

# **Environmental Health Sciences PhD Program**

## **Student Handbook**

Version 08/16/2021

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James T. Laney School of Graduate Studies  
Rollins School of public Health  
Emory University



EMORY

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L A N E Y  
G R A D U A T E  
S C H O O L

# 1 TABLE OF CONTENTS

<b>1</b>	<b>TABLE OF CONTENTS .....</b>	<b>2</b>
<b>2</b>	<b>PROGRAM CONTACT INFORMATION .....</b>	<b>4</b>
<b>3</b>	<b>PROGRAM FACULTY .....</b>	<b>5</b>
<b>4</b>	<b>PROGRAM OVERVIEW .....</b>	<b>6</b>
4.1	ADMINISTRATION .....	6
4.2	RESEARCH.....	6
4.3	ADVISORS.....	6
4.4	EHS EXECUTIVE COMMITTEE.....	6
<b>5</b>	<b>PROGRAM CORE AREAS AND COMPETENCIES .....</b>	<b>8</b>
5.1	EHS CORE AREAS .....	8
5.2	PROGRAM COMPETENCIES.....	9
<b>6</b>	<b>PROGRAM CURRICULAR REQUIREMENTS.....</b>	<b>10</b>
6.1	EHS CURRICULUM .....	10
6.1.1	<i>EHS Coursework .....</i>	<i>10</i>
6.1.2	<i>LGS Credit Hour Requirements.....</i>	<i>10</i>
6.1.3	<i>Curriculum-Related Links .....</i>	<i>11</i>
6.2	LANEY GRADUATE SCHOOL JONES PROGRAM IN ETHICS (JPE) .....	11
6.3	TEACHING ASSISTANT TRAINING AND TEACHING OPPORTUNITY (TATTO) PROGRAM.....	11
6.4	ENGLISH LANGUAGE SUPPORT PROGRAM (ELSP) .....	13
6.5	PUBLIC HEALTH FOUNDATIONS COURSE (PUBH 700) .....	13
6.6	COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI) TRAINING .....	13
6.7	RESEARCH ROTATIONS .....	14
6.8	PRE-CANDIDACY & DISSERTATION RESEARCH CREDIT.....	14
6.9	EHS PROGRESS SUMMARY & INDIVIDUAL DEVELOPMENT PLAN (IDP) .....	15
<b>7</b>	<b>QUALIFYING EXAMINATION .....</b>	<b>16</b>
7.1	DEADLINES.....	16
7.2	EXAM COORDINATION GUIDE.....	16
7.3	QUALIFYING EXAM COMMITTEE.....	17
7.4	WRITTEN DISSERTATION PROPOSAL.....	17
7.5	WRITTEN EXAM.....	18
7.6	ORAL DEFENSE & GRADING .....	19
7.7	OUTCOMES.....	20
7.8	ADMISSION TO CANDIDACY .....	20
<b>8</b>	<b>DISSERTATION .....</b>	<b>22</b>
8.1	OVERVIEW.....	22
8.2	DISSERTATION ADVISOR IDENTIFICATION .....	22
8.3	DISSERTATION COMMITTEE .....	23
8.4	DISSERTATION REQUIREMENTS .....	24
8.4.1	<i>Dissertation Format .....</i>	<i>24</i>
8.4.2	<i>Final Defense of Dissertation Research.....</i>	<i>24</i>
8.4.3	<i>Authorship Guidelines.....</i>	<i>24</i>
8.5	PROCEDURES FOR DEGREE COMPLETION AND TIMING.....	25
8.6	ELECTRONIC DISSERTATION SUBMISSION .....	25
8.7	DEFENSE COORDINATION GUIDE .....	25

<b>9</b>	<b>SELECT LGS AND EHS PROGRAM-SPECIFIC POLICIES .....</b>	<b>27</b>
9.1	FINANCIAL SUPPORT AND STUDENT FEES .....	27
9.2	EXTERNAL FUNDING .....	27
9.3	OUTSIDE EMPLOYMENT.....	28
9.4	ACADEMIC CALENDAR.....	28
9.5	REGISTRATION.....	28
9.6	CREDIT HOUR REQUIREMENTS.....	28
9.7	DROP/ADD.....	28
9.8	COURSE WAIVERS .....	28
9.9	LEAVES OF ABSENCE .....	29
9.10	GRADES .....	29
9.11	ACADEMIC PERFORMANCE.....	29
9.11.1	<i>Emory University-Wide Standards.....</i>	<i>29</i>
9.11.2	<i>EHS Program-Specific Standards .....</i>	<i>30</i>
9.11.3	<i>Academic Probation .....</i>	<i>30</i>
9.12	LGS ANNUAL REPORT.....	31
9.13	COMPLETION OF DEGREE AND GRADUATION PROCESS .....	31
9.14	MASTER OF SCIENCE IN ENVIRONMENTAL HEALTH SCIENCES .....	31
9.15	PARENTAL ACCOMMODATION POLICY .....	31
9.16	STUDENT SUPPORT SERVICES.....	31
9.17	OFFICE OF ACCESSIBILITY SERVICES (OAS) .....	32
9.18	GRIEVANCE POLICY.....	32
9.19	OMBUDS OFFICE .....	32
9.20	THE HATCHERY, CENTER FOR INNOVATION.....	32
<b>10</b>	<b>APPENDICES .....</b>	<b>33</b>
10.1	EHS MILESTONE TIMELINE .....	34
10.2	EHS CURRICULUM .....	36
10.2.1	<i>EHS Program Required Courses.....</i>	<i>36</i>
10.2.2	<i>Suggested Course Sequence .....</i>	<i>38</i>
10.2.3	<i>Suggested Electives .....</i>	<i>40</i>
<b>11</b>	<b>EHS PROGRAM FORMS.....</b>	<b>42</b>
11.1	EHS COURSE REGISTRATION REQUEST FORM .....	43
11.2	EHS TATTO AGREEMENT & GRADE FORM .....	44
11.3	EHS RESEARCH ROTATION FORM INSTRUCTIONS .....	45
11.4	EHS RESEARCH ROTATION CONTRACT FORM (EHS 600R) .....	46
11.5	EHS RESEARCH ROTATION COMPLETION FORM (EHS 600R) .....	48
11.6	EHS PRE-CANDIDACY RESEARCH HOURS AGREEMENT & GRADE FORM (EHS 798R).....	50
11.7	EHS PROGRESS SUMMARY & INDIVIDUAL DEVELOPMENT PLAN .....	51
11.8	EHS DISSERTATION ADVISOR AGREEMENT FORM .....	57
11.9	EHS DISSERTATION DEFENSE FLYER TEMPLATE .....	60

## 2 PROGRAM CONTACT INFORMATION

**James T. Laney School of Graduate Studies:**

<http://www.gs.emory.edu/>

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<https://www.sph.emory.edu/departments/eh/index.html>

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Thomas Clasen, JD, PhD

Carmen Marsit, PhD

P. Barry Ryan, PhD

Jeremy Sarnat, ScD

**2021-2022 PhDs-EH Board**

EHS Representatives: Ian Hennessee and Courtney Victor

Treasurer: Stephen Mugel

Secretary/ Social Chair: Steph Bellman

EHS Executive Committee Liaisons: Oscar de Leon and Sarahna Moyd

Workshop Coordinator: Wenhao Wang

Outreach Coordinator: Hemali Oza

### 3 PROGRAM FACULTY

Faculty listed by Primary Department

#### **Rollins School of Public Health (RSPH)**

##### **Department of Environmental Health (EH)**

Dana Boyd Barr, PhD, Research Professor  
William Michael Caudle, PhD, Assoc. Research Professor  
Thomas F. Clasen, JD, PhD, Professor  
Stefanie Ebelt, Associate Professor  
Todd Everson, PhD, Assistant Professor  
Matthew C. Freeman, PhD, MPH, Associate Professor  
Matthew Gribble, PhD, Assistant Professor  
Donghai Liang, PhD, Research Assistant Professor  
Yang Liu, PhD, Associate Professor, Department Chair  
Carmen Marsit, PhD, Professor  
P. Barry Ryan, PhD, Professor  
Jeremy A. Sarnat, ScD, Associate Professor  
Stefanie Ebelt, ScD, Associate Professor  
Noah Scovronick, PhD, Assistant Professor  
Lihua Shi, PhD, Assistant Professor  
Nelson Kyle Steenland, PhD, Professor  
Ajay Pillarisetti, PhD, Assistant Professor  
Qiang Zhang, PhD, Associate Professor

##### **Department of Epidemiology (EPI)**

W. Dana Flanders, MD, DSc, Professor  
Anke Huels, PhD, Assistant Professor  
Benjamin Lopman, PhD, Associate Professor  
Michele Marcus, PhD, MPH, Professor  
Yan Sun, PhD, Associate Professor

##### **Hubert Department of Global Health (GH)**

Robert F. Breiman, MD, Professor and Director of GHI  
Bethany Caruso, PhD, Assistant Professor  
Juan Leon, PhD, MPH, Associate Professor  
Christine Moe, PhD, Professor  
Sheela Sinharoy, PhD, Research Assistant Professor

##### **Department of Biostatistics and Bioinformatics (BIOS)**

Howard H. Chang, PhD, Associate Professor  
Amita K. Manatunga, PhD, Professor  
Lance A. Waller, PhD, Professor

##### **Department of Behavioral Science and Health Education (BSHE)**

Michelle C. Kegler, DrPH, MPH, Professor

#### **Nell Hodgson Woodruff School of Nursing (SON)**

Elizabeth J. Corwin, PhD, RN, FAAN, Professor  
Anne Lang Dunlop, MD, MPH, Research Professor  
Linda McCauley, PhD, RN, Professor and Dean  
Lisa M. Thompson, PhD, RN, FNP-BC, FAAN, Associate Professor

#### **School of Medicine (SOM)**

##### **Department of Gynecology and Obstetrics**

Alicia K. Smith, PhD, Associate Professor

##### **Department of Human Genetics**

Jennifer G. Mulle, PhD, Assistant Professor

##### **Department of Medicine**

Dean P. Jones, PhD, Professor

##### **Department of Neurology**

Allan I. Levey, MD, PhD, Professor and Chair

##### **Department of Pediatrics**

Lou Ann S. Brown, PhD, Professor  
Anne M. Fitzpatrick, PhD, Associate Professor

##### **Department of Pharmacology**

Zixu Mao, PhD, Professor  
Edward T. Morgan, PhD, Professor

#### **Emory College of Arts and Sciences (ECAS)**

##### **Department of Environmental Sciences (ENVS)**

Thomas R. Gillespie, PhD, Associate Professor  
Lance H. Gunderson, PhD, Professor and Chair  
Uriel D. Kitron, PhD, Professor  
Eri Saikawa, PhD, MPA, Associate Professor  
Gonzalo M. Vazquez Prokopec, PhD, Associate Professor  
Tracy J. Yandle, PhD, Associate Professor

##### **Department of Political Science**

Richard F. Doner, PhD, Professor

## 4 PROGRAM OVERVIEW

### 4.1 Administration

The goal of the doctoral program in Environmental Health Sciences (EHS) at Emory University is to provide students with interdisciplinary training to better understand the impact of the environment on human health and disease. Students in the program have a wide range of unique opportunities for research and education through the participating departments across campus and the numerous health agencies affiliated with the program. Further, the program aims to produce a unique cadre of future leaders in the field of environmental health sciences who have expertise in both laboratory- and population-based research. Our graduates are competitive for positions in academia, government and private industry.

The EHS Program is administered through the Laney Graduate School (LGS) and is managed by the Department of Environmental Health in the Rollins School of Public Health (RSPH). The EHS Program follows the rules and procedures set forth by the LGS. Information in this handbook is in addition to the LGS Policies and Procedures (<https://www.gs.emory.edu/academics/policies-progress/index.html>) and the LGS Graduate Student Handbook (<http://gs.emory.edu/handbook/>).

### 4.2 Research

The faculty members of the Environmental Health Sciences Program utilize a wide range of tools to address problems central to the field, including exposure assessment, toxicology, disease ecology, and environmental epidemiology. Faculty research interests include the impact of water, sanitation and hygiene (WASH), infectious diseases, pesticides and other chemicals, air pollution and climate change on human health and disease, with emphasis on children's health, respiratory and cardiovascular diseases, cancer, development, and neurological disorders. Several departments in multiple schools participate in the program, resulting in a truly University-wide program (*see list in section 3*). For example, within the Rollins School of Public Health, the following departments participate: Gangarosa Department of Environmental Health, Epidemiology, Hubert Department of Global Health, Biostatistics and Bioinformatics, and Behavioral, Social, and Health Education Sciences. The Departments of Environmental Sciences, Biology, and Political Science within the College of Arts and Sciences, and the Departments of Medicine, Pharmacology, and Pediatrics among others within the School of Medicine are also represented.

### 4.3 Advisors

The Director of Graduate Studies (DGS) and Program Administrator assist with general program advisement and communication of LGS policies for all students in the program. The DGS serves as the formal advisor for all incoming students. During the first and second years of the program, students complete three research rotations (*Section 6.7*) after which they identify an Advisor to oversee their dissertation research (*Section 8*). The DGS and the student's Advisor serve as a resource for progress through the program, including course selection and dissertation topic development.

### 4.4 EHS Executive Committee

The EHS Executive Committee, chaired by the DGS, oversees the functioning of the EHS program. The committee ensures EHS policies are in place, proposes modifications to EHS policies and EHS curriculum when needed, assists with recruitment and admissions efforts, monitors overall student progress and funding, and considers and implements faculty and student input to the program. The

committee also handles other circumstances such as assisting the DGS in handling student funding shortfalls (*Section 9.1*) or student grievances as they arise (*Section 9.18*). The committee meets regularly once per semester and ad hoc via e-mail or in person as needed.

## 5 PROGRAM CORE AREAS AND COMPETENCIES

Upon graduation, EHS students will have received comprehensive training in the EHS core areas of Exposure Science, Biological Mechanisms of Susceptibility and Disease, and Environmental Determinants of Population Health. These 3 core areas serve as the foundation of the EHS program, inform 4 program competencies, and provide a template for students' qualifying exams.

### 5.1 EHS Core Areas

**1) Exposure Science.** Students will be able to assess the presence and fate of chemical and microbiological contaminants in the environment and their impact on human exposures. This core area includes training in environmental chemistry, environmental microbiology, environmental exposure assessment and the use of exposure biomarkers. Students learn basic theory behind and practical methods for sampling and analysis of chemical and microbiological contaminants in environmental (air, water, soil, food, etc.) and biological media (exhaled air, blood, urine, etc.) such that they acquire a thorough understanding of applied field sampling techniques for characterizing environmental contaminants across various media and human exposure pathways. Students are trained in direct methods of assessment, including source and microenvironmental sampling, bioassays and other techniques, as well as indirect methods including the use of modeling and questionnaire surveys. Students are trained in laboratory analysis methods of field samples and in the interpretation of the laboratory data, including analytical quality control/quality assurance procedures and evaluation of the uncertainties associated with these data. Students are expected to be able to communicate their results to a public health audience and apply the techniques within a human health effects setting.

**2) Biological Mechanisms of Susceptibility and Disease.** Students will be able to assess the impact of environmental insults on human health. This core area focuses on mechanisms of toxic action and impacts on human physiology. The goal of this core area is to provide the student with a basic understanding of human physiology, factors that affect vulnerability to chemical exposures and infectious agents, and pathophysiological consequences and assessment (biomarkers) of such exposures. Historically, many of these concepts have been taught under the rubric of toxicology but are generally more focused on chemical exposures. Since environmental exposures can also include infectious agents, allergens, particulate matter, and mold toxins among others, it is necessary to broaden the scope for our students. This knowledge is important for understanding why certain populations, such as children and the elderly, may exhibit increased vulnerability to environmental hazards.

**3) Environmental Determinants of Population Health.** Students will be able to assess the impact and risk of various environmental exposures on human populations (from small clinical populations to large general populations). This core area focuses on how environmental exposures impact human health on a population level, including proximal exposures to environmental toxins and infectious agents, as well as distal environmental determinants like climate change, the built environment and environmental reservoirs of infectious disease. Epidemiologic studies of environmental exposures are considered, including an understanding of the quality of exposure assessment required to convincingly demonstrate exposure-disease relationships. Risk assessment, which integrates data on external exposure, internal dose, and disease, is highlighted, including the potential policy implications and cost benefit issues. Advanced and emerging risk assessment tools are emphasized, including air and water dispersion models, statistical competency in geospatial and mathematical modeling, remote sensing and environmental forecasting.



## 5.2 Program Competencies

The three EHS core areas inform four program competencies. Upon completion of the PhD degree, the graduate will be able to:

Competency
1. Apply advanced methods for assessing human exposures to environmental agents.
2. Explain the actions of environmental exposures on human health via cellular and molecular processes, including risk factors that can modify these actions.
3. Apply epidemiologic and risk assessment methods to describe the risks associated with exposure to environmental agents.
4. Conduct a novel research project that addresses key challenges in environmental health sciences.

Competencies are met by required coursework in addition to other coursework and program requirements detailed in Sections 6, 7, and 8.

## 6 PROGRAM CURRICULAR REQUIREMENTS

To successfully graduate from the doctoral program in Environmental Health Sciences, students must complete program curricular requirements (*this section*), pass the qualifying examination (*Section 7*), and complete and defend a dissertation (*Section 8*).

Program curricular requirements are comprised of coursework for academic credit and other training:

- 6.1 EHS Curriculum
- 6.2 Laney Graduate School Jones Program in Ethics (JPE)
- 6.3 Teaching Assistant Training and Teaching Opportunity (TATTO) Program
- 6.4 English Language Support Program (ELSP) (*English as Second Language Students Only*)
- 6.5 Collaborative Institutional Training Initiative (CITI) Training
- 6.6 Research Rotations
- 6.7 Pre-Candidacy & Dissertation Research Credits
- 6.8 EHS Progress Summary & Individual Development Plan (IDP)

An overview of program requirements and an expected completion timeline for the requirements is provided in Section 10.1.

### 6.1 EHS Curriculum

To satisfy curriculum requirements, students must complete EHS coursework and LGS credit hour requirements. See the full EHS curriculum in Section 10.2 and posted on the EH Department Canvas site.

#### 6.1.1 EHS Coursework

The EHS curriculum includes a set of required courses; students typically also enroll in varying numbers of elective courses. **Required courses** provide students with comprehension and expertise in the four EHS competencies. These requirements include pre-requisite/foundation courses that students entering with an MPH often already have. For any student, required courses may be waived if students have learned the concepts in coursework taken prior to entering the program. Course waivers are determined on a case-by-case basis upon consultation with the DGS and Program Administrator when the student first enters the program (*Section 9.8*). **Elective courses** provide students with additional expertise within a given area of study as it relates to Environmental Health Sciences.

#### 6.1.2 LGS Credit Hour Requirements

The expectation for doctoral students is that they make full time progress towards their final degree each semester. With respect to enrollment, full time status is represented by being enrolled in a minimum of **9 credit hours per semester** (*Section 9.6*). At different stages, full time status may correspond to different types of activities. Early in the program, full time status may be largely represented by enrollment in course work. As student's progress through the program (and during summer semesters), full time status is increasingly represented by time spent on research training: through research rotations, other pre-candidacy research, or dissertation research. To satisfy credit hour requirements, students register for research credits reflecting the specific training being pursued: **EHS 600R** (research rotation, *Section 6.7*), **EHS 798R** (pre-candidacy research, *Section 6.8*), or **EHS 799R** (dissertation research, *Section 6.8*).

### 6.1.3 Curriculum-Related Links

**LGS Academics:** <http://www.gs.emory.edu/academics/index.html>

**RSPH Enrollment Services:**

<http://www.sph.emory.edu/rollins-life/enrollment-services/index.html>

**RSPH Course Catalog:** <http://www.sph.emory.edu/academics/catalog/index.html>

**Course Listings** (shows all semester course listings, times, and any special rules):

<https://atlas.emory.edu/>Cross-reference the rules and prerequisites with the Course Catalog.

**Gangarosa Environmental Health Department Courses and Syllabi:**

<http://www.sph.emory.edu/academics/courses/eh-courses/index.html>

## 6.2 Laney Graduate School Jones Program in Ethics (JPE)

The requirements for completion of JPE are:

- a. **Core Seminar (JPE 600):** This is a 6-hour seminar that introduces students to the foundations of ethical reflection. Students normally participate in this seminar prior to their first semester, in August of their incoming year, and participation is recorded on the student's transcript.
- b. **Program-Based Instruction:** Students complete a minimum of 6 hours of program-based ethics material; in EHS, ethics material is included in EHS 790R, which students take in the fall and spring of their first and second year of the program.
- c. **Four Workshops (JPE 610):** Students participate in at least four ethics-related workshops sponsored by the LGS, the Emory Center for Ethics, and other programs throughout the year. Students register for each workshop individually, and participation in each is recorded on the student's transcript.

Completion of elements (a) and (b) are required for candidacy, and (c) is required for graduation. See additional details at: <http://www.gs.emory.edu/professional-development/jpe/index.html>.

## 6.3 Teaching Assistant Training and Teaching Opportunity (TATTO) Program

The requirements for completion of the TATTO program are:

- a. **Teaching Assistant Training Course (TATT 600):** This is a two-day course taught in the late summer. This course must be taken before students can receive credit for their teaching assistantship or teaching associateship. The course covers syllabus writing, grading, lecturing, discussion facilitating, the using writing as a pedagogical tool, conducting of lab sessions, and the use of new technologies. Though this course occurs in the summer, it appears on the student transcript as a fall course.
- b. **Teaching Assistant (TATT 605):** Students assist faculty in teaching Environmental Health courses. Responsibilities include: developing and grading homework, holding problem and review sessions, providing individual help to students through office hours, and other duties deemed necessary by the instructor. Generally, courses outside the Department of Environmental Health will not fulfill the TATT 605 requirement.
- c. **EHS students as Teaching Associates (TATT 610):** A TATT 610 Teaching Associateship is

intended to provide PhD students with an in-depth teaching experience. Broadly, Teaching Associates co-teach with an instructor by collaborating in the development and teaching a defined portion of a course. As specific examples, Teaching Associates can be expected to develop and give a lecture, lead student discussions, assist the instructor in syllabus development, course content, lectures and student evaluation. Within reason, Teaching Associates may also assist with the usual TA roles such as holding office hours, grading, and managing the class (e.g., Canvas, Zoom). While it is preferred that this requirement will be fulfilled through Department of Environmental Health courses, non-EH department courses may be requested/discussed with the DGS for consideration.

Students register for TATT 605 or TATT 610 during the semester that they complete each requirement. TATTO roles should take place over the course of a full semester (15 weeks). Students should expect to spend an average of 10-12 hours per week on TA duties. Students must complete the **EHS TATTO Agreement & Grade Form** (*Section 11.2*) to fulfill each requirement. At the beginning of each semester, this form is used to assist students to set goals for their TA duties with their TATTO course instructor and to provide students with a formal means of communicating these goals to their instructor and the DGS. At the end of the semester, completion of the form provides a basis for the Satisfactory / Unsatisfactory (S/U) grade that students will receive on the TATT credits for which they were registered. The forms must be uploaded into the EHS Program Canvas site here: <https://canvas.emory.edu/courses/65825>

Courses that typically fulfill TATT 605 and 610 requirements include:

a. **Fall semester:**

EH 500 Perspectives in Environmental Health (*suitable for TATT 605 only*)  
EH 520 Human Toxicology  
EH 524 Risk Assessment  
EH 580 Injury Prevention  
EH 582 Global Climate Change: Health Impacts and Response  
EHS 747 Advanced Environmental and Occupational Epidemiology  
GH 560 Monitoring and Evaluation

b. **Spring semester:**

EH 500 Perspectives in Environmental Health (*suitable for TATT 605 only*)  
EH 510 Foundations of Exposure Science  
EH 523 Neurotoxicology  
EH 530 Occupational and Environmental Epidemiology  
EH 548 Research Methods for Water and Health  
EH 570 Environmental and Occupational Health Policy  
EH 571 Global Environmental Health Policy  
EH 740 Molecular Toxicology

c. **Other EH/EHS courses** may occasionally become available for fulfilling TATT requirements.

d. **Non-EH courses** must be discussed with the DGS and Program Administrator for consideration.

TATT 605 and 610 are to be conducted in two separate courses. At least one TATTO role should be conducted in an EH or EHS course. All EHS students are required to fulfill one semester of TATT 605 before candidacy and one semester of TATT 610 prior to graduation.

The Department requires that students receive permission from the DGS, Program Administrator, and course instructor prior to committing to a TATT 605 and 610 position. To facilitate the TA assignment process, students are required to complete a request form that is sent each semester. Student's TA classes will be confirmed before the end of each semester's pre-registration period.

Students who have completed their TATTO requirements may TA above and beyond these requirements for payment at an hourly rate. Students may work a maximum of 10 hours per week (paid or unpaid) outside their regular coursework and research if the DGS and the student's Advisor grant permission (*Section 9.3*); TAs above and beyond TATTO requirements are considered as such work. To ensure the DGS and Program Administrator are aware of EHS students TAs in this situation, students are also requested to complete the previously mentioned form for any non-TATTO TA positions.

**IMPORTANT: Procedure for requesting a TA Position (605, 610, and non-TATTO):**

Students must complete the request form sent by the Department by November 1 for spring classes and by February 28 for fall. More information will come from the EHS Program Administrator.

For more details about TATTO requirements, serving as a TA, and working outside/above and beyond TATTO requirements, see the LGS handbook: <http://gs.emory.edu/handbook/> and LGS TATTO guidelines: <http://www.gs.emory.edu/professional-development/teaching/>.

## 6.4 English Language Support Program (ELSP)

*For English as Second Language Students Only*

Students, regardless of citizenship status or educational background, whose first language is other than English must take the LGS English Language Proficiency Test or receive an exemption from the ELSP testing director before registering for degree classes or participating in TATTO. The test consists of a speaking and a writing assessment. Results of this test will determine the ELSP courses (if any) that the student will be required to take during their first year in the program. Satisfactory completion of required ELSP coursework is needed for continuation in Graduate School. These courses carry 2-4 credit hours and are graded as Satisfactory/Unsatisfactory (S/U). Courses appear on official transcripts but are not counted towards degree credit hour requirements. See the ELSP website for details: <http://www.gs.emory.edu/academics/elsp/students.html>

## 6.5 Public Health Foundations Course (PUBH 700)

This course is only required for doctoral students with no prior MPH/MSPH degree. It provides a broad introduction to public health. This course is graded Satisfactory/Unsatisfactory and must be taken during the first Fall of the program.

## 6.6 Collaborative Institutional Training Initiative (CITI) Training

EHS students are encouraged to complete training in the protection of human subjects in research via the Collaborative Institutional Training Initiative (CITI Program). This online training course is mandatory for any personnel working on Institutional Review Board (IRB)-approved projects (<http://www.irb.emory.edu/Training/index.html>). It is highly recommended for students to complete CITI training in the summer prior to starting classes at Emory as the course takes several hours to complete and many research opportunities will require students to have completed this training.

### Step-by-Step Instructions for Completing CITI Training:

- a. Visit the [CITI webpage](#) and register as a new user.
- b. Choose the Human Subjects Protection Course.
- c. On the curriculum selection page, select the first box and click 'next' (indicate language preferences if necessary).
- d. On the following page, select type of course to be taken: either the basic biomedical research training, or the basic social/behavioral research training, or both (social/behavioral training is sufficient for most public health research – students should choose this course unless they know that they will be doing lab/biomedical research).
- e. For the next pages, select 'no', unless students know that they need or want to complete these modules (e.g., Responsible Conduct of Research).
- f. After selections are made, click on the course to begin the required modules.
- g. Students need to complete all of the required modules (and receive an average score of 80% or higher) to pass the course.

Once complete, students should upload their completion certificate to the EH Canvas page under "Assignments" or email it to the Program Administrator. CITI certification is valid for three years. CITI offers refresher courses for recertification.

## 6.7 Research Rotations

Three research rotations are required per student. Each rotation should be supervised by a different faculty member and represent one or more EHS core areas: Exposure Science, Biological Mechanisms of Susceptibility and Disease, and Population Health. All areas must be represented at the completion of the three rotations; this is not a one-to-one requirement; some rotations may combine two of the areas. Through rotations, students gain experience in a real research setting. Each rotation should include development of a research problem and collection/analysis of data. It is also an opportunity to develop relationships with faculty members and to explore and develop dissertation research ideas.

Rotations generally occur during the student's first fall, spring, and summer semesters. Students register for **EHS 600R (2 credits)** in each semester that they complete a rotation. Students must complete the **EHS Research Rotation Contract Form** at the beginning of each rotation and the **EHS Research Rotation Completion Form** at the end of their rotation to fulfill their graduation requirement (*see instructions and forms in Sections 11.3, 11.4, and 11.5*). These forms must be uploaded into the EHS Canvas site. The objective of the EHS Research Rotation process is student learning and skills development. Be sure to discuss the objectives of the EHS Research Rotation process with your Rotation Advisor, and mutually agree on your specific learning objectives for this rotation. A rotation should be completed in approximately 100-150 hours (e.g., over 10-12 weeks, working 10-15 hours per week) and should be completed by the 'Anticipated Completion Date' stated on the EHS Research Rotation Contract Form.

During the summer or a semester without classes, students could work up to 40 hours/week on their rotation (via EHS 600R) and pre-candidacy research credits (*via EHS 798R - see below*).

## 6.8 Pre-Candidacy & Dissertation Research Credit

Beyond research rotations, students identify and track time spent on research training via registering for **EHS 798R** (pre-candidacy research) or **EHS 799R** (dissertation research).

When enrolling in EHS 798R students must complete the **EHS 798 Research Hours Agreement & Grade Form** (*Section 11.6*) and upload into the EHS Canvas site. At the beginning of the semester of enrollment in these credits, this form is used to assist students to set goals for their research hours with their faculty advisors and to provide students with a formal means of communicating these goals to their advisor and the DGS. At the end of the semester, completion of the form provides a basis for the S/U grade that students will receive on the research credits for which they were registered. The type of research training students complete during these research hours varies widely. Most research activities that contribute to students' overall training and allow students to make progress in the program qualify. Some examples of typical student research activities during research hours include: conducting primary data collection, performing an analysis, writing a manuscript, studying for the qualifying exam, writing a dissertation proposal, writing a dissertation chapter, and preparing a grant proposal.

Tracking of the progress made during EHS 799, Dissertation Research, is done by completion of the **EHS Progress Summary & Individual Development Plan (IDP)** (*section 6.9*) and upload into the EHS Canvas site by April 15 of each year in the program.

## **6.9 EHS Progress Summary & Individual Development Plan (IDP)**

*Due April 15 of each year in the program*

In accordance with NIH's best practices for training, all EHS PhD students are required to set academic and professional goals for their doctoral training on an annual basis. The **EHS Progress Summary & Individual Development Plan** (*Section 11.7*) is due on April 15 of each year in the program. Typically, students in Year 1 and 2 of the program will meet with the DGS to complete this form (i.e., before they have identified a Dissertation Advisor, *see Section 8.2*); students in Year 3+ will meet with their Dissertation Advisor to complete this form. Completion of this form is part of the students' professional responsibility to chart their goals and success in the PhD program and assist with ensuring timely progress. For students in Candidacy, the IDP serves as a tool for tracking the progress made during the dissertation process and its information shared on dissertation committee meetings.

## 7 QUALIFYING EXAMINATION

Students are expected to sit for the qualifying examination upon completion of all required course work (typically at the end of Year 2). The content of the qualifying examination is centered on each student's proposed dissertation topic area and specific research plans. Thus, preparing for the qualifying examination is conducted in parallel with dissertation advisor and dissertation committee selection (*see Section 8*). The qualifying examination consists of a written dissertation proposal, a written take-home exam, and an oral defense. The examination is administered by a Qualifying Exam Committee.

### 7.1 Deadlines

Timely passing the EHS qualifying examination is required for students to demonstrate satisfactory progress in the program and is a condition for advancement to candidacy (*see Section 7.8*). Qualifying exam delay will impact students' academic standing, initiating academic probation, and possible program dismissal (*Section 9.11*).

Specifically, there are three trigger points for assessing adequate program progress with respect to the qualifying exam:

- a. **Submission of a written dissertation proposal approved by the student's advisor by July of Year 2 (i.e., July 31).** Note that this is a final deadline; many advisors expect their students to submit proposals several months before this deadline. Students that fail to meet this deadline may receive a 'U' (unsatisfactory) grade in their summer research credits, resulting in initiation of academic probation for the fall semester of Year 3.
- b. **Sit for the qualifying examination by mid-fall of Year 3 (e.g., October 15).** This is not a hard deadline. Typically, students sit for the qualifying exam within 4-6 weeks of submitting the written dissertation proposal. This timing allows for students that fail their first sitting of the qualifying exam to pursue one permitted retake of the exam before the final deadline.
- c. **Passing the qualifying examination by end of the fall semester in Year 3 (i.e., December 15).** Note that this is a final deadline. Students that do not pass the qualifying exam by this deadline may be dismissed from the EHS program.

These deadlines are reassessed for students completing the program on a part-time basis or for students taking a leave of absence in Year 1 or 2. Otherwise, extensions are granted only in exceptional circumstances. Students seeking an extension must obtain Advisor support, identify the stipend funding source during the extension period, and obtain DGS approval.

### 7.2 Exam Coordination Guide

The following is a suggested timeline to assist students in planning for their qualifying examination:

- a. Fall semester of Year 2: Following the Year 1 research rotations and other experiences, begin discussions with EHS faculty members about potential dissertation topics and their willingness and ability to serve as the student's Dissertation Advisor (*Sections 8.1 and 8.2*).
- b. Spring semester of Year 2: Identify a Dissertation Advisor, develop dissertation topics, and select Dissertation Committee members (*Section 8.3*)
- c. 3 months ahead of written proposal submission (by April 30 of Year 2):
  - i. Submit EHS Dissertation Advisor Agreement form (*Section 11.8*)
  - ii. Meet with DGS to discuss draft dissertation aims, qualifying exam committee membership (*Section 7.3*), and anticipated exam timing.



- iii. Receive DGS confirmation of external examiner and Procedural Chair of the exam committee.
- d. 2 months ahead of written proposal submission:
  - i. Identify a 2-hr time slot for the oral defense that works for all examiners and at least one observer (i.e., Advisor and/or DGS); work with Angela Rozo, EHS Program Administrator to book a small conference room for this time slot. The oral defense should be scheduled for at least 1 month after anticipated written proposal submission.
  - ii. Determine the 72-hr written exam time slot with the exam committee; the written exam should be taken 1-2 weeks ahead of the oral defense and should not be due during the same work week as the oral defense.
- e. Submit final written dissertation proposal (by July 31 of Year 2) to Advisor, DGS, and Procedural Chair of qualifying exam committee (*Section 7.4*).
- f. ~2-4 weeks after proposal submission: Receive the written exam from the Chair of the exam committee at the pre-arranged start time. Return completed exam to the exam committee within 72 hours (*Section 7.5*).
- g. ~4-6 weeks after proposal submission: Undertake the oral defense (*Section 7.6*).
- h. Pass the qualifying exam: by December 15 of Year 3 at the latest

### 7.3 Qualifying Exam Committee

Each student has his or her own qualifying exam committee. The qualifying exam committee has four examiners and at least one observer:

#### Examiners (4)

- Three members of the dissertation committee (*see Section 8.3*). The student, based on advice from his or her advisor, selects these three examiners. The student's advisor is ineligible.
- One EHS faculty who is not a part of the dissertation committee. This is generally someone from outside the student's primary research area (e.g., representing an EHS core area outside of the student's proposed research topic). This external examiner is selected by the DGS, not by the student or their advisor. The selection occurs once the student has communicated draft aims to the DGS. The DGS is ineligible to fill this role.
- At least three of the examiners must be EHS program faculty.
- One of the examiners who is familiar with EHS qualifying exam procedures is selected by the DGS to serve as the Procedural Chair of the exam committee (guidelines described in the subsequent pages).

#### Observers (1)

- The student's Advisor.
- The DGS (when possible).

### 7.4 Written Dissertation Proposal

*Final deadline: July 31 of Year 2*

The written dissertation proposal describes the research question and the research activities that will comprise the student's dissertation (*see Section 8*). The student's Dissertation Advisor will specify the format of the dissertation proposal; generally, it will be in the form of a 6-page NIH F30/F31 research proposal, with sections for significance, innovation, and approach. Regardless of

specific format, the proposal must include a review of the relevant literature, a description of the specific research activities that will comprise the dissertation, and a discussion of how the dissertation will make a significant contribution to the field. The student is expected to consult with his or her Advisor as well as his or her Dissertation Committee members during the writing of the proposal. Final proposals are to be submitted electronically to the student's Advisor, the DGS, and the Procedural Chair of the student's qualifying exam committee.

## 7.5 Written Exam

The goals of the written exam are to test the student's:

- Ability to answer challenging, synthetic questions relevant to their dissertation research;
- Ability to integrate information across the EHS core areas of Exposure Science, Biological Mechanisms, and Population Health; and
- Depth of understanding in the core discipline of their primary focus.

The Procedural Chair organizes the student's written exam. Upon receipt of the final written dissertation proposal from the student, the Procedural Chair forwards the proposal to the other examiners. All four examiners read the dissertation proposal; should the majority deem the proposal to be unsatisfactory, then the student fails the qualifying examination. Failing the exam at this stage should be reserved for situations when the proposal has major deficiencies, e.g., for incomplete proposals.

Providing the proposal is deemed satisfactory, the four examiners create the content of the written exam. Each examiner submits questions for the written exam to the Procedural Chair. As the exam is open-book, questions are to be synthetic and open-ended. Clarification questions about specific proposal details are not encouraged. The Procedural Chair will ensure the student is not burdened with an undue number of such questions. Examiners may save such questions for the oral defense.

The number of questions can vary among examiners, often ranging from two to four multi-part questions; ultimately, each examiner is instructed to develop a set of questions that are pertinent to the dissertation proposal and that can be satisfactorily addressed in a two-and-a-half page response (as the student has 10 pages total to answer the questions from the four examiners). Each examiner is entitled to develop questions as he or she sees fit with regards to content. It is often the case that the dissertation committee members are well-suited at testing depth of understanding within the core discipline of the student's primary focus, and that the external examiner is better-suited at testing the student's ability to integrate and synthesize information across the EHS core areas.

The Procedural Chair of the exam committee consolidates the questions from all committee members, and develops a draft of the written exam, ensuring a balance among the different disciplines represented by the committee members and ensuring that questions are appropriate and not duplicative. The exam draft is sent to the DGS and the exam committee for feedback, culminating in a final version. The Procedural Chair sends the final written exam to the student on the mutually agreed upon start date of the written exam.

Guidelines for students:

- The written exam is open book. Students are not to consult with other people or receive outside help from any individual.
- The student will receive two sets of questions – the “exam” questions and a short set of “clarification” questions. The student develops written responses to both sets of questions,

however only the responses to the “exam” questions will be graded. The student should answer the clarification questions as straightforwardly as possible.

- Students may have the need to refer to previous literature when answering certain questions. Students are to provide the relevant citations in the text and a list of references as part of their response document.
- Formatting requirements of the written response are 11 point font, 1 inch margins, and maximum length of 10 pages. The list of references and responses to the clarification questions are not counted against the 10 page limit.
- The completed exam is to be submitted electronically to the DGS and to the four examiners of the qualifying exam committee no later than 72 hours after the exam is provided to the student.

Upon receipt, the four examiners read the completed exam, making notes on areas of strength and weakness demonstrated by the student, and consideration of follow-up questions that may be asked during the oral defense. Examiners do not provide written feedback to the student on the written exam and do not discuss the written exam with the student until after the oral defense.

## 7.6 Oral Defense & Grading

The goals of the oral defense are to test the student’s:

- Ability to formulate and defend a rigorous and meaningful research project.
- Knowledge and understanding of the subject area of the proposal, pertinent literature in the field of interest, and methodological issues.

All four examiners and at least one observer of the qualifying exam committee should be present. The exam is not open to the public.

The Procedural Chair of the exam committee administers the session and ensures that time limits are adhered to by the student and the examiners. The oral qualifying exam is a 1.5 to 2 hour session, comprised of the following components:

- **Oral Presentation by the Student (10 minutes):** The student presents an overview of their research question and dissertation objectives. A timer will be provided and the student must strictly adhere to the 10 minute rule.
- **Question and Answer Session with the Committee (60 minutes):** The student can expect to receive questions related to specific points in the proposal as well as on more general aspects of the subject area of the proposal, such as basic principles, methodology, or the literature. The student may also be questioned on subject areas in which weakness was demonstrated in the written qualifying exam or for which further elaboration was needed.
- **Closed Committee Discussion (20 minutes):** After the question and answer session has been completed, the Procedural Chair asks the student to leave the room. The qualifying exam committee members discuss the merits of the written exam and the oral defense. The Procedural Chair asks the student’s advisor to describe his/her input into the proposal.
- **Committee Grading:** The four examiners collectively determine the outcome of the qualifying examination, grading the written exam and the oral defense together. The possible outcomes of the qualifying exam are pass, conditional pass, and fail. After an initial discussion, the Procedural Chair distributes ballots to collect examiner scores. The ballot system is anonymous. Each examiner assigns an initial score for their assessment of the student’s performance on the qualifying exam as a whole (of both the written and oral

defense components). The scoring system is on a scale from 0 to 4, with 4 being the highest possible score, and 3 being the minimum passing grade. In addition to the numerical score, examiners assign a “Yes” or “No” for whether the student should receive a Conditional Pass; if “Yes”, the examiner should denote the potential requirement (e.g., pass on condition of rewriting parts of the proposal, taking an additional course, or some other assignment). The Procedural Chair tabulates the ballots and announces the result. The committee discusses the result and determines feedback to provide the student, including any remedial action(s) to be completed by the student.

- **Committee Feedback to the Student:** The Procedural Chair invites the student back into the room and informs the student of their grade on the qualifying exam: pass, conditional pass, or fail. The Procedural Chair provides the student with a verbal summary of feedback from the exam committee; other examiners and the observers may provide additional feedback.

If the DGS is not present at the oral defense, the Procedural Chair will forward the results of the exam (pass, conditional pass, or fail) to the DGS as soon as possible after the exam, and will communicate the proposed remedial action(s) (for students receiving a conditional pass) or the reasons for a failing grade (for students receiving a fail).

## 7.7 Outcomes

Students who pass the qualifying exam will set a meeting with their Advisor and dissertation committee to begin their dissertation research. These students are eligible to progress into candidacy (*see Section 7.8*).

Students receiving a conditional pass on the qualifying exam are required to complete remedial action to make up for deficiencies before being permitted to apply to candidacy. Students receiving a conditional pass will set a meeting with their Advisor to discuss the exam in more detail and to determine the specific actions that they will need to complete. Students, in conjunction with their advisors, will communicate the specific remedial actions planned *and* will communicate their completion to the DGS.

Students who fail the qualifying exam have the opportunity to retake the exam one time, with the intention of passing by the final deadline of December 15 of Year 3. Students who do not pass the qualifying exam by this date may be dismissed from the program.

## 7.8 Admission to Candidacy

*Due: within 3 months of completing the qualifying exam, but no later than September 15 of Year 4*

When a student receives a pass on the qualifying examination, he or she may become a candidate for the PhD degree. Candidacy is an indication of student progress in the program. Information and forms related to applying for candidacy can be found at:  
<http://www.gs.emory.edu/academics/policies/candidacy.html>.

To apply for admission to candidacy, the student completes the LGS form **Application for Admission to Candidacy** and submits the form to the DGS. The DGS works with the Program Administrator to ensure that the student has met all pre-candidacy requirements (see requirements below). Once confirmed that all pre-candidacy requirements are met, the DGS signs

and returns the form to the student to submit to LGS. LGS then affirms that requirements for candidacy are met. Students are considered “in candidacy” when the Dean of LGS has signed approved the application to enter candidacy. LGS sends an official approval to the student and the Program Administrator. Students enroll in EHS 799R Dissertation Research Credits starting the semester following being admitted into candidacy.

Application for admission to candidacy requires completion of all coursework (54 credit hours at the 500 level or above), research rotations, JPE 600, JPE in-program requirements, and TATTO 600 and 605, and receipt of a passing grade on the qualifying examination (consisting of both a written exam and oral defense). In addition, prior to submitting an application to candidacy, students must resolve any Incomplete (I) or In Progress (IP) grades and be in good standing with a minimum cumulative 2.70 GPA. TATTO 610 and JPE 610 may be completed after entering candidacy.

Students should enter candidacy as soon as all requirements have been completed, but **no later than September 15 of their fourth year** (i.e., at the start of their fourth year). Students who do not meet this deadline will be placed on academic probation, are not eligible for PDS funds, and may forfeit financial support. These sanctions will be lifted when the student enters candidacy. [Note: the candidacy deadline for students who started their programs before fall 2017 is no later than August 1 before their fifth year of study].

## 8 DISSERTATION

Upon entering candidacy, students must complete a written dissertation and a final oral defense of the dissertation to complete their degree, in addition to any remaining JPE and TATTO requirements that were not met pre-candidacy.

### 8.1 Overview

Students are encouraged to begin exploring research topics once they matriculate into the program. The DGS and EHS program faculty will help to guide the student in this search. The doctoral dissertation must meet the requirements of the Environmental Health Sciences Program and the Laney Graduate School. In particular, the dissertation must demonstrate independent and creative thought in Environmental Health Sciences. Typically, the student will publish the dissertation work as peer-reviewed manuscripts. These manuscripts do not need to be formally accepted for publication in order for a student to defend their dissertation. As indicated in the LGS catalog, "the dissertation must make an actual contribution to existing knowledge or be a fresh and significant critical interpretation of existing knowledge."

Dissertation research involves elements of hypothesis formation, study design, analysis, interpretation and summarization. A student should be involved in data acquisition specific to the hypothesis under question. For laboratory-based projects, the student must be the primary generator of data; only in rare instances will students be allowed to utilize secondary datasets for their dissertation research and only as a complement to a larger body of work.

### 8.2 Dissertation Advisor Identification

*Due: April 30 of Year 2*

Identification of an Advisor to oversee dissertation research is required early in the process of preparing for the Qualifying Examination (*Section 7*). Typically, Advisor-Advisee pairings are determined during Year 2, as students complete their last research rotations. While most students identify a single primary Advisor, the co-advising model in which students identify two primary co-advisors is also acceptable.

There are multiple facets for both students and faculty to consider, and to actively discuss, prior to confirming the Advisor-Advisee pairing, including but not limited to mutual research interest areas, available project(s) for the student to engage with, available research funding (from faculty grants or other sources) (*see Section 9.1*), agreeable work styles, expectations, trust, and support. See the following LGS mentoring guides for aspects to consider in building strong Advisor-Advisee relationships: LGS Mentoring Guide for students: <https://www.gs.emory.edu/professional-development/mentoring.html>

The Advisor becomes the student's formal advisor once the Advisor-Advisee pairing is agreed upon and officially declared through the **EHS Dissertation Advisor Agreement Form** (*Section 11.8*). This form is to be discussed in person and signed by students and their Advisors. Students are to submit the completed form to the DGS and Program Administrator at least 3 months prior to submission of their Written Dissertation Proposal or by April 30 of Year 2, whichever occurs first. Typically, students and Advisors will be prepared to submit this form earlier in Year 2.

### 8.3 Dissertation Committee

*Due: Committee Member selection occurs pre-qualifying exam; official LGS Dissertation Committee Signature form due by March 15 of Year 4*

Student research is to be supervised by a committee of advisors, with the student's Advisor typically the chair of the committee. The committee must consist of at least four qualified individuals. At least three of the members must be within the Environmental Health Sciences Program faculty. Dissertation Committee composition is determined during the development of the student's written dissertation proposal (*see Section 7.4*).

Students should discuss potential committee members with their Advisor and the DGS before asking potential committee members. See LGS requirements for dissertation committee composition and adding non-EHS and non-Emory committee members at the following link: <https://www.gs.emory.edu/academics/policies-progress/dissertation.html>.

Students are expected to meet with both their Advisor and Dissertation Committee throughout their proposal development phase and **at least once per semester**. The student, with their Advisor, selects three Committee Members to also serve on the student's qualifying exam committee (*see Section 7.3*). Tracking of the progress made during EHS 799, Dissertation Research, is done by completion of the **EHS Progress Summary & Individual Development Plan (IDP)** (*section 6.9*) and upload into the EHS Canvas site and include the information on this form as part of the meetings with dissertation committee members.

We suggest the following points to be included to the agenda for Dissertation Committee meetings:

1. Scientific Update: Summarize what you have done during your time at Emory, with emphasis on progress since the last committee meeting. This is the information you can pull from your annual IDP
2. Goals: Emphasize your general career goals and training objectives
3. Dissertation Progress: Focus on specifics of the dissertation research goals and developments

Upon completion of the qualifying exam and approved proposal, and at least by March 15 of their fourth year, students complete the **Dissertation Committee Signature Form** (<https://www.gs.emory.edu/academics/policies-progress/dissertation.html>) with signatures from their Advisor/Dissertation Committee Chair, other Committee Members, and the DGS. This form is submitted by students at the link provided on the above LGS webpage.

Upon passing the qualifying exam, students are expected to confer with their entire Dissertation Committee throughout the remainder of their time in the program. This should include regular committee meetings (once per year is required, and more frequent meetings such as once per semester are encouraged) for the student to provide updates and receive committee feedback on the research and progress being made.

## 8.4 Dissertation Requirements

### 8.4.1 Dissertation Format

The format of the dissertation shall follow Emory University guidelines and shall include a number of chapters (see <https://www.gs.emory.edu/academics/completion/submit/phd-completion.html>). Typically, the first chapter consists of an introduction to the problem, the literature review, justification and rationale for the research. Students may write dissertations in a traditional form with separate, additional chapters for: methods, results, discussion and conclusions. However, students are encouraged to include manuscripts that are suitable for publication in lieu of the results chapters (*see Authorship Guidelines for Publications section below*). This may include three or more publishable papers. If the student and Dissertation Committee agree on the manuscript option, the dissertation still needs to include the introduction, literature review and justification before the manuscript section. After the manuscripts, two additional sections should be included: an overall discussion section including strengths, limitations and conclusions of the research project and a future directions section. Details of the dissertation format are negotiable with the student's Dissertation Committee.

Students are anticipated to circulate drafts of individual chapters well in advance of the oral defense in order to solicit feedback from committee members. **Students must submit the complete written dissertation document to his or her committee at least four weeks prior to the final oral defense.** Students that are not able to meet this deadline may need to delay their defense, as determined by their Dissertation Committee.

Note that LGS has specific formatting requirements and special pages for insertion into the dissertation document prior to finalizing and submitting for graduation (*Section 8.5*).

### 8.4.2 Final Defense of Dissertation Research

The Dissertation Committee members indicate to the student when the final oral defense of the dissertation research may be scheduled. The student consults with committee members to identify a 2-hr time block during which the entire Dissertation Committee can be present and works with EHS Program Administrator to book a room for the defense. The student completes a Defense Announcement (obtain template from the PA and as appendix in this handbook) and submits it to the DGS and the Program Administrator for circulation to the EHS program. Section 8.7 provides a checklist for students coordinating their dissertation defense.

The final defense is comprised of a 45-minute oral presentation to EHS faculty, students, and guests and is followed by an open question and answer period. The public presentation is then followed by a closed-door session with the Dissertation Committee. Questions and concerns may be raised at this time with the student present. The final discussion of approval is made by the Dissertation Committee in the absence of the student; the student is then called back in for feedback and discussion of revisions and/or next steps on the dissertation.

### 8.4.3 Authorship Guidelines

To prevent the order of authorship from possibly becoming a problem, this should be determined as soon as feasible, preferably as the research begins. The student should be first author (or co- first



author) on publications of their dissertation research. The Dissertation Committee Chair is generally senior author on all publications from the dissertation (this may be second or last, depending on the Chair's preference). Manuscripts should be reviewed and approved by all authors prior to submission for publication. Persons who have made contributions to the research that are not sufficient to merit authorship should be acknowledged. Those who are acknowledged should agree to be named. If unpublished work is cited as "personal communication," the individual who communicated the information should agree to have their work cited in this way.

## 8.5 Procedures for Degree Completion and Timing

Degree completion timing, including finalizing the written dissertation and scheduling of the oral defense, is determined by the Dissertation Committee. With Dissertation Committee support, students anticipating to complete their degree in a given semester must follow LGS procedures as laid out at the following link: <http://www.gs.emory.edu/academics/completion/index.html>.

LGS sets two specific deadline dates for graduation each semester (check the above link for specific dates):

- **Degree Application Deadline (early in the semester):** In the semester of anticipated graduation, students must submit an 'Application for Degree' to LGS.
- **Graduation Requirements Deadline (mid-semester):** By this deadline, students must submit a 'Doctoral Degree Completion Report' with DGS signature, a Dissertation Approval Page with original committee member signatures, an Electronic Theses and Dissertations (ETD) Repository Submission Agreement, upload the final dissertation to the ETD system (*Section 8.6*), and print certificates of completion for one or two online exit surveys.

The 'Submitting your Thesis or Dissertation.docx' document on the LGS website (<http://www.gs.emory.edu/academics/completion/index.html>) provides a detailed overview of procedures, formatting requirements, and special pages required for dissertations.

## 8.6 Electronic Dissertation Submission

All EHS PhD students are required to submit their dissertation on-line through the Emory Electronic Dissertation system. Information and submission workshop dates are located at <https://etd.library.emory.edu/>. Students are encouraged to attend a training workshop. Under the "Access Restriction" section, all EHS PhD students should select "6-year embargo" until further notice.

## 8.7 Defense Coordination Guide

### Step 1: Set a date and reserve a room

*Timing: Early in the semester you plan to defend*

- Work with your Dissertation Committee to **set a date and time** that works for everyone.
- Check with Angela Roza, EHS Program Administrator ([arozo@emory.edu](mailto:arozo@emory.edu)), and DGS to **avoid schedule conflicts**.
- Work with Angela to **reserve a room** for your defense presentation. Rooms should be booked for 3 hours. You can also have a hybrid presentation using Zoom. You are responsible for reserving a Zoom meeting and providing Angela with the link.
- Request AV assistance** from RSPH IT Helpdesk:  
[https://www.sph.emory.edu/prospective\\_students/admitted\\_students/resources/rsph-technology/contact-it.php](https://www.sph.emory.edu/prospective_students/admitted_students/resources/rsph-technology/contact-it.php)

**Step 2: Create a flyer to advertise your defense**

*Timing: At least 3 weeks before defense date*

- Create a flyer** to advertise your defense presentation.
- Use the **EHS Dissertation Defense Flyer Template** posted in the EHS Canvas site under EHS: Defense Coordination (*also attached here in Section 11.9*).
- Send to DGS and Committee Chair to **obtain approval**.
- Send to Angela ([arozo@emory.edu](mailto:arozo@emory.edu)), at least 3 weeks before your defense date.
- Angela will **publicize your defense** at least 2 weeks before your defense date, by sending the flyer to EHS students, EHS faculty, the RSPH Public Health Sciences PhD Coordinator, the LGS communications manager, and by posting it on the GDEH Facebook page.

**Step 3: View the Degree Completion LGS webpage** for degree completion and dissertation submission: <http://www.graduateschool.emory.edu/academics/completion/index.html>

**Step 4: Apply for a Degree**

**Step 5: Prepare your Dissertation for Submission in Emory the ETD system**

- Attend an ETD submission training workshop** via the Emory Library (view calendar here: <http://web.library.emory.edu/news-events/upcoming-classes.html>)

## 9 SELECT LGS AND EHS PROGRAM-SPECIFIC POLICIES

For a complete list of LGS policies, see the **LGS Handbook** at <http://gs.emory.edu/handbook/>, which covers LGS policies on [Academic Affairs](#), [Financial Information](#), [Honor, Conduct, and Grievance](#), and other [Selected University Policies](#).

### 9.1 Financial Support and Student Fees

Students registered as full-time students (9 credit hours/semester) receive the following financial support:

- A **tuition scholarship** from LGS, covering full tuition for three terms per year. Students' tuition scholarship may be renewed for a total of 7 full years of funding. Students who enroll in an 8<sup>th</sup> year or beyond are responsible for some tuition.
- A **stipend** in the amount of \$ \$31,775 (as of the 2021-2022 academic year). Stipends are paid in 12 monthly installments on the last business day of each month, starting in September. As long as students are making good academic progress, students' stipend may be renewed for a total of up to 5 years of funding. During Years 1-2, stipends are typically funded by institutional funds from LGS or NIH training grants. During Years 3+, funding for the stipend portion come from a variety of sources, including fellowships awarded to the student, mentor's research grants, training grants, or assistantships. During these years, students are expected to take an active role in helping to secure funding.
- A **health insurance subsidy** from LGS that covers 100% of the cost of Emory's student health insurance.

Students are responsible for a set of **Student Fees** each semester before they reach 'tuition paid' status; some training grants cover these fees. The fees cover University activity, athletic, computer, mental health, and transcript fees. In years 4+, students are responsible for a reduced fee rate each semester. See current academic year fees in the LGS handbook:

<http://gs.emory.edu/handbook/financial-information/tuition.html>

Students on some training grants should be aware that taxes are not withheld and are advised to set aside some funds that will be owed when filing taxes. See a professional tax advisor for further guidance.

### 9.2 External Funding

Students are encouraged to seek external funding for research projects through writing grants to federal or private agencies (e.g., NIH, EPA, foundations). Students who seek external funding should discuss their plans with their Advisor and submit an **Intent to Submit Form** through Emory's Research Administration Services system (<https://redcap.emory.edu/surveys/?s=M7FE4ADH73>) to receive assistance. The DGS should also be informed of any grant submissions. Students who receive external funding are eligible for a stipend supplement from LGS. Contact the Program Administrator for details.

Students receiving their own funding must notify the program administrator and provide the eNOA (notice of award) as soon as it is received so we can submit it to the Office of Financial Aid to set up your account. Failure to submit the eNOA to us in a timely manner will delay the correct payment to your account.

### 9.3 Outside Employment

Pursuit of a doctoral degree is considered to be a full-time activity. Students enrolled in the EHS doctoral program must request special permission from the DGS and the RSPH Associate Dean of Research before accepting any outside employment. Specifically, students may work a maximum of 10 hours per week outside their regular classwork and research if the DGS and advisor grant permission. Any requests to work more than 10 hours per week (paid or unpaid) must be submitted to and approved by the RSPH Associate Dean of Research. To facilitate meeting this requirement, all students must submit information regarding any outside employment to the DGS and Program Administrator at the beginning of each semester via email.

### 9.4 Academic Calendar

EHS students follow the RSPH academic calendar. Visit the following calendars for important dates:

- **RSPH Enrollment Services:** <https://www.sph.emory.edu/rollins-life/events/important-dates/index.html>
- **Emory University Registrar's Office:** <http://www.registrar.emory.edu/Students/Calendars/index.html>

### 9.5 Registration

Students register for coursework after consultation with the DGS and the Program Administrator each semester. Students must provide a completed **EHS Course Enrollment / Registration Request Form** (*Section 11.1*) to the Program Administrator during each pre-registration period. Pre-registration begins in March for the following fall, October for the following spring, and May for the summer. All students should be registered for a minimum of 9 credit hours each semester; it is the student's responsibility to ensure they are correctly registered each semester. Below are select policies from the LGS Handbook (<http://gs.emory.edu/handbook/>); always refer to LGS for the most current policies.

### 9.6 Credit Hour Requirements

To be eligible for candidacy, students must have earned at least 54 credit hours at the 500-level or above. Students must be registered for a minimum of 9 credits each semester to maintain full-time status. During summer term, students *must* register full time (9 hours) for rotation, research credits and/or appropriate course work.

### 9.7 Drop/Add

Students may change their course schedule through OPUS during add/drop period. This period usually occurs during the first five days after courses begin in the fall and spring semesters; check the academic calendar for specific dates (*see Section 9.4*). The Program Administrator can assist, especially when adding classes outside of EHS; provide your student ID and the class/course number as necessary.

### 9.8 Course Waivers

Students may petition to waive out of a required course if they can demonstrate they have successfully completed a course with comparable competencies and learning objectives or otherwise can demonstrate sufficient knowledge in the subject matter. If approved, the student will be required to replace those hours with electives. Complete the [RSPH course petition](#), include a

copy of the course syllabus and transcript showing the grade earned, and see the Program Administrator for more information.

## 9.9 Leaves of Absence

A student in good standing may be granted up to 2 one-year leaves of absence upon recommendation of the DGS and approval of the RSPH Associate Dean for Research and the Dean of the Laney Graduate School. Students interested in taking a leave of absence should first contact the DGS. For additional information, see the LGS Handbook and this website: <https://www.gs.emory.edu/academics/policies-progress/absence.html>.

**Returning After Leaves of Absence:** A readmission form must be filled out by the student returning from a leave of absence. This may be done as early as the pre-registration period prior to the semester the student wishes to return but at least two weeks prior to registration.

## 9.10 Grades

Students may take coursework for a letter grade (A, A-, B+, B, B-, C, or F), Satisfactory/Unsatisfactory (S/U), or Audit. Required coursework must be taken as a letter grade. Graduate students may not register for undergraduate level courses as auditors. In addition, courses taken as audit credit do not count toward the 9 credit hours required for the semester or toward degree credit hour requirements.

If, upon consultation with their Advisor, the student chooses to enroll in a course with an alternate grading basis of S/U or Audit or to register for a course outside RSPH, the student must first get permission via email from the course instructor. The email approval, along with student ID number and course number, must be submitted to the Program Administrator for registration or grading basis assistance. Students must be enrolled in all courses they attend; “sitting in” a class requires registration.

EHS students must earn a grade of B- in all required program courses and ‘Satisfactory’ in all TATTO and Research Rotation requirements. Students receiving below B- in a required course or ‘Unsatisfactory’ for a TATTO role or Research Rotation will be required to repeat the course. In addition, receiving an U on any S/U course will put a student on probation for failure to meet the standards set by the Laney Graduate School.

## 9.11 Academic Performance

### 9.11.1 Emory University-Wide Standards

Emory University sets minimum standards a student must meet for satisfactory academic performance (see <http://gs.emory.edu/handbook/academic-affairs/standards/index.html>). Specifically, Emory University defines unsatisfactory academic performance as follows:

- A GPA in any semester of less than 2.7;
- Receipt of a grade of F, U, IF, or IU in any course; or
- Receipt of two or more incompletes in a semester or an incomplete in one 9 credit hour course.

### 9.11.2 EHS Program-Specific Standards

Students are expected to make continuing satisfactory progress towards graduation throughout their tenure in the doctoral program.

**During Years 1-2 pre-candidacy**, satisfactory progress is indicated by:

- Maintaining a GPA of 2.7 or higher in each semester;
- Receiving no grade lower than a B- in any required course;
- Taking no more than 1 grade of incomplete in any semester;
- Having no more than 2 grades of incomplete active at any point;
- Completing the Individual Development Plan (IDP) by April 15 (*section 6.9*) and meet with DGS for discussion; - and
- Completing the Research Rotations during each semester (fall, spring, summer) of Year 1.

**During Years 2-3 pre-candidacy**, satisfactory progress is indicated by:

- Complete the Individual Development Plan (IDP) by April 15 (*section 6.9*) and meet with DGS or Advisor for its discussion;
- Submitting a final written dissertation proposal by July 31 of Year 2;
- Passing the qualifying exam by December 15 of Year 3; and,
- Advancing to candidacy within 3 months of completing the qualifying exam. Advancing to candidacy also includes completion of all coursework, JPE 600, JPE in-program requirements, TATT 600, TATT 605, and 3 Research Rotations.

**During Years 3+ in candidacy**, students will be considered to be making satisfactory progress if they maintain steady progress towards graduation. It is difficult to place a precise timetable for progress to graduation following completion of the qualifying examination because of variability across dissertation research projects. Generally, during these years, satisfactory progress is indicated by:

- Student's research advancing in substantial, demonstrable ways each semester, documented by 'Satisfactory' grades in EHS 799R (Dissertation Research credits). In candidacy, students enroll in EHS 799R and complete the Individual Development Plan (IDP) by April 15 each year (*Section 6.9*) with their Advisor. The Advisor and DGS evaluate whether the student's research has advanced satisfactorily based on documentation in this form, and reflected by an S vs. U grade for EHS 799R.
- Meeting with the full Dissertation Committee annually, at a minimum (more frequent meetings are recommended). Discussion of the IDP should be part of the agenda on these meetings.

### 9.11.3 Academic Probation

**Students who do not meet the above standards will be deemed to have unsatisfactory academic performance and will be put on academic probation for one semester by the Laney Graduate School.** During the probationary semester, the student must receive no failing grades, must reduce the number of incompletes on his or her record to one, and must attain a cumulative GPA of at least 2.7. During the probation, the student will not be allowed to take incompletes in any courses without permission from LGS. A student who fails to meet the above conditions will be placed on probation for a second semester. When a student has two consecutive probations, the EHS program maintains the option of recommending dismissal from the program. Upon

consultation with the DGS and Advisors, students may consider transitioning to the EHS masters track during the secondary probationary semester if deemed suitable (*Section 9.14*).

## 9.12 LGS Annual Report

Students contribute to the **EHS Program's Annual Report to LGS**, usually due around July/August as requested by the Program Administrator. Specifically, students are required to report on their EHS-related activities such as presentations, publications, and awards. This reporting is in addition to the annual **EHS Progress Summary & Individual Development Plan (IDP)** that students are to complete with their Advisors each year (*Section 6.8 and Section 11.7*).

## 9.13 Completion of Degree and Graduation Process

A student approaching the end of a degree program is responsible for ensuring that all EHS program, LGS, and University requirements are met. It is the student's responsibility to be aware of and to meet all deadlines. Failure to do so may result in failure to receive the degree until the following semester. Detailed steps laid out by LGS at:

<http://www.graduateschool.emory.edu/academics/policies/completion.html>

## 9.14 Master of Science in Environmental Health Sciences

To document sufficient quantity and quality of scholarly work completed on the path towards the PhD, students may seek an interim Master of Science (MS) in EHS on the basis of doctoral candidacy. Students filing for the Masters on the basis of candidacy must obtain EHS program approval, meet all LGS and program requirements for the Masters degree (except for the thesis), and must submit a Masters degree clearance form to LGS. Students should be in candidacy prior to applying for the degree. The interim MS degree cannot be awarded retroactively, thus interested students must apply for this degree immediately upon reaching eligibility. See the following link in the LGS handbook (section B, Masters on the Basis of Candidacy):

<http://gs.emory.edu/handbook/academic-affairs/masters.html> and more detailed information here: <https://gs.emory.edu/academics/completion/submit/masters-completion.html>

With approval from the EHS Executive Committee, a MS in EHS may be awarded as a terminal Masters degree when a student does not complete the doctoral degree. Decisions will be based on an assessment of the student's academic performance as well as the quantity and quality of research completed. The student will be required to complete a thesis and comply with all other policies of the Laney Graduate School outlined in the Laney Graduate School Handbook.

## 9.15 Parental Accommodation Policy

LGS Parental Accommodation Policy is for students with substantial parenting responsibility as a result of childbirth, care of newborn, or a newly adopted child. This policy guarantees PhD students a minimal level of accommodation during the transition of parenthood. For more information on the policy, eligibility requirements, and application procedure, see the following link:

<http://gs.emory.edu/handbook/academic-affairs/standards/parental-accommodations.html>

## 9.16 Student Support Services

Graduate school can be a stressful time on your body and mind. Be sure you are taking care of yourself. Reach out to your Faculty Advisor, DGS and/or Program Administrator with concerns and challenges. Visit the LGS and LGS/GDBBS support pages for links to all student support services available to you:

- <http://www.gs.emory.edu/guides/students/support.html>
- <https://secure.web.emory.edu/biomed/intranet/students/Resources%20for%20Students.html>

### **9.17 Office of Accessibility Services (OAS)**

“Emory provides all persons an equal opportunity to participate in and benefit from programs and services afforded to others. The Office of Accessibility Services, part of the Office of Equity and Inclusion, assists qualified students, faculty and staff with obtaining a variety of services and ensures that all matters of equal access, reasonable accommodation, and compliance are properly addressed.” OAS “is committed to providing access to campus resources and opportunities to allow students with disabilities to obtain a quality educational experience.” Qualified students need to register with OAS and make a request for services; see the OAS website for more information: <http://accessibility.emory.edu/students/index.html>. Confidentiality is honored and maintained throughout the process.

### **9.18 Grievance Policy**

Students with grievances related to some aspect of their program in Environmental Health Sciences should make efforts to initially address it with the DGS. The student should describe the grievance and relevant details in a letter to the DGS, who will try, if possible, to resolve the grievance in conversation with the student and relevant parties. If this is not successful, the DGS will appoint a committee consisting of three EHS program faculty members (or faculty members outside EHS, if the situation warrants) who will review the grievance and propose an appropriate response. The committee will be structured to avoid any conflict of interest. If the DGS is involved with the particular case, then an initial letter should go to the Chair of the Environmental Health Department to review the grievance and appoint a committee. If it is impossible to resolve the grievance within this committee or within the framework of the EHS administrative structure, or if the student wishes to appeal the decision of the committee, the DGS or Department Chair will forward the grievance to the Office of the Senior Associate Dean of the Laney Graduate School. From this point forward, the grievance will be handled according to the Grievance Procedure outlined in the Laney Graduate School Handbook (<http://gs.emory.edu/handbook/honor-conduct-grievance/grievance.html>).

### **9.19 OMBUDS Office**

The Emory Ombuds Office is a confidential, safe space where you can discuss issues and where those communications are kept confidential to the fullest extent possible. A resource for faculty, staff, and students, we invite Emory community members at every level to bring us concerns about misunderstandings, incivility, or possible wrongdoing. Our role is to promote mutual respect, civility, and ethical conduct, and to alert university leadership to concerns that might justify policy changes. For more information and how to contact the office go here: <https://ombuds.emory.edu/>

### **9.20 The Hatchery, Center for Innovation**

The Hatchery supports student innovators and entrepreneurs from all Emory schools, and covers all stages of innovation from inspiration and learning to projects and startups. For more information see here: <https://hatchery.emory.edu/index.html>



## **10 APPENDICES**

## 10.1 EHS Milestone Timeline

Milestone	Organizer	Where to Find it and/or What to Do...	Due Date
<b>Year 1-2: Pre-Candidacy Milestones</b>			
EHS Coursework	EHS	See Section 6.1; 54 credits required to enter candidacy	End of Year 2
JPE 600	LGS	See Section 6.2	Start of Year 1 or 2
JPE 610 Workshops	LGS	See Section 6.2; at least 4 workshops required	End of program
TATT 600	LGS	See Section 6.3; August class, required prior to completing TATT 605; register with fall classes	In August of Year 1 or 2, prior to TATT 605
TATT 605	EHS	See Section 6.3 and form in Section 11.2; request TA preferences via Program Administrator each semester	Year 1 or Year 2, must be pre-candidacy
TATT 610	EHS	See Section 6.3 and form in Section 11.2; request TA preferences via Program Administrator each semester	Generally, pre-candidacy, but can complete after
ELSP	LGS	See Section 6.4; English Language Support Program for those whose first language is not English	Testing prior to Year 1; follow-up courses may be needed
CITI	EHS	See Section 6.6	Summer prior to matriculation
Research Rotations	EHS	See Section 6.7 and forms in Sections 11.3; 3 rotations required; start networking and setting up prior to matriculation and/or during Year 1	Each semester in Year 1
Pre-Candidacy Research	EHS	See Section 6.8 and form in Section 11.6; register each semester necessary (variable credit 1-9 credits)	After coursework and in summers pre-candidacy
Program Progress & IDP	EHS	See Section 6.9, and form in Section 11.7	April 15 of each year in program
<b>Year 2-3: Transition to Candidacy Milestones</b>			
<b>Pre-Qualifying Exam</b>			
Dissertation Advisor Selection	EHS & LGS	See Section 8.2 and form in Section 11.8	May of Year 2
Dissertation Committee Selection	EHS & LGS	See Section 8.3; 4-6 members, with at least 3 EHS program faculty	During Qualifying Exam preparation
<b>Qualifying Exam</b>			
Coordinate the Exam	EHS	See Section 7.2	3-4 months ahead of oral defense
Set Up Qualifying Exam Committee	EHS	See Section 7.3; three members of Dissertation Committee plus 1 external member selected by DGS	3-4 months ahead of oral defense
Written Dissertation Proposal	EHS	See Section 7.4; submit final version electronically to Advisor, DGS, and Chair of Qualifying Exam Committee	July 31 of Year 2
Written Exam	EHS	See Section 7.5; submit electronically to DGS and Qualifying Exam Committee	72 hours after receiving the exam
Oral Defense	EHS	See Section 7.6	Within 1-2 weeks of written exam

Milestone	Organizer	Where to Find it and/or What to Do...	Due Date
<b>Post Qualifying Exam</b>			
Admission to Candidacy	LGS	See Section 7.8 and form on LGS website; submit candidacy form	Within 3 months of qualifying exam; no later than Sept. 15 of Year 4
Make Dissertation Committee Official	LGS	See Section 8.3 and form on LGS website; submit Dissertation Committee form	Upon passing qualifying exam; by March 15 of Year 4
<b>Year 4+: Degree Completion Milestones</b>			
Candidacy Research	EHS	See Section 6.8, with agreement forms in handbook	Prior to start of each semester
Become familiar with degree completion process	EHS & LGS	See Section 9.13	
Check you've fulfilled program and LGS requirements	EHS & LGS	OPUS – Degree Tracker	
Pay all applicable fees	LGS	OPUS	
Submit your Degree Application	LGS	See Section 9.13 and registrar form or via OPUS	Early Semester of Graduation
<b>Defense Requirements</b>			
Coordinate the Defense	EHS	See Section 8.7	
Attend copyright and intellectual property info session	LGS	See LGS calendar or Woodruff Library Class Calendar	If you haven't already
Attend info session for submitting ETD	LGS	<a href="http://web.library.emory.edu/news-events/upcoming-classes.html">http://web.library.emory.edu/news-events/upcoming-classes.html</a>	At least 2 months before graduation
Create a flyer for your defense presentation	EHS	See form in Section 11.9; obtain Advisor and DGS approval and then forward to EHS PA for distribution	Angela to disperse at least 2 weeks before defense
Defense Presentation	EHS	See Section 8.4.2; public seminar, along with closed committee session	
Submit Dissertation	LGS	<a href="#">LGS Degree Completion Webpage for ETD</a>	Early in the month before graduation
<b>Congrats on Completing your EHS PhD. See you at Graduation!</b>			

## 10.2 EHS Curriculum

### 10.2.1 EHS Program Required Courses

All Emory Courses are listed here: <https://atlas.emory.edu/>

COURSE #	TITLE	SEMESTERS OFFERED	SUGGESTED YEAR(S)	CREDITS
<b>RSPH &amp; LGS Requirements</b>				
PUBH 700	Public Health Foundations (only for students without a previous MPH from a CEPH accredited institution)	Fall	1	0
PUBH 701	Public Health Research: Discovery to Practice	Fall	1	1
JPE 600/610	Program for Scholarly Integrity Core Course <i>(LGS enrolls students during the class/workshops)</i>	Fall (August, one day course)	1	0
TATT 600	TATTO Training	Fall (August, two days course)	1 or 2	1
TATT 605	Teaching Assistantship – Enroll under EHS	Spring	1 or 2	2
TATT 610	Teaching Associateship – Enroll under EHS <i>(can be completed after candidacy)</i>	Fall or Spring	2 or later	2
<b>EHS Core Area: Exposure Science</b>				
EHS 710	Advanced Laboratory & Field Methods in Exposure Science	Spring, Alt Years (will be offered Sp 2022)	1 or 2	2
<b>EHS Core Area: Biological Mechanisms of Susceptibility and Disease</b>				
EH 520*	Human Toxicology	Fall	1	3
EHS 740	Molecular Toxicology <i>(Pre-req. EH 520 or instructor permission)</i>	Spring	2	2
<b>EHS Core Area: Environmental Determinants of Population Health (recommended courses beyond required are at the end of document)</b>				
EH 524*	Risk Assessment I	Fall	2	2
EPI 530*	Epidemiologic Methods I with Lab	Fall	1	4
	<i>Students must also take <b>one</b> of the following:</i>			
EH 530*	Environmental & Occupational Epidemiology	Spring	1	2
	<i>Or</i>			
EPI 535	Designing & Implementing Epidemiologic Studies (Prereq: EPI 530)	Spring	1	2
	<i>Or</i>			
EPI 540	Epidemiologic Methods II (Prereqs: EPI 530, BIOS 500, EPI 534 and BIOS 591P or BIOS 501 concurrent)	Spring	1 or 2	4
	<i>Or</i>			
EPI 545*	Advanced Epidemiologic Methods II with Lab (Pre-reqs: BIOS 500/501 or equivalent, and EPI 530. BIOS 501 may be taken concurrently)	Spring	1 or 2	4
<b>Integrated Research Skills</b>				
BIOS 500 and BIOS 500L or equivalent*	Statistical Methods I and Lab	Fall	1	4

COURSE #	TITLE	SEMESTERS OFFERED	SUGGESTED YEAR(S)	CREDITS
BIOS 501 or equivalent*	Statistical Methods II and Lab	Spring	1	4
<i>Or</i>				
BIOS 506	Foundations of Biostatistical Methods	Fall	1	4
BIOS 507	Applied Regression Analysis ( <i>Pre-reqs: Coursework in statistics up to and including an introduction to simple linear regression (BIOS 506 or equivalent). Familiarity with basic concepts of probability, statistical inference, and linear algebra (e.g., matrix inversion, some matrix algebra) )</i> )	Spring	1	4
<i>Or</i>				
BIOS 508	Biostatistical Methods	Fall	1	2
BIOS 509	Applied Linear Models (Prereq: BIOS 508 or equivalent)	Spring	1	4
<i>Students must take BIOS 506/507 or 508/509 sequence unless BIOS 500/501 foundational sequence not completed previously. Students must also take one more METHODS course, e.g.:</i>				
BIOS 505	Statistics for Experimental Biology	Spring	2	4
BIOS 521	Applied Survival Analysis (Prereqs: BIOS 506, BIOS 507, BIOS 510 or permission of Instructor or BIOS ADAP Required)	Fall	2	2
BIOS 525	Longitudinal and Multilevel Data Analysis	Fall	2	2
BIOS 526	Modern Regression Analysis ( <i>Pre-reqs: BIOS 507 or instructor permission</i> )	Fall	2	3
BSHE 538/BSHE 539	Qualitative Methods for Research and Evaluation/Qualitative Data Analysis	Sequence Spring/Fall	Spr 1 & Fall 2	3/3
GH 522/GH 525	Qualitative Research Methods for Global Health/Qualitative Data Analysis	Sequence Spring/Fall	Spr 1 & Fall 2	3/3
<b>EHS Research Applications</b>				
EHS 600R	Research Rotation	Fall, Spring, Summer	1	2
EHS 790R	Research Design & Management	Fall, Spring	1 & 2	1
EHS 798R	Pre-Candidacy Research	Fall, Spring, Summer	2+	1-9
EHS 799R	Dissertation Research ( <i>only students in candidacy may enroll</i> )	Fall, Spring, Summer	3+	1-9

\*Pre-requisite/foundational courses

## 10.2.2 Suggested Course Sequence

COURSE #	COURSE NAME	GRADING	CREDITS#
<b>FALL 1</b>			
BIOS 500 & BIOS 500L <i>or</i>	Statistical Methods I and Lab ( <i>if not taken previously</i> )	Graded	4
BIOS 506 <i>or</i>	Foundations of Biostatistical Methods	Graded	4
BIOS 508	Biostatistical Methods	Graded	2
EHS 600R	Research Rotation	S/U	2
EHS 790R	Research Design & Management	Graded	1
PUBH 700	Public Health Foundations (*only for students without a previous MPH from a CEPH accredited institution)	S/U	0
PUBH 701	Public Health Research: Discovery to Practice	S/U	1
JPE 600	Program for Scholarly Integrity Core Course ( <i>1 day course in August prior to first semester</i> )	S/U	0
TATT 600	TATTO Training ( <i>2 days in August; Fall 1 or 2</i> )	S/U	1
Elective(s)	Elective(s) of your choice ( <i>DGS may help with selection</i> )	Graded	2+
<i>If not previously taken, the following may also be required:</i>			
EH 520*	Human Toxicology	Graded	3
EPI 530*	Epidemiologic Methods I and lab	Graded	4
<b>Semester Total:</b>			<b>~13</b>
<b>SPRING 1</b>			
BIOS 501 <i>or</i>	Statistical Methods II and Lab ( <i>if not taken previously</i> )	Graded	4
BIOS 507 <i>or</i>	Applied Regression Analysis	Graded	4
BIOS 509	Applied Linear Models (Prereq: BIOS 508 or equivalent)	Graded	4
EH 530 <i>or</i>	Envt. & Occ. Epidemiology ( <i>Prereq: EPI 530</i> )	Graded	2
EPI 545	Advanced Epi. Methods II	Graded	3
EHS 600R	Research Rotation	S/U	2
EHS 710	Advanced Laboratory & Field Methods in Exposure Science	Graded	2
EHS 790R	Research Design & Management	Graded	1
TATT 605	Teaching Assistantship ( <i>or in Year 2</i> )	S/U	2
<b>Semester Total:</b>			<b>~14</b>
<b>SUMMER 1</b>			
EHS 600R	Research Rotation	S/U	2
EHS 798R	Pre-Candidacy Research	S/U	7
<b>Semester Total:</b>			<b>9</b>
<b>FALL 2</b>			
TATT 600	TATTO Training ( <i>2 days in August, if not completed in Fall 1</i> )	S/U	2
TATT 605	Teaching Assistantship ( <i>if not completed in Year 1</i> )	S/U	2
EHS 790R	Research Design & Management	Graded	1
EHS 798R	Pre-Candidacy Research	S/U	1-9
Elective(s)	Elective(s)	Graded	2+
<i>If not previously taken, the following may also be required:</i>			
EH 524*	Risk Assessment	Graded	2
<b>Semester Total:</b>			<b>~12</b>
<b>SPRING 2</b>			
EHS 760	Advanced Risk Assessment	Graded	2
EHS 740	Molecular Toxicology	Graded	3
EHS 790R	Research Design & Management	Graded	1
EHS 798R	Pre-Candidacy Research	S/U	1-9
TATT 610	Teaching Associateship	S/U	2

COURSE #	COURSE NAME	GRADING	CREDITS#
Elective(s)	Elective(s)	Graded	2+
<b>Semester Total:</b>			<b>~12</b>

<b>SUMMER 2</b>			
EHS 798R	Pre-Candidacy Research ( <i>Qualifying Exam preparation and/or completion</i> )		9
<b>Semester Total:</b>			<b>9</b>
<b>FALL 3</b>			
EHS 798R <i>or</i>	Pre-Candidacy Research ( <i>Qualifying Exam completion</i> )		9
EHS 799R	Dissertation Research ( <i>if Qualifying Exam completed previous semester and candidacy form approved by LGS</i> )		9
<b>Semester Total:</b>			<b>9</b>
<b>SPRING 3 AND EACH</b>	<b>SEMESTER UNTIL GRADUATION</b>		
EHS 799R	Dissertation Research		9
<b>Semester Total:</b>			<b>9</b>

#Must be enrolled in a minimum of 9 credits/semester to be full-time

\*Pre-requisite/foundational courses

### 10.2.3 Suggested Electives

Students are free to choose electives in advanced coursework other than those listed below with approval from the DGS.

**GDBBS (IBS courses):** <http://staging.web.emory.edu/gdbbs-internal/students/course-listing.html>

**RSPH (EH, EHS, EPI, BIOS, GH courses):**

<http://www.sph.emory.edu/academics/catalog/index.html>

- Check the Emory University Course Atlas for course schedules and permissions: <https://atlas.emory.edu/>
- Check the course catalog for pre-requisite requirements. If a course is permission only, contact the course department's ADAP or instructors for permission, then email the permission to the Program Administrator to register you.

<u>Dept.</u>	<u>Number</u>	<u>Title</u>	<u>Semester</u>	<u>Credits</u>
BAHS	502	Human Physiology	Fall	4
BIOS	737	Spatial Analysis of Public Health Data	Spring (occasional)	2
BIOS	516	Introduction to Large- Scale Biomedical Data Analysis	Fall	1
BIOS	524	Introduction to Analytic Methods for Infectious Diseases	Spring	2
BIOS	534	Machine Learning	Spring	2
BIOS	540	Introduction to Bioinformatics	Fall	2
BIOS	544	Introduction to R programming for Non-BIOS students	Fall and Spring	2
BIOS	724	Analytic Methods for Infectious Disease Interventions	Fall	2
BSHE	555	Public Health Communication	Spring	2
EH	582	Global Climate Change: Health Impacts and Response	Fall	2
EH	583	Spatial Analysis in Disease Ecology	Fall	4
EH	523	Neurotoxicology	Spring	2
EH	570	Environmental Health Law and Policy	Spring	2
EH	571	Global Environmental Health Policy: Power, Science & Justice	Spring	2
EH	586	Advanced Seminar in Climate Change and Health: Research and Policy	Spring	2
EHS	730	Computational Systems Biology: Modeling Biological Responses	Fall	2
EHS	747	Advanced Environmental Epidemiology (cross-listed with EPI 747)	Fall	2
EHS	760	Advanced Risk Assessment	Spring	2



EHS/IBS	720	Introduction to Physiologically-Based Toxicokinetic (PBTK)/Pharmacokinetic (PBPK) Modeling	Spring	2
EHS/IBS	730/741	Computational Systems Biology: Modeling Biological Responses	Fall	2
EHS	750	Environmental Determinants of Infectious Disease	Spring	3
EPI	534	Statistical Programming SAS & R	Fall, Spring	2
EPI	535	Intro. To Designing & Implementing Epi Studies	Spring	2
EPI	545	Advanced Epidemiological Methods II	Fall	4
EPI	550	Epidemiologic Methods III SAS & R	Fall	4
EPI	560	Epidemiologic Methods IV	Spring 2021 and beyond	4
EPI	566	Vaccines and Immunization	Spring	2
EPI	743	Epidemiology of Cancer	Fall	2
EPI	761M	Introduction to Clinical and Translational Research Medicine	Occasional	
EPI	544	Epidemiology of Foodborne and Diarrheal Diseases	Fall	1
EPI	558	Global Issues in Antimicrobial Resistance	Spring	2
EPI	570	Infectious Disease Dynamics: Theories and Models	Spring	3
EPI	746	Reproductive Epidemiology	Spring	2
GH	518	Emerging Infectious Disease	Spring	2
GH	591N	Antibiotic Resistance	Occasional	
IBS	506R	Basic Mechanisms of Neurological Diseases	Spring	4
IBS	513	Virology	Spring	2
IBS	531	Introduction to Molecular & Systems Pharmacology I	Fall	4
IBS	542	Concepts in Immunology	Fall	4
IBS	555	Basic Biomedical & Biological Sciences	Fall	6
IBS	556	Principles of Basic Biomedical and Biological Sciences II	Spring	6
IBS	591	Population Biology and Evolution of Disease	Spring	4
IBS	595	Ecology	Fall (Odd years)	4

## **11 EHS PROGRAM FORMS**

The following forms are specific to the EHS Program, and attached in the sub-sections below:

- 11.1 EHS Course Registration Request Form
- 11.2 EHS TATTO Agreement & Grade Form
- 11.3 EHS Research Rotation Form Instructions
- 11.4 EHS Research Rotation Contract Form (EHS 600R)
- 11.5 EHS Research Rotation Completion Form (EHS 600R)
- 11.6 EHS Pre-Candidacy Research Hours Agreement & Grade Form (EHS 798R)
- 11.7 EHS Progress Summary & Individual Development Plan
- 11.8 EHS Dissertation Advisor Agreement Form
- 11.9 EHS Dissertation Defense Flyer Template

Throughout the program, students are also required to submit various LGS-specific forms, as described in this EHS Student Handbook and in the LGS Student Handbook, and which can be found on the LGS website: <http://www.graduateschool.emory.edu/academics/index.html>.



## 11.2 EHS TATTO Agreement & Grade Form

**Instructions: a)** This form is required when enrolling in TATT 605 and TATT 610. Due no later than three days prior to the end of drop/add each semester. Upload a scanned copy to EHS Canvas Assignments after receiving approval from your TATTO course instructor. Title the document LastName\_SemYr\_TATT6&&\_Contract.

**b)** At end of semester, complete the bottom section of the form and then request for your TATTO course instructor to complete the final section. Upload a scanned copy of the fully completed form to EHS Canvas Assignments no later than the date that grades are due for the semester. Title the document LastName\_SemYr\_TATT6&&\_Graded.

-----  
**Name:** Click here to enter text.

**Date:** Click or tap to enter date.

**Semester and Year of TATTO:** Choose an item. Click or tap to enter year.

**TATTO Level:** Choose an item.

**Class that you will TA for TATTO:** Click or tap here to enter text.

If not an EH/EHS class, specify number of credits: Choose an item. and the class meeting schedule (e.g. full semester, short course, etc.): Choose an item.

**Class instructor:** Click or tap here to enter text.

**Hours per week you will work in this role:** Click or tap here to enter text.

**Develop with Course Instructor and list here at least three detailed and measurable objectives to be evaluated at the conclusion of the semester:**

1. Click or tap here to enter text.
2. Click or tap here to enter text.
3. Click or tap here to enter text.

**For TATT 610, specify the additional teaching or leadership role you will take in this class:**

Click or tap here to enter text.

-----  
**MID-SEMESTER CHECK-IN (OPTIONAL):**

**Is the student on track to meet their objectives as outlined above?** Choose an item.

**If no, please explain:** Click or tap here to enter text.

-----  
**TO BE COMPLETED BY TATTO COURSE INSTRUCTOR AT END OF SEMESTER (SIGNATURE REQUIRED)**

**Grade earned this semester:** Choose an item.

**Did the student meet their objectives as outlined above?** Choose an item. **If no, please explain:**

Click or tap here to enter text.

**Comments:** Click or tap here to enter text.

**Course Instructor Signature:** \_\_\_\_\_ **Date:** Click or tap to enter a date.

### **11.3 EHS Research Rotation Form Instructions**

The **EHS Research Rotation Contract Form** (*Section 11.4*) must be completed and submitted prior to starting each rotation:

1. Complete and review the Contract Form with your Rotation Advisor;
2. Scan the Contract Form and upload to EHS 600 Rotation Contract Canvas Assignments.

The **EHS Research Rotation Completion Form** (*Section 11.5*) must also be completed and submitted within 10 days of completing the rotation, but no later than the date final grades are due for the semester:

1. Complete and review the Completion Form with your Rotation Advisor;
2. Scan the Completion Form and upload it to EHS 600 Rotation Completion Canvas Assignments.

Please also try to obtain a quality photograph (or several) of you in your rotation physical location of you doing your work, as well as general EHS-related photographs of your work if possible. We hope to highlight students and their experiences on the EH website, [Facebook page](#), and [Instagram account](#).

## 11.4 EHS Research Rotation Contract Form (EHS 600R)

**Instructions:** Complete this form with your Rotation Advisor. Within 10 days of starting your rotation, upload a scanned copy of the completed form to your EHS Canvas Site/Semester: EHS 600R Research Rotation Contract Form. Title the document LastName\_R[1, 2, or 3]\_Contract\_SemYr (where R 1, 2 or 3 corresponds with the rotation number); e.g. Smith\_R1\_Contract\_SemesterYear.

**Note:** The objectives of the EHS Research Rotation process is student learning and skills development. Be sure to discuss the objectives of the EHS Research Rotation process with your Rotation Advisor, and mutually agree on your specific learning objectives for this rotation. A rotation should be completed in approximately 100-150 hours (e.g., over 10-12 weeks, working 10-15 hours per week) and should be completed by the 'Anticipated Completion Date.' For more information, consult the EHS handbook.

-----  
**Student Name:** Click or tap here to enter text.

**Rotation #:** Choose an item. **Primary Competency Area of Rotation:** Choose an item.

**Semester and Year of Rotation:** Choose an item. Click or tap to enter a date.

**Rotation Advisor Name:** Click or tap here to enter text.

**List any other faculty and/or mentors that collaborated on this rotation:** Click or tap here to enter text.

**If not RSPH faculty, also list title, agency, email, and phone number of Rotation Advisor:**  
Click or tap here to enter text.

**Are you enrolled in EHS 600R this semester?** Choose an item.

**Rotation Start Date:** Click or tap to enter a date. **Anticipated Completion Date:** Click or tap to enter a date.

**Anticipated Total # of Hours Completed:** Click or tap here to enter text.

-----  
*Attach additional sheet with this information if you prefer.*

**Project Title:** Click or tap here to enter text.

**Physical Location of Rotation:** Click or tap here to enter text.

**Learning Objectives** (*what do you expect to learn, or what skills do you expect to gain, by the end of the semester? For information on how to write measurable learning objectives, click [here](#)*):

1. Click or tap here to enter text.
2. Click or tap here to enter text.
3. Click or tap here to enter text.
- 4.

**Does this rotation involve primary (original) data collection?** If so, what data collection-related activities you will be involved with (*e.g., administering surveys, interviews, etc.*)?  
Click or tap here to enter text.

-----  
*Signatures required (rotation advisor signature via e-mail acceptable).*

**Student Signature:** \_\_\_\_\_ **Date:** Click or tap to enter a date.

**Rotation Advisor Signature:** \_\_\_\_\_ **Date:** Click or tap to enter a date.

## **11.5 EHS Research Rotation Completion Form (EHS 600R)**

**Instructions:** Complete this form with your Rotation Advisor. Within 10 days of completing your rotation and no later than the date final grades are due for the semester, upload a scanned copy of the completed form to your EHS Canvas Site/Semester: EHS 600R Research Rotation Completion Form. Title the document LastName\_R[1, 2, or 3]\_Completion\_SemYr (where R 1, 2 or 3 corresponds with the rotation number); e.g. Smith\_R1\_Contract\_SemesterYear.

**Note:** Per the EHS Research Rotation process, your rotation should be completed by the 'Completion Date' in order for you to begin your next rotation or other requirements. If you and your Rotation Advisor wish to continue working together on a project that you initiated during your rotation, you may do so, if you have time in your schedule – this may be accomplished by registering for EHS 798R pre-candidacy research credits. For more information, consult the EHS handbook.

**Student Name:** Click or tap here to enter text.

**Rotation #:** Choose an item. **Primary Competency Area of Rotation:** Choose an item.

**Semester and Year of Rotation:** Choose an item. Click or tap to enter a date.

**Rotation Advisor Name:** Click or tap here to enter text.

**List any other faculty and/or mentors that collaborated on this rotation:** Click or tap here to enter text.

**Did you submit a Rotation Contract Form?** Choose an item.

**Rotation Start Date:** Click or tap to enter a date. **Completion Date:** Click or tap to enter a date.

**Total # of Hours Completed:** Click or tap here to enter text.

*Attach additional sheet with this information if you prefer.*

**Briefly discuss what was accomplished for each of your learning objectives during this rotation (e.g., what did you learn? what skills did you develop?):**

1. Click or tap here to enter text.
2. Click or tap here to enter text.
3. Click or tap here to enter text.

**During this rotation, what aspects of your learning went well?**

Click or tap here to enter text.

**What challenges in your experience with science did you encounter?**

Click or tap here to enter text.

**If you developed any products during your rotation, please list (e.g., manuscript section, presentation):**

Click or tap here to enter text.

**If this rotation involved primary data collection, describe the data collection-related activities you were involved with (e.g., administering surveys, interviews, etc.):**

Click or tap here to enter text.



**Do you have any suggestions on the logistics or structure of research rotations?**

Click or tap here to enter text.

---

**Student Signature:** \_\_\_\_\_ **Date:** Click or tap to enter a date.

---

***THIS SECTION TO BE COMPLETED BY ROTATION ADVISOR AT END OF SEMESTER (SIGNATURE REQUIRED)***

**Grade earned this semester(S/U):** Choose an item.

**Comments on student's progress on rotation** *(required for S/U grade assignment):*

Click or tap here to enter text.

**Rotation Advisor Signature:** \_\_\_\_\_ **Date:** Click or tap to enter a date.

## **11.6 EHS Pre-Candidacy Research Hours Agreement & Grade Form (EHS 798R)**

**Instructions:** a) This form is required when enrolling in EHS 798R. Due no later than three days prior to the end of drop/add each semester. Upload a scanned copy to EHS Canvas Assignments. Title the document LastName\_SemYr\_EHS798\_Agreement

b) At end of semester, complete the bottom section of the form and then request for your research hours advisor to complete the final section. Upload a scanned copy of the fully completed form to EHS Canvas Assignments no later than the date that grades are due for the semester. Title the document LastName\_EHS798\_SemYr\_Graded

-----  
**Name:** Click or tap here to enter text.

**Date:** Click or tap here to enter text.

**Semester Registering:** Click or tap here to enter text. **Level:** Choose an item.

**Number of Research Hours Registered:** Click or tap here to enter text.

**Research Hours Advisor:** Click or tap here to enter text.

**Develop with Advisor and list here at least three detailed and measurable objectives to be evaluated at the conclusion of the semester:**

1. Click or tap here to enter text.
2. Click or tap here to enter text.
3. Click or tap here to enter text.

-----  
**MID-SEMESTER CHECK-IN (OPTIONAL):**

**Is the student on track to meet their objectives as outlined above?** Choose an item.

**If no, please explain:** Click or tap here to enter text.

-----  
**STUDENT REPORTING REQUIREMENT AT END OF SEMESTER:**

**Did you meet semester objectives as outlined above?** Choose an item.

**If no, please explain:** Click or tap here to enter text.

**What specifically did you accomplish this semester?** Click or tap here to enter text.

-----  
**TO BE COMPLETED BY RESEARCH HOURS ADVISOR(S) AT END OF SEMESTER (SIGNATURE REQUIRED):**

**Grade earned this semester (S/U):** Choose an item.

**Did the student met their objectives as outlined above?** Choose an item.

**If no, please explain:** Click or tap here to enter text.

**Advisor Signature:** \_\_\_\_\_ **Date:** Click or tap to enter a date.

**Co-Advisor Signature (if applicable):** \_\_\_\_\_ **Date:** Click or tap to enter a date.

## **11.7 EHS Progress Summary & Individual Development Plan**

**Your Name:** Click or tap here to enter text

**Year in Program:** Click to select year

**Advisor's Name (if applicable):** Click or tap here to enter text

**Co-Advisor's Name (if applicable):** Click or tap here to enter text

### **Procedure:**

1. Students must submit this form by **April 15 of each year in the program.**
2. Prior to the due date, each student should:
  - a. Complete a first draft of the form.
  - b. Make an appointment with the DGS (pre-candidacy students) or faculty advisor/dissertation chair (in-candidacy students) to discuss progress in the program, professional goals, and training plans. This meeting must be in person.
  - c. Provide a completed form, along with a current CV, and previous year's form (i.e., students in Year 2 and above) to Advisor in advance of the meeting.
  - d. Revise the form as needed after the meeting.
  - e. Obtain written feedback and signature from Advisor on the final form. These may be obtained electronically.
  - f. Sign the final version.
3. Prior to the due date, each advisor should:
  - a. Meet with their students in person about this form;
  - b. Provide written feedback on student's progress to date and funding source(s).
4. Students are to submit an electronic copy to EHS Canvas Assignments no later than April 15. The document should be saved as LastName\_FirstName\_IDP\_MMDDYYYY.

### **Overview of Major Program Milestones**

<b>Milestone</b>	<b>Program Expectation</b>	<b>Completion Timing</b>	<b>Current Status</b>
<b>Written Dissertation Proposal</b>	July 31 of Year 2 (at the latest)	Enter semester & year	<input type="checkbox"/> Anticipated <input type="checkbox"/> <b>Taken not passed</b> <input type="checkbox"/> Passed
<b>Qualifying Exam</b>	December 15 of Year 3 (at the latest)	Enter semester & year	<input type="checkbox"/> Anticipated <input type="checkbox"/> <b>Taken not passed</b> <input type="checkbox"/> Passed
<b>Candidacy</b>	September 15 of Year 4	Enter semester & year	<input type="checkbox"/> Anticipated <input type="checkbox"/> <b>≥Year 4 and not in Candidacy</b> <input type="checkbox"/> Entered
<b>Dissertation Defense</b>	Spring Year 5	Enter semester & year	<input type="checkbox"/> Anticipated <input type="checkbox"/> <b>≥Year 5 and not defended</b> <input type="checkbox"/> Revision requested <input type="checkbox"/> Approved

## Research Focus & Skills

State your central research focus, and any peripheral research areas that interest you. What knowledge and skills are needed for you to achieve success in these areas?

<b>Central Research Focus</b>	<b>List Knowledge and Skill Needed for Success</b>
Click or tap here to enter text.	Click or tap here to enter text.
<b>Peripheral Research Area(s)</b>	<b>List Knowledge and Skill Needed for Success</b>
Click or tap here to enter text.	Click or tap here to enter text.

## Coursework Requirements

Course work (Due by end of Spring Year 2)	Current Status
EHS Required Coursework	<input type="checkbox"/> In progress <input type="checkbox"/> Completed <input type="checkbox"/> Received a grade below a B- in any class
Elective Coursework for Central Research Focus: Specify: Click or tap here to enter text Specify: Click or tap here to enter text Specify: Click or tap here to enter text Specify: Click or tap here to enter text Add additional rows as needed	<input type="checkbox"/> Planned <input type="checkbox"/> In Progress <input type="checkbox"/> Completed <input type="checkbox"/> Planned <input type="checkbox"/> In Progress <input type="checkbox"/> Completed <input type="checkbox"/> Planned <input type="checkbox"/> In Progress <input type="checkbox"/> Completed <input type="checkbox"/> Planned <input type="checkbox"/> In Progress <input type="checkbox"/> Completed
Elective Coursework for Peripheral Areas: Specify: Click or tap here to enter text Specify: Click or tap here to enter text Specify: Click or tap here to enter text Specify: Click or tap here to enter text Add additional rows as needed	<input type="checkbox"/> Planned <input type="checkbox"/> In Progress <input type="checkbox"/> Completed <input type="checkbox"/> Planned <input type="checkbox"/> In Progress <input type="checkbox"/> Completed <input type="checkbox"/> Planned <input type="checkbox"/> In Progress <input type="checkbox"/> Completed <input type="checkbox"/> Planned <input type="checkbox"/> In Progress <input type="checkbox"/> Completed
Credits Requirement (≥54 credit hours in 500 level or above)	<input type="checkbox"/> In progress <input type="checkbox"/> Completed
Grade Requirements	<input type="checkbox"/> GPA ≥ 2.7 <input type="checkbox"/> GPA < 2.7 <input type="checkbox"/> Current unresolved grade of incomplete <input type="checkbox"/> Received a grade of U since last IDP

## Ethics Training Requirements

Milestone	Program Expectation	Completion Timing	Current Status
JPE 600 – LGS Training	Start of Year 1 or 2	Enter semester & year	<input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet
JPE 610 – 4 LGS ethics workshops	End of Program	Enter semester & year	Workshops completed: Click to select #

## Teaching Requirements

Milestone	Program Expectation	Completion Timing	Current Status
TATT 600 – LGS Training	Start of Year 1 or 2	Enter semester & year	<input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet
TATT 605 – Teaching Assistantship	End of Spring Year 2	Enter semester & year	<input type="checkbox"/> In progress <input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet; semester planned: Enter semester & year
TATT 610 – Teaching Associateship	End of Program	Enter semester & year	<input type="checkbox"/> In progress <input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet; semester planned: Enter semester & year

## Other Requirements

Milestone	Program Expectation	Completion Timing	Current Status
<b>ELSP Requirement(s):</b> Click or tap here to enter text	Start of Year 1 <i>(English as Second Language Students Only)</i>	Enter semester & year	<input type="checkbox"/> In progress <input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet
<b>CITI Training</b>	Start of Year 1	Enter semester & year	<input type="checkbox"/> In progress <input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet

## Research Rotations

Milestone	Program Expectation	Completion Timing	Current Status
<b>Rotation 1</b> Advisor: Click or tap here to enter text	Fall of Year 1	Enter semester & year	<input type="checkbox"/> In progress <input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet
<b>Rotation 2</b> Advisor: Click or tap here to enter text	Spring of Year 1	Enter semester & year	<input type="checkbox"/> In progress <input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet
<b>Rotation 3</b> Advisor: Click or tap here to enter text	Summer of Year 1	Enter semester & year	<input type="checkbox"/> In progress <input type="checkbox"/> Completed <input type="checkbox"/> Not completed yet

## Forms

LGS Forms	Current Status
<b>Candidacy Form</b> – Due in semester when requirements are met, typically upon passing the qualifying exam (see Handbook) – Signed by DGS	<input type="checkbox"/> Submitted <input type="checkbox"/> Approved by LGS <input type="checkbox"/> Eligible but not submitted <input type="checkbox"/> Year 4 or later but not eligible yet

LGS Forms	Current Status
<ul style="list-style-type: none"> <li>- Must be in candidacy ≥1 semester before completing degree</li> <li>- <b>No later than September 15th of Year 4 or August 1st of Year 5*</b></li> </ul>	<input type="checkbox"/> Pre-Year 4 and not eligible yet
<b>Dissertation Committee Form</b> <ul style="list-style-type: none"> <li>- Submitted after successful proposal defense</li> <li>- Signed by Dissertation Committee &amp; DGS</li> <li>- <b>No later than March 15th of Year 4</b></li> </ul>	<input type="checkbox"/> Submitted <input type="checkbox"/> Approved by LGS <input type="checkbox"/> <b>Post-proposal defense, committee formed but form not yet submitted</b> <input type="checkbox"/> Pre-proposal defense, committee not formed yet
<b>Degree Application</b> <ul style="list-style-type: none"> <li>- Submitted in the semester you expect to defend your dissertation</li> <li>- Must have been in Candidacy for ≥1 semester</li> <li>- <b>Check LGS for deadlines, which are typically early in the semester</b></li> </ul>	<input type="checkbox"/> Submitted <input type="checkbox"/> Planned for this Summer <input type="checkbox"/> Planned for this Fall <input type="checkbox"/> Planned for next Spring <input type="checkbox"/> Not ready yet

\*Students matriculating in 2017-2018 or later must be in Candidacy by August 1<sup>st</sup> of Year 4 to remain in good standing.

## Other Requirements and/or CV-building activities

*Expectations for these activities change over the course of your graduate career*

Activity	During training
<ul style="list-style-type: none"> <li>• Dissertation advisor identified</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Already in dissertation phase
<ul style="list-style-type: none"> <li>• Begun discussions about potential dissertation topics</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Already in dissertation phase
<ul style="list-style-type: none"> <li>• Begun discussions about potential dissertation committee members</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Already have committee formed
<ul style="list-style-type: none"> <li>• Meetings with <u>full</u> dissertation committee (recommended once/yr. minimum)</li> </ul>	How many meetings were held in the <u>past year</u> ? Click to select frequency
<ul style="list-style-type: none"> <li>• Attendance <u>in past year</u>:</li> </ul>	
<ul style="list-style-type: none"> <li>○ Departmental seminars</li> </ul>	Specify #: Click or tap here to enter text
<ul style="list-style-type: none"> <li>○ EHS journal clubs</li> </ul>	Specify #: Click or tap here to enter text
<ul style="list-style-type: none"> <li>○ Presentation at EHS journal club</li> </ul>	Specify #: Click or tap here to enter text
<ul style="list-style-type: none"> <li>○ Program sponsored training &amp; special events</li> </ul>	Specify: Click or tap here to enter text

Activity	During training
○ Student or faculty led interest groups	Specify: <a href="#">Click or tap here to enter text</a>
○ Training or events outside the program (e.g., LGS, BEST)	Specify: <a href="#">Click or tap here to enter text</a>
○ Scientific conferences	Specify: <a href="#">Click or tap here to enter text</a>
○ Grant writing course	Specify: <a href="#">Click or tap here to enter text</a>
○ Proposal writing workshop	Specify: <a href="#">Click or tap here to enter text</a>
● Honors & awards received	Specify: <a href="#">Click or tap here to enter text</a>
● Other leadership activities	Specify: <a href="#">Click or tap here to enter text</a>
● Mentorship activities (e.g., MPH students)	Specify: <a href="#">Click or tap here to enter text</a>
● Other teaching activities	Specify: <a href="#">Click or tap here to enter text</a>
● Other relevant activities (e.g., consultancies, public health practice activities, public outreach, manuscript reviewing)	Specify: <a href="#">Click or tap here to enter text</a>
Please list all (i) first author publications and (ii) co-authored publications. Provide full reference (authors, title, journal, volume:pages, year).	
<a href="#">Click or tap here to enter text.</a>	
Please list all (i) first-authored presentations at scientific conferences and (ii) co-authored publications at scientific conferences. Indicate whether poster or oral presentation. Provide full reference (authors, title, name of conference, location, and date of conference).	
<a href="#">Click or tap here to enter text.</a>	
Please list all proposals for external funding submitted <u>in past year</u> (do not include internal funding) (i) authored by you and (ii) that you contributed to. Indicate grant mechanism, and current status as Under review, Not funded, or Funded.	
<a href="#">Click or tap here to enter text.</a>	
Please list your 3-5 priority academic goals for the coming year (e.g., papers, grant proposals, scientific presentations)	
<a href="#">Click or tap here to enter text.</a>	

## Professional Goals

CAREER INTERESTS AND GOALS (Long-Term)
What are your career interests/goals? List 3-5 academic and/or non-academic careers.
<a href="#">Click or tap here to enter text.</a>
How have these interests/goals changed over the past year? What experiences have led to these changes?
<a href="#">Click or tap here to enter text.</a>
PROFESSIONAL DEVELOPMENT
For these specific careers, what skillsets, training, and accomplishments do you have that would make you a good fit for these positions?
<a href="#">Click or tap here to enter text.</a>
For these specific careers, what skillsets, training, and accomplishments do you need to develop for these positions?
<a href="#">Click or tap here to enter text.</a>

What activities are you currently involved with or planning to undertake to pursue these career goals? Please be specific about your goals in this area for the coming year. (Early in your doctoral program this might be gaining more information, in the middle it might involve gaining skillsets, training, and accomplishments, and closer to the end it might be pursuing specific opportunities.)
Click or tap here to enter text.
Are there any current barriers or challenges to your professional development?
If there are barriers or challenges, how do you plan to address them?
Click or tap here to enter text.
What assistance do you need with your professional development goals?
Click or tap here to enter text.
If you are planning to graduate in the coming year, what steps have you taken to pursue the next phase in your career? (e.g., what positions have you applied for? where have you interviewed?)
Click or tap here to enter text.

### Comments from Faculty Advisor – Required

**Advisors/DGS:** Students benefit from positive feedback and constructive comments about their progress and areas for work. Please review the above tables and discuss with the student ways to address any discrepancies between the student's standing in the program and program expectations. Ticked boxes in **red** warrant further discussion. For all students, please include brief written feedback regarding their progress to date and the objectives for the coming year.

What has been the student's overall progress in the past year?		
Click or tap here to enter text.		
What concerns do you have about the student's progress, plans, barriers, or professional development?		
Click or tap here to enter text.		
What are specific things that the student should work on in the coming year?		
Click or tap here to enter text.		
List source(s) of stipend support for the student in the <b>current academic year</b> , and planned source(s) of stipend support in the <b>coming academic year (starting September)</b> . If current source of funding concludes during the coming academic year, indicate plans for funding at its conclusion.		
<u>Current academic year funding source(s):</u> Click or tap here to enter text.		
<u>Coming academic year funding source(s):</u> Click or tap here to enter text.		
	<b>Signatures</b>	<b>Date</b>
<b>Student</b>		
<b>Advisor</b>		
<b>DGS – feedback by e-mail</b>	n/a	



## **11.8 EHS Dissertation Advisor Agreement Form**

**Student's Name:** Click or tap here to enter text

**Date:** Click or tap here to enter text

**Advisor's Name:** Click or tap here to enter text

**Co-Advisor's Name (if applicable):** Click or tap here to enter text

**Procedure:**

1. Students must submit this form **3 months prior to submission of their Written Dissertation Proposal or by April 30 of Year 2**, whichever occurs first.
2. Prior to the due date, each student should make an in-person appointment with their proposed Advisor(s) to discuss and sign this form.
3. Submit an electronic copy to EHS Canvas Assignments by April 30 of Year 2. The document should be saved as LastName\_FirstName\_AdvisingAgreement\_MMDDYYYY.

### **EHS PhD Student Responsibilities**

I acknowledge that I have the primary responsibility for the successful completion of my degree. Accordingly, I will:

- Be committed to my graduate education and demonstrate this by my efforts in the classroom and in research settings;
- Maintain a high level of professionalism, self-motivation, engagement, curiosity, and ethical standards;
- Meet regularly with my Advisor and provide him/her with updates on the progress and results of my activities and experiments;
- Work with my Advisor to develop a dissertation project, which will include establishing and maintaining a timeline for each phase of my work;
- Work with my Advisor to select a Dissertation Committee, which I will meet with regularly (at least once per year, as required) and be responsive to their advice and constructive criticism;
- Be knowledgeable about and comply with all requirements of the policies of my graduate program, the Laney Graduate School, and institution with both the letter and spirit;
- Maintain a detailed, organized, and accurate record of my research as directed by my Advisor; I am aware that my original notes and all tangible research data are the property of Emory University, but that I am able to take a copy of my notebooks with me after I complete my dissertation;
- Discuss budgeting of time spent on dissertation research and other professional development activities with my Advisor, and notify my Advisor and any pertinent fellow research group members in advance of any planned absences;
- Discuss policies on authorship and attendance at professional meetings with my Advisor;
- Work with my Advisor to submit all relevant research results that are ready for publication in a timely manner;
- Seek guidance from my Advisor, career counseling services, Dissertation Committee, other advisors and mentors, and any other resources available for advice on career plans; and,
- Seek external funding opportunities if available and applicable with the support of my Advisor.

### **Advisor Responsibilities**

In taking on the role of Advisor for this EHS PhD student, I acknowledge my responsibility in advising the student in the pursuit of their dissertation research and completion of their degree. Accordingly, I will:

- Aim to provide the student an environment that is intellectually stimulating, emotionally supportive, safe, and free of harassment;
- Be supportive, equitable, accessible, encouraging, and respectful, and foster the student's professional confidence and encourage critical thinking, skepticism and creativity;
- Help to plan and direct the research project of the student, set reasonable and attainable goals, and establish a timeline for completion;
- Meet with the student on a regular basis and provide resources as appropriate or according to Emory University guidelines, in order for them to conduct dissertation research;
- Be knowledgeable about, and guide the student through, the requirements and deadlines of the EHS program as well as those of Emory University;
- Help the student select a Dissertation Committee and ensure that this committee meets at least annually to review the student's progress;
- Facilitate the training of the student in complementary skills needed to be a successful researcher; these may include oral and written communication skills, grant writing, lab management, animal and human research policies, the ethical conduct of research, and scientific professionalism;
- Encourage the student to seek additional opportunities in career development training;
- Discuss authorship policies regarding papers with the student, and acknowledge the student's contributions to projects beyond their own, and work with the student to publish their work in a timely manner;
- Discuss intellectual policy issues with the student in regard to disclosure, patent rights and publishing research discoveries, when they are appropriate;
- Encourage the student to attend professional meetings and make an effort to help them secure funding for such activities;
- Provide advice and feedback to the student on career goals and the next phase of professional development after doctoral training; and,
- Assist the EHS program and student in identifying sources of stipend support during Years 3+ of their program, as directed by the Laney Graduate School.

## Acknowledgement

We, the EHS student and Advisor(s) named below, have met to discuss the above guidelines and we acknowledge our roles and responsibilities as student and Advisor, respectively.

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EHS Student Name	Signature	Date
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Advisor Name	Signature	Date
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Co-Advisor Name (if applicable)	Signature	Date
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*These guidelines are based on the Brown University's Graduate School Advising Agreement Between Graduate Students and Faculty. All material is used and adapted with permission. The content of Brown's original agreement is based on the "Mentoring Compact" published by the Graduate Research, Education and Training (GREAT) group of the American Association of Medical Colleges (AAMC), on the IDP (Individual Development Plan) developed by the Federation of American Societies for Experimental Biology (FASEB), on material developed by the National Postdoctoral Association, and on the Guide to Mentoring Graduate Students, published by the Rackham Graduate School at the University of Michigan.*

## **11.9 EHS Dissertation Defense Flyer Template**

See Section 8.7 for full instructions for coordinating a dissertation defense. Step 2 in the process is for students to create a flyer to advertise their defense.

- Use the **Dissertation Defense Flyer Template** on next page
- Send to DGS and Committee Chair to **obtain approval**.
- Send to Angela Rozo, EHS program Administrator ([arozo@emory.edu](mailto:arozo@emory.edu)), at least 3 weeks before your defense date.
- Angela will **publicize your defense** at least 2 weeks before your defense date, by sending the flyer to EHS students, EH faculty, the RSPH Public Health Sciences PhD Coordinator, the LGS communications manager, and by posting it on the GDEH Facebook page.

## Announcement of Doctoral Dissertation Defense



**EMORY**  
UNIVERSITY

*Environmental Health Sciences Graduate Program  
Laney Graduate School*

**[Your Full Dissertation Title Here]**

**[Your Full Name Here]**

**[Defense Date, e.g., Monday, September 14, 2018 at 10:00 am]**

[Defense Location: e.g., Claudia Nance Rollins Building, Room 2001]

Zoom Link:

The public is invited. (Closed committee session to follow).

An Oral Presentation of a Dissertation submitted to the Faculty of the James T. Laney Graduate School of Emory University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

**Dissertation Committee:**

[Dissertation Chair: First and Last Name, Degrees] (Chair)

[Dissertation Committee Member: First and Last Name, Degrees]

[Dissertation Committee Member: First and Last Name, Degrees]

[Dissertation Committee Member: First and Last Name, Degrees]