

2018 – 2019

**Department of Population &
Quantitative Health Sciences**

Program Handbook

Ph.D. in Epidemiology & Biostatistics



SCHOOL OF MEDICINE
CASE WESTERN RESERVE
UNIVERSITY

Department of Population & Quantitative Health Sciences

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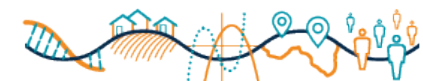
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gradstudies.case.edu

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**DEPARTMENT OF POPULATION AND
QUANTITATIVE HEALTH SCIENCES**

Additional University Offices

Access Services (IDs & Parking)

Crawford Hall, Room 18
(216) 368-2273

www.case.edu/finadmin/security/access/access.htm

Career Center

Sears Building, Room 206
(216) 368-4446

studentaffairs.case.edu/careers

Financial Aid

Yost Hall, Room 417A
(216) 368-4530

finaid.case.edu

Free Computer Support & Service

11424 Bellflower Rd.
(216) 368-4357

help.case.edu

Registrar

Yost Hall, Room 110
(216) 368-4310

www.case.edu/registrar

Student Affairs

Adelbert Hall, Room 110
(216) 368-2020

studentaffairs.case.edu

University Health Service (Student Medical Center)

2145 Adelbert Rd.
(216) 368-2450

studentaffairs.case.edu/health

University Counseling Services

Sears Building, Room 201
(216) 368-5872

studentaffairs.case.edu/counseling

Police & Security Services

Emergency - 911

Urgent Matters; Safe Ride; Escort Service: (216) 368-3333

Safe Ride Program (7pm-3am)

Security Escort Service (24 Hours)

Security (Information) - (216) 368-4630

www.case.edu/finadmin/security/

University Circle Police

2100 Euclid Avenue
(216) 791-1234

Welcome from the Graduate Program Director

Welcome to the Doctoral Program in Epidemiology and Biostatistics of the Department of Population and Quantitative Health Sciences at Case Western Reserve University, School of Medicine. Educating and graduating outstanding Ph.D. students is an important part of the overall mission of the department and we look forward to working with you toward this goal. This handbook is a general summary of academic program information for Ph.D. students and should be used in consultation with an academic advisor. Students should also review the Case Western Reserve University's Student Handbook that describes the University requirements for graduation (<http://case.edu/gradstudies/>). The Ph.D. Program in Epidemiology and Biostatistics within the Department has expectations and requirements for student annual progress and graduation above and in addition to those of the University. If, after reading this 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 advisor. Any variation in policy or expectations will be documented and notification will be sent to impacted students.

I look forward to your time in the program and your development into independent scientists!

Sincerely,

Scott Williams, Ph.D.
Graduate Program Director



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Mission, Values, and General Orientation

The mission of the Doctoral Program in Epidemiology and Biostatistics is to prepare students for an active, fulfilling, and lifelong research career, having significant impact on human health and based on the concepts and tools of population and quantitative health sciences.

The program draws on the core disciplines of epidemiology and biostatistics, broadly defined, but may also include a wide range of other academic areas, ranging from human genetics to health policy to health informatics. As part of their training students will develop the knowledge, skills, and competencies necessary to be leading researchers in areas that provide improved understanding of how to advance public health and biomedical knowledge. Through challenging coursework and research opportunities, both independent and collaborative, 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 can influence the nature and impacts of population health determinants. A key aspect of the program is to train students to define important, unanswered questions and design appropriate strategies to solve our pressing health problems, locally, nationally and globally. In addition, the program in Epidemiology and Biostatistics is committed to developing the skills necessary for lifelong learning as we recognize this as being key to continued success.

This program is designed to train students to address critical research questions to advance human and population health utilizing a wide variety of research tools and trans-disciplinary collaborations. Our focus on integrating knowledge and methods across traditional fields is distinct from historical training in a single discipline (e.g., statistics or genetics) or expertise in a small number of technical skills.

As part of their training in our program, 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. This mastery will include aspects of study design and advanced analyses of complex data. It is expected that students will develop an understanding of the complexity of solving health problems and how to draw on multiple areas of expertise to address them.

An integral part of our graduate education is the participation in student- and faculty-led seminars that provide an ongoing mechanism for keeping abreast of current literature, identifying important areas of research and collaborative opportunities, and providing an open forum in which to discuss timely research questions. The seminars also serve to open dialogues among department members with the goal of stimulating new ways of thinking about health. Through our rigorous coursework, exposure to discussion of important health related issues, and their research experiences during graduate training, students will develop into junior “in-training” colleagues of the faculty, and develop the capacity to work independently and collaboratively. 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 world.

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 a scholarly dissertation. Our goal is to produce leaders of the next generation of interdisciplinary health scientists, who exemplify the best scholarship through both thought and deed. To prepare them, we train our students through courses and research to use analytic methods to understand biological, epidemiological, social and behavioral, and health service aspects of the population’s health: ultimately to reduce and/or prevent morbidity and early mortality.

Admission

Graduates from accredited colleges and universities will be considered for admission to the department. All applicants must satisfy both CWRU School of Graduate Studies and departmental requirements for graduate admission. Students with broad backgrounds will be considered for admission, including but not limited to those who have studied biology, mathematics, statistics, biomedical computational sciences, epidemiology, and public and population health and health policy.

Students who receive financial support for their graduate training are expected to commit themselves full-time to the tasks necessary for both the completion of their degree and their professional development. For example, students are

expected to work on their research activities, skills, knowledge, and professional development during the entirety of the program, including when classes are not in session. Fellowship, stipend, and other financial aid offers are made on an annual basis and will be renewed based upon performance (see additional discussion in *Maintenance of Good Standing and Student Progress Reports*) and availability of funds. Students who receive scholarships outside the CWRU system (e.g. from a foreign country) will be required to follow attendance norms set by the department and the institution.

Professional Commitment and Culture

All students in the program are expected to maintain appropriate professional standards. This includes regular and on-time attendance at 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 exceptional research credentials, independent critical thinking, and problem solving.

Students must recognize that enrollment in this rigorous graduate program may place demands on their time on evenings and weekends, and may prohibit them from participating in additional time-consuming activities. Pursuit of a doctoral degree takes time and commitment beyond that spent in the classroom, and therefore, it is expected that students will manage their time in accordance with the programmatic demands. Students are expected to display maturity of character, interest in and enthusiasm for the practice of research, excellence in development of interpersonal communication, and high professional commitment to the program of study. The highest degree of integrity, honesty, and courtesy, all important professional values, is expected throughout their courses of study. Through the activities of the Ph.D. student organization, all 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 activities that enhance the stature of the program.

Planned Program of Study

In the first year of study each student will be assigned an academic advisor (see Academic Advisor, below) by the Graduate Program Director (GPD). After the student has chosen a research mentor (by the end of the first year of study) that faculty member will become the academic advisor. 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 does not include registration of 701 credits. The PPOS must be approved by the student's academic advisor and the GPD and should be submitted by October 15 of the first semester of study toward the specified degree. If an update is necessary, it must be approved and submitted 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 advisor so that the best possible plan is developed. A complete [step by step guide](#) on how to submit a PPOS can be found through the University Registrar's webpage.

Student Responsibility

Students should consult with their academic advisor in their first year to develop their PPOS to carry out their work towards the Ph.D. After the first year, consultation will extend to either the mentoring committee or dissertation committee. 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](#). If questions arise about ambiguity or interpretation of the departmental rules, regulations, policies, or procedures, they should be discussed with the Ph.D. program leadership for clarification and resolution. While mutual agreement is desired, in all cases the final decision rests with the Ph.D. program leadership.

It is expected that students in the Ph.D. program will take full responsibility for their academic progress within and beyond the classroom. Although some elements of didactic learning are necessary, emphasis will be placed on synthesizing information across classes, experiential learning, and critical/broad interdisciplinary thinking. This will involve developing increasing independence as young scientists, who consult with their mentors and committee members. The gradual gaining of independence during Ph.D. training represents a critical transition of students into full members of the scientific community, able to respectfully explore/discuss/debate/dispute scientific evidence for and against vital biomedical and population health problems.

It is also expected that all students in the Ph.D. program will maintain the highest level of academic integrity. The expected standards of academic integrity can be found at: <https://students.case.edu/policy/integrity.html>

Academic Advisor

Upon acceptance into the Ph.D. program, each student will be assigned an academic advisor with whom to confer about academic plans. The advisor will help guide the student through department and graduate school regulations, assist him/her in designing a PPOS, and track progress through the first year of the program. During this first year of study this faculty member will be key to ensuring that students make adequate progress in the required Core program of the department. In most cases, the initial academic advisor will be the Graduate Program Director. By the end of the first academic year, each student will select a research advisor who will serve as their academic advisor for the rest of their time in the program. Also, at the same time, in consultation with their new academic advisor each student will propose a mentoring committee followed by a dissertation committee, as described below.

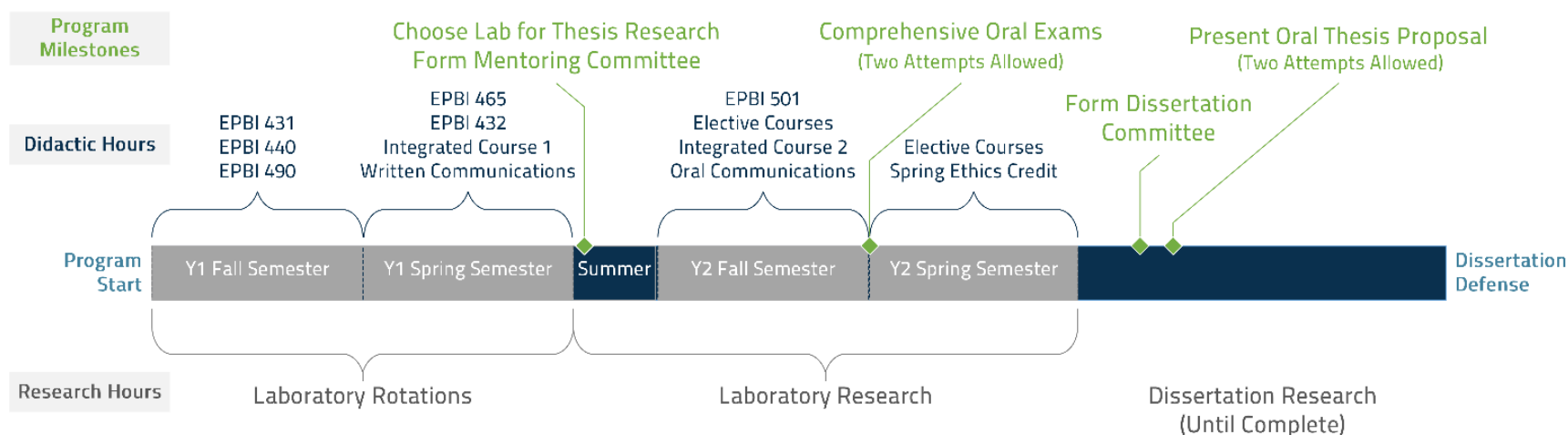
Students are required to meet with their academic advisor or mentoring/dissertation committee prior to registering each semester to discuss course plans for the semester. Once completed, the advisor will remove the "Advisor Hold" on the student's record within the Student Information System (SIS) so that he/she may register for classes.

During the course of their first year of study, students may request a change in academic advisor to another faculty member who has a primary appointment in the department and an appointment in the Ph.D. program. To change advisors, students must complete and sign the form available on the department's website and deliver it to the Administrative Director of Non-Clinical Graduate Education. After the first year and in exceptional situation students may change mentors but only through the rules defined by the School of Graduate Studies.

Coursework for the Ph.D. Degree in Epidemiology and Biostatistics

All entering students will take a common set of courses in their first and second years. Students entering with prior graduate training may be eligible to enter with advanced standing and their coursework will be adjusted accordingly. Such situations will be handled on a case-by-case basis, following discussion with the Graduate Program Director.

Expected program of study is outlined below:



In summary the Doctor of Philosophy degree in the Department of Population and Quantitative Health Sciences comprises the following six components:

1. Core Curriculum (22 credits)
2. Electives (20 credits*)
3. Seminar Requirements
4. Passing the General Examination
5. Defending a Dissertation Proposal (including an oral public presentation of the proposal), the "qualifying examination".
6. Dissertation Research Credits (total of 18 credits)
7. Dissertation Completion (oral public defense and final written dissertation)

*Students may end up taking more than 20 credits in electives

Year 1

Year 1, Fall Semester		
PQHS 431	Statistical Methods I	3 Credit Hours
PQHS 440	Introduction to Population Health	3 Credit Hours
PQHS 490	Epidemiology : Introduction to Theory and Methods	3 Credit Hours
PQHS 501	Research Seminar	0 Credit Hours
		9 Credit Hours Total

Year 1, Spring Semester		
PQHS 432	Statistical Methods II	3 Credit Hours
PQHS 465	Design and Measurement in Population Health Sciences	3 Credit Hours
PQHS 444	Communicating in Population Health Sciences Research	1 Credit Hour
PQHS 472	Integrated Thinking in Population and Quantitative Health I	2 Credit Hours
PQHS 501	Research Seminar	0 Credit Hours
		9 Credit Hours Total

Students are required to enroll in PQHS 501 (Research Seminar) throughout their entire time as students in the program. Students in their first year will present a paper from the literature. Beginning in their second year, students will be required to present their research at least once per year in PQHS 501. This requirement applies to all students in the program, even those who have completed their PQHS 501 requirement. For more junior students, presentation of their research ideas or directions is expected. For more senior students, presentation of their research progress is expected. These presentations serve multiple purposes. The first is to help the student hone their speaking skills. The second is to encourage open discussion of projects with the hope that input from other department members will ultimately improve the research.

Rotations. In addition to coursework in their first year all students will do three research rotations chosen from an approved list of potential mentors. The purpose of a rotation is to provide students with exposure to the laboratory/scientific culture pervasive in that discipline and research group, and to determine if the student-mentor fit is appropriate. Faculty members conduct their independent research, and run their laboratories using a variety of styles. The rotation gives the student and faculty member an opportunity to determine if they have similar work styles, and if the scientific culture and training will lead to successful training of the student. An approved mentor may not select a student if their areas of interest do not mesh, if they do not have the appropriate background, or if the student does not share training expectations of the faculty. A student should not select a particular research advisor if the research environment is not suitable to their individual growth, or if the research questions do not interest the student. In summary, a rotation should be regarded as a “tasting menu”, with “micro-experiences”, so the student can sample a variety of projects and cultures and select the best for their career and ultimate growth.

Rotations will be at least 8 weeks and may begin the summer prior to matriculating. We discourage protracted projects that linger into the next rotation in order to provide a fresh start with each experience. Students must turn in to the Administrative Director of Non-Clinical Graduate Education a completed [Rotation Notification Form](#) at least one week prior to starting a rotation.

After each rotation both the student and the faculty member will report results of the rotation to the Administrative Director of Non-Clinical Graduate Education by submitting a [Lab Rotation Evaluation Form](#). Topics to be discussed by faculty may include each student’s work ethic, skillset, and knowledge. Students may comment on faculty availability,

mentoring style, and appropriateness of research projects for a Ph.D. Other relevant comments may also be added. We encourage students to communicate with faculty and the research team very frequently to ensure that their choices for rotation and final research group selection remain open. All evaluations will be available to faculty who are considering having the students enter their research groups. The evaluations of the faculty will only be available to students who are choosing research laboratories.

Research Advisors. At the end of the first academic year, in discussions with the faculty with whom they have rotated, students will choose a research laboratory in which to do their dissertation research. Only a single faculty member with evidence of adequate financial support will be allowed to take students into their laboratory. We discourage partial funding of a student by two principal investigators. However, exceptions may be made if an explicit co-mentoring agreement is authorized by the Graduate Program Director, and endorsed by the Vice-Chair for Education. Only a mentor who is a faculty member with a primary or secondary appointment in the department and is willing to be his/her research advisor may be chosen; secondary faculty members will need to commit to the same level of financial, research, and mentoring support of the graduate student as a primary faculty member. The Ph.D. program leadership reserves the right to determine participation of any faculty member as an advisor in the Ph.D. Program.

The research advisor will then assume the major responsibility for facilitating, guiding, and advising the student in his or her research. The research advisor will also assume financial responsibility for his/her students. This may include funding from other faculty on a collaborative basis so long as it does not detract from the student's major focus – their dissertation research. Such arrangements must be approved by the Ph.D. program leadership. Each year a student support request form will be required from the research mentor and other faculty providing financial support. This form must then be submitted to the Administrative Director of Non-Clinical Graduate Education for approval by the Ph.D. program leadership. If a faculty member's status for funding a student in the program changes, they are responsible for transmitting this information to the Administrative Director of non-clinical educational programs within 30 days.

Mentoring Committee

Following the first academic year and choice of a research laboratory, students will form a mentoring committee. This committee will consist of the research advisor and two other faculty members, at least one of whom who will have a primary appointment in the Department and will serve as the committee chair. This committee will help guide the student through his/her coursework and preliminary research. At the first committee meeting the PPOS will be re-assessed and revised.

The committee will meet at least once per semester until a dissertation committee is chosen (see below), but no longer than 3 semesters. It is expected that all committee members will be present at each mentoring committee meeting. In rare cases, a member may participate via telephone or other electronic means, but he/she must still sign off on the post-meeting report.

After each meeting, a report will be produced that describes the progress and goals for the overall academic and professional development plan, with specific milestones and corresponding timelines. After each meeting the committee is required to assess student progress and make an explicit statement about pace of progress (rated from outstanding to poor as listed on the meeting report form). In the case of a poor or fair evaluation, the committee chair, student, and research advisor will be required to meet with the Graduate Program Director to discuss remedying any issues. This meeting may be held with all parties, or may involve individual meetings, depending on the circumstances. This report must be signed by all committee members. A template for the meeting report can be found [here](#).

Each committee meeting will begin with a brief consultation between the research advisor and the committee members in the absence of the student. Each meeting will also end with a similar consultation prior to reporting recommendations to the student. Finally, after the committee has reported its recommendations to the student, the committee will meet with the student in the absence of the research advisor to discuss either scientific or personal issues.

Year 2

Year 2, Fall Semester		
PQHS 444	Communicating in Population Health Sciences Research	1 Credit Hour
PQHS 473	Integrated Thinking in Population and Quantitative Health II	2 Credit Hours
Electives as determined by Mentoring Committee		6 Credit Hours
PQHS 501	Research Seminar	0 Credit Hours
9 Credit Hours Total		

Year 2, Spring Semester		
PQHS 445	Research Ethics in Population Health Sciences	0 Credit Hours
IBMS 500	Ethics & Biomedical Research	1 Credit Hour
Electives as determined by Mentoring Committee		8 Credit Hours*
PQHS 501	Research Seminar	0 Credit Hours
9 -10 Credit Hours Total		

*Students may need to take 9 credits (3 courses of 3 credits each) due to limited 2 credit options

By the end of the Fall semester of the 2nd year, all students will take the departmental general examination, which is a comprehensive oral examination (described below). Students may form their dissertation committee (see below) once they have passed their general examination, but by must do so by the end of the semester following their oral examination

Students who have passed their general examination and have formed their dissertation committee must write and defend a dissertation proposal (the "qualifying examination") to their committee. This should occur by the beginning of the fall semester of their third year, but no later than midway through this semester. The format of the dissertation proposal is described below.

General Examination

Students are required to sit for the department general examination before the beginning of the spring semester of their second year. This examination will be based on the analyses of a dataset chosen from several available sets given to the students at least 3 weeks prior to the examination. The exam will be an oral exam. The student will perform analyses of the data, interpret the results in light of a defined scientific question, and design a next set of experiments/studies to be performed to follow-up the results. This will include the development of subsequent hypotheses in the area of research.

The examination 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. 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.

Each student will provide an in-depth oral analysis of the data set. This will include formal analysis and interpretation as well as the strengths and limitations of the provided data set. The student will be expected to provide a research agenda on how they would extend the study from which the data was derived to better address the problem of interest. This exam will be presented orally to the examining committee, who will determine whether the student has adequately analyzed and interpreted the data as well as proposed appropriate additional studies.

The examining committee will consist of at least four but no more than 5 departmental faculty members. Each student will prepare an oral presentation lasting no more than 20 minutes. This will be followed by questioning regarding the analyses, interpretations and research plans going forward. It is expected that each student will be able to develop a cohesive research plan based on the analyses.

The examination may cover any topic covered in the Ph.D. core coursework and contain questions that synthesize content across the different core courses. A student may pass the examination, pass the examination conditionally, or fail the examination. A conditional pass will be deemed appropriate when there exist only minor deficiencies in the examination

that can be addressed by one or a few remedies within no more than one month. Many students who eventually defend their dissertations successfully may receive a conditional pass in the general exam, typically because of the inability to synthesize materials across disciplines during the early phase of training. To pass or receive a conditional pass at least 4 members of the committee must support this decision. A student who fails the examination may retake the examination once no later than two months after the first attempt. A second failure will result in removal from the Ph.D. program. A student who fails the department general examination may be eligible to complete requirements for a conciliatory M.S. degree. The requirements for an M.S. will be decided on a case-by-case basis by the Ph.D. program Internal Advisory Committee.

Dissertation Committee

After successfully passing the general examination and at the end of their second year in the program each student, in consultation with their research mentor (advisor) and approved by the program leadership, will choose a dissertation committee; inviting the committee members to be on their dissertation committee is the responsibility of the student. The committee will consist of at least four University faculty members and must include the research advisor, a committee chair (not the advisor), who must have a primary appointment in the department, a third member from the department, either primary or secondary, and according to Graduate School rules a fourth member from another department within the University. An additional member may be added to the committee but the total number should not exceed five. In exceptional cases committee members may come from outside the University but this requires permission of both the Graduate Program Director and (by petition) the Dean of the Graduate School. The petition is the responsibility of the student and the advisor. The Graduate Program Director will be an *ex officio* member of all dissertation committees.

The dissertation committee will meet at least once per academic year semester throughout the course of graduate study. After each meeting a written report documenting progress and goals to be met prior to the next meeting will be prepared by the committee chair in consultation with the other members and the student. The final report must be signed and approved by all committee members. The report will be provided to the student and the Administrative Director of Non-Clinical Education no more than 2 weeks following the meeting. Progress will be judged in part by the accomplishment of described goals from prior meetings. A template for the meeting report can be found [here](#) or supplied by request from the Administrative Director of Non-Clinical Graduate Education.

The dissertation committee will advise the student on his/her research program, evaluate progress towards the degree, and help in the professional development of the student. In addition, the committee will serve as the primary instrument for mediating any personal or professional issues that arise during the student's tenure at CWRU. This may involve addressing conflicts with the research advisor, timely acquisition of research materials, credit on publications, or acceptable workload. The chair of the committee will ensure that all procedures of the program are followed and that meetings and all interactions between the student and the committee members proceed in a productive and professional manner. The committee chair will also be the first person who will address any issues regarding student performance or interactions with faculty. In the event that such conflicts arise that cannot be addressed by the committee or the committee chair, the committee chair will approach the Graduate Program Director to resolve the situation.

Each dissertation committee meeting will begin with a brief consultation between the research advisor and the committee members in the absence of the student. Each meeting will also end with a similar consultation prior to reporting recommendations to the student. Finally, after the committee has orally reported its recommendations to the student, the committee will continue to meet with the student in the absence of the research advisor to discuss either scientific or personal issues.

To form a dissertation committee, students must complete the Dissertation Committee Notification form (available on the department website) and submit it to the Administrative Director of Non-Clinical Education. All dissertation committees must adhere to both the requirements of the [School of Graduate Studies](#) and the department and be approved by the Graduate Program Director.

Dissertation Proposal Defense

After passing their general examination, each student will choose a dissertation topic in consultation with their research advisor. Each student will write a dissertation proposal based on this topic. Although the student may receive advice on the dissertation proposal from the research mentor and other faculty, the document is to be written by the student in its entirety following academic integrity standards.

The proposal will be written in the format of an NIH R01 proposal. Each proposal must include a single specific aims page, a background section, and an approach section. The main body of the proposal, not including the specific aims, will be limited to 12 pages. The main body of the proposal will include a literature review delineating the background and significance of the proposed work, which research gaps it will fill and how it will fill them, its innovation, any preliminary data, and the explicit approaches designed to address the aims. The proposal should be written clearly, in English, at a level of understanding suitable for those outside the specialty area. Students who are preparing their dissertation proposal defense should discuss expectations and formats with more senior students. Sample NIH proposals are available planning of dissertation proposals (<https://www.niaid.nih.gov/grants-contracts/sample-applications>). Reviews (critiques) of some proposals are also posted online along with the proposal, indicating positives and negatives of the proposal from reviewer perspective. Other questions regarding the proposal may be taken up with the Graduate Program Director.

The proposal must be defended in a public presentation. All students are encouraged to attend the public presentation and are expected to ask questions at the end of the presentation. At least two weeks prior to the scheduled oral presentation of the proposal, the proposal document must be made available to the entire committee. At that same time, notice of the oral presentation of the proposal (including title, abstract, and official announcement of the proposal) must be submitted to the Administrative Director of Non-Clinical Graduate Education for public circulation including the departmental faculty and students. The oral presentation will be open to the public with an expected audience of Department faculty and students. All dissertation committee members are required to attend the public presentation. In the unusual circumstance in which there is concern about the dissertation, the committee (by majority vote) may at this point recommend that the defense be postponed.

Following the public proposal presentation and question and answer session, which together should be no longer than 60 minutes, there is a closed oral defense before the committee. Committee members will hold their questions until the closed session. The committee then meets privately to decide on whether to pass, conditionally pass, or fail the defense and decide on any recommended changes to be made to the proposal. The research advisor, optionally with the committee, then meets with the student to share the committee's decision. The committee will then submit to the Graduate Program Director its pass/fail recommendation and a copy of the written (possibly revised) proposal. A student may either pass, pass conditionally, or fail. In the case of a conditional pass the range of changes requested can include minor revisions to the document or a second oral defense of specific aspects of the proposed research; this is to be

determined by the dissertation committee. The conditions must be met within four weeks after the proposal defense, unless otherwise specified by the committee and approved by the Graduate Program Director.

In the case of failure, the student will have one more opportunity to defend the proposal. Two members of the committee voting to 'fail' will result in failure, regardless of the number of members on the dissertation committee. Failure may necessitate rewriting of the written document, as determined by the committee, or simply another oral defense. In either case the exam must be retaken within two months of the first attempt. A second failure will result in removal from the Ph.D. program. The student may be eligible to complete requirements for a conciliatory M.S. degree. The requirements for an M.S. will be decided on a case-by-case basis by the Ph.D. program Internal Advisory Committee.

In the case of a pass recommendation by the committee, the Graduate Program Director will review the documentation, materials, and committee recommendation. The Graduate Program Director will advance the student to candidacy except in the rare situations in which the Graduate Program Director deems there to be substantial concerns with the document or the oral defense. In this case, the Graduate Program Director will first consult with the Program Internal Advisory Committee and then meet with the dissertation committee and the student to discuss how to remedy any deficiencies.

Once the proposal is approved, the student may commence independent research on his/her dissertation topic. This will include registration for PQHS 701 credits. To meet requirements for the Ph.D. each student must satisfactorily complete 18 credits of PQHS 701 in addition to the core courses and electives totaling to 42 credits. To register for PQHS 701, students must complete and submit their [Advancement to Candidacy form](#) to the Administrative Director of Non-Clinical Education.

Students will be required to use the approved dissertation proposal as the basis of a grant proposal submission within six months of passing the proposal defense. For US citizens and permanent residents this will usually be in the form of an NIH Ruth Kirchstein National Research Service Award (F31) application. For students not eligible or for those with topics not appropriate for an NRSA the student, the dissertation committee and Graduate Program Director will determine other appropriate venues for grant proposal submissions. The dissertation committee will monitor proposal submissions at its regular meetings.

Advancement to Candidacy and PQHS 701

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

1. Completion of all core courses.
2. Passing the general examination.
3. Completion and defense of a dissertation research proposal
4. Submitting the completed and signed advancement to candidacy form to the School of Graduate Studies.

Following admission to candidacy each student will engage primarily in their dissertation research. The Ph.D. dissertation research will be performed while in residence (see below) under the supervision of a faculty member (research advisor) of the department. Students who have advanced to candidacy may register for 1-9 credits of PQHS 701 each fall and spring semester (or up to 6 credits for the summer, when needed). Students should not register for dissertation credits, PQHS 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 PQHS 701 prior to advancement to candidacy. This requires a completed and signed [Pre-Doctoral Standing form](#), approval by the research mentor and the Graduate Program Director and submitted to Office of Graduate Studies. Student should see the Administrative Director of Non-Clinical Graduate Education for details. Pre-Candidacy (Pre-Doctoral Standing) PQHS 701 credit hours can only be taken concurrently with course work upon both academic and research advisor and Graduate Program Director approval and proper form submission. It is expected by both the department and the School of Graduate Studies that any student who applies for Predoctoral Standing, and begins taking PQHS 701 credit hours before advancing to candidacy, will advance to candidacy before the following semester. For permission to take PQHS 701 credits prior to candidacy see: students must compete and submit the Pre-Doctoral Standing form to the Administrative Director of Non-Clinical Graduate Education. In most cases students wishing to conduct research activities prior to advancement may elect to enroll in PQHS 601 Independent Research credits.

A minimum of 18 credit hours of PQHS 701 are required for the Ph.D. degree. Once students have registered for PQHS 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 maximum 5-year time limit to graduate after first enrolling in dissertation (PQHS 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 maximum 5-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 advisor and the Graduate Program Director, and submitted to the Dean of Graduate Studies. The extension should include a plan with a timeline for completion. If an extension is granted, the student must register for a minimum of 3 credit hours of PQHS 701 every semester.

Research Advisor Responsibilities

Becoming a research advisor and mentor to a Ph.D. student means that a faculty member assumes the commitment to be a life-long mentor to the student with the goal of helping each student to become a successful member of the scientific community. This includes:

- Commitment to the student's research project, helping with setting goals, and establishing research timelines.
- Meeting regularly with the student one-on-one to assess progress and provide guidance, preferably weekly if not more regularly.
- Aid in selecting other mentors, including the mentoring and dissertation committees.
- Help in developing communication skills essential to becoming a successful scientist.
- Provide guidance in the responsible conduct of research, rigor, and reproducibility. This includes issues of authorship, data sharing, ownership, and appropriate study design
- Encourage and support the student's participation in scientific meetings.
- Become an advocate, coach, confidante, and role model for the student and provide career advice.

- Provide an intellectually stimulating and supportive environment in which each student can develop and flourish.

It is recognized that research work that is not the major focus of the student's dissertation may provide extremely useful training and, when possible, is encouraged. However, mentors may not demand that their students perform work that is unrelated to the student's dissertation research project or training unless agreed upon by both the student and the mentor. In the case of possible disagreements, the dissertation committee will attempt to resolve any issues, followed by referral to the Graduate Program Director in difficult situations.

Advanced Standing for Students with a Prior Master's Degree

Some students may enter the Ph.D. 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 Ph.D. requirement, unless they were taken more than seven years prior to matriculation as a Ph.D. student. Such courses will be evaluated on a case-by-case basis. Courses for which the student has had the equivalent elsewhere may be replaced (not waived, see below). However, a student entering with a related Master's degree may apply for advanced standing, thereby reducing the number of CWRU didactic credit hours required for the Ph.D.

Students who enter the Ph.D. program with a related Master's degree may apply for advanced standing. Based on courses taken elsewhere but judged by the program leadership to be equivalent to CWRU courses, a student may have the total number of credits required for the Ph.D. reduced. 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 has 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 and Graduate Program Director.

Please note the following rules for a Ph.D. student:

1. A minimum of 24 credit hours of coursework must be taken at CWRU.
2. All core courses (standard core or statistical alternative core) must be taken, except as waived by the Graduate Program Director, following consultation with the instructors of the core courses.
3. The student is responsible for everything covered in the core courses, and will take the full qualifying examination, regardless of whether any courses were waived.
4. An approved Master's degree may 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 at CWRU – though the student may be able to replace courses equivalent to those taken elsewhere.
5. "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. This will usually be a more advanced course. In this case, there would be no credit reduction.
6. 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. In some cases, a short examination may be given to assess competency.

Waiving or Replacing a Course

To request being waived out of a required course, or to replace it, students may petition to the Graduate Program Director and the Vice Chair for Education. 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 advisor and submitted to the Graduate Program Director and Vice Chair for Education for approval.

The Graduate Program Director 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.

For Core courses, it is important that students realize they will be held fully responsible for all content on the general exam, based on how it is taught here, even if the student has the course waived based on coursework elsewhere.

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

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. All transfer of credit requires approval from the student's academic advisor, the Graduate Program Director, and the Dean of Graduate Studies. Courses for which transfer credit is requested must have been taken within five years of first matriculation at CWRU and passed with grades of B or better.

Students who wish to receive credit for courses taken outside the university once they are enrolled must petition for approval prior to taking the courses.

Course Load and Financial Aid

Full-time students will normally take at least nine credit hours each semester. However, any time a student is registered for PQHS 701 (dissertation research), even if only for 1 credit hour, the student is considered by the University to be full-time.

All students entering the program as Ph.D. students will be supported for the first year by institutional or departmental funds, unless fully funded through other, external sources. Following the first year, students will be eligible for training grant positions or for support from their research mentor or another faculty member. In addition, as stated above it is expected that students will seek independent funding to support their training; applying for external funding is considered part of the training.

It is expected that all students will be supported throughout their graduate tenure at CWRU by a combination of resources, as described above. However, to maintain support students are required to maintain a cumulative grade point average of 3.5.

Annual Progress Report

Students are reviewed twice annually (once per semester) by their mentoring or dissertation committees. If progress is deemed adequate by a committee, no other evaluations will be necessary and the reports signed the committee members will stand as the student evaluations. However, if progress is inadequate or marginal as determined by a student's committee, an additional evaluation by the Internal Advisory Committee will be performed in consultation with the student's advisor. A plan will be developed to remedy the problem and progress will be assessed at the next student committee meeting. If progress continues to be an issue, the student will meet with the Graduate Program Director to discuss options for continuation in the program. Options may include dismissal from the program with or without a Master's degree, depending on the stage at which the problem occurs. Such situations will be handled on a case-by-case basis.

The School of Medicine (SOM) requires Ph.D. students after their first year to complete an Individualized Development Plan (IDP) by December 1 of each year. Ph.D. students in their 1st year are asked by the SOM to complete their IDP after completion of their 1st year.

Conciliatory MS Degree

The department awards an MS degree in Biostatistics and a Master's of Public Health. The granting of a conciliatory MS degree option is available for Ph.D. students, based on the University's Plan B model. To be granted a Conciliatory MS degree, students are required to complete 36 credit hours of graduate level course work. The Internal Advisory Committee will review these petitions and based on coursework taken and consultation with the student, create a new 36 credit PPOS. This may require additional courses for the granting of a degree. Courses already taken to fulfill department and concentration core requirements are counted toward the required 36 credit hours. The conciliatory degree is not an alternative terminal MS program, but rather is available for Ph.D. students who are unable to complete their Ph.D. studies.

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 written dissertation must conform to the regulations of the School of Graduate Studies. Detailed instructions with regard to formatting and structure can be obtained from the [School of Graduate Studies](#). Following successful defense of the dissertation, an unbound paper copy of the dissertation is to be submitted to the department.

The dissertation must represent a significant original contribution to existing knowledge in the area of research, and at least a portion of the content must be suitable for publication in a reputable professional journal or as a book or monograph.

It is required that prior to the defense at least one paper of original research relevant to the dissertation will be published or accepted for publication in a peer reviewed journal with the student as the first author. This represents a minimum standard and it is expected that each student will publish at least two original research papers during their time in the program. If the minimum requirement is not met, permission to defend will require approval of the Graduate Program Director and the Internal Advisory Committee.”

The final oral examination, chaired by the dissertation committee chair, must be widely publicized. A form with the date of defense must be signed, approved and submitted to the School of Graduate Studies (SGS) in time to obtain their approval, at least three weeks prior to the date of defense. Students should endeavor to submit this form well in advance of the three-week deadline. SGS will not approve a defense date that is less than three weeks away. In such a case, the defense will have to be rescheduled. The examination consists of a defense of the dissertation and a final inquiry into the student’s capabilities to conduct independent research.

All PQHS faculty members are encouraged to attend and participate in the student’s Ph.D. examination. All students are also strongly encouraged to attend. All members of the dissertation defense committee are required 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. 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 School of Graduate Studies and to the

Administrative Director of Non-Clinical Graduate Education 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 School 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. Additional work may be required based on the result of the examination prior to passing the student.

Maintenance of Good Standing

To remain in good standing within the Ph.D. program, students must satisfy the following conditions:

- Respond in a timely fashion 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 3.5 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 advisor 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 before the end of the spring semester of a student's second year
- Pass the Defense of the Dissertation Proposal within two attempts.
- Successfully defend the dissertation within a maximum of five years of first PQHS 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 (dissertation proposal) within two attempts will be removed from the program unless under rare circumstances, a special petition is granted to allow a third attempt. For the General Exam, a petition would have to be approved by the Graduate Program director, the Internal Advisory Committee, the Vice Chair for Education, and the Dean of Graduate Studies. For the qualifying exam, the petition must be signed by the research advisor and approved by the Internal Advisory Committee and the Vice Chair for Education.

Time Limitation

All students are expected to complete their Ph.D. training within five years of entering the Ph.D. program. In some cases extending into a sixth year may be in the best interests of the student. In any event, all requirements for the doctoral degree must be completed within a maximum of five consecutive calendar years beginning with the semester of the first credited registration in PQHS 701, Dissertation Research, including leaves of absence. Extensions may only be considered through formal petition to the School of Graduate Studies, signed by the research advisor and the Vice Chair for Education. To petition for an extension, students must complete and submit the [Petition for an Extension form](#) to the Administrative Director of Non-Clinical Graduate Education.

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 Graduate Program Director 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 occasions, 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 to the Graduate Program Director 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 Graduate Program Director explaining why the change is justified.

Repeating a Course

Graduate students may petition the Graduate Program Director to repeat a maximum of two courses during their degree program to improve their performance. A [Course Repeat Request form](#) must be completed and submitted to the Graduate Program Director.

Residency Requirement

Graduate students working toward the Ph.D. must meet minimal 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 PQHS 701, Dissertation Research.

It is expected that students will be physically present in the department for the duration of their Ph.D. training. Occasionally it may be advantageous to have extended time off campus while still meeting the residency requirements. If such time will exceed one continuous month, or if a regular schedule of off-campus time is being considered, a written justification must be approved by the academic advisor, the dissertation committee (post-qualifying) and the Ph.D. program leadership. Students are subject to the same work-from-home policies as departmental staff.

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 PQHS 701 per semester may be sufficient for this purpose, but students should check with an international student advisor periodically as the rules are subject to change.

Community of Scholars and Professionals

As a student in the Department of Population and Quantitative Health Sciences, you have joined a community of scholars and professionals. You will be expected to conduct yourself in a manner consistent with this position. While in our program, and in the future as a graduate of our program, you represent our institution, a leading medical school in an esteemed University. This professionalism should be reflected in your interactions (in person, email, text, phone) with faculty, staff, fellow students, guests of our department, collaborative and community partners, and others. Included in this expectation is respect for all people. Behavior that is not consistent with the level of professionalism expected of a scholar and professional may be addressed through University, department and/or program policy.

Disciplinary Policy

Students must adhere to all University, School of Graduate Studies, School of Medicine, and Department policies in regard to academic matters and interpersonal behavior, as well as meet the expectations that come with being a part of a community of scholars and professionals. This includes respect for all people. Behaviors that interfere with another's well-being or ability to perform their responsibilities, learning, or professional development will be considered especially egregious.

Violations may be subject to disciplinary action on the part of the program or department. The nature of the violation, its severity, and history of prior violations will all be considered in any formal disciplinary action taken. Students will receive a letter from the department detailing the reasons for the disciplinary action and any required steps they must complete to return to good standing in the program. Disciplinary actions may include:

- Warning
- Probation
- Suspension from program and University

- Dismissal from program and University

Students who are dismissed from a PQHS program are not automatically eligible for reapplication. Dismissed students must submit a formal petition to the program seeking permission to reapply to the program. All dismissed students granted permission to reapply will be considered as a part of the normal application process.

Reviews of violations will be made under the direction of the program director. All disciplinary decisions will be certified by the Vice Chair for Education. In certain circumstances, the review of violations may be overseen by the Vice Chair for Education instead of the program director.

Examples of behaviors that may result in disciplinary action from the Department:

- Engaging in dishonest behavior: Academic integrity is expected in the MPH Program. Cheating in any form is unacceptable and in violation. This includes:
 - o Plagiarism- to avoid plagiarizing, one must give credit whenever one uses: - another person's idea, opinion, or theory - any facts, statistics, graphs, drawings – any pieces of information – that are not common knowledge. - quotations of another person's actual spoken or written words; or a paraphrase of another person's spoken or written words.
 - o Copying or helping another student during an assignment/exam.
 - o Obtaining examination questions prior to the test.
- Being under the influence of alcohol or chemical substances on campus or at an off campus assignment.
- Any form of unprofessional behavior such as the use of profane or vulgar language on campus or at an off campus assignment, hostility, harassment, stalking, unwanted attention, insubordination, demonstration of uncooperative or negative attitude toward faculty, instructors, clients, or fellow students.
- Violation of University, School of Graduate Studies, Department or Program policies.
- Violation of directives from the University (e.g. Office of Student Conduct, Title IX), School of Graduate Studies, Department or Program.
- Engaging in unethical or unwelcoming behavior while on or during off campus assignment.

- Interfering with an effective learning environment for fellow students, staff, and faculty.
- Behaviors that interfere with the experiences of other students, faculty, staff, community partners, affiliates or external sites that serve as locations for MPH experiences (e.g. practicum, seminar, workshops).

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.

Academic Integrity

All students are held responsible for the preservation of standards of academic integrity. All forms of academic dishonesty, including (but not limited to) 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). Student materials submitted to courses taken as part of the PQHS academic programs as well as seminars, dissertation proposals, dissertation documents, and other academic and research materials may be submitted by course instructors, advisors, and/or and the Graduate Program Director to electronic resources for evaluation of potential 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](#).

Ethics in Conducting Research

All students within the Department of Population and Quantitative Health Sciences 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. To graduate, all students must complete the following requirements: (1) completion of the ethics requirement in the core curriculum (PQHS 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 through the [Office of Research and Technology Management](#).

All Ph.D. 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 Administrative Director of Non-Clinical Graduate Education 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 Administrative Director of Non-Clinical Graduate Education ; however, if the certification expires within one year, a renewal certificate will be required. Thereafter, students are responsible for recertification before expiration of the original accreditation. Each student must provide 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.

Use of data: It is important to note that ownership of data resides with the research group and appropriate use is to be determined by the head of the group. Therefore, students may not use the data generated under the guidance of a faculty

member to publish papers on their own without written permission of the faculty member and appropriate IRB and DUA permissions, nor are they to assume corresponding authorship.

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. Typically, the research advisor will be the PI of the IRB, but in any case the student 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. The departmental Approval for all IRB proposals is through the Vice-Chair for Research.

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. Such permission should be given only after consulting the research advisor to ensure the ability to publish the research findings.

More information about the electronic dissertation process through OhioLINK can be found through the [School of Graduate Studies](#).

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 a student has 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 (a 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.

Grievance Procedure

Any student who has a potential grievance should consult for resolution, in order, the academic advisor, the chair of their dissertation committee (if formed), Graduate Program Director (who will refer the case to the Internal Advisory Committee or an appointed grievance committee), the Vice Chair for Education, the Department Chair, the Associate Dean of Graduate Education (School of Medicine) and the Dean of Graduate Studies. If the grievance is with the advisor the student should consult his/her dissertation committee chair first, then follow the order as described above. There is no need to go further than the stage at which the issue is resolved.

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 by the [Division of Student Affairs](#).

Leaves of Absence and Other Time-off

All students who are admitted to the Ph.D. program in the Department of Population and Quantitative Health Sciences 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 Graduate Program Director, a leave of absence. The leave does not ordinarily extend the time limitation on progress to the degree. 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 advisor, Graduate Program Director, 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 University 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. Vacation timing must be approved by the research advisor in advance.

Trainees may receive stipends for up to 10 calendar days of sick leave per year with no year-to-year accrual. Sick leave may be used for the medical conditions related to pregnancy and childbirth. Graduate students are entitled to paid parental leave for the adoption or birth of a child. The primary caregiver is entitled to 6 weeks leave and the other parent or domestic partner is entitled to 3 weeks leave. When both parents are supported graduate students, the leave may be used consecutively or together. The leave must be used within 12 months of birth or adoption. Parental leave must be approved in advance in writing by the Program. It is permissible to add parental leave 2 and sick leave together for the adoption or birth of a child.

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.

Graduation

To receive a degree, the student is required to apply for graduation through the Student Information System (SIS) in the School 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 School 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.

Outside Student Employment

All students entering the program are expected to be full-time students and will receive full-time, 12-month student stipends from entry into the program until the completion of their degrees. Since the stipend covers the students' research activities, no student receiving a stipend will be permitted to be receive additional pay for degree-related research or research not related to their degree; moonlighting on additional research projects or other employment is not permitted. The one exception to this rule is that students may be permitted to serve as teaching assistants as long as this does not entail more than 10 hours per week.

This policy is intended to encourage students to focus full-time on being students so that they can learn and do degree related research without any impediment that another paid position would potentially generate. This provides an environment that encourages intellectual development consistent with that expected as part of Ph.D. training, and degree completion in shorter times with greater productivity.

Program Administration

The Ph.D. Program will be administered by the Graduate Program Director in close consultation with an Internal Advisory committee. The Internal Advisory Committee will consist of at least 3 faculty members with primary appointments in the department and one student representative. The Internal Advisory Committee is available to the Program Director for consultation and guidance on the doctoral program, and may make recommendations to the Program Director and the Curriculum Committee as appropriate. The Graduate Program Director will consult the Internal Advisory committee in the case of grievances or other non-standard operational matters such as issues of inadequate student progress. In the case of discussions of individual student issues or other confidential information, the student representative will be excused. Decisions of the committee will be by a majority vote.

The Graduate Program Director will be responsible for overseeing all aspects of the Ph.D. program. He/she will do so in regular consultation with the Vice Chair for Education, the Department Chair, and with guidance from the Internal Advisory Committee as needed. The Graduate Program Director will serve as the official spokesperson for the Ph.D. program and

will serve as its representative in matters related to University policy and programs. The Graduate Program Director will be responsible for the maintenance of high standards in the academic program, including the continuing evaluation of all required and elective courses in the program, the qualifications, and diversity of the program faculty. The Graduate Program Director will initiate and coordinate recruitment activities and will also be responsible for identifying and applying for (or assisting others in applying for) internal and external support for graduate training.

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 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.

Students can access training guides, information, references, and FAQs through the [University Registrar](#).

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 216.368.4310.

Acknowledgement

To be eligible for participation in the Ph.D. program, students and faculty must agree to follow the policies, procedures, and guidelines outlined in the student handbook. It is important that you carefully read the student handbook and understand the responsibilities, policies, and procedures that it contains. By checking the boxes and signing below, you acknowledge that you have read and understand the student handbook.

- I have read and understand the Department of Population & Quantitative Sciences Ph.D. Program in Epidemiology & Biostatistics handbook.
- I agree to follow the policies, procedures, and guidelines as outlined in the handbook.
- I understand that in cases of ambiguity or interpretation, the decisions made by the Ph.D. program leadership take precedence.

Student

Signed: _____

Date: _____

Printed Name: _____

Research Advisor

Signed: _____

Date: _____

Printed Name: _____