

COLLEGE OF PUBLIC HEALTH
DEPARTMENT OF EPIDEMIOLOGY AND BIOSTATISTICS

STUDENT HANDBOOK EPIDEMIOLOGY & BIOSTATISTICS

PHD & MS DEGREES

LAST REVISED: August 16, 2023



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From the Department Head



Welcome to the College of Public Health and the Department of Epidemiology and Biostatistics. We are pleased that you chose our department as your home for graduate education in Public Health. Our faculty are engaged in world-class research in many various areas of Epidemiology, Biostatistics, and Data Analysis and Modeling.

Our department has a strong tradition of collaboration with public and private health agencies and institutions including collaborative ties with the Centers for Disease Control and Prevention (CDC), the Georgia Department of Public Health and its Regional Districts, the Archway Partnership Program, College of Veterinary Medicine- Population Sciences, the Biomedical and Health Sciences Institute and the Faculty of Infectious Disease, and the Center for Global Health.

We are here to foster your success. Our door is always open. Please come by if there are questions or you may need our assistance.

José F. Cordero, MD, MPH, FAAP
Patel Distinguished Professor in Public Health
Department Head

From the Graduate Coordinator and Program Directors

Welcome to the department of Epidemiology and Biostatistics at UGA!

The Epidemiology and Biostatistics Department offers MS and PhD degrees. For both degrees, students select one of three areas of emphasis: Epidemiology (EPID), Biostatistics (BIOS), or Data Analysis & Modeling (DAM). The MS and PhD programs are fully housed within and administered by our department. This handbook applies to MS and PhD degrees in Epidemiology and Biostatistics.

The College of Public Health (CPH) offers and manages the MPH degree program. Since the MPH is a college-wide program, there is a separate student handbook for students in the MPH degree. The link to MPH Handbook can be found [here](#).

The department also offers a certificate in Infectious Disease Epidemiology which also has separate handbook. It can be found [here](#).

The Graduate School at UGA is the final decision maker regarding all issues involving graduate education. The departmental graduate coordinator (GC) is the liaison between graduate students and the graduate school. Our department GC is Dr. Allan Tate. He will be your point of contact for all official forms and paperwork that require a signature before sending to the Graduate School. For each area of emphasis, there is a designated program director (PD). The program directors handle issues related to the specific programs they oversee, such as course selection and others.

Our Graduate Coordinator Assistant is Nichole Thomas (nthomas@uga.edu). She works closely with students and the GC to address student issues. Your first point of contact for most questions related to student issues is Ms. Thomas. She handles the majority of paperwork related to graduate education and supports the GC and program directors. Her office is located in Miller Hall Room 107; her telephone number is 706-542-6288.

This handbook covers MS and PhD degrees offered through the department. Some information applies equally to all degrees and programs and some is program-specific. As a graduate student you are expected to be fully informed regarding all parts of this document pertaining to your degree, including the outside sources indicated in this document. If there are any question about degree program that remain unclear after reviewing these documents, please do not hesitate to contact Ms. Thomas or Dr. Tate. Their contact information is below.

Dr. Allan Tate Graduate Coordinator Epidemiology Program Director allan.tate@uga.edu Miller Hall 202	Dr. Ye Shen Biostatistics Program Director yeshen@uga.edu Miller Hall 211	Dr. Andreas Handel Data Analysis & Modeling Program Director ahandel@uga.edu Miller Hall 124	Nichole Thomas Graduate Coordinator Assistant nthomas@uga.edu Miller Hall 107
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General Information

The following pages contain information that applies to all graduate programs administered by our department.

Departmental Mission Statement

The Department of Epidemiology and Biostatistics trains public health professionals and researchers in the use of epidemiological principles, biostatistical methods, and data analysis and modeling approaches with the goal of conducting innovative research to address existing and emerging public health issues.

We are a community of scholars dedicated to integrating research, teaching, and service by collaborating within and across disciplines, including collaborations between faculty, students, and community partners. We are committed to critically evaluating how our program contributes to the greater populations. We are committed to serving, including those who solicit our technical expertise and advocacy and who support our work.

We support the College of Public Health's mission: To advance the health of all. Through research, hands-on learning, and community engagement, we commit to improving the public's health in Georgia, our nation, and the world. In all of our work, we strive to express the College's core values: collaboration, compassion, courage, data-driven, diversity, engagement, equity, excellence, inclusion, innovation, perseverance, respect, and social justice.

Department of Epidemiology and Biostatistics By-Laws

The Department of Epidemiology and Biostatistics is governed by a set of by-laws that were written and approved by faculty in the department. These by-laws specify internal policies and procedures that apply to faculty and comport with UGA guidelines. The by-laws can be obtained from the departmental staff.

Departmental Personnel

Please visit the department's webpage for the most up-to date information to learn about [faculty](#) and [staff](#) of our department at <https://publichealth.uga.edu/directory/>

Graduate School Policies

The University of Georgia Graduate School policies govern the administration of our graduate degrees. Visit <https://grad.uga.edu/current-students/> for information on specific academic procedures and regulations. In case of conflicts between departmental policies and those of the graduate school/university, the latter are to be followed. **Students are expected to know of and abide by all the rules and policies specified by the graduate school. Students should read all applicable information on the graduate school website very carefully.**

Graduate School Forms

There are numerous forms that students must fill out and sign throughout their graduate studies. For access to all required forms, consult the [Graduate School webpage](#) and ensure they are submitted in a timely manner. You should not rely on your advisor for knowing how and when to submit the necessary paperwork. Rather, it is the responsibility of graduate students to ensure correct and timely submission. If in doubt, ask the graduate coordinator assistant or graduate coordinator.

Calendars and Deadlines

The UGA academic calendar is maintained by the Registrar's office at UGA and can be found [here](#). Please consult the calendar for important dates during the year including the first day of classes, add-drop dates, dates for early registration, examination periods, commencement, etc. The Graduate School also maintains an additional [calendar](#) of important dates and deadlines pertaining to specific aspects of graduate education. Consult those as well. It is graduate students' responsibility to initiate required paperwork well in advance to ensure all deadlines can be met.

Admissions

All students seeking admission to one of the departmental graduate programs need to satisfy the requirements specified by UGA's Graduate School. Consult the Graduate School [webpage](#) for requirements and procedures for admission. Additional requirements for each specific program are described in the program-specific sections of this document.

Registration

Registration for courses is online via UGA's student management and registration system. For detailed information concerning procedures and timelines for registration, please check the webpage of the Registrar's office: <https://reg.uga.edu/enrollment-and-registration/registration/>

Enrollment Policy

Graduate students must register for at least three credit hours for two of the three semesters during the academic year. There are exceptions for some UGA employees. Students who cannot enroll for two of three semesters should seek a leave of absence. Details regarding enrollment policies are found on UGA's graduate school [webpage](#).

Time Limitations

All requirements except the dissertation and final oral dissertation defense must be completed within a period of six years. Consult the graduate school webpages for additional detailed information on [MS](#) and [PhD](#) requirements.

Health Services

UGA has a comprehensive Health Center, which provides a broad range of health services to the UGA community for mental and physical health and wellness. To learn more about available resources, visit the University Health Center [website](#).

Health Insurance

UGA currently has a voluntary and a mandatory health insurance plan. Visit UGA's Human Resources [website](#) on student insurance and employment to learn more about these plans and waivers for coverage.

Non-Discrimination and Anti-Harassment Policy

The University of Georgia is committed to maintaining a fair and respectful environment for living, work and study. The Equal Opportunity Office is responsible for ensuring such an environment and to follow all laws. To learn more about these issues and available resources, please see <https://eoo.uga.edu/>

Campus Emergencies – UGA Alert

The UGA Alert Emergency Notification System aims to inform the UGA community of any kind of emergencies in a timely manner. Learn more, sign up or update your information at: <https://emergency.uga.edu/ugaalert/>

Academic Honesty Policy

Every student must agree to abide by UGA's academic honesty policy and procedures known as “[A Culture of Honesty](#)”. Details on the honesty policy, including explanations of violations, consequences, and appeals processes can be found at <https://honesty.uga.edu/>

UGA Family Education Rights and Privacy Act (FERPA)

The federal Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. UGA abides by FERPA rules. To learn more about FERPA consult this [webpage](#). **NOTE:** Please use caution when setting certain FERPA restrictions in the system, as these can have consequences that you may not want, such as legally prohibiting your advisor from writing you a letter of recommendation. If you do choose to change your FERPA settings, you will be able to do so using the system you use to manage your records. If you have questions or need general information about FERPA, Contact [Adam Lawrence](#), 706-542-6020.

Source for UGA Policies and Procedures

For a comprehensive list of all University policies and procedures go to <https://policies.uga.edu/>

Advising

Upon starting any of our programs, students will be assigned an initial advisor who can offer advice general academic advice, along with the GC or the PD of their selected areas of emphasis. **Students may change advisors as they learn to know faculty and develop their research interests.** Students' initial advisors can also assist them in identifying a major advisor/professor. The faculty member who takes a lead role in advising the student's thesis or dissertation will chair the student's advisory committee and is known as the student's major professor/ advisor. The major professor will serve as the student's main advisor and mentor until graduation. The other faculty members in the advisory committee will provide additional support and mentorship. Required degree program forms typically require signatures from both the major professor and the GC (and sometimes additional persons). Each form includes information about required signatures.

Grade Average

Students need to maintain an average of 3.0 (B) to be eligible for admission to candidacy and graduation. No grade below C (2.0) will be accepted as part of a program of study for a graduate degree. When a graduate course is repeated, the last grade received will be used in calculating the cumulative graduate average that is used for probation, dismissal, admission to candidacy, and graduation. Grades received in all graduate courses will be included in the graduate cumulative average. The Graduate School independently tracks student performance and places students on warning or probation, with eventual dismissal, with failure to meet the required GPA (see <https://grad.uga.edu/current-students/registration-academic-policies-faq/>).

Performance Review of Graduate Students

Graduate students are expected to meet with their Major Professor regularly (at least twice per semester) to discuss and review progress toward degree completion. This can be combined with advising. This review will include course grades, performance on exams (including the qualifying and comprehensive exams), research progress, and participation in other program activities. At the end of every academic year, the PD or Major Professor will complete a formal evaluation of student's performance to determine whether progress is satisfactory or not satisfactory based on performance. If progress is unsatisfactory, the student will plan a course of action with their major advisor, PD and Graduate Coordinator to improve their progress. If a student demonstrates unsatisfactory progress a second year, they may be withdrawn from the program.

The Department supports the rights of students to appeal grades or any other performance evaluation. Students who wish to make appeals should refer to Appendix 1. Student Academic Appeals Policy and Procedures,



DEGREE SPECIFIC INFORMATION

The following pages contain information that
are specific to each degree.

Specific information for each degree and area
of emphasis are provided.

MS in Epidemiology & Biostatistics



MS in Epidemiology & Biostatistics

Goals of the Program

The primary objective of the MS Program in Epidemiology and Biostatistics is to train students in the knowledge, application and evaluation of core epidemiological, data analysis, modeling and biostatistical methods in public health and biomedicine. In addition, students will become subject matter experts in their chosen area of emphasis of Biostatistics (BIOS), Epidemiology (EPID), or Data Analysis & Modeling (DAM). The Department of Epidemiology and Biostatistics embraces competency-based education as set forth by the Council of Education in Public Health (CEPH).

General competencies

Students receiving a MS in Epidemiology and Biostatistics are expected to gain the following competencies:

- Review and assess scientific public health and biomedical literature.
- Apply core epidemiological and biostatistical approaches and computational techniques to public health problems.
- Demonstrate ethical practices in human subjects research as pertains to data collection, data management, analysis, and interpretation.
- Communicate effectively with lay audiences, with investigators in public health and other biomedical researchers.

Specific competencies

For the biostatistics area of emphasis, the following additional competencies apply:

- Assess the statistical content of the public health and biomedical literature.
- Evaluate and appropriately apply extant and new statistical methods.
- Develop project-tailored computer programs/algorithms to meet the goals of scientific collaborations.

For the epidemiology area of emphasis, the following additional competencies apply:

- Contribute to and collaborate on primary data collection on human health, such as in a community or clinical setting.
- Design and incorporate features of observational and experimental study designs used in epidemiologic research.
- Generate novel research questions and answer those questions using appropriate study design and analyses.

For the data analysis & modeling area of emphasis, the following additional competencies apply:

- Investigate and implement solutions to current problems in public health using probabilistic, statistical, and data-scientific reasoning skills.
- Apply advanced analysis methods to public health data.

- Develop project-tailored computer programs/algorithms to meet the goals of scientific collaborations.

Pre-requisites

Applicants must satisfy the requirements specified by the graduate school. Applicants may have training in any discipline including but not limited to mathematics, public health, the biological or physical sciences, computer science, engineering, psychology, sociology, business, statistics or biostatistics. Previous coursework or standardized test results should demonstrate strong quantitative skills. Students are expected to have previous epidemiological and biostatistical knowledge at a level taught in our EPID and BIOS 7010 courses. Applicants seeking to complete the area of emphasis in data analysis and modeling or biostatistics must have additional biostatistical knowledge at the level of BIOS 7020. Biostatistics students should additionally have a completed course in differential, integral and multivariate calculus. Linear algebra is strongly encouraged. Students may be admitted without all of these pre-requisites under the condition that they take any needed pre-requisite courses (e.g. EPID/BIOS 7010 or BIOS 7020), during their first semester of study. Any needed pre-requisite courses do not count toward the degree.

Curriculum Overview

The MS degree in Epidemiology and Biostatistics will be awarded in recognition of general graduate level knowledge and understanding in Epidemiology, Biostatistics and Data Analysis & Modeling, as well as specialized knowledge in the chosen area of emphasis. Students will have to pass all required classes with a grade of B or above and need to maintain an overall B average. No grade below a C can be counted toward completion of the degree. To show research proficiency, students are required to perform research culminating in a Master's Thesis. As part of this requirement, students will form an advisory committee, complete the thesis research project, and write and orally defend the final thesis to the committee and other members of the academic community at the university. The student is guided through the experience by their major professor/advisor (mentor) and advisory Committee. All requirements for MS programs as specified by the Graduate School apply, and the student is responsible for meeting formatting and submission requirements of their thesis for degree conferral. Deadlines for submission of graduation materials are summarized [here](#).

Coursework

Students must complete a minimum of 36 credits and 6 elective credits. Some courses are required for all MS students; other required courses are specific to a student's chosen area of emphasis.

Required by everyone (18 credits):

- Fundamentals of Epidemiology (EPID 7020), 3 credits
- Research Data Management and Computing (BIOS 7400), 3 credits
- Regression and ANOVA (BIOS 8010), 3 credits
- Master level research (BIOS/EPID 7000), 3 credits
- Master thesis (BIOS 7300), 3 credits
- Graduate Seminar (BIOS 9100), 2 credits
- Ethics Seminar, 1 credit (EPID 7800)
- GradFirst Seminar, (GRSC 7001)

Required for BIOS (11 credits):

- | | | |
|-------------|---|--------------------------------------|
| • STAT 6510 | 3 | (may be substituted with STAT 6810) |
| • STAT 6520 | 3 | (may be substituted with STAT 6820) |
| • BIOS 8020 | 3 | Linear and Generalized Linear Models |
| • BIOS 8200 | 2 | Biostatistical Consulting |

Required for EPID (12 credits):

- | | | |
|-------------|---|-------------------------------|
| • BIOS 7020 | 3 | Introductory Biostatistics II |
| • EPID 7410 | 3 | Field Epidemiology |
| • EPID 8010 | 3 | Cohort Study Design |
| • EPID 8020 | 3 | Case Control Design |

Required for DAM (11 credits):

- | | | |
|------------------|---|--|
| • EPID 7500 | 3 | Introduction to Coding in R for Public Health. |
| • EPID/BIOS 8060 | 3 | Modern Applied Data Analysis |
| • BIOS 8200 | 2 | Biostatistical Consulting |
| • BIOS 8020 | 3 | Linear and Generalized Linear Models |

Electives (6+ credits):

- Any EPID or BIOS class, or (with permission of advisor or program director), any other appropriate 7000/8000 graduate level class. Taking further electives is encouraged.

Additional coursework:

- As per UGA rules, a student who receives any level of support or is assigned teaching duties has to take a section of GRSC 7770. This course does not count toward the 36 credit program requirement.

Students who can prove mastery of content taught in a required class may be exempt from such a class at the discretion of the Department of Epidemiology and Biostatistics. Such students must replace exempted courses with qualified electives so as to maintain the total number of course credit hours required for each aspect of the degree.

Sample Program of Study

Year 1 Spring	BIOS 8020, STAT 6520, BIOS 8200, EPID 9100, BIOS 7400, elective	EPID 7410, EPID 8020, EPID 9100, BIOS 7400, electives	EPID 8060, BIOS 8020, EPID 9100, BIOS 7400, electives
Year 1 Summer	Classes or Research as Available		
Year 2 Fall	BIOS/EPID 7000, electives,	BIOS/EPID 7000, electives, BIOS 8010	BIOS/EPID 7000, electives, BIOS 8200
Year 2 Spring	BIOS 7300, electives	BIOS 7300, electives	BIOS 7300, electives

Students should submit their [Program of Study \(G138\) form](#) "by Friday of the second full week of classes of the semester in which degree requirements are completed" per [UGA Graduate School MS degree requirements](#).

Advisement

Upon entering the program, students are temporarily advised by the GC or initial advisor. The student is responsible for identifying a permanent advisor within the first 6 months to year of their program who will serve as their major advisor and thesis committee chair. The master's advisory committee must consist of a minimum of three members. The chair and at least one other member must be members of the graduate faculty of the University of Georgia and the Department of Epidemiology and Biostatistics. The third member may be any person holding graduate faculty status at UGA. The third member can also be a non-UGA faculty member with a PhD or equivalent doctoral degree. For an external member, the student and the student's major advisor will need to write a letter of justification to the Graduate School with the GC's signature of approval, which is submitted as part of completion of the [Advisory Committee \(G130\) form](#). For more details, refer to the graduate school [website](#).

Thesis

A candidate must submit a thesis which shows independent judgment in developing and addressing a research question. The thesis shall be written under the direction of the chair of the student's master's advisory committee. The chair is responsible for mentoring the student through the steps and procedures of the research project. Other members of the advisory committee should be engaged by the student as needs arise. The thesis must be approved by the chair of the student's advisory committee. Committee members must have at least three weeks to read and evaluate the completed thesis prior to its final defense.

A final oral thesis defense is required of all candidates. All members of the advisory committee must be present for the entire defense period and must vote to either agree to or dissent from the candidate's thesis approval. Thesis approval may proceed with no more than one dissenting vote.

The Graduate School must receive the [Approval Form for Master's Thesis and Final Oral Examination \(G140\)](#) form and an electronic submission of the corrected thesis prior to graduation. Refer to the following Graduate School links for more detailed requirements regarding thesis [deadlines](#) and [formatting](#).

PhD in Epidemiology & Biostatistics



PhD in Epidemiology & Biostatistics

Goals of the Program

The objective of the PhD program in epidemiology and biostatistics is to provide students with in-depth knowledge of core epidemiological, data analysis, modeling and biostatistical methods. Students are expected to apply their knowledge to design, implement and evaluate research in public health and biomedicine. In addition, students will become subject matter experts in their chosen area of emphasis of Biostatistics (BIOS), Epidemiology (EPID), or Data Analysis & Modeling (DAM). The Department of Epidemiology and Biostatistics embraces competency-based education as set forth by the Council of Education of Public Health. We expect students to acquire the following competencies:

General Competencies:

Students receiving a PhD in Epidemiology and Biostatistics should meet the following competencies:

- Evaluate and synthesize primary research literature to appraise the state of knowledge in an area of public health.
- Implement appropriate study designs along with state-of-the-art analysis methodology.
- Apply innovative methods and approaches in Epidemiology & Biostatistics, to improve public health, and to create new knowledge in the field of Epidemiology & Biostatistics.
- Demonstrate ethical practices in human subjects research as pertains to data collection, data management, analysis, interpretation, and publication.
- Communicate methodological concepts and applications in health research to diverse audiences.
- Author research plans and project proposals.

For the biostatistics area of emphasis, the following additional competencies apply:

- Evaluate and critique core biostatistical methods including their inferential properties, computational algorithms, and their strengths and limitations.
- Demonstrate proficiency in the theoretical foundations of biostatistics including probability theory and statistical inference.
- Collaborate with researchers in public health and biomedicine on all aspects of the study design including power analysis, appropriate use and implementation of state-of-the-art biostatistical methods, and publishing results.
- Conduct and publish original research on the theory and application of biostatistics aimed at developing new and innovative methods for the analysis of public health and biomedical data.

For the epidemiology area of emphasis, the following additional competencies apply:

- Articulate research questions in epidemiology that address critical problems in public health and are based on synthesis of scientific literature.

- Choose the appropriate observational and experimental study designs to answer specific epidemiologic questions.
- Collaborate on primary data collection on human health and use key sources of epidemiologic data to inform programmatic and research activities.
- Apply appropriate analytic methods to examine epidemiologic research questions and understand the relevant strengths and limitations.

For the data analysis & modeling area of emphasis, the following additional competencies apply:

- Collect, organize, and manage data to ensure data integrity and reproducibility, and develop skills of identifying appropriate databases for secondary data analysis.
- Propose meaningful data analysis questions and assess the feasibility of answering these questions with the available data.
- Write custom code to efficiently implement and perform modern data analyses.
- Analyze data using valid statistical or mathematical methods, and draw appropriate public health inferences from the results.

Pre-Requisites

Applicants must satisfy the requirements specified by the graduate school. In addition, all students entering the program must show strong quantitative skills as evidenced by performance on standardized tests (e.g., GRE if provided by the applicant) or in prior quantitative courses (e.g. math, statistics, physics, engineering etc.). Students are expected to have previous epidemiological and biostatistical knowledge at a level taught in both EPID/BIOS 7010 and EPID 7020 courses. Applicants seeking to complete the area of emphasis in data analysis and modeling or biostatistics must have additional biostatistical knowledge at the level of BIOS 7020. Biostatistics students must have completed courses in differential, integral and multivariate calculus, and linear algebra. Students may be admitted without all of these pre-requisites under the condition that they take any needed pre- requisite courses (e.g. EPID/BIOS 7010, EPID 7020, or BIOS 7020), during their first semester of study. Any needed pre-requisite courses do not count toward the degree.

Curriculum

The degree of Doctor of Philosophy in Epidemiology & Biostatistics will be awarded in recognition of a strong foundational understanding of fundamental concepts in Epidemiology & Biostatistics, together with in-depth knowledge in the chosen area of emphasis. All students will demonstrate the ability to perform independent research and to communicate clearly the results of such research.

In this program, all students will acquire foundational knowledge and expertise in epidemiology, data analysis and biostatistics through successful completion of core course series. Students must further demonstrate their mastery of their chosen area of emphasis by taking required and elective courses in that area and by completing an independent research project under the direction of a faculty mentor.

The PhD program in Epidemiology & Biostatistics has three areas of emphasis. Biostatistics

(BIOS), Epidemiology (EPID) and Data Analysis & Modeling (DAM). All students are expected to take core courses required for each area of emphasis. Each area of emphasis has additional specific requirements.

Students who can prove mastery of content taught in a required class may be exempt from such a class at the discretion of the Department of Epidemiology and Biostatistics. Such students must replace exempted courses with qualified electives so as to maintain the total number of course credit hours required for each component of the degree.

Advanced academic knowledge will be demonstrated by meeting the requirements of each required and elective course and by passing both a department-wide written qualifying exam, which covers the general curriculum content, and a comprehensive exam, administered by the student's advisory committee, which focuses on what the student needs to know given their chosen program of study. The exams are described in more detail below.

Research expertise will be demonstrated through successful completion and oral defense of a dissertation research project. As part of this requirement, students will form an advisory committee, write and defend a dissertation proposal (i.e., prospectus), complete the dissertation research project, and write and defend the final dissertation for the committee and other members of the academic community at the University. The student will be guided and mentored through the process by the student's major professor/advisor who chairs the Advisory Committee as well as other Advisory Committee members. The Advisory Committee and dissertation requirements are described in more detail below. A minimum of 12 credits of dissertation research, and at least three credits of dissertation writing, are also required.

Coursework

To complete the PhD the student will complete the following courses. The courses are divided into those that are required to be taken by students of any concentration, courses that are specific to concentrations, and electives.

Required by all concentrations:

- | | | |
|------------------|------|---------------------------------------|
| ● GRSC 7001 | 1 | GradFirst |
| ● BIOS 8010 | 3 | Regression and ANOVA |
| ● BIOS 8020 | 3 | Linear and Generalized Linear Models |
| ● BIOS 8030 | 3 | Longitudinal Data Analysis |
| ● EPID 8010 | 3 | Cohort Study Design |
| ● EPID 8020 | 3 | Case-Control Study Design |
| ● EPID/BIOS 9100 | 2x1 | Graduate Seminar |
| ● EPID 7800 | 1 | Ethics Seminar |
| ● GRSC 7770 | 3 | Teaching Assistantship required class |
| ● EPID/BIOS 9000 | >=12 | PhD level research |
| ● EPID/BIOS 9300 | >=3 | PhD dissertation writing |

Required for BIOS (18 credits):

- | | | | |
|---|-----------|---|-------------------------------------|
| • | STAT 6810 | 3 | Probability Distributions |
| • | STAT 6820 | 3 | Statistical Inference |
| • | BIOS 8040 | 3 | Advanced Biostatistical Methods |
| • | BIOS 8200 | 3 | Biostatistical consulting project |
| • | BIOS 8310 | 3 | Advanced Biostatistical Inference |
| • | BIOS 8320 | 3 | Asymptotic Biostatistical Inference |

Required for EPID (12 credits):

- | | | | |
|---|------------|---|---------------------------------|
| • | EPID 8500 | 3 | Infectious Disease Epidemiology |
| • | EPID 8400* | 3 | Chronic Epidemiology |
| • | EPID 8040 | 3 | Clinical trials |
| • | EPID 8050 | 3 | Integrated Research Design |

Required for DAM (12 credits):

- | | | | |
|---|----------------|---|--|
| • | BIOS 7400 | 3 | Research Data Management and Computing |
| • | EPID 7500 | 3 | Intro Coding in R for Public Health |
| • | BIOS 8200 | 2 | Biostatistical consulting project |
| • | EPID/BIOS 8060 | 3 | Modern Applied Data Analysis |

Electives (9 credits):

- Any EPID or BIOS class or any class within the college of public health at the 7000/8000 level.
- Students are allowed to take classes outside the department/college. In general, classes that are related to the student's program of study and research are permitted. For any class outside our college, it is recommended that students discuss the class they want to take with their advisor or program director to obtain permission.

* NOTE: EPID 8400 will not be taught in Spring 2024 Students may substitute this 3 credit hour course with any of the following to meet epidemiology concentration requirements:

- EPID 7600 Reproductive and Perinatal Epidemiology
- EPID 8120 Screening and Prevention
- NUTR 7040 Nutritional Epidemiology
- EPID 8070 Environmental and Occupational Epidemiology (offered in Fall)
- GLOB 8900/7200 Advanced Global of Burden Disease

Selecting A Major Professor/Advisor

Upon admission to the program, a temporary faculty advisor will be assigned to you based on your application materials. Around the end of the first year, a student should have identified a permanent member of the departmental faculty with whom the student plans on doing their thesis research work. This person must be a member of the department graduate faculty. This will be the student's major professor/advisor and their committee chair. While a student can choose any faculty from the department as their advisor, it is generally expected that the research focus of the advisor will be in the area of the student's chosen area of emphasis. The student's Major Professor serves to advise and mentor the student throughout the program.

Doctoral Advisory Committee

As soon as possible, and definitely before planning to take the comprehensive exam, a student, together with their advisor should select members for the advisory/dissertation committee. The following rules apply to the committee:

- The committee must consist of at least four members (including the advisor, who is the committee chair).
- At least three members must be from the Department of Epidemiology and Biostatistics.
- At least one member's primary affiliation must be from outside of the Department and can be from outside UGA.
- No more than one committee member can be a non-UGA faculty, who holds a terminal degree in their field of study. This person must be nominated by the Graduate Coordinator and approved by the Dean of the Graduate School. Students are responsible for obtaining the outside committee member's CV and author a letter indicating why the non-UGA member has relevant expertise to support their topic. The person's curriculum vita and a letter of justification must be sent to the Dean by the graduate coordinator.
- If a student decides to have two main co-advisors, they count as one committee member.

The advisory committee, in consultation with the student, is charged with planning the student's program of study. It is also charged with approving the program of study, administering the comprehensive exam, approving the dissertation proposal, approving the completed dissertation, and approving the student's defense of his or her research. The committee should advise the student of required research skills and other requirements.

Once the student has selected committee members, the student should submit the [Advisory Committee \(G130\)](#) form.

Changing Major Professor or Committee Members

It is possible for a student to change their major professor and/or members of their advisory committee. To do so, the student needs to file a [Advisory Committee \(G130\)](#) form. The GC will consult with all involved parties (previous and new committee members), and if the GC considers the request for a change appropriate, the GC will forward it to the graduate school. **The persons on file with the Graduate School as being the student's committee must match those individuals who sign other forms at the time, such as comprehensive exam, admission to candidacy and dissertation. Therefore, students should always ensure the information regarding their committee is up-to-date with the GC and the graduate school.**

Program of Study

A final [Program of Study \(G138\)](#) form is required be submitted to the Graduate School prior to notification of the comprehensive examination. The final program of study must show all graduate courses relevant to the doctoral program and not just courses satisfying the minimum degree requirement. Courses from the master's degree and courses taken at other universities should be listed in the "Relevant Master's or Other Graduate Degree Courses" section of the program of study form. The program of study must carry a minimum of 30 hours of coursework, three hours of which must be dissertation writing (9300). See the Graduate School [webpage](#) for additional information.

Exams

Qualifying exam

The qualifying exam is developed and administered by the Student' Affairs Committee. After the first year, students are expected to take a written exam which covers the core general areas of study. Passing the qualifying exam is a pre-requisite for continuing in the program and taking the comprehensive exam. See Appendix 2 for additional details related to the departmental qualifying exam.

Comprehensive exam

The comprehensive exam is administered by the student's advisory committee and is expected to be taken at the end of the second year in the program or soon after. The qualifying exam consists of a written, take-home portion, followed by a public, oral examination by the student's committee. Questions for the written exam will be posed by the advisory committee and other members of the department faculty. The oral comprehensive examination is open to all members of the faculty and shall be publicly announced by the Graduate School. **It is the student's responsibility to inform the graduate coordinator and graduate coordinator assistant in writing at least three weeks in advance of the date of the scheduled examination date and location.** Please refer to this Graduate School [webpage](#) on PhD requirements for additional detailed information.

Students are allowed to retake either exam once. If the student fails a part of the examination more than once, the department will excuse the student from the PhD program.

Each member of the advisory committee will cast a written vote of pass or fail on the written and oral parts of the examination. To pass each part of the examination, the agreement of the advisory committee is achieved with no more than one dissenting vote. An abstention is not an appropriate vote for the comprehensive examination. The results of both examinations will be reported to the Graduate School within two weeks following the oral examination.

Dissertation Proposal Defense

In consultation with their advisor and committee, a student will identify an area of research and prepare a written proposal. This proposal will include research goals and aims background and rationale, literature review, detailed description of methods proposed, and an analytic strategy. **The student will present and defend their proposal to the advisory committee and the public. No forms regarding the proposal need to be submitted to the Graduate School. The writing and public defense of the proposal is a department-internal requirement.** Approval of the dissertation proposal signifies that members of the advisory committee believe that it proposes a satisfactory research study.

The proposal defense is separate from and may not take the place of the comprehensive oral examination. If needed and if the student is ready, the comprehensive oral exam and the proposal defense can be scheduled on the same day, and the proposal defense may follow the comprehensive oral exam, provided the student passed the oral exam.

In general, students should take and pass their comprehensive exam, even if they have not fully identified their research topic and thus will do their proposal defense at a later time. The proposal presentation and defense should follow the successful passing of the comprehensive exam within a reasonable amount of time, ideally within a semester.

Admission to Candidacy

Students are responsible for initiating the [Application for Admission to Candidacy for Doctoral Degrees \(G162\)](#) form to be filed with the graduate school. This should be done as soon as the student has completed all requirements for admission to candidacy which include successful completion of all required coursework, passing comprehensive written and oral exam, and defense of the thesis proposal. Students should refer to the admission to candidacy information on the graduate school [website](#) and make sure they meet all requirements. Application for candidacy should be submitted at least one full semester before the date of graduation.

Dissertation Research

Once the student has been admitted to candidacy, the student should complete the research described in the proposal under the supervision of their advisor. The advisor is responsible for mentoring the student through the steps and procedures of the research project. Other members of the Dissertation Committee should be engaged by the student as needs arises. The student should arrange to communicate regularly with all members of the committee.

After admission to candidacy, students must take at least ten credit hours of dissertation research (EPID/BIOS 9000) AND at least three credit hours of dissertation writing (EPID/BIOS 9300) in the semester of graduation. A student must register for a minimum of three hours of credit in any semester when using University facilities, and/or faculty or staff time. **NOTE:** It is likely that substantially more than ten hours of Dissertation Research may be needed to complete the research project.

Dissertation Writing

After completing their proposed research projects, students must write and submit the PhD dissertation to their major professor/advisors for approval. Students are expected to write a dissertation that represents a significant contribution of new knowledge to the field. Specific dissertation requirements may be dictated by the Dissertation Committee and the Graduate School, including format and content. Whether the dissertation is formatted as a single document or multiple journal-style manuscripts will be left to the discretion of the Dissertation Committee, subject to the rules of the Graduate School. At least a portion of the dissertation must be suitable for publication. Details on UGA Graduate School dissertation requirements and styles can be found at <https://grad.uga.edu/graduate-bulletin/theses-dissertations-overview/>.

When the Major Professor is satisfied with the completed dissertation, the student should distribute copies of the dissertation to the remaining members of the Dissertation Committee. The

committee members must have three weeks to read and evaluate the completed dissertation. The dissertation must be of sufficient scope and depth to meet the expectations of the Dissertation Committee members. With agreement of the committee, the student should schedule the final oral defense of the dissertation. Students should make note of the three time periods for planning graduation dates in consultation with their committee chair using the guidance provided for fall, spring, and summer linked [here](#).

Dissertation Final Defense

Once the committee deems the student ready to defend, a date and time for the oral defense should be set. The student must register for at least three credits of EPID or BIOS 9300 in the semester of the final defense, according to University procedures. **The student must notify the graduate coordinator at least three weeks prior to the defense date**; the graduate coordinator will inform the graduate school. Subsequently, the Graduate School will announce the time and place of the defense of the dissertation to the University community. **Failure to adhere to this timeline imposed by the graduate school might lead to the need to postpone a scheduled defense date.**

Students must give an oral presentation that summarizes the major findings of the research project and respond to questions from the public audience and the committee members. The defense of the dissertation will be chaired by the student's major professor/advisor and attended by all members of the advisory committee simultaneously for the entire defense period. The defense will consist of a public presentation followed by a private defense during which only the student and advisory committee will be in attendance. The public presentation is open to anyone who wishes to attend. The defense can be held completely remotely if approved by the graduate coordinator and the unit/department head. The advisory committee must approve the student's dissertation and defense with no more than one dissenting vote and must certify their approval in writing. An abstention is not allowable for the final defense. The results of the defense of the dissertation must be reported to the Graduate School at least two weeks prior to graduation for the current semester.

To pass the dissertation defense, the advisory committee must approve the student's defense with no more than one dissenting vote and must certify their approval in writing. The committee will indicate approval in writing with signatures on all appropriate forms provided by the University.

Students should ensure the needed form for dissertation defense approval is available for signing by the committee the day of the defense.

Once the written dissertation has been approved by the Dissertation Committee, the dissertation must be submitted to the Graduate School for final approval no later than two weeks prior to graduation. Dissertations which are not submitted by this deadline must be defended again and approved by the advisory committee before they will be considered by the Graduate School for final approval.

Dissertation Submission

Once a student has successfully defended their dissertation and made any changes requested by the committee, a complete formatted copy of the dissertation must be electronically submitted to the Graduate School ([Electronic Thesis & Dissertation \(ETD\) Submission Approval](#) (G129)) for a format check no later than four weeks prior to graduation. See specific graduate school deadlines at <https://grad.uga.edu/index.php/current-students/important-dates-deadlines/>

The Graduate School must receive the Final Defense Approval form and an electronic submission of the corrected dissertation no later than two weeks prior to graduation. This official copy of the dissertation will be electronically submitted by the Graduate School to the main library for archiving.

A graduate student may not submit a dissertation to the Graduate School for format checking or the dean's approval between the last day of classes and late registration of the following term.

Graduation

An application for graduation must be filed with the Graduate School no later than Friday of the second full week (the first full week for summer) of classes in the semester of the anticipated graduation date. Instructions for applying for graduation can be found [here](#). See <https://grad.uga.edu/index.php/current-students/important-dates-deadlines/> for specific dates.

All requirements for the degree must be completed and reported to the Graduate School no later than one week prior to graduation. A student must enroll for a minimum of three hours of credit the semester in which graduation requirements are completed unless additional stipulations are required by other units of the university.

In the course of completing the requirements for the doctoral degree in Epidemiology and Biostatistics, the student will fulfill the requirements as stipulated by the Graduate School. http://www.uga.edu/gradschool/academics/PhD_req.html

Sample Program of Study

To assist in planning, an example timeline is provided below. Most students will follow this plan closely. Any deviations should be discussed with the GC, PD and/or major professor as soon as possible. The following sample program applies to students who fulfill the prerequisites outlined above. If students need to take remedial classes, those should be taken in year 1.

The example plan of study assumes a student makes good progress on all aspects of their program of study. It is understood that the PhD degree will be granted in recognition of proficiency in research, breadth and soundness of scholarship, and thorough knowledge of Epidemiology & Biostatistics, as assessed by the faculty of the Department and not upon completion of any definite amount of work prescribed in advance, or any specific duration. Variation among students regarding the degree duration, especially concerning the thesis research, should be expected.

Full time students (12+ credits) are encouraged to sign up for the maximum of 18 credits each semester. Any credits beyond those taken by classes can be filled with research credits under the mentorship of faculty (which usually will be but is not required to be the student's main advisor).

Time	BIOS	EPID	DAM
Year 1 Fall	BIOS 8010, EPID 8010, STAT 6810, GRSC 7770, EPID 7800, EPID 9100, GRSC 7001	BIOS 8010, EPID 8010, EPID 8500, GRSC 7770, EPID 7800, EPID 9100, GRSC 7001	BIOS 8010, EPID 8010, EPID 7500, GRSC 7770, EPID 7800, EPID 9100, GRSC 7001
Year 1 Spring	BIOS 8020, EPID 8020, STAT 6820, EPID 9100	BIOS 8020, EPID 8020, EPID 8040, EPID 8400, EPID 9100	BIOS 8020, EPID 8020, BIOS 7400, EPID 9100
Year 1 Summer	During summer, all students take the qualifying, written in-class exam that covers core content up to and including EPID/BIOS 8010/8020 & EPID 7800. Successful completion of this exam is required before students can take the comprehensive exam and advance to candidacy.		
Year 2 Fall	BIOS 8030, BIOS 8200, BIOS 8040, electives, research	BIOS 8030, EPID 8050, electives, research	BIOS 8030, BIOS 8200, EPID/BIOS 8060, electives, research
Year 2 Spring	concentration courses, electives, research		
Year 2 Summer	Take Comprehensive Exam. The comprehensive exam is administered by the student's committee. Students need to have formed a committee and submitted the "Doctoral Advisory Committee" and "Final Program of Study" forms. Proposal defense should follow successful completion of comprehensive exam as soon as the student is ready. EPID/BIOS 9000 (research) as applicable		
Yr 3 Fall	EPID/BIOS 9000, further electives		
Yr 3 Spring	EPID/BIOS 9000, further electives		
By the end of the 3 rd year, students should have fulfilled all requirements need to be admitted to candidacy, including having passed their qualifying exam, defended their thesis proposal, and submitted the 'admission to candidacy' form.			
Yr 3 Summer	EPID/BIOS 9000 as applicable		
Yr 4 Fall	EPID/BIOS 9000, further electives		
Yr 4 Spring	EPID/BIOS 9000, EPID/BIOS 9300		
In general, by the end of the 4 th year the student should have finished their dissertation, passed their PhD defense, and submitted all forms and documents required for graduation to the GC and graduate school.			

Non-standard Courses

Under certain circumstances, students might want or need to deviate from the usual required and elective courses. This requires prior approval of the GC/PD and major professor. Any course replacing one of the required courses needs to be an advanced graduate level course and the total minimum number of credits needs to be maintained.

APPENDIX 1. Student Academic Appeals Policy and Procedures

The Department supports the rights of students to appeal grades or any other performance evaluation. Appeals must be based on one or more of the following issues:

1. **Inaccurate Evaluation or Grade Calculation.** Such appeals must demonstrate that the instructor inaccurately graded one or more assignments and/or made a clerical error in calculating the graded work.
2. **Discrimination.** Appeals based on discrimination must demonstrate that the instructor treated a student differently in assigning grades than he/she treated other students in a similar circumstance. The different treatment must have resulted in the student being assigned a lower grade than would have been assigned if the student were treated similarly.
3. **Failure to Follow Course Policies.** Such appeals must demonstrate that the instructor failed to follow policies that are written in the course syllabus or course assignment, or orally communicated during the course. The student must demonstrate that the instructor's failure to follow one or more course policies was detrimental to their performance in the class, such as a lower grade than would have been assigned had policies been followed.
4. **Failure to Follow Published University Policies.** Such appeals must demonstrate that the instructor failed to follow published University policies related to instruction and/or grading and that the instructor's failure adversely affected the student's grade.

The appeal must be initiated by the student but only after having made every effort to resolve the complaint by working directly with the instructor. If the course has a coordinator other than the instructor (for example a class taught by a graduate student) then the course coordinator should also be involved at this stage. Appeals of any type must be initiated in a timely way by the student, to allow for the early resolution of the appeal.

The next step is to seek review by the Department Chair or his/her designee (generally the Graduate Coordinator). This appeal should be in writing. The Department Chair will meet with all involved parties and render a decision in writing within 5 days of this meeting. For further details about the process beyond review by the department chair, please see the college policy: http://publichealth.uga.edu/wp-content/uploads/2018/06/CPH_academic_appeals_policy_2008.pdf.

APPENDIX 2. Departmental Qualifying Exam, Logistics and Procedures

The College of Public Health's Epidemiology and Biostatistics requires a qualifying exam as indicated in the **Student Handbook**. This is a departmental exam which covers the core areas of study in the department which are Epidemiology, Data Analysis and Modeling, and Biostatistics. As stated in the Handbook, passing the exam is a pre-requisite for being allowed to continue in the program and to take the comprehensive and oral exams offered by your chosen committee. The statements in this document expound the Handbook but are not intended to supersede the information in the handbook.

The qualifying exam will be administered after the first year of required courses have been successfully completed. The point-of-contact for the test is the departmental Graduate Coordinator. The Graduate Coordinator will liaise with the Student Affairs Committee of the Department who will be responsible for writing and administering the exam. To write the exam, the Student Affairs committee will request and vet questions written by one or more tenure track faculty members at different ranks in each of the department's tracks: Epidemiology, Data Analytics and Modeling, and Biostatistics. In particular, the Committee will request questions from the instructors of each of the required courses in the first year.

Exam Content: The qualifying exam is designed to test knowledge about a subset of required courses, usually taken during the first year of the program, and their pre-requisite courses. Content tested will be derived from the following courses that should be taken during the first year of the doctoral degree program:

- | | |
|-------------|-------------|
| • EPID 8010 | • BIOS 8010 |
| • EPID 8020 | • BIOS 8020 |

There is an ethics requirement as part of the doctoral and master's program. If a student has not yet taken an ethics course, they are advised to review the Belmont Report, or similar sources, as questions will be based on this document.

Exam Date: The qualifying exam will be offered in person in May of each year following the completion of Spring Semester finals. The exam date will be announced to the department by mid-January of each academic year. Students must notify the department graduate coordinator in writing that they plan to take the exam by the end of March of the that year.

Exam Logistics: All students must take the exam on the day it is offered. It is not possible to offer the exam at different times or on different days. The exam will be given out at 9 AM and must be returned by 5 PM that day. No extensions will be granted.

Exam Structure: The qualifying exam will be an open-book and note, take-home exam covering the core required areas of study. Students will be given 8 hours to complete the exam. It will include 8 – 10 open-ended questions with multiple parts. These questions will require fundamental knowledge of the topic, ability to synthesize with other core topics, critical thinking, quantitative analysis, and ability to communicate clearly. Students may use the Internet to inform their answers but must not seek help from any individual in real-time (regardless of mode of communication). Tests must be submitted electronically by email to the exam proctor by 5 PM on the day of the exam.

Exam Grading: Each question on the exam will be graded by two independent readers who are graduate faculty in the department. Each reader will give a grade of pass, conditional pass (indicating the presence of deficiencies), or fail and a list of strengths and weaknesses of the response. If both readers concur (either both Fail or both Pass/Conditional Pass), the student will receive that grade. If

the two primary readers disagree, a third reader will grade the question and act as a tie-breaker. The student must pass the majority of questions to pass the exam as a whole. Students should answer all questions on the exam. Any question graded CP/CP, CP/F or F/F will require remediation as described below. The Student Affairs Committee will assign the final grade of pass or fail for the entire exam. Grading of the exam will be completed by August in the year the exam was administered, approximately 3 months after the date of the exam.

Students who pass the exam as a whole but who have either a Conditional Pass from both readers, Conditional Pass/Fail, or Fail/Fail require remediation for that question only. Details of this grading and remediation are shown below:

Assigning a grade and need for remediation for each question.

- P/P or CP/P = **Pass**
 - No remediation is required.
- CP/CP = **Conditional pass**
 - Requires a written plan for remediation that is guided by their advisor and approved by the Student Affairs Committee (SAC). This is to be followed by re-evaluation on that question in a format determined by their advisor and could include a written essay, preparation of a lecture, or a question similar to that in the qualifying exam. This must be completed at least one month prior to the scheduled date of the next year's qualifying exam.
- CP/F or F/F = **Fail**
 - Requires a written plan for remediation that is guided by their advisor and approved by the SAC. This is to be followed by re-evaluation on that question in a format determined by their advisor and could include a written essay, preparation of a lecture, or a question similar to that in the qualifying exam. This must be completed at least one month prior to the scheduled date of the next year's qualifying exam.

The chair of the Student Affairs Committee will notify each faculty member of their student's performance and whether any questions require remediation. The department head, assistant head, and graduate coordinator will be cc'd on these emails. The faculty will notify their students of the exam results and provide feedback about the responses. Students who pass the exam will be allowed to continue to take the comprehensive and oral exams offered by the student's dissertation committee, as described in the Handbook. Students who require remediation on specific question as noted above will work with their advisor on a remediation plan to be shared with the committee and the graduate coordinator. For students who do not pass, they will be allowed to re-take the qualifying exam once. The Student Affairs Committee, the student's advisor, and the student will meet to discuss the timing of the re-take exam and recommendations for remedial instruction and preparation.

Exam Support: Committee members will organize an informational session with students by the end of March each year. During this session, one or more Student Affairs Committee members will present the details about the exam for that year, advise how best to prepare, and address questions. The date and time for this session will be announced by email.

A description of competencies, learning objectives, and skillsets that will be tested on the exam will be made available on the Departmental website. The Student Affairs Committee will publish 2-3 representative practice questions with answers in March. Students are strongly encouraged to discuss their exam preparation with the major advisor who can provide advice about how best to prepare.