with variable processing requirements.

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|--|--|
| <ul style="list-style-type: none"><li>• <b>STUDENT RESEARCH</b> that involves <b>direct interaction</b> with individuals (e.g., in person, or via mail, email, web survey, or telephone), or <b>data from human subjects for which the researchers will have access to identifiers</b> or <b>Protected Health Information (PHI)</b> like medical records (subject to HIPAA regulations).</li></ul> | <p><b>IRB approval required--submit IRB application form</b><br/>Submission is required even if the data collection is covered by another IRB application under someone else's name, UNLESS the student's use is completely subsumed under that existing study, with nothing new added.</p> <p>Student researcher (PI), co-investigators (if a group) and faculty advisor are required to have current research ethics certification</p>   |
| <ul style="list-style-type: none"><li>• <b>STUDENT RESEARCH</b> that is limited to <b>secondary analysis</b> of data, records or specimens that are either <b>publicly available, deidentified or otherwise impossible to be linked to personal identities</b>. This also means that data or records contain no Protected Health Information (PHI) that is subject to HIPAA</li></ul>              | <p><b>Submit form for "Determination Whether Research or Similar Activity Requires IRB Approval."</b> A data use agreement between the researcher and the data custodian may still be required to verify that the researcher will not have access to identifying codes. It is this "delinking" of data from personal identifiers that allows the IRB to waive review.</p> <p>Research ethics certification of the student(s) is not required by IRB, but may be required by the faculty advisor.</p> |
| <ul style="list-style-type: none"><li>• <b>STUDENT RESEARCH ACTIVITIES using departmental subject pools</b> (e.g., Psychology, Business, Political Science, Journalism and Mass Communication) even when the research activity is conducted for educational purposes as a class requirement</li></ul>  | <p><b>IRB approval required—submit an IRB application form for each activity by an individual or small group</b></p> <p>Student researcher (PI), co-investigators (if a group) and faculty advisor should have current research ethics certification</p>   |

#### CLASS PROJECTS

Most class projects are conducted for educational purposes and not as research. While some require submission of an **IRB application** or a **determination that IRB approval is not required**, many class projects require neither.

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• <b>CLASS PROJECTS</b> that involve <b>secondary data</b> that include <b>Protected Health Information (PHI)</b> that are subject to HIPAA regulations*</li></ul> | <p><b>IRB approval required--</b> When there are several students in the class using datasets that include PHI, a <b>single IRB application may be submitted by the course instructor as PI</b>, listing all students who will have access to PHI. If only one student is using PHI, then an individual IRB application with the student as PI may be submitted.</p> |
|--|--|

\*Access to PHI requires a waiver of HIPAA authorization, which **requires an IRB application and IRB approval.**

The course instructor and those students using PHI

<ul style="list-style-type: none"> <li>• <b>CLASS PROJECTS</b> that <b>involve direct interaction</b> and are undertaken as <b>both an educational experience and as research</b> (e.g., results of these activities will be presented publicly, or otherwise disseminated, or the data will be stored and used by the students or others as research data).</li> </ul> <p>Note: Such projects may be very similar to one another. For example, each student may interview one or more persons for a group of oral histories, or conduct telephone surveys as part of a yearly poll, but all in the class follow the same general script or guidelines. If class projects follow different protocols, a table or chart can describe these more individualized activities</p>	<p>must have research ethics certification.</p> <p><b>IRB approval required</b> -- a single application with the class instructor as PI will generally be sufficient.</p> <p>The PI must have research ethics certification. Taking into account the sensitivity of the information to be collected, the instructor can require that students complete the CITI online course, or the instructor may provide comparable training, with the approval of the IRB.</p>
<ul style="list-style-type: none"> <li>• <b>CLASS PROJECTS OR PRACTICA</b> that involve <b>direct interaction</b> (e.g., in person, via mail, email, web surveys, or telephone), but where the purpose is training, an educational exercise or professional development, and <b>not</b> research. The project or practicum is not “research” even if students ask people questions as part of learning how to conduct interviews or surveys, take histories, administer assessments, or perform “in-house” evaluations as requested by the practicum site.</li> </ul> <p>Exceptions:</p> <ol style="list-style-type: none"> <li>1. If the intent is to carry out a practicum AND simultaneously collect research data, then an IRB application should be submitted for approval prior to beginning the activity.</li> <li>2. If a student decides after the completion of a practicum activity to pursue additional activities with the same information for a master’s project or paper, then an IRB application describing secondary data use should be submitted for approval, as above.</li> </ol>	<p><b>Neither IRB approval nor IRB Determination required</b> -- but may be requested if instructor or students are unsure, or if documentation is required (e.g., for access to participants).</p> <p>Class instructor and department are responsible for providing the necessary training in respecting the privacy of the individuals and the confidentiality of any resulting information, along with training in the relevant professional ethics.</p> <p>Instructor provides information about the assignment for the students to distribute to people who participate in these class projects. List the instructor as the appropriate contact person should questions arise.</p>
<ul style="list-style-type: none"> <li>• <b>CLASS PROJECTS</b> involving <b>secondary data analyses</b> that are assigned and conducted as educational exercises, and that use publicly available data or anonymous data (where there are no identifiers in anyone’s possession)</li> </ul>	<p><b>Neither IRB approval nor IRB Determination required</b></p>
<ul style="list-style-type: none"> <li>• <b>CLASS PROJECTS</b> involving <b>secondary data analyses</b> that are assigned and conducted as educational exercises, and that use datasets that include private information and codes that link to identifiers, but the students do not have access to the identifiers</li> </ul>	<p><b>Neither IRB approval nor IRB Determination Required</b></p> <p>Class instructor and department are responsible for providing the necessary training in respecting the confidentiality of the data</p>

Class instructors and departments are encouraged to contact the relevant IRB for guidance about various ways to handle topics such as privacy, confidentiality, informed consent, and professional ethics when class projects are part of the course syllabus. IRB chairs and staff can share expertise related to managing risks of deductive disclosure, coercion-free recruiting, informed consent, and special considerations for projects that include potentially vulnerable individuals. These issues may still remain even when IRB approval is not required, in which case instructors, advisors, departments and schools play an even greater role in providing the appropriate guidance and oversight.

## APPENDIX VIII

### PUBLICATION PRACTICES

Contributing to the peer-reviewed literature is a scientist's responsibility as well as a measure of the quality of his/her work. Students are encouraged to publish as early as their skills allow and according to the opportunities they are able to identify during their training. It is an expectation in this department that doctoral research be of publication quality and that doctoral students submit findings from their doctoral research for peer review as part of the publication process.

Publishing is thus an important set of skills to acquire during training and students encounter questions about procedural matters and authorship as part of this training. Because of the diversity of issues to consider in this respect, some specific to particular research projects and affiliated institutions, the Department of Epidemiology does not endorse any particular set of policies related to publishing. Instead, we refer to the outline of recommendations in Graduate School Handbook (listed below) and to the better professional journals since they include authorship criteria and responsibilities in their instructions for authors. Importantly, students are encouraged to meet with their supervisors early in their training to discuss issues related to publication opportunities, especially authorship. As stated on page 48 in Academic Policies, a successful defense of a doctoral research proposal must include consideration of expectations for publication(s) based on the doctoral research, collaborative and administrative arrangements for this purpose to be transacted by the student as the lead investigator, and authorship roles.

The recommendations from the Graduate School Handbook are as follows:

- An author submitting a paper should never include the name of a co-author without that person's consent. Each co-author should be furnished with a copy of the manuscript before it is submitted. Co-authorship should be offered to (and limited to) anyone who has clearly made a significant contribution to the work.
- Anyone accepting co-authorship of a paper should realize that this action implies a responsibility as well as a privilege. If a potential co-author has serious reservations concerning a publication, the individual should decline co-authorship.
- The senior author or authors of a paper, individually or in concert, should be prepared to identify the contributions of each co-author.
- Simultaneous submission of essentially identical manuscripts to different journals is improper.
- As a general principle, research should be published in the scientific literature before reports of such research are released to the public press.

## APPENDIX IX

### Sample Title Page for Master's Paper (applies to MPH, MSPH, MSCR degrees)

MASTERS PROGRAMS AND SLEEP DEPRIVATION  
AMONG EPIDEMIOLOGY STUDENTS

by

A. Tired Student

A Master's Paper submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Public Health [or Master of Science in Public Health or Master of Science in Clinical Research] in the Department of Epidemiology.

Chapel Hill

2010

Approved by:

---

John Doe, PhD  
Advisor

---

Jane Doe-Smith, MD, MPH  
Reader

Date of IRB Approval: \_\_\_\_\_

[Funding Source Acknowledgement if appropriate]

## APPENDIX X

### SAMPLE SCHEDULE FOR 2-YEAR MSCR PROGRAM

(assumes full-time enrollment of 9 or more hours per semester)

<b>FALL</b>	
Course #	# Credits
EPID 896	1
EPID 711	3
BIOS 541	4
MSCR Track Course or elective	2-4

<b>SPRING</b>	
Course #	# Credits
EPID 896	1
EPID 690	3
BIOS 542	4
MSCR Track Course or elective	2-4

<b>FALL</b>	
Course #	# Credits
EPID 896	1
EPID 805	4
	3
MSCR Track Course or elective	2-4

<b>SPRING</b>	
Course #	# Credits
EPID 896	1
EPID 806	4
MSCR Track Course or elective	2-4
EPID 992	3

## APPENDIX XI

### SAMPLE SCHEDULE FOR PhD PROGRAM

(assumes full-time enrollment of 9 or more hours per semester)

**IMPORTANT:** Students who do not hold a prior master’s degree in a related field will be required to complete the MSPH (Master of Science of Public Health) as part of the requirements toward the PhD. The MSPH requirements are comparable to the MPH requirements and are addressed in Appendix II. This may add one to two years to the program.

<b>FALL</b>	
Course #	# Credits
EPID 705	2
EPID 710	4
BIOS 600	3
EPID 700 (SAS)	3

<b>SPRING</b>	
Course #	# Credits
EPID 715	5
BIOS 545	3
Substantive EPID course	3

<b>FALL</b>	
Course #	# Credits
EPID 718	3
BIOS elective	3
Substantive EPID course	3
EPID 725	0.5

<b>SPRING</b>	
Course #	# Credits
EPID 722	3
EPID 726	3
EPID 994	3

<b>SUBSEQUENT FALL SEMESTERS</b>	
Course #	# Credits
EPID 994	3*

<b>SUBSEQUENT SPRING SEMESTERS</b>	
Course #	# Credits
EPID 994	3*

\*3 credit hours of EPID 994 constitutes full-time enrollment once all other course requirements have been met. (A student may register for additional courses if desired, but must register for a minimum of 3 hours of dissertation to be considered full-time.)

## APPENDIX XII

### Guidelines for Choosing Dissertation Topics

#### PhD students

1. Student presents list of dissertation topics to advisor.
2. Advisor and student discuss these options as topic areas for dissertation.
3. Based upon additional reading by student, scientific merit and feasibility, advisor and student agree on topic area. Student prepares a written outline of this topic.
4. Advisor and student discuss the outline and develop a plan for conduct of the dissertation.
5. Advisor and student discuss options: (i) student writes grant proposal with advisor; (ii) student takes part in on-going funded research project with advisor; (iii) student will analyze secondary data; (iv) advisor identifies potential contacts outside the department with available data.
6. Student and advisor agree on topic and student prepares second draft of outline of dissertation proposal.
7. Student and advisor identify additional dissertation committee members.
8. Student presents second draft of proposal outline to committee and discusses it with each committee member.
9. Student prepares draft of dissertation proposal and discusses it with advisor.
10. Second draft of proposal presented to entire committee and followed up with discussion.
11. Final draft of proposal presented to committee.
12. Student schedules preliminary orals.

## APPENDIX XIII

### SAMPLE TABLE OF CONTENTS FOR MANUSCRIPT-STYLE DISSERTATION

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