

Environmental Health Sciences PhD Curriculum
Emory University
Matriculation 2017

Read the Laney Graduate degree completion requirements: <http://www.gs.emory.edu/academics/completion/index.html>

Courses in italics: some students may have already had these foundation courses in their MPH program. If not already taken, the course or an equivalent is required.

EHS Required Courses

Course #	Title	Semesters Offered	Suggested Year	Credits	Semester Taken
Integrated Research Skills					
Biostatistics: It is assumed students have taken BIOS 500 and 501. If not, you must enroll in BIOS 506 and 507. At least one additional BIOS course is required for everyone. Work with the DGS to determine which course is right for you. Suggestions are below.					
OR	<i>BIOS 500 or equivalent and BIOS 501 or equivalent</i>	<i>Statistical Methods I and Lab</i>	Fall	1	4
		<i>Statistical Methods II and Lab</i>	Spring	1	4
	BIOS 506 and BIOS 507	Biostatistical Methods I (Prereq: College-level courses in Linear algebra and Calculus, SAS programming experience or concurrent enrollment in BIOS 531: SAS Programming.)	Fall	1	4
		Applied Linear Models (Prereq: BIOS 506 or equivalent; 1 yr of calculus, linear algebra, and matrix algebra)	Spring	1	4
Plus one more BIOS course, such as :					
BIOS 502	Statistical Methods III (Prereqs: BIOS 500 and BIOS 501)	Fall	2	2	
BIOS 505	Statistics for Experimental Biology	Spring	2	4	
BIOS 526	Modern Regression Analysis (Prereqs: BIOS 507 or instructor permission)	Fall	2	3	
BIOS OTHER					
Sub-total:				8-12	

EHS 600R	Research Rotation	Fall, Spring, Summer	1	2	1. 2. 3.
EHS 777R	Problem-Based Learning in EHS	Every other Spring (odd yrs)	When offered	2	
EHS 790R	Research Design & Management	Fall, Spring*	Fall & Spr 1 & 2	1	1. 2. 3. 4.
EHS 798R	Pre-candidacy Research	Fall, Spring, Summer	2+	1-12	1. 2. 3. 4.
EHS 799R	Dissertation Research (Only students in candidacy may enroll in EHS 799R)	Fall, Spring, Summer	3+	1-12	1. 2. 3. 4.

*Can take after qualifying exams.

Environmental Health Sciences PhD Curriculum
Emory University
Matriculation 2017

Course #	Title	Semesters Offered	Suggested Year	Credits	Semester Taken
EHS 701	Public Health Research: Discovery to Practice	Fall	1	1	
JPE 600	Program for Scholarly Integrity Core Course (only LGS enrolls students during the class)	Fall (August 1-day course)	1	0	
Sub-total:				Up to 29	

Biological Science					
<i>EH 520</i>	<i>Human Toxicology</i>	Fall	1	3	
EHS 740	Molecular Toxicology (Prereq. EH 520 or instructor permission)	Spring	2	2	
Sub-total:				3-6	

Exposure Science					
EHS 710	Advanced Laboratory & Field Methods in Exposure Science	Spring	1 or 2	2	
Sub-total:				2	

Population Science					
<i>EH 524</i>	<i>Risk Assessment I</i>	Fall	2	2	
<i>EPI 530, 530L</i>	<i>Epidemiologic Methods I with Lab</i>	Fall	1	4	
<i>EH 530</i>	<i>Environmental & Occupational Epidemiology</i>	Spring	1	2	
<i>EPI 534</i>	<i>Epidemiologic Methods II with Lab</i> (Prereqs: BIOS 500 and BIOS 501 (or equivalent), and EPI 530. BIOS 501 may be taken concurrently)	Spring	1	3	
Sub-total:				0-9	

OR:

Teaching					
TATT 600	TATTO Training	Fall (2 days in August)	1 or 2	1	
TATT 605	Teaching Assistantship – Enroll under EHS	Spring	1 or 2	2	
TATT 610	Teaching Associateship – Enroll under EHS	Fall or Spring	2	2	
Sub-total:				5	

List of Rotations and TATTO	Faculty/ Class/Semester/Notes
Rotation I	
Rotation II	
Rotation III	
TATTO 600	
TATTO 605	

Environmental Health Sciences PhD Curriculum
Emory University
Matriculation 2017

SUGGESTED/SAMPLE SEQUENCE

Must be enrolled a minimum of 9 credits to be full-time

<u>COURSE NUMBER</u>	<u>COURSE NAME</u>	<u>CREDITS</u>
FALL 1		
BIOS 506	Biostatistical Methods	4
EHS 600R	Research Rotation	2
EHS 790R	Research Design & Management	1
EHS 701	Public Health Research: Discovery to Practice (S/U Grading Basis)	1
JPE 600	Program for Scholarly Integrity Core Course (<i>1 day course</i>)	0
Elective(s)	Elective(s) of your choice – DGS may help with selection	2+
	Semester Sub-total:	9+
If not already taken in a master's program, the following may also be required:		
<i>EH 520</i>	<i>Human Toxicology</i>	3
<i>BIOS 500</i>	<i>Statistical Methods I and Lab</i>	4
<i>EPI 530</i>	<i>Epidemiologic Methods I and lab</i>	4
	Semester Total:	9+
SPRING 1		
BIOS 507	Applied Linear Models	4
EH 530 <i>or</i>	Envt. & Occ. Epidemiology (Prereq: EPI 530)	2
EPI 534	Epi. Methods II with Lab (also take EHS 747 in fall)	3
EH 590R	Topics in Health: Genome, Exposome and Health	3
EHS 600R	Research Rotation	2
EHS 710	Advanced Laboratory & Field Methods in Exposure Science	2
EHS 790R	Research Design & Management	1
TATT 605	Teaching Assistantship (<i>or in year 2</i>)	2
	Semester Total:	9+
SUMMER 1		
EHS 600R	Research Rotation	2
EHS 798R	Pre-candidacy Research	7
FALL 2		
TATT 600	TATTO Summer Course (2 days in August) <i>if not already done in fall 1</i>	2
TATT 605	Teaching Assistantship <i>if not already done in yr 1</i>	2
EHS 790R	Research Design & Management	1
EHS 798R	Pre-candidacy Research	1-12
Electives	Electives	2+
If not already taken in a master's program, the following may also be required:		
<i>EH 524</i>	<i>Risk Assessment</i>	2
	Semester Total:	9+

Environmental Health Sciences PhD Curriculum
Emory University
Matriculation 2017

<u>SPRING 2</u>		
EHS 760	Advanced Risk Assessment	2
EHS 740	Molecular Toxicology	2
EHS 777R	Problem-Based Learning in EHS*	2
EHS 790R	Research Design & Management	1
EHS 798R	Pre-candidacy Research	1-12
TATT 610	Teaching Associateship	2
Electives	Electives	
	Semester Total:	9+
<u>SUMMER 2</u>		
Comprehensive Exams		
EHS 798R	Pre-candidacy Research	9
<u>FALL 3</u>		
EHS 799R	Dissertation Credits	
		12
<u>SPRING 3</u>		
EHS 799R	Dissertation Credits	
		12
<u>SUMMER 3</u>		
RES 999	In Residence	12

*Will change years depending on when offered.

Environmental Health Sciences PhD Curriculum
Emory University
Matriculation 2017

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>

<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
EH	582	Global Climate Change: Health Impacts and Response	Fall	2
EH	583	Spatial Analysis in Disease Ecology	Fall	4
EH	590R	Computational Systems Biology: Modeling Biological Responses	Fall	2
EH	590R	Topics in Health; Genome, Exposome, and Health	Varies	2
EHS	747	Advanced Environmental Epidemiology (cross-listed with EPI 747)	Fall	2
EHS	760	Advanced Risk Assessment	Spring	2
EPI	738	Advanced Epidemiologic Methods I	Spring	2
EPI	533	Programming in SAS	Fall, Spring	1
EPI	566	Vaccines and Immunization	Spring	2
EPI	739	Advanced Epidemiological Methods II	Fall	2
EPI	740	Epidemiological Modeling	Fall	3
EPI	743	Epidemiology of Cancer	Fall	2
EPI	761M	Introduction to Clinical and Translational Research Medicine	Occasional	
GH	518	Emerging Infectious Disease	Spring	2
GH	591N	Antibiotic Resistance	Occasional	
IBS	505	Human and Molecular Genetics		
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	536	Drug Metabolism and Toxicology	Spring	2
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
IBS	717	Neuropharmacology		
IBS	769R	Foundations of Disease Ecology		

Environmental Health Sciences PhD Curriculum
Emory University
Matriculation 2017

Check on the Enrollment Services internal course schedules for course schedules and permissions:
<http://www.sph.emory.edu/rollins-life/enrollment-services/index.html>

- 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 EH ADAP to register you.
- Complete CITI Training Certificate (via IRB website: <http://www.irb.emory.edu/>)
 - Provide EH ADAP with certificate of completion