For additional information on the PhD program in Epidemiology and Biostatistics, call or write:

Student Affairs Coordinator

Department of Epidemiology and Biostatistics
Case Western Reserve University
School of Medicine
10900 Euclid Avenue
Cleveland, Ohio 44106-4945

Phone: (216)368-5957

Website:
http://epbiwww.case.edu/
Welcome to the Doctoral Program in the Department of Epidemiology and Biostatistics at Case Western Reserve University School of Medicine! This handbook is a general summary of academic program information and should be used in consultation with an academic adviser. Students should also review the Case Western Reserve University’s Student Handbook which describes the University requirements for graduation (http://www.case.edu/provost/gradstudies/). The Department of Epidemiology and Biostatistics has expectations and requirements for graduation additional to those of the University. If, after reading the Departmental Handbook and the University’s Handbook, a student is uncertain about a requirement or discovers a conflict in requirements, then the student should bring this to the attention of her/his academic adviser.

**Mission, Values and General Orientation**

The mission of the Doctoral Program of the Department of Epidemiology and Biostatistics is to train outstanding doctoral students, drawing on the core disciplines of epidemiology and biostatistics, and supporting them in developing the knowledge, skills, and competencies needed to assume positions of leadership with the ultimate goal of advancing the public’s health. Through challenging coursework and both independent and collaborative research opportunities, students will develop a thorough understanding of the multiple determinants of population health outcomes, the individual and structural factors that may lead to disparities in those outcomes, and the way in which specific policies and interventions influence the nature and impacts of population health determinants.

Figure 1, Schematic Framework for Population Health Sciences (see below), elaborates on the array of determinants and outcomes of interest, and indicates key influences and interactions that characterize this dynamic field of study.
Figure 1:

SCHEMATIC FRAMEWORK FOR POPULATION HEALTH SCIENCES

Concurrently, students will master the rigorous scientific and analytic methods necessary to be at the forefront of efforts to not only describe, but effectively evaluate and improve population health. Student- and faculty-led seminars provide an ongoing mechanism for keeping abreast of current literature and identifying important areas of research and collaborative opportunities. Students are considered junior colleagues of the faculty who will develop the capacity to work independently in a supportive environment. The department operates within a strong interdisciplinary framework involving faculty in the department, the School of Medicine, and across the entire university, as well as leaders in health care institutions and health-oriented organizations and agencies throughout the wider community.

Graduates from accredited universities and colleges will be considered for admission to the department. All applicants must satisfy both CWRU and department requirements for graduate admission. All incoming PhD students take a required 42-credit curriculum, which includes a 18-credit core and 24 credits (9-15 required credits, plus electives) from one of five areas of concentration: Genetic Epidemiology and Bioinformatics; Global Health Epidemiology; Health Behavior and Prevention; Health Care Organizations, Outcomes and Policy; and Modern Biostatistics (see descriptions on next page). On completion of all core requirements, students take a comprehensive examination and do a portfolio presentation prior to advancement to candidacy.


**Genetic Epidemiology and Bioinformatics**

Students enrolled in the Genetic Epidemiology and Bioinformatics concentration will learn to design and conduct epidemiological studies investigating the genetic and environmental influences on disease. Genetic epidemiology combines genetics, epidemiology, and biostatistics. Bioinformatics involves the use of sophisticated statistical and data mining tools to analyze genomic, epigenomic, and proteomic data.

Special study designs and statistical methods are required to explore genetic influences in epidemiologic studies, and this field continues to evolve as molecular and computational technology evolves. Furthermore, studies have moved beyond associations strictly between trait and DNA sequence and now incorporate gene-environment interaction, RNA/gene expression, copy number variants, epigenetics, and proteomics. Thus, today’s genetic epidemiologists must be able to take multidisciplinary approaches to the evaluation of genetics in disease pathogenesis.

Researchers in many diverse areas are interested in incorporating genetics into their studies of disease pathogenesis, so this field is in demand. Currently the field is moving towards the development of predictive models incorporating genetic polymorphisms, so this field is central to translational and personalized medicine. After finishing training in this area, students may become collaborators with other basic and clinical scientists who are interested in examining genetic effects on their respective phenotypes, may become methodologists and develop new statistical/bioinformatic approaches appropriate for obtaining genetic information, or may lead their own research related to the genetics of specific complex traits.

**Global Health Epidemiology**

The World Health Organization (WHO) and the US Institute of Medicine (IOM) defines Global Health as “health problems, issues, and concerns that transcend national boundaries, may be influenced by circumstances or experiences in other countries, and are best addressed by cooperative actions and solutions”. We believe that, at its core, Global Health (and more broadly, population health sciences) is built upon the disciplines of epidemiology and biostatistics. The unifying theme of this concentration is the relatedness of health across diverse geographic areas and communities and the application of epidemiology in the context of related disciplines to define, quantify, and address health determinants, measurements, and trends.

CWRU is a recognized leader in Global Health research and education. Academic opportunities in the field of Global Health are extensive and have been formally organized through the CWRU Framework for Global Health with nine departments, five schools, and The Center for Global Health and Diseases at CWRU. Recognizing that Global Health is not limited to international settings or “developing countries”, the concentration also recognizes neglected diseases and vulnerable populations within the USA that transcend cultural boundaries.
The spirit of this concentration is advanced, innovative training to invite and strengthen the brightest new researchers in the field of global health. To accomplish this to the highest degree possible, we take advantage of our own connections within the University, our deep resources in Global Health professionals. Since the focus of this concentration is the development of using a global perspective on health, prior or current experience in cultural settings from which these populations arise is strongly encouraged.

**Health Behavior and Prevention**

Health Behavior and Prevention involves the systematic study of factors that modify behaviors related to disease risk and health promotion. This involves the development and testing of intervention programs designed to change behavior and reduce the onset and impact of various diseases and programs designed to improve quality of life. Students enrolled in a concentration in Health Behavior and Prevention Science will train and conduct research on the psychological, social, and ecological influences of health-related behaviors linked to the prevention of chronic disease, focusing not only on individual-level health and health behavior change, but more broadly to include multi-level, socio-ecological influences from interpersonal relationships and families, to organizations (school, work, religion), neighborhoods and communities, and policy.

Research opportunities for HBP students are plentiful across campus, both with EPBI faculty and through established research centers within the university, such as the Prevention Research Center for Healthy Neighborhoods, Center for Reducing Health Disparities, Practice-Based Research Networks, Swetland Center for Environmental Health, Case Comprehensive Cancer Center (Prevention and Control Program), and the Center on Urban Poverty and Community Development.

The Prevention Research Center for Healthy Neighborhoods, through its Training and Mentoring and Research Development Cores, has built-in opportunities for students to become part of research teams, attend seminars, brown-bag discussions and participate in collaborative exchanges with community research partners.

**Health Care Organization, Outcomes, and Policy**

Students in the Health Care Organization, Outcomes, and Policy concentration will be prepared to design and carry out research on alternative models for the organization and delivery of care; quality, cost-effectiveness and comparative effectiveness of care; disparities in receipt or outcomes of care; translation of evidence-based practice into guidelines and evaluation of their real-world applications; and health policy analysis and implementation. Students in this concentration will acquire a solid grounding in the conduct of rigorous multidisciplinary studies applying quantitative, qualitative and mixed methods, and specialized competencies in key areas, viz., large database analysis; cost-effectiveness and comparative effectiveness analysis; health
economics; health policy and management; and other advanced methods such as hierarchical linear modeling; structural equation modeling; instrumental variable analysis; analysis of weighted survey data; and spatial analysis of data.

There is a nationally recognized need for researchers prepared to lead or collaborate on the types of studies students in this concentration would be prepared to conduct. Placements of past graduates of our department who focused their studies in this area indicate that a variety of employment opportunities exist in academia, industry, and government. This concentration is closely related to research in comparative effectiveness, disparities, and health care quality, all three of which reflect national funding priorities. For example, over one billion in federal research dollars has recently been devoted to the funding comparative effectiveness research.

**Modern Biostatistics**

Modern biostatistics is the science of designing experiments, analyzing and interpreting data from both experimental and observational studies, and making predictions. Appropriate planning and designing of a study is critical to ensure the quality and relevancy of its data to a scientific enquiry. Sound statistical analyses require consideration of multiple and perhaps previously unconsidered factors, knowledge and skills in modern statistics, computation, and relevant sciences. Data mining and modern statistical learning techniques are important for knowledge discovery from large or massive data.

Modern biostatistics addresses all aspects of statistics that arise from medical and health-related sciences, including challenges in nanomedicine, microarray experiments, next generation sequencing, preclinical and clinical trials, complex health policies, biomedical engineering, and other new/emerging areas. It involves the application and development of statistical methods for the advancement of medical science, health care, and related areas. Thus, modern biostatistical scientists develop new statistical methods, play a key role in the effective communication of quantitative information, collaborate with medical scientists in disease prevention and treatments, and contribute to the rational formulation of health policies and interventions.

The concentration in modern biostatistics provides both theoretical and practical biostatistical training integrated with the core requirements in epidemiology and health sciences, facilitated by the involvement of faculty in cutting-edge biomedical and health research across the medical school and university. This concentration aims to develop students as modern biostatisticians with knowledge of the determinants of population health and/or another scientific area of applications (of the student’s choice), as well as in statistical theory, methods, and computing which naturally have applications beyond a particular substantive area. This program provides unique biostatistical training designed to prepare students for today’s rewarding careers in academia, government, and industry. Modern biostatisticians are highly sought after in the job market.
Chapter 1: Welcome and Introduction

**Student Information System (SIS)**

The Student Information System (SIS) is a secure, flexible, web-based environment for creating and managing academic records at Case Western Reserve University. The student guide is provided on the SIS site: [http://www.case.edu/projects/erp/learning/qrg/stuguide%2009.pdf](http://www.case.edu/projects/erp/learning/qrg/stuguide%2009.pdf)

The Student Center section of the SIS is the main launching point for accessing academic, financial and personal information. SIS can be accessed via the “quick link” section at the bottom of the CWRU homepage, or here: [https://sis.case.edu/psp/P90SCWR/?cmd=login&languageCd=ENG&](https://sis.case.edu/psp/P90SCWR/?cmd=login&languageCd=ENG&)

Students can access training guides, information, references, and FAQs here: [http://www.case.edu/registrar/sisguides.html](http://www.case.edu/registrar/sisguides.html)

This site is updated any time there are changes made regarding the SIS. The University registrar is also available to help with SIS-related issues. The number to the registrar’s office is 368-4310.

**Professional Commitment and Culture**

The PhD program in Epidemiology and Biostatistics is a professional degree with a deep-seated commitment to lifelong learning, and students in the program are expected to maintain appropriate professional standards. This includes regular and on-time attendance of classes and seminars, and participation in a variety of professional development activities. Strong involvement in research, service, and professional social activities is encouraged, with an emphasis on developing impeccable research credentials, independent critical thinking, and problem solving. Students must recognize that voluntary enrollment in this rigorous graduate program may place demands on their time on evenings and weekends, and may prohibit them from taking on additional time-consuming activities, such as a second job. Pursuit of a doctoral degree takes time and commitment beyond that spent in the classroom and doing the work supported by a stipend, fellowship, or other form of financial assistance. Students must display maturity of character, interest in the practice of research, excellence in development of interpersonal communication, and high professional commitment to the program of study; they must espouse integrity, honesty, and courtesy, all important professional values. Use of equipment, supplies, and materials provided by the department are for the sole purpose of academics and research and must be approved by the student’s academic adviser. Copyright laws must be followed. Students are expected to contribute to their own professional development by taking initiative in organizing research seminars, leading journal clubs, organizing student-faculty retreats, and promoting other civic activities that enhance the stature of the program.
General Policies

Department of Epidemiology and Biostatistics/Case Western Reserve University

Introduction

Student Responsibility

Students should consult with their academic adviser to plan their planned program of study (PPOS) in order to carry out their work in accordance with applicable laws, regulations, and procedures. Nevertheless, it is solely the student’s responsibility to become acquainted with and adhere to Departmental and University rules, regulations, and administrative procedures governing graduate study, including the University’s Standards of Conduct detailed in the Case General Bulletin, Graduate Student Handbook, School of Graduate Studies Statement of Ethics, University Guidelines on Authorship and Policy on Copyright, and the University Policy on Academic Integrity.

Academic Adviser

Upon acceptance into the PhD program, each student will be assigned an academic adviser who will guide the student through department and graduate school regulations, assist him or her in designing a planned program of study, and track the student’s progress toward degree completion.

Students are required to meet with their academic advisers prior to registering each semester to discuss course plans for the semester. Once completed, the adviser will remove the “Adviser Hold” on the student’s record within the Student Information System (SIS) so that he/she may register for classes.

During the course of their study, students may request a change in academic adviser to another faculty member with a primary appointment in the department. To change advisers, students must complete and sign the form available on the department’s website and deliver it to the Student Affairs Coordinator.

When ready to embark upon the Doctoral dissertation, the student must choose a research adviser (who may or may not be the same as the originally assigned academic adviser, but must have an appointment in the department) to have the major responsibility for facilitating, guiding, and advising the student in his or her research (see page 22 for Dissertation details).
Communication Among Students, Faculty, and Staff

All students enrolled at Case Western Reserve University are given a Case Email address and Network ID. The general format for a CWRU email address is firstname.lastname@case.edu. Students also receive a Network ID, which generally consists of their first, middle, and last name initials followed by a number (ex: abc123@case.edu). This Network ID will give you access to your Case Webmail account, SIS, and any other University-related login systems that you have access to. If you use another email account, please ensure that you read both accounts regularly or that you forward the CWRU email to your regular email.

Students are responsible for reading the information and content of communications sent to their Case Email account at least once a day. Faculty, students, and staff often use the CWRU email system to communicate information about courses, seminars, events, etc., particularly when personal notification (e.g. during class) is not possible. You will be held accountable for missed information if you fail to check your email in a timely manner.

Planned Program of Study

In adherence with the School of Graduate Studies’ policy, during the first semester of study, all students are responsible for ensuring that they have a Planned Program of Study (PPOS) on file, submitted through the Student Information System (SIS). The PPOS consists of all courses a student plans to take to meet the requirements for his/her degree. This includes all required coursework, electives, and seminars (even if they are for zero credit hours); however, the PPOS need not include registration of 701 credits. The Planned Program of Study must be approved by the student’s academic adviser and should be submitted by October 15 of the first semester of study toward the degree specified, and updated, if necessary, by October 1 of each subsequent year in which the student is registered. Students are responsible for discussing their past background and future career goals with their academic adviser so that the best possible plan is developed.

Students enrolled in the PhD program are expected to successfully complete all coursework, research, and other requirements for the Doctor of Philosophy degree.

Course Load and Financial Aid

Full-time students normally take at least nine credit hours each semester. However, any time a student is registered for EPBI 701 (dissertation), even if only for 1 credit hour, the student is considered by the University to be full-time. Research assistantships entail taking courses and providing the department services in proportion to the aid granted. Students on fellowships (normally available for the first two or three years of study only) are expected to help in course instruction as part of their training. Students are expected to maintain a cumulative grade point average of 3.5 in order to be eligible for continued financial aid.
Students who receive financial aid, whether in the form of stipend, fellowship or tuition, must come to an agreement regarding work times, where required, and vacation days with their academic/research adviser and, if appropriate, any other faculty member supervising their work. However, in general, students receiving a fellowship are expected to participate on research projects at least 20 hours per week, not including class time. Most awards of full tuition, with or without a stipend, are full-year appointments. Students are expected to work regardless of whether classes are in session. Fellowship, stipend, and other financial aid offers are made on an annual basis; these appointments are renewed based upon performance (see additional discussion in Maintenance of Good Standing and Student Progress Reports) and availability of funds.

See section on Leaves of Absence for details regarding vacation and sick time for students on stipends or fellowships.

Prerequisites

Typically, but not necessarily, students enter the PhD program after completing a relevant master’s degree, such as a Master of Science (MS) or Master of Public Health (MPH) degree. If the student’s MS or MPH degree is from CWRU, core courses that were taken as part of their master’s degree need not be taken again as a PhD requirement. Such courses and core courses for which the student has had the equivalent elsewhere may be replaced (not waived: see “replacing a course”). However, a student entering with a related Master’s degree may apply for advanced standing, which reduces the number of credit hours required for the PhD (see “Advanced Standing for Students with a Prior Master’s Degree”).

Some concentrations may have additional prerequisite requirements. Please refer to the section on Concentrations for these additional requirements.
Advanced Standing for Students with a Prior Master’s Degree

Students who enter the PhD program with a related Master’s degree may apply for advanced standing. Based on courses taken elsewhere but judged to be equivalent to courses here, a student may have the total number of credits required for the PhD reduced. In order to be granted, the student must have a minimum of 12 credits of equivalent courses and may be granted a reduction in course requirements of up to 18 credits. If the student does have fewer than 12 credits of equivalent courses, they may apply to waive or replace a course (see “Waiving or Replacing a Course”). Students who wish to apply for advanced standing may do so any time after acceptance into the program by submitting the appropriate form and attaching the syllabi for all courses being used as the basis for waiving courses. This petition must be signed by the student, concentration leader, and Vice Chair for Education. Please note the following rules:

1. A minimum of 24 credit hours of coursework must be taken at CWRU, at least 12 of which must count towards the concentration.

2. All concentration required courses must be taken, except as waived by the concentration leader and the Vice Chair for Education.

3. All core courses (standard core or statistical alternative core) must be taken, except as waived by the Vice Chair for Education.

4. The student is responsible for everything covered in the core courses, and will take the full comprehensive examination, regardless of whether any courses were waived.

5. An approved Master’s is defined by being able to be waived out of at least 12 credits. Thus, an approved Master’s degree would qualify for a reduction of 12-18 credits from the full 42 credit requirement. If fewer than 12 credits are considered “waivable”, then it will not be deemed an approved Master’s and the full 42 credits must be taken here – though the student may be able to replace courses equivalent to those taken elsewhere.

6. “Waiving” a course means that the student has taken, at another institution, nearly all or all of the material in the course being waived. If a student has taken a course that is deemed to be somewhat similar, but not equivalent, the student may be granted the right to “replace” the course with another course in the same subject area to strengthen the student’s knowledge in the area. In this case, there would be no credit reduction.

7. The process for approving a waiver is similar to that of granting transfer credit. The instructor of the equivalent course will provide an evaluation based on materials submitted by the student, including at minimum, the course syllabus, as deemed appropriate by the instructor.
PhD Program and Requirements

Department of Epidemiology and Biostatistics/Case Western Reserve University

**General Requirements**

The degree of Doctor of Philosophy is awarded in recognition of in-depth knowledge in a major field and comprehensive understanding of related subjects together with a demonstration of ability to perform independent investigation and to communicate the results of such investigation in an acceptable dissertation. Our goal is to produce leaders of the next generation of interdisciplinary health scientists. To prepare them, through courses and research, our goal is to train students to use analytic methods to understand biological, epidemiological, social and behavioral, and health services aspects of the population’s health, ultimately to reduce and/or prevent morbidity and early mortality.

The Doctor of Philosophy degree in the Department of Epidemiology and Biostatistics comprises the following six components:

- Core Curriculum (18 credits)
- Specialization/Concentration Core Curriculum (9-15 credits)
- Electives (9-15 credits)
- Seminar Requirements
- Passing the General (comprehensive) Exam
- Portfolio Presentation
- Advancement to Candidacy
- Begin Dissertation
- Passing the Qualifying Exam (dissertation proposal defense)
- Dissertation (total of 18 credits)
- Dissertation Completion (oral public defense and final written dissertation)
Core Curriculum (18 credits)

The basic core curriculum is designed to provide PhD students with a strong foundation in epidemiology and biostatistics, together with health service research - the fields that comprise population health sciences - and the methodological and analytic training to conduct a rigorous, high quality dissertation in the student’s selected specialization or concentration. The Basic Core Curriculum comprises 18 credits in the following courses:

- EPBI 431: Statistical Methods I (3 credits) (Fall)
- EPBI 432: Statistical Methods II (3 credits) (Spring)
- EPBI 440: Introduction to Population Health (3 credits) (Fall)
- EPBI 444: Communicating in Population Health Science Research (2 credits) (Spring)
- EPBI 445: Research Ethics in Population Health Sciences (0 credits) (Spring)
- IBMS 500: Ethics & Biomedical Research (1 credit) (Spring)
- EPBI 465: Design and Measurement in Population Health (3 credits) (Fall)
- EPBI 490: Epidemiology: Theory & Methods (3 credits) (Fall)
- EPBI 501: Research Seminar (0 credits) (Fall + Spring)

Specialization/Concentrations – Required Courses (9 credits)

The PhD coursework requirement also consists of concentrated studies within one of the substantive areas offered within the department: Genetic Epidemiology and Bioinformatics, Global Health Epidemiology, Health Behavior and Prevention, Health Care Organizations, Outcomes and Policy, and Modern Biostatistics.

Most PhD students will specify a concentration when they apply to the program; those who do so will have better chance of acceptance. Students who do not directly specify a concentration when applying for admission to the program, must do so by no later than the end of the second semester (for full-time students) or 18 credit hours of core coursework, and then meet all the requirements of the chosen concentration. Applying to a concentration after matriculation OR changing concentrations after initial admission does not guarantee acceptance into the concentration. Some concentrations may have additional prerequisites beyond those required for entrance into the PhD program (e.g. at least one course in calculus), or additional non- coursework requirements (e.g. applied research experience).

CONCENTRATION REQUIRED COURSES

**Genetic Epidemiology & Bioinformatics (9 credits)**

- EPBI 451 Principles of Genetic Epidemiology (3 credits)
- EPBI 452 Statistical Analyses in Gen Epi I (3 credits)
- EPBI 457 Statistical Analyses in Gen Epi II (3 credits)
Global Health Epidemiology (15 credits)

- EBPI 436: Essence of Multilevel Statistical Modeling, Including Repeated Measures Analysis (1 credit) (Fall)
- EBPI 437: Essence of Classical Multivariate Analysis (1 credit) (Fall)
- EPBI 438: Essence of Structural Equation Modeling (1 credit) (Fall)
- EPBI 460: Introduction to Health Services Research (3 Credits) (Spring)
- EPBI 484: Global Health Epidemiology (3 credits) (Fall)
- EPBI 494: Infectious Disease Epidemiology (3 credits) (Spring)
- INTH 401: Fundamentals of Global Health (3 credits) (Spring)

Health Behavior & Prevention (12 credits)

- EBPI 411: Theoretical Foundations of Health Behavior (3 credits) (Fall)
- EBPI 423: Dissemination & Implementation Sci for Hlth Promotion (3 credits)
- EBPI 436: Essence of Multilevel Statistical Modeling, Including Repeated Measures Analysis (1 credit) (Fall)
- EBPI 437: Essence of Classical Multivariate Analysis (1 credit) (Fall)
- EBPI 438: Essence of Structural Equation Modeling (1 credit) (Fall)

And one of the following 4 methods courses:
- EPBI 467: Comparative and Cost Effectiveness Research (3 credits)
- EPBI 515: Secondary Analysis of Large Health Care Databases (3 credits)
- EPBI 450: Clinical Trials and Intervention Studies. (3 credits)
- EPBI 500: Design and Analysis of Observational Studies (3 credits)

Health Care Organization, Outcomes & Policy (15 credits)

- EBPI 436: Essence of Multilevel Statistical Modeling, Including Repeated Measures Analysis (1 credit) (Fall)
- EBPI 437: Essence of Classical Multivariate Analysis (1 credit) (Fall)
- EPBI 438: Essence of Structural Equation Modeling (1 credit) (Fall)
- EPBI 460: Introduction to Health Services Research (3 Credits) (Spring)
- EPBI 467: Comparative and Cost Effectiveness Research (3 credits)
- EPBI 515: Large Database Analyses (3 credits)
- ECON 421: Health Economics (3 credits)

Modern Biostatistics (15 credits)

- EPBI 415: Statistical Computing and Data Analytics (3 Credits)
- EPBI 435: Survival Data Analysis (3 Credits)
- EPBI 459: Longitudinal Data Analysis (3 Credits)
- EPBI 481: Theoretical Statistics I (3 credits) (Fall)
- EPBI 482: Theoretical Statistics II (3 credits) (Spring)
Seminar Attendance Policy

Attending research seminars is integral to our graduate program and your professional development. Students are required to attend research seminars. These seminars provide a forum for students to develop skills in scientific presentation, thought and communication, and balance general and concentration-specific speakers and topics. PhD students are required to enroll in six semesters of EPBI 501 and a minimum of six semesters of concentration-specific seminars.

✓ **EPBI 501 Research Seminar:** Weekly department-wide seminar including topics on research and professional development. This seminar generally meets Mondays at 12:00 pm - 1:00 pm All PhD students must take this seminar for 6 semesters beginning in their first year.

✓ **Concentration-specific seminars:** Concentration seminars may be student-led discussions of journal articles, proposal or thesis defenses, or seminars on special topics. Student participation requirements may differ across concentration seminars, but all PhD students must enroll in their concentration seminar for a minimum of 6 semesters beginning in their first year. These seminars, which are open to all students regardless of concentration, are as follows:

  o **EPBI 502 Seminar in Genetic Epidemiology and Bioinformatics.**
    ▪ All students with a Genetic Epidemiology and Bioinformatics concentration are required to attend starting in their second year.
  o **EPBI 503 Seminar in Modern Biostatistics.**
    ▪ All students with a Biostatistics concentration (MS) are required to attend.
  o **EPBI 504 Seminar in Health Care Organization, Outcomes and Policy.**
    ▪ This seminar has been suspended.
  o **EPBI 505 Seminar in Global Health Epidemiology.**
    ▪ All students with a Global Health Epidemiology concentration are required to attend.
  o **EPBI 506 Seminar in Health Behavior and Prevention.**
    ▪ All students with a Health Behavior & Prevention concentration are required to attend.
**Annual Progress Report**

Students are reviewed annually by the Student Progress Committee. To assist faculty in this review, every student is required to work with his/her academic adviser and submit an annual progress report to the Student Affairs Coordinator by **November 1 of each year.** The progress report is completed online using Blackboard (blackboard.case.edu). It must be approved by the student’s academic adviser before submission. The report asks students to summarize their educational and research activities conducted outside of the classroom (i.e., research projects, publications, national meetings attended), as well as classes attended. This report, along with the student’s class performance, is used by the faculty to determine, among other things, continuation of financial support, selection of teaching assistants, the content of letters of reference requested by the student, and selection of nominees for departmental and university student awards. For students who come with their own financial support, student progress will be monitored in exactly the same way as the rest of the student body.

The School of Medicine (SOM) requires PhD students after their first year to complete an Individualized Development Plan (IDP) by December 1 of each year. Students may upload a PDF of the department annual progress report to fulfill this requirement. PhD students in their 1st year are asked by the SOM to complete their IDP after completion of their 1st year.

**General (Comprehensive) Exam**

Students are required to sit for the general examination at the earliest opportunity after they have completed all core coursework. For the full-time (9 credits per semester) student, the examination would normally take place after the fourth semester in the program (in May). The first part (Part I) is a closed-book, in-class written examination. Part II is a take-home examination consisting of an article critique, proposal development guided by questions, and data analysis, to be accompanied by written Results, Discussion, and Conclusion sections. The examination will cover all basic PhD core coursework and contain questions that synthesize content across the different core courses. Both parts of the examination will be offered in May, with the opportunity to re-take it for those students who do not pass on the first attempt. Students only have to retake the part(s) they fail. Retakes are offered in August or December/January at the discretion of the department. The second attempt must occur within 1 year of the first attempt. A student who fails the examination may not take any further courses within his/her concentration, or any credits of 701, until successfully passing the examination. However, they may petition the Vice Chair for Education to register for these courses. Further, unless granted a rare exception, students who fail the general examination twice may not continue in the Ph.D. program, but may be eligible to complete requirements for a conciliatory MS degree (see below). Alternatively, students may apply for acceptance into the department’s MS program in biostatistics or Master of Public Health program, provided they meet the program’s entrance requirements.
Examination questions will test the students’ ability to integrate materials and concepts they have learned across the core classes, providing evidence that they can think independently and can understand and apply the broader concepts underlying the core curriculum. A single question may require students to apply and integrate knowledge gained from several core classes to effectively answer the question. In preparing for the examination, students should take the initiative to consider how the concepts and readings for one class apply to other classes and population health research in general. Students are encouraged to form discussion groups with their fellow students, read the relevant literature, and attend seminars to strengthen these skills.

**Conciliatory MS Degree**

The department only awards an MS degree in Biostatistics and Master’s of Public Health. However, the granting of a conciliatory MS degree option is available for PhD students, based on the university’s Plan B model. To be granted a Conciliatory MS degree, students are required to receive scores on both parts of the general examination that reach an adequate threshold and complete 36 credit hours of graduate level course work. Courses already taken to fulfill department and concentration core requirements are counted toward the required 36 credit hours. If additional courses are needed, they will be chosen from among approved concentration electives. In consultation with their advisers, students may elect to take additional independent study credits in order to carry out a research project and prepare an article for publication based on the results. The conciliatory degree is not an alternative terminal MS program, but rather is available for PhD students who are unable to complete their PhD studies.

**Advancement to Candidacy**

Students in the Ph.D. program advance to candidacy after:

1. Completion of all core courses.
2. Passing the general (comprehensive) examination.
3. Completion of all required concentration courses.
4. Successful Portfolio Presentation – preferably conducted when finishing required concentration courses, and before beginning dissertation research.
5. Submitting the completed and signed advancement to candidacy form to the School of Graduate Studies.

Students should not register for dissertation credits, EPBI 701, until the student has been advanced to candidacy. In rare cases, a student may petition for permission to register for up to a total of 6 credits of 701 prior to advancement to candidacy. This requires a completed and signed pre-doctoral standing form, approved by the research mentor and the Vice Chair for Education and submitted to graduate studies [http://gradstudies.case.edu/downloads/PredoctoralStanding.pdf](http://gradstudies.case.edu/downloads/PredoctoralStanding.pdf). Individuals
wishing to conduct research activities prior to advancement may elect to enroll in EPBI 601 Independent Research credits. If a student has met nearly all the requirements for advancement to candidacy, needing only the 3rd required concentration course to be offered again, they may petition the Vice Chair for Education to be advanced to candidacy early.

http://gradstudies.case.edu/downloads/PredoctoralStanding.pdf Once students have registered for dissertation research (EPBI 701), they must maintain registration (at least 1 credit) in each subsequent semester (fall and spring) until graduation, with the exception of approved leaves of absence. Note that leaves of absence do not extend the 5-year time limit to graduate after first enrolling in dissertation (EPBI 701) credit hours. Also note that there is no provision for “part-time” status during candidacy. The School of Graduate Studies considers a single credit hour of dissertation research to represent full-time student status. All students have a five-year time limit to complete their degree after registering for dissertation credit hours.

**Portfolio Presentation**

The purpose of the portfolio presentation is to give the doctoral student, faculty, and other doctoral students an opportunity to consider the progress, achievements, and goals of the presenting student. However, it is neither an examination nor a formal checklist of activity. The presentation is an opportunity for the presenting student to review her/his study and career goals and for the faculty to offer feedback and advice to the student regarding progress toward her/his goals. One way for the student to think about the portfolio presentation is to imagine that she/he is being interviewed for an academic or research position. In such a circumstance, the student would explain why she/he has the background and skills that would qualify her/him for the position. The Portfolio Presentation is given after passing the general examination and, preferably, after finishing required concentration courses and before beginning dissertation research.

**Portfolio Requirements:**

Dates for Portfolio Presentations are published well in advance. At least two weeks prior to the presentation date and in consultation with his/her research adviser, each student works with the department’s Graduate Studies Coordinator to schedule a 1.5 hour presentation slot on the specified day. 45-60 minutes are allotted for the student’s oral presentation, and 15-30 minutes for audience feedback and discussion. The Portfolio Presentation is not an exam. It is to help the student to be reflective at an important juncture in the program, and provide an opportunity for advice from faculty that can help the student in their chosen pathways for dissertation and career. The Portfolio Presentation has five requirements that a student needs to address:
1. A review of her/his research skills. This includes a brief overview of the courses taken and the set of research skills (computer languages, study methodologies, survey techniques, statistical techniques, etc.) the student has developed during, or prior to her/his PhD coursework. A student may also discuss the research skills she/he has yet to acquire and believes (s)he needs to complete the dissertation.

2. A review of her/his writing experiences and skills developed. This includes a brief overview of major class papers, abstracts, publications (in preparation, submitted or accepted), and grant applications on which the student has been a principal or co-investigator. The student should stress her/his specific role(s) in these activities.

3. A review of her/his speaking experiences and skills developed. This includes a brief overview of any teaching, seminars, or other public presentations that the student has given.

4. A review of other appropriate activities. This includes relevant work experience, committee service, advisory group membership, administration activities etc. that the student believes have prepared her/him for her/his doctoral research and proposed career.

5. A portfolio presentation folder containing:
   • A full CV (using a standard template provided on the department website);
   • A list of the classes taken (If the student earned a master’s degree outside the department, this should be described as well);
   • The syllabus for any course(s) that the student has taught or co-taught;
   • Examples of writing/ publications;
   • A copy of the visual aids (Power Point slides) used in the presentation.

In addition to these five requirements of the Portfolio Presentation, the student should discuss:

• **Career goals.** This includes a brief overview of the industry, setting, region, and field that the student would like to work in, both in the short (i.e. directly after graduation) and in the long term. The aim of this discussion is to allow the faculty to assess the student in the context of her/his own goals and offer advice on how to reach the student’s career objectives.

• **Dissertation goals.** This includes a brief overview of potential dissertation topics. The purposes of this discussion are to 1) make the faculty aware of the potential area that the student would like to work on so they can 2) assess if the student has the appropriate skills and experience, and 3) facilitate the formation of a future dissertation committee by identifying individuals to engage whose expertise may be beneficial.
**Criteria for Portfolio Evaluation:**

At least three primary faculty members will assess the portfolio presentation and folder and give feedback on a form that assesses whether:

- the portfolio presentation and folder were well organized;
- the presentation met the five requirements;
- the student’s career goals appear to be realistic/appropriate;
- the student appears to have or plans to acquire the research, written and oral skills necessary to meet her/his career goals;
- the student appears to have acquired or plans to acquire the necessary skills to propose, complete, and publish her/his dissertation research.

Ratings on each of the criteria will be made on a 6-point scale ranging from 0 (“not acceptable”) to 5 (“ideal”). In addition, an open-ended response will be given to advise the student on how to proceed during the remainder of her/his PhD course of study.

The portfolio will be considered successfully completed when all five requirements have been met. If, after discussion, the faculty completing the ratings believe that additional documentation is needed to meet the five requirements, the student will be informed about the additional documentation needed and advised on how to provide the documentation to the Chair of the Student Progress Committee before the end of the semester in which the Portfolio Presentation was given. When documentation satisfies the five requirements, a passing grade will be assigned. Students who do not provide the required documentation will receive a non-passing grade, and will be required to repeat the Portfolio Presentation.

**Registering for Dissertation Credit Hours: EPBI 701**

The Ph.D. dissertation is performed while in residence (see below) under the supervision of a faculty member (research adviser) of the department. Students who have advanced to candidacy may register for 1-9 credits of EPBI 701 each fall and spring semester (or up to 6 credits for the summer, when needed). Students who have not advanced to candidacy may, in the semester in which advancement to candidacy is expected, register for a maximum of 6 credits of EPBI 701 semester (Pre-Doctoral Standing) before advancing to candidacy. See the Student Affairs Coordinator for details. Pre-Candidacy (Pre-Doctoral Standing) EPBI 701 credit hours can only be taken concurrently with course work upon both academic and research adviser approval and proper form submission. It is the expectation of both the department and the School of Graduate Studies that any student who applies for Predoctoral Standing, and begins taking 701 credit hours before advancing to candidacy, will advance to candidacy before the following semester.

A minimum of 18 credit hours of EPBI 701 are required for the PhD degree. Once students have registered for EPBI 701, they must maintain registration (at least 1 credit) in each subsequent
semester (fall and spring) until graduation, with the exception of approved leaves of absence. Note that leaves of absence do not extend the 5-year time limit to graduate after first enrolling in dissertation (EPBI 701) credit hours. Also note that there is no provision for “part-time” status during dissertation work. The School of Graduate Studies generally considers even a single credit hour of dissertation research to represent full time student status. All students have a five year time limit, including leaves of absence, to complete their degree after registering for dissertation credit hours, unless they obtain an extension. A petition for extension of the 5-year limit must be approved by the research adviser and the Vice Chair for Education, and submitted to the Dean of Graduate Studies. The extension should include a plan with a timeline for completion. Once an extension is granted, the student must register for a minimum of 3 credit hours of 701 every semester.

**Qualifying Exam/Dissertation Proposal Defense:**

After being advanced to candidacy, the student should choose a dissertation topic and find a faculty member with an appointment in the department who is willing to be his/her research adviser. This person may be any faculty member of the department, primary or secondary; but if adjunct, permission of the Vice Chair for Education and (by petition) of the Dean of the Graduate School must be obtained. Upon advancement to candidacy (and all academic requirements officially confirmed), the student’s research adviser helps the student form a Ph.D. dissertation committee, with a primary faculty member as chairperson. The dissertation committee is approved by the Vice Chair for Education and then appointed by the Dean of Graduate Studies. The dissertation committee consists of at least four University faculty members, three of whom are members of the department of Epidemiology and Biostatistics (at least two from the student’s concentration) and at least one of whom does not have a primary appointment in the department. A minimum of 18 credit hours of EPBI 701 are required for the PhD degree.

While registered for EPBI 701, students typically work with their adviser and committee to refine their dissertation topic and develop their formal dissertation proposal. The proposal is the qualifying exam (written and oral) and must be passed within 1 year of beginning 701s (see “Good Standing”). A student is allowed two chances to pass the qualifying exam.

For the proposal, a literature review in the proposed area of research and a written dissertation proposal with proposed specific aims must be presented to the dissertation committee. The proposal should be written clearly, in English, at a level of understanding suitable for those outside the specialty area. At least two weeks prior to the oral presentation of the proposal, it should be made available to the entire dissertation committee. At that time, notice of the oral presentation of the proposal (including title, abstract, and official announcement of the proposal) should be submitted to the Student Affairs Coordinator for circulation to departmental faculty and students. All dissertation committee members should attend the presentation, which should preferably be in a regularly scheduled seminar within the
concentration. The final version of the proposal must be approved by the student’s research adviser and the other faculty members who have agreed to serve on the candidate’s dissertation committee. Once the proposal is approved, the student may commence independent research on his/her dissertation topic.

**Dissertation Defense**

All candidates for the Ph.D. degree must submit a written dissertation as evidence of their ability to conduct independent research at an advanced level. The dissertation must represent a significant original contribution to existing knowledge in the area of concentration, and at least a portion of the content must be suitable for publication in a reputable professional journal or as a book or monograph. Detailed instructions with regard to formatting and structure can be obtained from the Office of Graduate Studies.

The final oral examination, chaired by the academic adviser, must be widely publicized according to instructions from the departmental Student Affairs Coordinator. The examination consists of a defense of the dissertation and a final inquiry into the student’s capabilities in epidemiology and biostatistics.

All faculty members are encouraged to attend and participate in the student’s Ph.D. examination, which should preferably be in a regularly scheduled seminar within the student’s concentration, and all members of the dissertation defense committee are expected to be present. Exceptions to this last rule must be approved by petition to the Dean of Graduate Studies and only under extraordinary circumstances; in any case, no more than one voting member can ever be absent, and the absent member must participate through real-time video or phone conferencing. Additional work may be required based on the result of the examination. Ph.D. candidates must submit the schedule for their final oral examination no later than three weeks before the date of the examination to the Office of Graduate Studies and to the Student Affairs Coordinator for circulation to the department. The members of the dissertation committee must have copies of this dissertation in hand at least two weeks before the defense. The student must obtain all appropriate dissertation approval forms from the Office of Graduate Studies and bring them to the examination. The student passes the dissertation examination if not more than one member of the dissertation committee dissents. The written dissertation must conform to the regulations of the Office of Graduate Studies. An unbound copy of the dissertation is to be submitted to the department.

**Time Limitation**

All requirements for the doctoral degree must be completed within a total of five consecutive calendar years beginning with the semester of the first credited registration in EPBI 701, Dissertation Research, including leaves of absence. Extensions may only be considered through written request to the School of Graduate Studies, signed by the research adviser and the Vice Chair for Education: [http://gradstudies.case.edu/downloads/PetExtension.pdf](http://gradstudies.case.edu/downloads/PetExtension.pdf)
Waiving or Replacing a Course

If a student has taken a course elsewhere that is equivalent to one of the required courses here, the student may petition to get waived out of the course requirement, or to replace it with another course, more advanced, in the same subject area. If the course taken elsewhere is judged to be equivalent to the required course, the student gets the requirement waived, but there is no change in the number of credits required for the degree. The only ways to get the number of credits reduced is by petition for transfer of credits (using courses taken elsewhere that were not used towards a degree) or by being granted advanced standing.

If the course taken elsewhere is not deemed equivalent but has large overlap, the student may be given the option to replace the required course with another, more advanced one in the same subject area. Similarly, the student may initially request to replace the required course with a more advanced one, rather than to waive out of it.

To request being waived out of a required course, or to replace it, students may petition using the official Petition to Modify Course Requirements, which can be found on the department website. The petition must provide documentation of the relevant courses completed, with a grade of “B” or higher, a detailed description of the course(s), the syllabus, and textbook used in the completed course(s). The petition should be approved by the academic adviser and submitted to the Vice Chair for Education for approval.

The Vice Chair for Education will approach the instructor of the course(s) in question with the petition. The instructor will then evaluate the student’s petition, and can either approve or disapprove of the course being waived, or may instead approve replacing the required course with another, advanced course in the same area. In this last case, the replacement course needs to be specified with a plan for when to take it. Special attention must be paid to prerequisites for this replacement course and when it is offered.

It is important for the student to realize they will be held fully responsible for all core courses on the general exam based on how it is taught here, even if the student got the course waived based on coursework elsewhere.

Students can petition to replace a maximum of 2 core courses.

Repeating a Course

Graduate students may petition the Vice Chair for Education to repeat a maximum of two courses during their degree program in order to improve their performance. The appropriate form that must be filled in, together with details of this policy can be found at http://gradstudies.case.edu/current/forms.html
Transfer of Credit

Transfer of credit from another university toward doctoral degree requirements is awarded for appropriate course work (not applied to another degree program) taken prior to admission. Transfer of credit should be requested in the student’s first academic year, and must be appropriate for the student’s planned program of study. No transfer of credit will be awarded towards the Ph.D. degree except by petition, and no credit for the doctoral dissertation may be transferred from another university.

Students who wish to receive credit for courses taken outside the university once they are enrolled must petition for approval. All transfer of credit requires approval from the student’s academic adviser, the Vice Chair for Education, and the Dean of Graduate Studies. Such courses must have been taken within five years of first matriculation at CWRU and passed with grades of B or better.

Residency Requirement

Graduate students working toward the Ph.D. must meet residency requirements. The intent of residency is to have continuity of the academic program as evidenced by course registration and contact with the program faculty. To fulfill the residency requirement, a student must be registered in at least six academic semesters (fall and spring) or six consecutive terms (fall, spring, and summer) between the time of matriculation and five years after the first credited hour of EPBI 701, Dissertation Research.

A foreign student must be registered for 9 credit hours per semester to maintain INS “residency as a full-time student”. However, once a student has advanced to the dissertation stage, one hour of EPBI 701 per semester may be sufficient for this purpose, but students should check with an international student adviser to be sure.

Ethics in Conducting Research

All students within the Department of Epidemiology and Biostatistics are required to complete training in Ethics in conducting health research, including intentional misrepresentation of data, interpretation of data, management practices, peer review, reporting research misconduct, collaboration and authorship, protection of human subjects, the institutional review board, humane treatment of animals, research involving vulnerable populations, and the use of unethically obtained data. In order to graduate, all students must complete the following requirements: (1) completion of the ethics requirement in the core curriculum (EPBI 445 for 0 credits; IBMS 500 for 1 credit) and (2) certification through the Continuing Research Education Credit (CREC) Program. More information regarding CREC certification can be found at: http://ora.ra.cwru.edu/research/orc/crec/index.cfm.
All PhD students must complete their CREC certification **by the end of the first semester enrolled in the program.** Upon completion of the online certification program, students should provide the Student Affairs Coordinator a copy of their CREC certification. If a student comes into the program with a current certification, she/he should provide the certification to the Student Affairs Coordinator; however, if the certification expires within one year, a renewal certificate will be required. Thereafter the student is responsible for recertification upon expiry of the original accreditation. She/he must give the department assistant the appropriate documents pertaining to recertification within two weeks of obtaining them. Students will not be allowed to pass the general qualifying examination and advance to candidacy without proof of certification, and lapses in status may affect the continuity of the Ph.D. research.

**IRB Approval of all Research and Protection of Data**

All dissertation work involving human subjects, even if involving only secondary data analysis, must have IRB approval or a documented IRB determination of exemption. The research adviser must be involved in this process. If the work is part of a larger project that has already received clearance, the student should be added as key personnel to the IRB protocol. All data must be securely maintained and privacy of participants protected. Students are required to adhere to the University’s, School of Medicine’s, and relevant IRB’s data protection policies. Human subject data or study materials provided to, obtained from, or created by a student, may not be transmitted or shared with any other individuals (including another student) without explicit written permission from the study’s principal investigator and/or the responsible investigator listed on the approved IRB protocol.

**Academic Integrity**

All students are held responsible for the preservation of standards of academic integrity. All forms of academic dishonesty, including forgery, cheating, plagiarism, misrepresentation, and obstruction, are violations of academic integrity standards. Plagiarism includes the presentation, without proper attribution, of another’s words or ideas from printed or electronic sources. It is also plagiarism to submit, without the instructor’s consent, an assignment in one class previously submitted in another (self-plagiarism).

The University’s Academic Integrity Board can sanction violations by issuing failure in the work in question, failure in the course, university disciplinary warning, university disciplinary probation, university disciplinary suspension, or expulsion.

The University also has guidelines on authorship standards. Further details can be found in the University’s policy on Academic Integrity: [http://www.case.edu/gradstudies/current/policies.html](http://www.case.edu/gradstudies/current/policies.html)
Publication of Electronic Thesis and Dissertation

The School of Graduate Studies partners with OhioLINK to electronically publish master’s theses and doctoral dissertations through their ETD Center—a free, online database of Ohio’s ETDs from participating OhioLINK member schools. It contains the abstract and full-text for all theses and dissertations giving researchers immediate access to the most current research occurring on Ohio’s campuses.

The ETD Center is freely accessible worldwide to anyone interested in searching, viewing, and downloading the theses and dissertations published in Ohio. Using a standard Web browser, users can search the database using basic keyword searching. Authors, university affiliation, and abstracts are all indexed.

When you submit your ETD to OhioLINK, you are giving OhioLINK and CWRU permission to make your ETD available for open access on the Internet, including access through major Internet search engines.

The OhioLINK publication agreement can be found at http://etd.ohiolink.edu/publication-agreement.html. Please take a moment to read and understand it before submitting your ETD. The publication agreement outlines what OhioLINK and CWRU may do with the copy of the ETD published in the ETD Center.

Points to Consider Prior to Submitting Your ETD:

All copyrighted material (e.g. previously published in a journal, monograph, or chapter) must have permission from the journal, monograph or chapter publisher for reproduction/inclusion in the ETD. If they have already published part of their ETD in a journal or monograph, and have not retained/negotiated the right to include it again in the completed ETD, students must obtain copyright permission for their own published work. Students cannot alter published figures from themselves or others without copyright release.

Inclusion of any intellectual property as imposed by Material Transfer Agreements or participation of collaborators must appropriately consider legal, collegial, and ethical obligations. In particular, any unpublished data from collaborators should not be included in the ETD unless written consent is demonstrated and appended to the ETD.

All information in the ETD will be published when the ETD is submitted to OhioLINK. If there are near future plans to publish a portion of the ETD in a journal or monograph, submitting the ETD might compromise such future publication(s), unless you have first discussed this with the journal or monograph publisher, or intend to embargo the ETD to allow for future publication. If you have chosen a publisher and plan to publish a portion of your ETD, check the publisher’s policy. Since 2004, Elsevier (major publisher of academic and professional journals) has allowed their authors to retain rights for pre- and post-publication of articles. If you publish with Elsevier in a journal, you can later include the work in your ETD without asking permission from Elsevier.
The ETD may be embargoed (held without release) after submission for up to two years. Petition forms are available on the School of Graduate Studies website. An embargoed ETD is still considered to be a completed work, and may not undergo any modification before release by OhioLINK.

**Changing a Course Grade**

If a student needs to have a course grade changed from an incomplete, or from no entered grade, the instructor can change the grade online up to 1 year from the end of the semester. After that time period has elapsed, the instructor will need to fill out and sign a yellow change of grade card, and submit it to the Vice Chair for Education for signature and submission to graduate studies.

Students have an obligation to check their course grades promptly after the end of the semester. On rare occasion, a student may feel the letter grade (A-F) assigned was incorrect or unfair. In such a case, the student needs to contact the instructor immediately. If the instructor feels the student is justified, the instructor may request a grade change using the yellow grade change card and submit it to the Vice Chair for Education for approval, signature, and submission to graduate studies. This request from the instructor must be made within 30 days of the grade posting to SIS, and must be accompanied by an e-mail to the Vice Chair for Education explaining why the change is justified, providing any relevant timelines.

**Grievance Procedure**

Any student who has a grievance should consult, in order, the academic adviser, the Vice Chair for Education (who will refer the case to an appointed grievance committee) and the Department Chair. Furthermore the School of Graduate Studies has a general policy to assure that all students enrolled for graduate credit at Case Western Reserve University have adequate access to faculty and administrative consideration of their grievances concerning academic issues. A three-step procedure has been established for graduate students to present complaints about academic actions they feel are unfair. These policies are detailed on the following website:

http://studentaffairs.case.edu/handbook/judicial/university/informal.html

**Leaves of Absence**

All students who are admitted to the PhD program in the Department of Epidemiology and Biostatistics are expected to pursue their studies according to a systematic plan. If it becomes necessary for a student to interrupt studies before completion of the degree, the student must request, in writing to the Vice Chair for Education, a leave of absence. The leave does not ordinarily extend the time limitation. Leaves of absence may not exceed two
consecutive academic semesters, and the maximum amount of leave permitted per graduate program is four semesters. Petitions for a leave of absence require a form available from the School of Graduate Studies and require the approval of the student’s academic adviser, Vice Chair for Education and Dean of Graduate Studies. Leaves of absence may be used for the medical conditions related to pregnancy and childbirth.

Trainees with stipends are eligible for a total of two weeks of vacation per year and holidays. The period between semesters is considered to be an active time of research and research training and is not considered to be a vacation or holiday. Trainees may receive stipends for up to 15 calendar days of sick leave per year. Sick leave may be used for the medical conditions related to pregnancy and childbirth. Trainees may also receive stipends for up to 30 calendar days of parental leave per year for the adoption or the birth of a child. The use of parental leave must be approved by the Department Chair and the trainee’s academic and research advisers (these two possibly being the same person).

Many international students are not eligible to take a leave without jeopardizing their student status; prior approval from International Student Services is required.

**Support for Students**

Graduate study may be a stressful time for students, revealing a need to engage additional resources. It is helpful to set goals and personal deadlines. Students may consider tutoring support for learning disabilities through Student Affairs/Educational services, and/or counseling through University Counseling Services. University Counseling Services (UCS) and the Divisions of Collegiate Behavioral Health (CBH) and Prevention and Recovery Services (PRS) provide individual, group and couples counseling, psychiatric consultation, psychological and learning disabilities testing, and referrals for community services for all students and their spouses or partners.

**Maintenance of Good Standing**

_In order to remain in good standing within the PhD program, students must satisfy the following conditions:_

- Respond timely to department communications that require it (check Case e-mail!).
- Register each fall and spring semester unless on an official leave of absence that has been approved by the School of Graduate Studies.
- Maintain a minimum cumulative graduate GPA of 3.25 in all graduate work (including transfer courses).
- Receive a grade no lower than a “B” in any of the required core courses. Attend courses and seminars as scheduled. If illness or other circumstances intervene, the student must notify the course instructor and adviser as soon as possible.
• Satisfy all program deadlines and time limits as outlined in the Academic Guide.
• Remove Incomplete (I) grades within one semester, or by the time specified by the course instructor if that is later.
• Pass the General Exam within two attempts.
• Pass the Qualifying Exam within two attempts.
• Pass the Qualifying Exam within 1 year of the first day of the first semester of EPBI 701.
• Complete a portfolio presentation prior to advancement to candidacy.
• Successfully defend the dissertation within five years of first EPBI 701 registration. Students who fail to remain in good standing should expect to be placed on academic probation. Students on academic probation have 1 semester to return to good standing or risk being removed from the program. However, students who fail to pass either the General Exam or the Qualifying Exam within two attempts will be removed from the program unless a special petition is granted to allow a third attempt. For the General Exam, the petition must be approved by the academic adviser, the Vice Chair for Education, and the Dean of Graduate Studies. For the qualifying exam, the petition must be signed by the research adviser and approved by the Vice Chair for Education.

Graduation

To receive a degree, the student is required to file an application for graduation in the Office of Graduate Studies before the posted deadline during the semester the student expects to complete all degree requirements, and must be registered during the semester in which the degree is awarded. It is the responsibility of the student to secure signatures and return the necessary forms to the Office of Graduate Studies on time. Each student who applies for graduation should consult the calendar from the School of Graduate Studies for the various deadlines.

Summary of Deadlines

<table>
<thead>
<tr>
<th>Application Submission</th>
<th>January 15th of each year, to be considered for financial support. Otherwise, April 15.</th>
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<tr>
<td>Application Decision</td>
<td>April 15th of each year</td>
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<tr>
<td>Deadline to submit a form indicating that the student has read the Handbook (to be submitted to Student Affairs Assistant)</td>
<td>September 15th of the first semester of study</td>
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<td>Plan of Study (submitted via SIS)</td>
<td>October 15th of the first semester of study</td>
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<tr>
<td>Annual Student Progress Report (submitted to Student Affairs Assistant)</td>
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<td>University Calendar of Deadlines:</td>
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<td>Commonly Used Forms:</td>
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