

Fay W. Boozman College of Public Health
 PhD concentration in Environmental Health Sciences

Program Director: Dr. Gunnar Boysen
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Advisee's Name	Student ID Number	Faculty Advisor																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 20%;">Completion Date</th> </tr> </thead> <tbody> <tr> <td>PLAGIARISM</td> <td></td> </tr> <tr> <td>Certification Test</td> <td></td> </tr> <tr> <td>WRITING</td> <td></td> </tr> <tr> <td>Skills Certification</td> <td></td> </tr> <tr> <td>IPE EXPOSURE</td> <td></td> </tr> <tr> <td>Exposure Workshop</td> <td></td> </tr> <tr> <td>Bridge Transition</td> <td></td> </tr> </tbody> </table>		Completion Date	PLAGIARISM		Certification Test		WRITING		Skills Certification		IPE EXPOSURE		Exposure Workshop		Bridge Transition		<p>Plagiarism Training Requirement: All students in the COPH must adhere to the highest standards of professional and ethical conduct. Among these standards is the recognition that student written work must be original and appropriately cited. In order to facilitate understanding of this standard, all students must complete the on-line course “How to Recognize Plagiarism: Tutorials” at https://plagiarism.iu.edu/tutorials/ and complete the Certification Test at https://plagiarism.iu.edu/certificationTests/index.html. Upon successful completion of the test, students must provide a copy of the Validation Certificate to the COPH Office of Student and Alumni Affairs at cophoffice@uams.edu. The requirement must be completed by the first day of classes.</p> <p>Writing Milestone Requirement: All degree-seeking students who enter the College of Public Health are required to complete a Writing Skills Assessment at the beginning of their first semester. The Assessment will identify strengths and weaknesses and highlight opportunities for improvement. Students who do not meet a predetermined score will be required to complete an online COPH 5000 Public Health Writing Workshop course. This course will address the fundamentals of good writing, writing with scholarly sources, revision strategies, and other topics in the interest of improving student writing skills. This is a non-credit curriculum requirement.</p> <p>IPE Curriculum Requirement: All COPH degree-seeking students are required to complete the UAMS Quadruple Aim Interprofessional Education (IPE) Program prior to graduation. According to the World Health Organization (WHO), <i>“Interprofessional Education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care.”</i> The IPE Program is noncredit hour earning and consists of several workshops and other activities. All aspects of the IPE Program must be completed prior to degree program completion as a condition of graduation. For more information on IPE, please consult the Office of Student and Alumni Affairs, the Associate Dean for Student and Alumni Affairs or visit our website: https://secure.uams.edu/cophstudent/student-handbook.aspx#ipe.</p>	
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IPE CURRICULUM FOR THE PHD IN HEALTH SYSTEMS AND SERVICES RESEARCH	
<p>1. IPE IPEC 1101 (001) EXPOSURE WORKSHOP Format/Event: Online/Distance Learner “Interprofessional Collaboration: Theory and Application at UAMS”. Timeline: Prior to 1st day of class in 1st semester. Course Association: NA Notes: Enroll 1st semester. Requirements include submitting a verification/completion form into Blackboard within 7 days of activity.</p>	<p>2. IPE IPEC 1201 (001) EXPOSURE BRIDGE TRANSITION Format/Event: Online/Distance Learner “Interprofessional Collaboration: Theory and Application at UAMS”. Timeline: Prior to 1st day of class in 1st semester. Course Association: IPE IPEC 1201-100 Notes: Enroll 1st semester. Requirements include submitting a reflection form into Blackboard within 7 days of activity.</p>
<p>IPE CURRICULUM 01/23/2023 Note: For onsite versus online/ distance options as approved events please verify with your program coordinator first. Then ensure you are registered in the correct GUS course for the delivery method (onsite v. online/distance). If you need to switch courses, you must process a course swap in GUS.</p>	

ENVIRONMENTAL HEALTH SCIENCES (REQUIRED) – 14 Credit Hours		Credits	Grade	Year	Semester
PBHL 50033	Introduction to Public Health	3			
ENVH 51103	Environmental Health Sciences	3			
ENVH 62103	Applied Knowledge in Environmental Health	3			
ENVH 63003	Principles of Toxicology for Public Health	3			
ENVH 63001 ^a	Environmental Health Science Seminar	1			
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FUNDAMENTAL BIOLOGICAL SCIENCES (REQUIRED) – 9 Credit Hours		Credits	Grade	Year	Semester
NBDS 51033	Cell Biology	3			
PHYO 51093	Gene Expression	3			
BIOC 51033	Biochemistry and Molecular Biology	3			
SCIENTIFIC COMMUNICATION (REQUIRED) – 9 Credit Hours		Credits	Grade	Year	Semester
PCOL 51171	Scientific Communication and Ethics I	1			
PCOL 51191	Scientific Communication and Ethics II	1			
HBHE 64363	Communication for Public Health Leaders	3			
PBHL 64373	Grantsmanship and the Peer Review Process	3			
IBSD 5110V	Seminar	1			
RESEARCH METHODOLOGY (REQUIRED) – 10 Credit Hours		Credits	Grade	Year	Semester
PBHL 64381	Fundamentals of Research	1			
BIOS 50133	Biostatistics I	3			
BIOS 62133	Biostatistics II	3			
ENVH 64103	Geographic Information Systems in Public Health	3			
ELECTIVES/SELECTIVES – 3 Credit Hours		Credits	Grade	Year	Semester
EPID 51103	Epidemiology I	3			
EPID 63243	Genomic/Genetic Epidemiology	3			
EPID 63353	Molecular Epidemiology	3			
ENVH 53103	Climate Change and Public Health	3			
ENVH 54003	Public Health Microbiology	3			
PRE-CANDIDACY RESEARCH (REQUIRED) – 12 Credit Hours		Credits	Grade	Year	Semester
ENVH 6601V	Environmental Health Science Research	12			
COMPREHENSIVE/QUALIFYING EXAMS – MILESTONE		P/F	Grade	Year	Semester
	Candidacy Exam				
DISSERTATION (REQUIRED) – 18 Credit Hours		Credits	Grade	Year	Semester
PBHL 6999V	Dissertation Research	18			

MILESTONE	Date
Comprehensive/qualifying exam passed	
Oral defense of dissertation proposal passed	
Oral defense of dissertation passed	

SUBSTITUTIONS (Attached approval paperwork)		Credits	Grade	Year	Semester

^aThe content of this course varies by semester.

MINIMUM TOTAL HOURS = 75

PhD in Environmental Health Sciences		
<i>At the completion of the course, students will be able to:</i>		
Competency	Learning	Assessment
Select and defend risk mitigation strategies in a specific scenario	ENVH 62103 Applied Knowledge in Environmental Health Weeks 1-5: Respiratory, Dermal, and Gastrointestinal Exposures; Pharmacokinetic Modeling; Human Activity Patterns; Experimental Design Weeks 7-11: Physical Hazards Assessment and Control	Final paper Students select an environmental hazards scenario and create a plan to a) assess and b) control or mitigate risks in the scenario by extrapolating and applying concepts that are central to the practice of environmental health. The paper is graded according to the rubric in the syllabus.
Critique research in environmental health or related disciplines	ENVH 63001 Environmental Health Sciences Seminar Research presentations by others	Research evaluation forms Students submit a form after the conclusion of regularly scheduled research seminars by internal and external speakers. The form asks the students to critique the research that was presented, including both strengths and weaknesses. Answers are graded according to the rubric in the syllabus.
Select and defend methods in environmental exposure studies	ENVH 63003 Principles of Toxicology for Public Health Week 3: Dose Response, Risk Assessment, Making Informed Decisions Week 4: Toxicity and Factors that Modify Toxic Response Week 5: Absorption of Toxicants and Models of Disposition; Distribution, Storage, and Elimination of Toxicants Week 6: Biotransformation Case Studies	Research proposal Doctoral students write a research proposal. The students are required to select a research topic, review and synthesize the relevant literature, develop a hypothesis, assess methods to test their hypothesis, and propose studies using appropriate methods in environmental exposure analysis. The paper is graded according to the rubric in the syllabus.
Synthesize and communicate scientific results	ENVH 63001 Environmental Health Sciences Seminar Annual research presentations by student	Research presentation Students present their research in the form of a departmental seminar at least once per year. Presentations are graded according to the rubric in the syllabus.
Formulate a hypothesis and testable aims to address an environmental health-related issue	PBHL 6999V Dissertation Research (individualized instruction)	Dissertation Students design and execute a research plan. At the conclusion of their studies, they submit a dissertation describing the research background, hypothesis, design, results, and implications. Their dissertation advisory committee determines by vote whether or not the document is acceptable, as described in the syllabus.