

STUDENT HANDBOOK
PH.D. PROGRAM IN EARTH AND ENVIRONMENTAL SCIENCES
Including:

Specialization in Environmental and Geological Sciences

Specialization in Geography

GRADUATE SCHOOL OF THE CITY UNIVERSITY OF NEW YORK
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1. PREFACE

This handbook summarizes the requirements and procedures that you need to know as a Ph.D. student in the Earth and Environmental Sciences Program (EES). It is a formal document that compiles information contained in the most recent *Bulletin of Graduate Center* and *Student Handbook* of the Graduate Center regarding the general requirements for the Ph.D. degree and policy and procedure of The Graduate Center as well as the specific requirements of the Earth and Environmental Sciences Doctoral Program. These documents are the authoritative statements of the policies and regulations that govern the EES Doctoral Program. The purpose of this handbook is to guide your navigation of the Program. All of these documents are available on line through The Graduate Center's website.

2. INTRODUCTION

Students entering the Ph.D. Program in Earth and Environmental Sciences select either the specialization in Geography or the specialization in Environmental and Geological Sciences, but are encouraged to consider courses across the program. Although there is a common structure to both specializations, the curricular requirements differ slightly. This handbook describes in detail both the elements that are common to the Ph.D. Program in Earth and Environmental Sciences and those that differ between the two specializations.

Geography provides an opportunity to pursue doctoral studies in one of the world's largest and most dynamic metropolitan locations with a diverse faculty at the City University of New York, whose interdisciplinary focus is Human and Physical Geography, Geographic Information Sciences, and Urban Studies, among other specializations.

Environmental and Geological Sciences provides an opportunity to pursue doctoral studies in one of the world's largest and most dynamic metropolitan coastal locations with a diverse faculty at the City University of New York, whose interdisciplinary focus is Environmental Sciences, classical Geology, Earth Systems, and Planetary Science, among other specializations.

One of the strengths of our program is that we encourage dissertation research that bridges the specializations of Geography and Environmental and Geological Sciences. For example, research in the area of Urban Environments and Public Health as affected by Global Climate Change; Environmental Sustainability in New York's Jamaica Bay and associated waterways; and the effects of environmental disruptions on urban life and systems.

3. DEGREE REQUIREMENTS

The degree of Doctor of Philosophy is awarded for the successful completion of the following requirements: 60 course credits, including core courses and transfer credits if applicable; passing of the First and Second Examinations and Advancement to Candidacy; and defense of the dissertation. Details of these requirements can be found below.

Credits

At least 60 credits of approved graduate work, including the course requirements in the field of

specialization, are required for the degree. Specific credit requirements vary and should be discussed with the administration of the EES Doctoral Program in consultation with a student's academic advisor. The curriculum for each specialization is discussed below. Of the 60 credits, a maximum of 30 acceptable graduate credits taken prior to admission to the doctoral program may be applied toward the degree provided the courses were completed with a grade of B or higher within an appropriate period preceding the time of application and are equivalent to comparable courses at the City University. An evaluation of previously earned credits will be made before a student moves from Level 1 to Level 2 following his or her passing of the First Examination.

Passing the First and Second Examinations: Advancement to Candidacy

Passing of the First Examination, completing the dissertation proposal, and defending it in the Second Examination are required before a student can be advanced to Ph.D. candidacy, or Level 3. The Examinations are discussed in detail below.

Dissertation

Students must complete a dissertation that embodies original research. The dissertation must be defended at an oral final examination (Third Examination) and be deposited in the Graduate Center's Mina Rees Library before the degree is granted. The Mina Rees Library will archive the dissertation electronically with the candidate's permission. Instructions for preparing the dissertation appear on the Library's website.

The dissertation committee is composed of at least four members, of which three are members of the CUNY doctoral faculty. The Chair of the committee must be a member of the EES doctoral faculty and serve as the principal academic advisor of the candidate. The fourth committee member will be an outside reader from outside the CUNY doctoral faculty who is appointed by the academic advisor in consultation with the candidate.

Human Subjects Certification

The Graduate Center has an ethical and legal commitment to protect human subjects in research. All such research, whether for the dissertation or for other purposes, must be reviewed and approved by the CUNY Human Research Protection Program, prior to its initiation. Please see the *Bulletin of The Graduate Center* for details.

Time Limit for the Doctoral Degree

All requirements for the degree must be completed no later than eight years after matriculation. A student who matriculates after transferring 30 credits from a prior graduate degree must complete all requirements within seven years.

Satisfactory Academic Progress

Students must be making satisfactory progress toward the degree in order to maintain status at The Graduate Center and to be eligible for any CUNY financial assistance. A student is deemed not to be making satisfactory progress if he or she has a grade point average below 3.00, has accumulated more than two open grades (INC, INP, NGR, ABS and ABP), has completed 45 credits without having passed the First Examination, has completed 10 semesters without having passed the Second Examination, has received two "NRP" grades in succession, or has exceeded the time limit for the degree. The Graduate Center reviews each student's record every semester. If formal standards have not been met, a student may register (and receive financial aid, if otherwise eligible) only upon petition of the student's Executive Officer to the Vice President for Student Affairs. Students whose petitions are approved are then considered to be making satisfactory

progress toward the degree they may register and are eligible to receive financial aid.

Waiver of Requirements

To waive any specific requirement for the degree, a student may petition the Associate Provost and Dean for Academic Affairs after consulting with his or her advisor and the EO or DEO.

Requirements for Program Specializations

Student outcomes within the Program are assessed through the passing of three exams and completion of coursework as discussed below.

First Examination: Geography Specialization

Students are eligible to take the First Examination after meeting all of the following requirements: (1) Completion of Geographic Thought and Theory (EES 709) and The Nature of Scientific Research (EES 704) with a grade of B or better, (2) Completion of 18 credits of course work with an overall average of 3.0 or better, and (3) Completion of at least one methodology course within their specific area of research.

Exam Format: The First Examination in Geography encompasses two parts, written and oral. It covers five thematic areas: (1) Questions drawn from the core courses Geographic Thought and Theory (EES 709) and The Nature of Scientific Research (EES 704). (2) Questions from the student's choice of three fields selected in advance from the following: Cities and Urban Processes, Geographic Information Science and Spatial Methods, Remote Sensing, Geographic Knowledge in Action (EES 712), Globalization and Uneven Development, Health Geographies, Physical Geography, and Productions of Nature.

The written exam is a take-home exam with a 10 day time limit. Each student is required to submit written answers to the five parts of the exam. In each part students are required to answer two questions, and in every section there is a choice of questions. In addition to the syllabi for the required courses, reading lists for each field will be distributed no less than one month before the examination date.

Responses are expected to be carefully reasoned and based on the relevant literatures in geography, which should be carefully cited. Answers must be typed in 12 pt font, double-spaced, with 1-inch margins. Each answer should be no longer than three pages (plus references). Thus a complete exam consists of a total of 10 answers that do not exceed 30 pages plus references.

Following faculty review of the examinations, an oral exam of approximately half an hour will be scheduled for each student. The oral portion of the exam is generally conducted within ten days of the written portion. In part, the purpose of the oral exam is to provide an environment in which personal interactions help to clarify any ambiguities in a student's answers to questions in the written exam. A student should be prepared to answer additional follow-up questions during this discussion.

Students will receive an assessment of their exam upon the conclusion of the oral. If a student does not pass any portion of their exam, they will be informed of their path forward. They may be required to re-take all or part of the exam, to complete additional course work, to work intensively with a designated faculty member, or to follow other recommendations from the examining committee.

First Examination: Environmental and Geological Sciences Specialization

In order for students in the Environmental and Geological Sciences specialization to be eligible to take the First Examination all of the following is required: (1) Completion of required courses with a grade of a B or better—Earth Systems I: Origin and Evolution of Earth and Life (EES 716), Earth System II: Earth's Energy Networks (EES 717), and The Nature of Scientific Research (EES 704), and (2) The accumulation of at least 15 credits of course work with an overall average of 3.0 or better.

Exam format: The First Examination within the Environmental and Geological Sciences specialization has two parts, written and oral. The written exam is composed of questions from the professors who teach EES 716, 717, and 704. Students are required to answer 4 questions from EES 716 and 717 and two questions from EES 704. The primary academic advisor of a student taking the exam also provides questions, of which the student is required to answer two. The exam is timed and given at The Graduate Center under the supervision of the DEO or his/her appointed proctor.

An oral exam is held within two weeks of completion of the written exam. In this exam, individual students meet with the professors that taught EES 716 and 717 along with the EO or DEO for a minimum of one hour of questions and answers between the student and the examiners. In part, the purpose of the oral exam is to provide an environment in which personal interactions help to clarify any ambiguities in a student's answers to questions in the written exam. A student should be prepared to answer additional follow-up questions during this discussion. In addition, part of the oral exam is also devoted to a student explaining his/her research to the committee. The oral exam is an important component that allows the committee to (1) Assess the student's ability to pose a research question, (2) Think through an appropriate method to attempt an answer, and (3) To assess how well a student understands their own research and how well they can ground their project/topic within their discipline and Earth Sciences at large.

First Examination: Exit Interview

Upon completion of the First Examination, all students in the EES program are required to attend, either in person or via some electronic communication method such as Skype, an exit interview. In the interview, the EO or DEO will review the outcomes of the exam with the student. At this time, a formal review of the student's progress through the Program is also reviewed.

If a student did not pass their exam, during the interview they will be informed of their path forward. They may be required to re-take all or part of the exam (no more than 12 months after the original examination date), perform additional course work, or follow other recommendations from the examining committee.

Requirements for Advancement to Level 2

With the completion of all required courses and successful passing of the First Examination, a student with a total of 45 credits (including up to 30 transfer credits) will be eligible to move from Level 1 to Level 2, which is done automatically by the registrar.

Requirement for Advancement to Level 3

Second Examination

In order for students to be eligible to take the Second Examination the following is required: (1) Passing of Dissertation Proposal Workshop (EES 802) with a B or better, (2) Establishing a dissertation committee in consultation with the student's advisor, (3) Submission of a draft dissertation proposal to the student's committee, and (4) Written approval of the advisor to the EES program office that the student is ready to take the exam. It is expected that the student will take additional coursework required to prepare for the dissertation project and meet regularly with his or her advisor and committee members to complete the dissertation proposal and prepare for the Second Exam.

Exam Format: The structure of the exam shall be as follows: The Dissertation Committee must receive the proposal at least two weeks prior to the scheduled Second Examination. The Second Examination is an oral examination conducted by the Dissertation Committee during which the student describes and defends all aspects of his or her proposal. The student must be able to explain his or her research in the context of the historical development of the research discipline; relate his or her project to ongoing research in his or her field, and must demonstrate a thorough command of the literature relevant to the research. Normally, the Second Examination takes place upon completion of 60 credits but may occur earlier in a student's progress.

The exam must occur at The Graduate Center and is limited to two hours, with a maximum of one hour devoted to an oral presentation by the student candidate. The Chair of the Committee shall be the student's dissertation advisor and must be a member of the EES doctoral faculty. The EES program will be notified of the exam at least two weeks in advance and the notice must contain the following information: Student name, date, time, and room number of the exam, name of the members of the Committee, and the title of the exam/dissertation. Following the exam, the Committee may require revisions to the proposal to be completed within 12 months of the exam. A student, at the decision of the Committee, may also be required to re-take the oral exam within 12 months of the original exam date.

Upon successful completion of the dissertation proposal, Second Examination, and 60 credits of course work (including transfer credits) the student will be admitted to candidacy for the doctoral degree and moved to Level 3. Working with his or her Committee the student will conduct research for the doctoral dissertation and write the dissertation. Upon approval of the dissertation by the dissertation Committee, the EES Program Office will schedule the Third Examination otherwise known as the dissertation defense.

Dissertation Defense Format

The exam must occur at The Graduate Center and a maximum of one hour devoted to an oral presentation by the candidate. The Chair of the committee shall be the student's dissertation advisor and shall orchestrate the examination. The oral presentation must be open to the public (maximum one hour of questioning from the public after the conclusion of the student's presentation) and questions from the floor may be entertained at the discretion of the Chair. After closing questioning from the public, the Chair will convene a closed session of the Committee for questioning the candidate.

It is the responsibility of the Chair of the committee to contact the Program Assistant and the

Executive Officer of the EES program *at least five weeks in advance* to schedule the defense. The notice must contain the following information: Student name, proposed date and time, the Committee members' names (including their campus affiliation and e-mail addresses), and lastly the complete title of the dissertation. The Provost's office will then notify the Committee and invite the public to the defense.