Vanderbilt University
PhD Program in Epidemiology

Student Handbook
2025-2026

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Introduction

Welcome to the Vanderbilt PhD Program in Epidemiology. We hope this handbook will be a valuable resource during your graduate studies.

This handbook is designed to supplement the *Vanderbilt University Graduate School Catalog* (https://www.vanderbilt.edu/catalogs/kuali/graduate-25-26.php#/home) and the *Vanderbilt University Student Handbook* (http://www.vanderbilt.edu/student_handbook/). Students are expected to familiarize themselves with the information contained in each of these resources.

Every effort is made to ensure that the information presented in the handbook is accurate and complete. However, students should be aware that errors and omissions do sometimes occur. Direct communications from the program office supersede the content of this handbook.

PhD Program Leadership
The following faculty and staff are responsible for management and administration of the program:

Director of Graduate Studies
Peter F. Rebeiro, PhD, MHS

Associate Director of Graduate Studies
Staci Sudenga, PhD, MPH

Senior Program Manager
Melissa Krasnove, MEd

PhD Program Office
Administrative offices for the PhD Program in Epidemiology are located at:

Doctoral Program in Epidemiology
Vanderbilt University
2525 West End Avenue, Suite 1030
Nashville, TN 37203
Telephone: (615) 875-2915
https://www.vumc.org/epi-phd/

Vanderbilt University Graduate School
The PhD Program in Epidemiology is an academic program of the Vanderbilt University Graduate School and is governed by the academic requirements established by the Graduate School located at:

117 Alumni Hall
2205 West End Avenue
Nashville, TN 37240
http://gradschool.vanderbilt.edu/

Overview of the Vanderbilt PhD Program in Epidemiology

The unique focus of the PhD Program in Epidemiology is training epidemiologists with unparalleled excellence in advanced quantitative methods who have a strong grasp of causal logic, inference, probability and other theoretical aspects of study design and data analysis, in addition to content area expertise. The curriculum features classroom, computing, and experience-based teaching. The program integrates training and research across clinical, laboratory, and quantitative disciplines. At the completion of the program, graduates will be prepared to develop an independent research portfolio in academia, research or industry. Our goal is to train critical thinkers prepared to make fundamental advances using rigorous and cutting-edge approaches to research. Graduates will be able to contribute across a wide spectrum of content areas and research foci.

Training for the Profession
Skills to be developed through doctoral training include:

Critical review. Students will be able to critically read and synthesize published literature, assess appropriateness of study design and analytic approaches, and recommend and describe additional, feasible approaches. They will be able to compile supporting information, provide historical context and biological plausibility, and work from analogy across related fields, to describe and defend the rationale for research questions or methodologic applications that are novel.

Study design. Our graduates will be skilled at conceptualizing and structuring a research problem including isolating the scientific question, hypothesis, and population of interest, and developing viable alternatives that would allow the conduct and analysis of research that advances current understanding of the problem and addresses gaps in knowledge. They will be able to describe traditional and emerging research designs, compare and contrast strengths and weaknesses, and describe key aspects of "real world" implementation including specification of approaches to calculation of sample size, formulation of counterfactuals and use of appropriate comparator populations, field logistics, human subjects considerations, and data analysis, as it relates to the design. They will understand advantages and limitations of each design for addressing specific problems, including practical aspects of their use, such as trade-offs and complexity.

Study execution. Students should be able to write a study protocol, know how to recruit subjects, develop study instruments, and collect and manage or supervise the collection and management of data. They will be proficient in data security, management, quality control and documentation methods. Students will be able to design and implement sampling strategies and create randomization schedules.

Measurement. Students should be able to apply standard epidemiologic calculations to the measurement of behaviors, conditions, exposures, and health outcomes. They should be able to produce the descriptive epidemiology of a given condition, including case definition, calculation of primary measures of disease morbidity and mortality, and appropriate comparisons by person, place, and time.

Analysis. Students will be experienced in the use of actual research data to conduct analyses that use: dichotomous and multi-level outcomes, time-to-event data, repeated measures data, diagnostic or screening test data, highly correlated data, and case-only data, and be able to explain the proper interpretation of the results as well as the limitations of the methods employed. They should know when and how to examine effects for presence of confounding, selection bias, and effect measure modification, identify their presence and manage them appropriately. Their knowledge should encompass appropriate inclusion of a variety of variable types and specialized approaches to improve model characteristics and pursue valid inference, such as use of splines and propensity score methods. They will be able to conduct analysis of diagnostic and screening test characteristics, including use of likelihood ratios; conduct sensitivity analyses; and describe limitations and assumptions of alternative methods for assessing model fit, including approaches to risk prediction and Bayesian modeling. Students also will be encouraged to conduct methodologic research with a focus on furthering cutting-edge epidemiologic methods, while enhancing understanding of specific disease conditions and outcomes. Students should understand the underlying statistical processes and model assumptions of the methods and be able to identify situations in which they should be used, and what the implications of their use are to specific substantive areas.

Substantive knowledge. Students should complete course work or obtain adequate experience to develop a working substantive knowledge of clinical issues relevant to their dissertation and anticipated content focus.

Proposal development. At the completion of their coursework, students will understand and have experience developing grants in the style and approach required for federal funding. This will include development of a concise and compelling background section, specification of the research hypothesis, identification of the appropriate study population, description of measurement tools, analysis strategies, human subjects concerns, and budgeting.

Reporting and communications. Students should be able to report their research clearly and concisely in multiple formats, including abstracts, posters, and manuscripts suitable for publication in epidemiologic and medical journals. This includes submitting the results of the doctoral dissertation for publication.

Professional preparation. Students will have been introduced to core topics in multidisciplinary scientific team leadership, research management, and practical aspects of career development.

Commitment to Equal Opportunity

The Vanderbilt Epidemiology PhD program is intentional about and assumes accountability for fostering advancement and respect for principles of equal opportunity for all students, teaching faculty, and staff. We support our efforts with respect for the inherent dignity, worth, and unique attributes of every person. To realize our vision of excellence in our scholarly community, we seek to recruit, admit, and support outstanding students with a variety of life and academic experiences, regardless of socioeconomic background, race, ethnicity or nationality, color, sex, gender, sexual orientation, religion, disability status, or political ideology. We value human rights. As educators, we also accept the responsibility to foster and graduate highly educated and

reality-grounded future faculty who embrace the complexity and varied backgrounds of the populations they will serve.

Oversight, Advising, & Mentoring

The Director of Graduate Studies (DGS) is responsible for overseeing all aspects of the doctoral program with the help of the Associate DGS (ADGS) and Oversight Committee. The DGS is responsible for monitoring the progress of each student throughout his or her training. The DGS will have the most frequent contact with the students and is responsible for explaining the program requirements to the students as well as monitoring their performance in course work. The DGS will also serve as a student advocate when personal problems arise and in, hopefully rare, cases of faculty irresponsibility, conflict, or misconduct.

The Oversight Committee is composed of a broad spectrum of faculty representing all of the areas of epidemiology included in the training program and advises the DGS on all program and research-related topics pertinent to student training. One of its roles is as an advisory committee on student-related issues, including monitoring student progress, performance, and welfare. The Committee, along with the DGS, will assess each student's performance at the end of the second year and determine whether each student will remain in the program. The Committee will also meet with each student once each semester at which time the student will outline his/her research progress and other training activities. This is intended to maintain formal contact with each student, thereby providing encouragement and suggesting modifications of research direction. However, it should be noted that the Committee, while overseeing the progress of all program students will not provide the kind of individualized attention that the Dissertation Committee is required to do. The Committee's purpose instead is to make sure that the goals of the program are met in a more general sense.

Preceptor Teams
Students will be matched shortly after acceptance with research preceptor teams. These established multidisciplinary teams include epidemiology faculty, clinical experts and clinical researchers, biostatisticians, and experienced research staff. The research preceptor team commits to involving the student as a co-investigator from the beginning of the student's graduate studies. Students will use actual data from their research teams in their course work. The goal is to create a mutually beneficial partnership that produces synergy between education, professional development, and the conduct of research. The student will work 15-20 hours per week with the team during the academic year and full time during the summer. Students will work full time with their teams during the dissertation portion of their training.

Academic Advising Program
Each incoming student is assigned a faulty advisor who is a member of the Epidemiology PhD program and is not a member of their research preceptor team, although the advisor could become a dissertation committee member. The student is required to meet with his or her advisor at least once per semester to complete a progress report and obtain their advisor's signature and is encouraged to meet more often as needed to discuss dissertation progress, plan course work, and/or discuss career plans. It is the student's responsibility to initiate these meetings. Students

can change advisors if desired, as long as the student has obtained agreement from the Epidemiology PhD Program Leadership.

Curriculum

Students are required to complete a total of 72 credit hours, including course work and dissertation research. Selected core courses will be shared with the Biostatistics graduate program. In addition to the required theory & methods curriculum, students will take content area and advanced methods electives. Students are eligible to take relevant course work for which they meet the prerequisites in any Vanderbilt department. The program is expected to take four years to complete.

Required Courses
BIOS 6311/6311L Principles of Modern Biostatistics
BIOS 6312/6312L Modern Regression Analysis
EPID 8310 Causal Inference
EPID 8311 Epidemiologic Theory and Methods I
EPID 8312 Epidemiologic Theory and Methods II
EPID 8313 Epidemiologic Theory and Methods III
EPID 8315 Scientific Writing I
EPID 8323 Epidemiologic Methods: Design and Analysis with Time-to-Event Data
EPID 8325 Scientific Writing II – Proposal Development in Epidemiology
EPID 8332 Advanced Methods for Epidemiology (3 offerings)
EPID 8370 Current Topics in Research
EPID 8999 Non-candidate Research
EPID 9999 PhD Dissertation Research
Research Ethics
Elective Courses (3 offerings)

Program Electives
EPID 8330 Training in Molecular and Genetic Epidemiology of Cancer
EPID 8331 Seminars in Quantitative Methods & Measurements
EPID 8333 Analytic Techniques for Genetic Epidemiology
EPID 8334 Critical Perspectives on Sex, Gender, and Medical Research
EPID 8335 Epidemiology of Infectious Diseases

Sample Program of Study

First Semester	Second Semester	Total Credits
First Year		
Causal Inference (3) Epidemiologic Theory & Methods I (4) Current Topics in Research (1) Principles of Modern Biostatistics (4) Non-candidate Research (0)	Epidemiologic Theory & Methods II (4) Modern Regression Analysis (4) Content Area Elective (3-4) Non-candidate Research (0-1)	
Credits: 12	**Credits: 12**	**Year: 24**
Second Year		
Epidemiologic Theory & Methods III (4) Scientific Writing I (2) Content Area Elective (3-6) Non-candidate Research (0-3)	Epidemiologic Methods: Time-to-event Data (4) Content Area Elective (3) Scientific Writing II (2) Non-candidate Research (3) [Comprehensive Exam]	
Credits: 12	**Credits: 12**	**Year: 24**
Third Year		
Advanced Methods Elective (1) Non-candidate Research (0) [QE: Dissertation Proposal Defense]	Advanced Methods Elective (1) Dissertation Research (0)	
Credits: 1	**Credits: 1**	**Year: 2**
Fourth Year		
Advanced Methods Elective (1) Dissertation Research (0)	Dissertation Research (0) [Dissertation Defense]	
Credits: 1	**Credits: 0**	**Year: 1**
		Transfer Credits*: 21
		Program Total: 72
*Advanced quantitative coursework credits likely to transfer from Master's studies subject to approval; Research hours increased if transfer credits not available		

Course Descriptions

EPID 8310. Causal Inference. This course will concentrate on conceptually grasping tools of logic and critical thinking as they apply to epidemiologic research. Our emphasis will be on rigorous definition of a causal effect and the minimal conditions necessary to consistently estimate such effects. In a small group format, we will examine case studies and anchor our discussions in readings from philosophy of science, logic, and probability. We will cover examples of valid and fallacious arguments, probability calculus, probabilistic fallacies, applications of Bayes theorem, the frequentist and Bayesian perspective, counterfactual logic, introduction of directed acyclic graphs (DAG), causal theory assumptions and notation, and interpretation of p-values and confidence intervals in epidemiologic research. [3]

EPID 8311. Epidemiologic Theory & Methods I. This is the first of a two-course series on advanced epidemiologic concepts and methods that includes measures of disease frequency, measures of effect, descriptive epidemiology, study designs, bias, misclassification and effect measure modification, and ethics in epidemiologic research. A case-based will engage students in demonstrating concepts using actual research data and in critical appraisal of case studies and publications that feature strong and weak examples. [4]

EPID 8312. Epidemiologic Theory & Methods II. This second in a two-course series provides an in-depth treatment of concepts and skills in epidemiologic research, including problem conceptualization, study design, data analysis and interpretation. Includes emphasis on how to design studies to best measure etiologic effects and includes advanced discussion of confounding, interaction, and missing data. A continued case-based approach will engage students in demonstrating concepts and methods using the students' own data. Prerequisite: 8311: Epidemiologic Theory and Methods I. [4]

EPID 8313. Epidemiologic Theory & Methods III. Continued instruction in the theory and application of epidemiologic methods in multiple study designs, including specification of generalized linear mixed models, model building strategies for explanation and prediction, additive and multiplicative interaction, effect measure modification, techniques appropriate for clustered and longitudinal data, and graphical exploration. Includes discussion of causal methods such as Propensity Score and Inverse Probability Weighting, causal mediation analysis, and marginal structural models to handle time-dependent confounding. Also includes computer-based experience with real data. [4]

EPID 8315. Scientific Writing I. Participatory course in which students develop skills in presenting research results in manuscripts, abstracts, and posters. Students work in small groups to write and critique published and unpublished manuscripts, with a focus on understanding the essential components of a scientific manuscript or presentation, as well as the process of publishing in the peer-reviewed literature and managing reviewer and editor comments and requests. [2]

EPID 8323. Epidemiologic Methods: Design and Analysis with Time-to-Event Data. Concepts and applications in survival analysis and analysis of incidence rates, including truncation and censoring, life tables, nonparametric approaches (e.g. Kaplan-Meier, log-rank), semi-parametric approaches (e.g. Cox models, proportional hazards regression), parametric approaches (e.g. Weibull, gamma regression) accommodating time-dependent exposures, Poisson regression, sensitivity analysis, bootstrapping, and multiple imputation. Additional readings in the philosophy and technique of epidemiologic modeling with time-to-event data will be explored in greater depth, including current articles that highlight challenges and novel approaches. [4]

EPID 8325. Scientific Writing II – Proposal Development in Epidemiology. Participatory course in which each student develops a high quality, detailed research proposal suitable for submission to NIH or AHRQ that includes both a technical proposal and a draft budget justification. Includes lecture, in-class exercises and group processes. [2]

EPID 8331. Seminars in Quantitative Methods and Measurement Concepts and application of cross-cutting tools used for unique and/or specialized types of measurement and instrument development for areas such as physical activity, clinical laboratory tests, and imaging studies. [2] May be repeated

EPID 8332. Advanced Methods for Epidemiology. These methods electives will be taught in modular format, most often with three modules on related methods topics, which will vary annually. Students will explore methodological issues in epidemiology like measurement error, missing data, intermediate variables, complex study designs, meta-analysis, splines, propensity scores, simulation. Exercises with provided datasets and the student's own data will be included. [1-3] May be repeated

EPID 8333. Analytic Techniques for Genetic Epidemiology. This course will take an example-based approach to provide students with the skills necessary to conduct statistical association analysis of genetic data from human populations for genetic epidemiology studies. Topics will include quality control, statistical methods for association testing, common study design issues, future directions of genetic epidemiology and advanced topics. [3 Offered Intermittently]

EPID 8334. Critical Perspectives on Sex, Gender and Medical Research. This course is designed to provide students with the foundation necessary to critically assess research protocols and published literature on the inclusion and omission of sex and/or gender. This course will also provide understanding of the biological mechanisms involved in sex as a biological variable and will investigate the differences and relationship between sex and gender. Topics discussed include: basic definitions and measurements of sex and gender, biological and sociological contributions to sex and gender, review of sex chromosomes, health disparities and ethical implications, and study designs and statistical assessment of sex and/or gender in research. Examples are stressed with reference to assumptions and limitations. [2 Offered Intermittently]

EPID 8335. Epidemiology of Infectious Diseases
This course will focus on epidemiologic methods used for evaluating patterns of exposure, transmission, clinical progression, and long-term outcomes of infectious diseases. In addition, the course will cover principles of surveillance, vaccinology, and public health approaches to the control of infectious diseases, including outbreak investigation. Classical frameworks for host-pathogen-environment interaction, models for epidemic evaluation, methods for monitoring emerging infections, and biological principles of pathogenesis for major causes of infectious disease morbidity and mortality will also be addressed. The course will include critical appraisal of readings from the literature, case studies based on the work of faculty, and direct application of tools and methods introduced in the course to address public health problems related to infectious diseases. [2 Offered intermittently]

EPID 8340. Content Area Intensives. These intensives are offered on a rotating basis and taught by faculty with research expertise in the content area of focus. Areas of epidemiology may include cancer, cardiovascular disease, child health, chronic disease/diabetes, genetics, global health, health care, infectious disease, nutrition, pharmacoepidemiology, reproductive, and social. [1-3] May be repeated

EPID 8370. Current Topics in Research. Students attend weekly presentations selecting from the Vanderbilt Epidemiology Center Seminar Series, Biostatistics Clinic, clinical grand rounds on topics related to content area interests, and other relevant seminars. Students will convene with faculty to reflect on and critique components of research presentations relevant to the

students' interest and to the contemporaneous topics being covered in the core epidemiology curriculum. Course assignments will focus on critical appraisal of a methodologic challenge identified in a seminar setting that has immediate relevance to the student's own research. [1] May be repeated

EPID 8371. Special Topics Seminar in Epidemiology. Faculty offer small groups of students a study course on a topic of mutual interest and concern in the faculty member's area of expertise. [1-3] May be repeated

EPID 8372. Advanced Readings in Epidemiology. Additional readings in specialized epidemiologic topics will be explored in depth under the guidance of a faculty member. [1-3] May be repeated

EPID 8373. Independent Study in Epidemiology. Designed to allow the student an opportunity to master advanced skills in epidemiology while pursuing special projects under individual members of the faculty in their areas of expertise. [1-3] May be repeated

EPID 8374. Advanced Readings in Epidemiologic Context, Thought and History. Reading and discussion of seminal literature in the history of epidemiology as well as contemporary literature that provides social and cultural context for the development of the field, challenges to the application of epidemiologic findings, consideration of roles and history of public health advocacy, and exploration of topics like social justice and research ethics through the lens of fiction, non-fiction, and scientific literature. A core reading will be selected to launch each semester and students will work as a group to select the balance of the readings for the semester from a recommended source list. Discussions will be facilitated by faculty and students including guest lecturers. A minimum of masters training in quantitative discipline and research experience in epidemiology or related field is required; other graduate students with permission of the instructor. [2] May be repeated.

EPID 8999. Non-candidate Research. Research prior to entry into candidacy (completion of Qualifying Examination) and for special non-degree students. [Variable credit: 0-12]

EPID 9999. PhD Dissertation Research. [Variable credit: 0-12]

Progress Toward the Degree

Residence and Course Work

The Graduate School requires completion of 72 hours of graduate work for the PhD degree. All students working full time toward the PhD must register each fall and spring semester. When the required 72 hours of course work has been completed, registration for dissertation research without hourly credit applies; this reflects full-time effort on research and confers full-time student status.

Research Expectations
Students will work 15-20 hours per week with the team during the academic year and full time during the summer. Students will work full time with their research teams during the dissertation portion of their training.

Students will register for either EPID 8999 or EPID 9999 each semester. Research mentors will assign a grade of *Satisfactory (S), Low Pass (LP) or Unsatisfactory (U)* every semester for research courses (8999 and 9999), regardless of the number of hours registered. The accumulation of three (3) *U* grades over the course of study may lead to dismissal from the program and the Graduate School.

Responsible Conduct of Research and Human Research Protections Training
The Graduate School requires training in research ethics. All new graduate students are required to take the Collaborative Institutional Training Initiative (CITI) course(s) for their discipline during their first semester of study. Epidemiology PhD students must complete the CITI Basic Course in Responsible Conduct of Research (RCR) – Bio/Physical Sciences and either the human subjects protections or RCR for social sciences training. Instructions can be found at http://www.mc.vanderbilt.edu/irb/training/citi_instructions.php. These trainings should be completed prior to beginning courses and must be completed before engaging in research-related activities.

Students are also required to participate in additional discussion-based RCR education, prior to completing their degrees. The courses listed below fulfill this requirement. A student may petition via program leadership to request an alternative course to fulfill the requirement.

IGP 8004 Responsible Conduct in Research (BRET RCR)
MSCI 5029 Research Ethics & Scientific Integrity
MSTP Responsible Conduct of Research Training (MSTP Students Only)
PUBH 5505 Public Health Ethics
PUBH 5518 Research Ethics

Finally, students must complete annual continuing education in RCR. Continuing education requirements may be met by attending an educational session approved by the IRB (e.g., IRB Essentials, Research Matters, News You Can Use, etc.), a national conference that addresses human subjects protections in research, completion of a CITI Refresher Course, or one of the available optional CITI courses (e.g., Good Clinical Practice, Responsible Conduct of Research, etc.).

Comprehensive Examination
A written comprehensive examination will be administered at the end of the second year focusing on the methods knowledge gained during the foundational and mid-level methods portion of the degree. The examination is a two-day take home examination and will include short answer questions, computations, interpretation of computations and analyses, and data analysis. The examination is not offered in the summer semester. A student who has failed the comprehensive examination may retake it only once and no earlier than the end of the semester following the initial examination. The same rules apply as for the first examination. If the exam

is not passed on the second attempt, the student may not proceed to PhD candidacy in the program and will be dismissed.

Dissertation Committee

Once a student has passed the comprehensive examination, they will select a dissertation advisory committee of no fewer than four members. The committee will be chosen in consultation with the DGS or ADGS and the student's research advisor. The committee must include three members of the Epidemiology faculty and at least one faculty member from another department, typically Biostatistics. The student's primary research advisor may not serve as chair of the dissertation committee but must serve on the committee. The DGS or ADGS will serve as an *ex officio* member of the committee if he/she is not an official member of the committee and if no other members of the program teaching faculty are members of the committee. The student should meet with their dissertation committee for the first time no later than October of the third year and then at least once every six months thereafter. The dissertation committee will serve as a resource for direction and assistance for independent research in the context of senior sponsorship and oversight.

The dissertation committee is intended to bring specialized expertise and resources to a student's research and career development process. The committee guides the development of the student's research and career development, with the dissertation advisor primarily responsible for overall guidance of the student's research and training. The dissertation committee is responsible for administering the qualifying exam and the final PhD examination and will determine whether the candidate has presented an acceptable dissertation. The chair of the dissertation committee will inform the DGS in writing of the results of the final examination using official forms provided for this purpose, including completion of any required revisions. If all other requirements are satisfied, the DGS will notify the dean of the Graduate School that the student has completed the requirements for the PhD degree.

Candidates for the PhD degree in Epidemiology must present an acceptable dissertation that adds to or modifies what was previously known. The requirements of the Graduate School, as described in the Graduate School Catalog, must be followed when preparing the thesis. Professional achievement must also be evident and should include the presentation of research work at one or more national meeting(s). Prior to the dissertation defense the student **MUST** have at least one first-authored publication submitted to a peer reviewed scientific journal.

Oral Proposal Defense - Doctoral Qualifying Examination

To qualify for candidacy, a student must complete all of the required first- and second-year courses, must be in good academic standing (GPA ≥3.0), must pass the comprehensive examination, and must pass an oral qualifying examination. The qualifying examination is an oral defense of the dissertation proposal, which is a written proposal describing the student's intended doctoral research. The proposal is intended to be detailed and is typically approximately 50 pages in length. It will consist minimally of a critical review of the literature, the objective(s) of the research, a statement of specific aims, a proposed approach and analytic plan, and a description of the papers or other products to be created at the conclusion of the research. The student will present the proposed research to the committee, and the committee members will be free to ask questions about any related substantive or methodologic issues that

are relevant to embarking on PhD candidacy in epidemiology. The student will submit a draft of the proposal well in advance of the defense and the committee members will return written comments to the student in advance of the defense date.

The examining committee is the student's dissertation committee. The committee must be appointed by the Graduate School no less than two weeks before the time of the qualifying examination. The Graduate School must be notified of the time and place of the qualifying examination at least two weeks in advance. The qualifying examination is not a public examination, and voice recordings of it are not permitted.

There will be three possible outcomes of the examination:

1. Pass;
2. Conditional Pass – specific conditions and time requirements to meet the conditions will be determined by the committee with approval of the DGS;
3. Fail.

In the case of failure, the student will be given up to four months to retake the examination. The examining committee, with approval of the DGS, will determine the date of the second examination. Failure to pass a second examination will result in dismissal from the doctoral program.

On satisfactory completion of the oral examination, the student will be admitted to candidacy.

Publication Requirement
A first-author paper based on one of the principal Aims of the dissertation should be submitted for publication before the dissertation defense; all chapters of the dissertation should be of publishable quality. With full approval, the committee may determine that the publication requirement is substantively fulfilled by manuscripts related to methods/series of measures/etc. that do not explicitly address hypotheses pre-specified for the Aim itself but are closely related to the Aims or the overall dissertation.

The Doctoral Dissertation
The doctoral dissertation will include the following components: critical review of the literature, a methods chapter to include hypotheses tested and methods applied, two to three manuscripts intended for publication but of somewhat greater detail than is typical in the peer-reviewed literature (one of which will be submission-ready or have already been submitted to a peer-reviewed journal before the student graduates), and a summary chapter with proposed next research steps in the field. All chapters must be of publishable quality. The source of data used in the dissertation research will depend on the research question; either primary data collection or secondary data analysis is acceptable.

It is expected that the student will create a schedule for the dissertation process that ensures that all committee members have had adequate opportunities to review drafts and provide input. The dissertation committee will work with the student to set a date for the dissertation defense and will take steps to ensure that the student defends only when he or she is ready to do so. The final oral examination (dissertation defense) is administered by the student's PhD committee and is on

the dissertation and significant related material; the student is expected to demonstrate an understanding of the larger context in which the dissertation lies.

The chair of the PhD committee or the DGS, after consultation with the candidate and members of the candidate's dissertation committee, shall notify the Graduate School in advance of the place and time of the examination and the title of the dissertation. This should be done no later than two weeks prior to the examination. The Graduate School then formally submits the defense notice to Vanderbilt's electronic calendar. The public is invited to attend the final examination, which is announced in advance in Vanderbilt's electronic calendar. The dissertation defense results form, signed by the committee members and the director of graduate studies for the program, should be forwarded immediately to the Graduate School.

The candidate must pass his or her dissertation defense approximately six weeks before the Graduate School's submission deadline for the semester in which the degree is to be conferred, so that there is time for final edits to be made prior to submission of the final dissertation to the graduate school for publication. It is the student's responsibility to assure timing compatible with the completion of all required steps in time for the intended graduation date.

Program Regulations & Requirements

Teaching Experience
It is likely that graduates of this program will often take academic positions upon completion, and it is therefore critical that they have teaching experience prior to graduating. To help students become effective teachers, all students are required to have or to gain teaching experience; participating in the teaching of a methods course or seminar is strongly encouraged. A variety of teaching opportunities will be made available to students.

The Intradepartmental Review
The intradepartmental review (IDR) is an opportunity to examine the student's course work and ensure that their remaining semesters are used to appropriately prepare them for graduation. The IDR typically will take place as early as the second semester of the second year (following administration of the written comprehensive exam) and is conducted by a committee of three faculty members, including the student's doctoral advisor. It is expected that by this point the student has picked at least a general topic for the dissertation. The committee reviews the student's educational record and dissertation idea and recommends additional coursework and direction for the duration of the doctoral training period, as needed. They also ensure that the student has met or has a plan to meet all requirements of the doctorate, including teaching, ethics and writing training.

Honor System
All work submitted as a part of course requirements is presumed to be the product of the student submitting it unless credit is given by the student in the manner prescribed by the course instructor. Cheating, plagiarizing, or otherwise falsifying results of study are specifically prohibited under the Honor System. The system applies not only to examinations but also to written work and computer programs submitted to instructors.

The student, by registration, acknowledges the authority of the Graduate Honor Council. The university's Graduate Student Conduct Council has original jurisdiction in all cases of non-academic misconduct involving graduate and professional students. Students are expected to become familiar with the *Rules Governing the Graduate Honor Council of Vanderbilt University,* available at the time of registration. It contains the constitution and bylaws of the Graduate Student Honor Council, Appellate Review Board, and related regulations. Detailed descriptions of Honor System violations and procedures are also available at www.vanderbilt.edu/gradschool.

Communication

Much of the communication between students, faculty, and other offices and individuals on campus will be through e-mail. Each student is provided with a Vanderbilt e-mail account on enrollment, and this address is made available to faculty, staff, and other students. Frequently students have other e-mail accounts; however, the Vanderbilt account is the one that will be used for all school communications. It is imperative that students check e-mail regularly because e-mail is frequently used to communicate information. Students are held responsible for information disseminated via e-mail.

Registration

The normal academic, full-time registration is 9 to 15 hours per semester (0 hours in the summer). Students registered for 9 or more didactic hours per semester (6 or more hours in the summer) are defined as full time. Those registered for 6–8 didactic hours (3 to 5 hours in the summer) are half time, and those registered for less than 6 hours (less than 3 hours in the summer) are part time. After completing the hourly requirements for the degree, full-time students register for PhD (8999, 9999) research without hourly credit to reflect full-time effort on research.

During each semester, currently enrolled students meet with their academic advisers to plan their schedules for the coming semester. All students must complete official registration at the appropriate time using YES (Your Enrollment Services).

All full-time graduate students, including those receiving scholarship, assistantship, fellowship, or traineeship support through the university, must register each fall and spring semester with no breaks in registration to remain in good standing.

Changes in registration may be made through YES during the change period (the first ten class days of the semester) with consent of the program. A student is not permitted to add or drop a course, change the number of hours in a variable-credit course, or change from audit to credit status after the end of the change period. A student may formally withdraw from a course after the end of the change period with the permission of the department, and a grade of *W* will be given. After the mid-point of the semester, a student is not permitted to withdraw from the course except under certain circumstances. Failing the course is not considered one of the circumstances.

Courses in which there is a significant change in subject matter each semester (e.g., special topics courses) may be repeated for credit within limits noted in the course listings of this catalog.

Grading System

The grading system in the Graduate School includes the letter grades *A, B, C, D,* and *F*. A student will not be granted graduate credit for any course in which a grade less than *C* is received. Grades below *C* may be repeated once at the discretion of the course director and the program. In this situation, the more recent grade will be calculated in the final grade point average. The letter *I* may be used at the discretion of the instructor when the student is not able to complete required work in the normal time. The notation *W* is entered onto the transcript when a student withdraws from a course or from the Graduate School. A grade point average of 3.0 is required for graduation.

The following scale will be in effect for letter grades and grade point averages.

Letter Grade	Grade point value
A+	4.0
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
F	0

S/U grades are given every semester for all research courses (8999 and 9999), regardless of the number of hours registered. The accumulation of three (3) *U* grades over the course of study may lead to dismissal from the program and the Graduate School.

Students receive grades in all courses except those approved for credit/non-credit, audits, and some seminars. An *I* that is not replaced by a letter grade within one year may be changed to the grade *F* at the discretion of the instructor; otherwise, the *I* may become permanent and remain on the transcript as such.

Certain courses approved by the graduate faculty for credit/non-credit or Satisfactory/Unsatisfactory count toward total hours. Courses that are strictly no-credit, however, do not count toward total hours or in calculating grade point average, although grades for such courses are entered on the student's record.

With the instructor's permission, students are permitted to audit certain courses. Students who audit are expected to attend the course regularly. Students must be registered for regular courses

in order to audit. Audits are listed on the student's transcript. Audits are limited to two per semester.

Grade Change Policy
For a student enrolled in the Graduate School, a grade recorded in the University Registrar's Office may be changed only upon the written request of the instructor, endorsed by the appropriate official (usually an associate dean) within the school/college that offered the course, and then the approval of the associate dean of the Graduate School. An instructor's petition to change a grade must include a brief rationale for the change. Changing a recorded grade is a serious matter and, in general, petitions will be approved only upon certification that the original grade was in error or, in the case of an Incomplete, that the outstanding requirement(s) have been completed. Request for exceptions to this policy should be directed to the associate dean of the Graduate School and will be considered on an individual basis; these may require additional certifications and approvals.

Transfer Credit
Certain master's degree courses are transferable toward the PhD. To transfer, the course cannot be a required course equivalent to those used to earn a degree in our program. Elective courses taken that are relevant to the scope and training of the PhD program in epidemiology can be transferred at the discretion of the Director of Graduate Studies for the PhD in Epidemiology.

Graduate credit may be transferred from graduate schools at accredited institutions, including prior graduate degrees at Vanderbilt University. Only those hours in which the student has achieved a grade B or better will be considered. Credits must have been earned within 10 years of matriculation to be eligible for transfer. Pass/Fail and audited credits are not allowed for transfer. Grades earned on transferred credit do not affect the student's GPA unless such courses are transferred as quality hours. Transfer is made only on the recommendation of the director of graduate studies of the program and with the approval of the Graduate School.

A maximum of 36 semester hours of transfer credit may be applied toward the Ph.D. Our program policy is to transfer only upper-level graduate courses that are not equivalent to required courses for the PhD degree program.

Academic Performance
All students must maintain an overall B (3.0) grade point average (GPA) in their didactic coursework. Student progress will be monitored by the Director of Graduate Studies and the Oversight Committee. Students are to meet with an advisor each semester to review progress. If a student's GPA drops below 3.0, he/she will be placed on academic probation. If the GPA is still below 3.0 after two more semesters, the Oversight Committee will evaluate the student's overall performance, and he/she may be dismissed from the program. Continued financial support is contingent upon maintaining an overall GPA of 3.0 and taking a full course load each semester.

Student Grievances and Appeals
Students who believe their academic performance has not been judged reasonably or fairly, or who believe their intellectual contributions have not been fairly acknowledged, should discuss

their concerns with the DGS. If the student's concerns cannot be resolved at the program level, the student may then request a further review of the issues in question by the associate dean for graduate studies or similar official in their school dean's office. The student may appeal the outcome of the school-level review to the Graduate School.

Remote Work Policy

We encourage all students to work on-site as face-to-face interaction with students, faculty, and staff can enhance graduate education and create opportunities for new collaborations and community building. However, students in the research and writing phase of their training may desire to work remotely part or full time. This decision lies with the research teams. Students should have a discussion with their research mentor to determine feasibility and policies surrounding this option. All data privacy policies regulated by the university and the medical center must be followed.

If a student works remotely out of state for more than one week, they must notify the program as it could affect the university's legal responsibility to tax their stipend. International Students should consult with ISSS regarding policies related to their visa.

Additional/Outside Work Policy

The Epidemiology PhD Program follows guidance from the NIH regarding student requests for additional/outside work. Per NIH Notice Number: **NOT-OD-17-095**: **"**Beyond the full-time training, NIH recognizes that Kirschstein-NRSA fellows and trainees may engage in part-time employment incidental to their training. Fellows and trainees may spend on average, an additional 25% of their time (e.g., 10 hours per week) in part time research, teaching, or clinical employment, so long as those activities do not interfere with, or lengthen, the duration their NRSA training. (See NIH Grants Policy Statement, Section 11.2.10.2 and 11.3.10.2, for more details.)"

Vacation and Sick Day Guidelines

The Epidemiology PhD program follows NIH guidelines for NRSA trainees and suggests students receive 15 days of sick leave and three weeks (15 calendar days) of vacation leave annually, in addition to University Official Holidays. It is also suggested that sick leave accrue from year to year. However, the graduate student should determine with their mentor(s) the accumulation, accounting and use of these leaves. Sick leave may be used for medical conditions related to pregnancy and childbirth.

Leave of Absence

The Graduate School requires continuous registration except for summer sessions. Students who want to interrupt their graduate study must petition the program, who on their behalf apply to the Graduate School for an authorized leave of absence. Leave of absence is granted for a maximum of one year. Those without authorized leave who do not register are dismissed from the Graduate School and are not considered students. If they want to resume graduate study at Vanderbilt, they must petition for reinstatement.

Parental Leave Guidelines
Following childbirth or adoption of a child, the primary care giver (female or male) is allowed to take 60 calendars days (equivalent to 8 work weeks) of parental leave with full stipend and continued health insurance coverage. This is in line with the NIH Grants Policy Statement. In the event of a graduate student wishing to extend the leave beyond this period she/he has the option of leave without pay, but can continue health insurance benefits by arranging with HR to continue payment of the employee contribution. Graduate student health insurance is purchased in academic year increments so they would not need to make extra payments for continued health insurance during an extended leave.

Kirschstein-NRSA trainees and fellows must provide advance notification to Vanderbilt University prior to taking parental leave.

Students are not employees and thus are not subject to the provisions of the Family and Medical Leave Act (FMLA).

Advance Notice and Approval
The student must request a parental leave from their Director of Graduate Studies at least three months prior to the beginning of the anticipated leave or, in the case of adoption, as soon as the adoption is confirmed. The request must be made in writing and once approved by the Director of Graduate Studies, forwarded to the Senior Associate Dean of the BRET Office for approval and notification of the Graduate School. Students should also make appropriate arrangements as needed with their course instructors to make up any missed coursework during the leave period.

Intent to Graduate
End of Semester Graduation
Those students who plan to graduate at the end of a semester (Fall, Spring, Summer) must complete the online Intent to Graduate form via the YES system. Students should check the University Academic Calendar each semester to determine deadline dates.

Intra-term Graduation
Intra-Term graduation is available to students with extenuating circumstances (e.g., needed for employment, academic program, fellowship) requiring a diploma sooner than one of the three regular graduation dates in May, August, and December. If a student plans to graduate Intra-Term, an application for Intra-Term Graduation should be submitted to the Graduate School for approval at least fifteen days prior to the conferral date.

Additional information on the graduation process is available on the Graduate School website, www.vanderbilt.edu/gradschool.

Conference Attendance and Travel Policies
Presentation of research findings is an important skill to develop as a graduate student and is an excellent opportunity for networking. The program expects graduate students to identify opportunities to present their work over the course of their training.

Students are required to review and complete travel related documents for the BRET Office well in advance of any work-related travel: https://medschool.vanderbilt.edu/bret/guidelines-for-student-travel/**.** Students must purchase airfare through Vanderbilt University's (not VUMC's) Concur portal, even when the funding source is VUMC. Reimbursement for travel is also processed through the university via Oracle and approved by the BRET Office. Students who need assistance paying travel costs upfront should contact Aaron Howard (aaron.w.howard@vanderbilt.edu) in the BRET Office.

All reimbursements for travel must be submitted within 60 days of travel and are processed through the University's Oracle system. Please contact the Senior Program Manager for instructions and/or assistance.

The Graduate School offers travel awards to all students and will provide up to $1000 in travel support for graduate students presenting their research at major meetings and conferences. Students may apply for one travel grant per budget year (July 1-June 30) for domestic or international travel. Students are allowed a total of three travel grants during their tenure at Vanderbilt.

Resources for Students

Academic Resources
YES (Your Enrollment Services) Registrar and Student Records
http://yes.vanderbilt.edu/

Brightspace (Course Websites)
https://brightspace.vanderbilt.edu/

Eskind Biomedical Library
https://www.library.vanderbilt.edu/biomedical/

Graduate & Postdoc Academic Success Program
https://gradschool.vanderbilt.edu/student-resources/professional-development/gpas/

Graduate School Catalog
https://www.vanderbilt.edu/catalogs/kuali/graduate-25-26.php#/home

Graduate Student Council
https://studentorg.vanderbilt.edu/gsc/

The Writing Studio
http://www.vanderbilt.edu/writing/

Professional Development Resources
AdvancED: The Institute for Higher Education
https://www.vanderbilt.edu/advanced-institute/

BRET Career Development: ASPIRE
https://medschool.vanderbilt.edu/career-development/

Wellness Resources
Center for Student Wellbeing
https://www.vanderbilt.edu/healthydores/

Student Care Network
https://www.vanderbilt.edu/studentcarenetwork/

Student Health Center
https://www.vumc.org/student-health/welcome

Student Recreation Center
http://www.vanderbilt.edu/CampusRecreation/

Additional resources can be found at: https://gradschool.vanderbilt.edu/