Guidelines for the Accreditation of Environmental Public Health Science and Protection Graduate Degree Programs

In Force July 2026

[Note: Degree Programs have 2 years to meet the Criteria adopted on July 13, 2024]

July 13, 2025 revisions to format (no curricula related revisions)

NATIONAL ENVIRONMENTAL HEALTH SCIENCE & PROTECTION ACCREDITATION COUNCIL (EHAC)

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I. GRADUATE ENVIRONMENTAL PUBLIC HEALTH SCIENCE AND PROTECTION DEGREE – CRITERIA

The goal of accreditation of graduate environmental public health science and protection degree programs in the U.S. or abroad by the National Environmental Health Science and Protection Accreditation Council (EHAC/Council) is to enhance the education and training of students who intend to become environmental public health science and protection practitioners/professionals. The guidelines used in program evaluation have been developed through the joint efforts of environmental public health science and protection academicians and practitioners. The intent of these guidelines is to be flexible to the extent that they support program expertise and quality, and are consistent with regional needs, while at the same time meeting the minimum criteria for graduates of an EHAC accredited program. The Council understands that the accreditation process has a regional context.

The National Environmental Health Science and Protection Accreditation Council (EHAC) recognizes that each institution has its own unique requirements and/or university-level constraints that may dictate the depth and breadth of a curriculum. The resources at hand, including the availability and qualification of faculty, will determine the areas and the degree of emphasis on specific subjects. The EHAC Council recognizes these factors and will accommodate most variations among environmental public health (EPH)* curricula. The Council also recognizes that progress toward the development of the "optimum" environmental public health curriculum requires the skillful application of imagination and creativity. The Council, therefore, welcomes the opportunity to review innovative programs and curricula in environmental public health science and protection.

**The convention 'environmental public health (EPH)' has been adopted by EHAC moving forward.*

II. EXPECTATIONS

In broad terms, students are expected to experience the complete operationalization of the risk framework (through one or multiple opportunities) as follows: identify an EPH/occupational health problem, evaluate the problem (data collection/analysis), propose/create a solution/intervention, develop an evaluation strategy for the solution, and communicate the findings to stakeholders (various audiences). Graduating students from EHAC accredited graduate programs apply critical thinking with the tools founded in evidence-based science; and apply an equity, diversity, and inclusion lens to assess, manage, and communicate risks.

III. CURRICULUM COMPONENTS

Programs will establish their own prerequisites required for acceptance to their Masters' degree track. We expect programs to require basic knowledge prerequisite courses/experiences OR co-requisite courses in the areas of the natural sciences. All graduates of accredited programs shall demonstrate sufficient knowledge and understanding of the natural science principles and practices necessary to competently assess, develop solutions, and communicate EPH and protection problems impacting the health of human populations. Students should be able to apply basic science knowledge to EPH problems. These requisites should meet the expectations of the various states' Environmental Health and/or National Environmental Health registration boards.

This knowledge of natural sciences includes biological sciences, chemistry, physical sciences, and other natural sciences, as defined by the university.

The curriculum must be responsive to the mission, goals, and objectives of the program. The curriculum must integrate all required competencies. The curriculum must be organized and structured to sequence its content in an orderly and logical fashion.

IV. COMPETENCIES

Students graduating from EHAC accredited graduate programs must demonstrate competency in each of the following:

Foundational Environmental Public Health Science:

1. Identify systems, policies, and events impacting EPH.
2. Describe the process and importance of building community and organizational relationships with stakeholders to promote community/workplace health and resilience.
3. Develop a research question and choose research and analytical methods appropriate for testing hypotheses to answer the research question.
4. Demonstrate basic knowledge of informatics within the context of EPH research, practice, and teaching.
5. Apply systems thinking concepts using a variety of frameworks (e.g., One Health, big data, social-ecological, planetary health, total worker health) to consider complex EPH problems.
6. Apply epidemiological methods and principles to assess and compare the distribution and determinants of health outcomes to measure risks associated with an environmental and/or occupational health risk.
7. Analyze toxicological concepts by applying methods such as Absorption, Distribution, Metabolism, and Excretion (**ADME**), dose-response threshold/non-threshold, and other modern techniques to evaluate potential risks from exposures to human health hazards important in EPH (Toxicokinetics Overview, EPA).
8. Apply appropriate quantitative/qualitative statistical methods to analyze data associated with an EPH problem and/or intervention.
9. Relate EPH sciences to the US CDC Essential Services.
10. Recognize the roles of implicit bias and social and environmental inequities in undermining EPH work.
11. Evaluate the scientific rigor of methods and plausibility of association/causality when reading scientific literature and applying findings to making decisions. Interpret and evaluate data from peer-reviewed and other relevant literature.
12. Apply principles of diversity, equity, inclusion, accessibility, and justice to the assessment, management, interventions, and communication of community environmental and/or workplace health risks.

Risk Assessment:

13. Execute appropriate research methods to collect, manage, analyze, and report data.
14. Identify factors that affect the environmental public health and/or occupational health of a community and/or workplace.
15. Apply the concepts of hazard identification, dose response assessment, exposure

assessment, and risk characterization for a community environmental public health and/or occupational public health problem.

16. Apply appropriate qualitative and/or quantitative methods to assess environmental public health and/or occupational health risks.

Risk Management:

17. Identify specific needs and political dynamics that impact risk management activity.
18. Apply health behavior theoretical constructs to inform risk management strategies.
19. Identify relevant risk management strategies and regulations and their relationship to the authority and responsibilities of EPH professionals.
20. Develop culturally appropriate risk management strategies for a community environmental and/or occupational health problem including planning for the assessment, implementation, and evaluation of those strategies.

Communication:

21. Apply health behavior theoretical constructs to design culturally and linguistically appropriate risk communication product(s) for diverse audiences through multiple modes.
22. Demonstrate interpersonal (written, oral, nonverbal, and listening) communication skills necessary to effectively interact with diverse audiences, including the public and professionals from within the field and outside the field to develop interdisciplinary problem-solving approaches.
23. Discern among sources and types of valid information, misinformation, and disinformation. Develop responses to each.

Technical Environmental Public Health Science Knowledge and Skills:

24. Describe environmental conditions, systems, and policies affecting community and occupational health and resilience.
25. Demonstrate general technical knowledge and skills in at least half of the EPH science areas listed in Table 1.
26. Demonstrate specialized technical knowledge and skills appropriate, at a graduate level, in at least one EPH science area listed in Table 1.

Table 1: Environmental Public Health (EPH) Science technical knowledge and skills (List not intended to be comprehensive.)

- Air Quality and Health
- All-hazard Preparedness
- Built Environment (e.g., Structural Needs, Community Needs)
- Disease Prevention and Control Measures
- Emerging Technology (e.g., Nano, Big Data)
- EPH Planning
- Food Protection
- Geographic Information Systems
- Geology including Hydrogeology and Soils
- Climate Change and Human Health

- Global EPH
- Injury and Violence Prevention
- Institutional EPH
- Occupational Health and Safety
- Radiation Health
- Recreational EPH
- Risk Modeling
- Solid and Hazardous Material and Waste Management
- Water and Wastewater
- Zoonotic and Vectorborne Diseases and Control Measures

Culminating experience:

27. Create an independent product that synthesizes learning across the curriculum. Programs shall require a culminating experience (mentored experiential learning or research - at least 180 clock hours) for their students. EHAC does not have a specific semester or quarter credit hour requirement for the culminating experience. Mentored experiential learning should be equivalent to number of clock hours spent to complete a thesis. This experience should include the production of a written piece of work of professional quality appropriate to graduate level education (e.g., thesis, capstone, professional paper, essay, case study, etc.). An oral presentation is required for the fulfillment of the culminating experience. ***The oral component can be a presentation of the written work or another professional quality presentation (e.g., a departmental seminar presentation or a professional conference presentation).*** A written exam may also be required but does not take the place of mentored experiential learning or research experience.

V. PROGRAM EXPECTATIONS BEYOND CURRICULUM COMPONENTS

A. Programs are expected to seek out experiences that connect students to EPH practice.
B. Programs are expected to have an external advisory committee (EHAC Policy and Procedures Policy 4.9). The Council leaves operational format of this committee to the institution to best fit the program needs, e.g., formal meeting, teleconference, email, etc. Input from the committee must be documented and available for Council review during the site visit.
C. Programs are expected to create or promote opportunities for students to connect with EPH practitioners (e.g., practitioner instructors/guest speakers in core classes, internship/externship/volunteer opportunities, speed mentoring with practitioners, practice-based research opportunities, etc.).
D. Programs are expected to create opportunities for students to practice and demonstrate leadership skills, including facilitation, conflict resolution, consensus building, and team and project leadership.
E. Programs are expected to create opportunities for students to demonstrate interprofessional communication skills necessary to effectively interact with professionals in other fields that support a team approach to problem solving.
F. Programs should strive to create opportunities for interested students to engage in

community partnership building, including practicing concepts important to successfully build and maintain partnerships.

G. Programs shall assess student achievement across all competencies. Programs are required to:
   1. provide a crosswalk table (template provided) that links the EHAC competencies to course or experiential learning objectives.
   2. ensure all course syllabi include learning objectives.
   3. develop a competency assessment plan that evaluates competency achievement across all students and a quality improvement plan for any needed curriculum changes identified through the evaluation.
   4. review competency achievement annually.
   5. present a summary to the external advisory committee.

H. If applicable, programs should ensure an ethical approach to community-engaged participatory research and action.

I. Students must demonstrate understanding of their program's Artificial Intelligence (AI) policy. Demonstrate the ethical use of AI in EHP practice.

VI. SELF-STUDY REPORT (please use self-study report template linked below)

Institutions seeking accreditation or reaccreditation of an environmental public health science and protection degree program shall develop a self-study report that demonstrates how the degree's curriculum meets the guidelines established by the Council. This report will present information and documentation needed by the Council in its evaluation of the degree program.

The self-study report template is to be used in preparing the self-study report and the supplementary information.

- Institutions accrediting only undergraduate degree programs will use this template:

  - Graduate Self-Study Template

- Institutions accrediting both undergraduate and graduate degree programs will use this template, if applicable:

  - Combined Undergraduate and Graduate Self-Study Template

The completed self-study report shall be submitted electronically and be preceded by a searchable Table of Contents. The pages in the main body of the self-study report shall be numbered sequentially. Each appendix shall be numbered, referenced, and linked with that number in the body of the self-study report. Your footer shall contain the page number and a link to the Table of Contents. Please do not change the formatting of the template.

The completed self-study report shall be submitted to the administrative office by December 1. Self-study reports will be returned if they do not follow required formatting requirements. Policies associated with accreditation, self-study reports, and site visits can be found in EHAC's Governing Policy in Sections 4, 5, and 6.

APPENDIX 1: GLOSSARY

Advisory Committee: Program stakeholders that advise the program on quality assurance.

ADME: Absorption, Distribution, Metabolism, and Excretion

Competency: Knowledge, skills, and abilities (KSAs) to successfully apply theories, methods, and principles.

Co-Requisite: a course that is required to be taken the same time as another course.

Core Competencies for Public Health Professionals: a consensus set of knowledge and skills for the broad practice of public health, as defined by the CDC Essential Public Health Services.

Council on Linkages Between Academia and Public Health Practice: a collaborative of 24 national organizations focused on improving public health education and training, practice, and research. Convened by the Public Health Foundation.

Cross-Cutting Knowledge and Skills: Essential knowledge and skills to span multiple disciplines and concepts. Examples include teamwork, critical thinking, and skills related to information and technology that enhance the ability to transfer and apply knowledge in a variety of settings.

Crosswalk Table: A tool that maps equivalent elements across several topics.

Culminating Experience: activity that provides students with the opportunity to synthesize knowledge and experience gained throughout their graduate coursework and internship(s). Examples are thesis, portfolio, written/oral exam, or professional paper. It is expected that all culminating experiences will have an oral presentation component.

Curriculum: *a standards-based sequence of planned experiences where students practice and achieve* proficiency in content and applied learning skills.

Domain: independent, specialized knowledge structures.

Faculty FTE (Full Time Equivalent): Equivalent to one full-time academic position. Determined by program's university.

Environmental Public Health Feedback Loop: a whole process from start to finish that includes the following steps--identify an environmental/occupational public health problem, evaluate the problem (data collection/analysis) propose/create a solution, develop an evaluation strategy for the solution, and communicate the findings to stakeholders (various audiences).

Internship: structured opportunity for *public health students to gain practical learning experience by working alongside* professionals in the field.

Knowledge: (Mirriam Webster) acquaintance with or understanding of a science, art, or technique.

Pre-Requisites: a course that must be completed before enrolling in another course.

Program Director: The person responsible for the environmental public health program who is a full-time faculty member of the university or college.

Public Health Foundation: a private, non-profit, 501(c)3 organization based in Washington, DC, whose mission is to advance the public health workforce to achieve organizational excellence. About PHF.

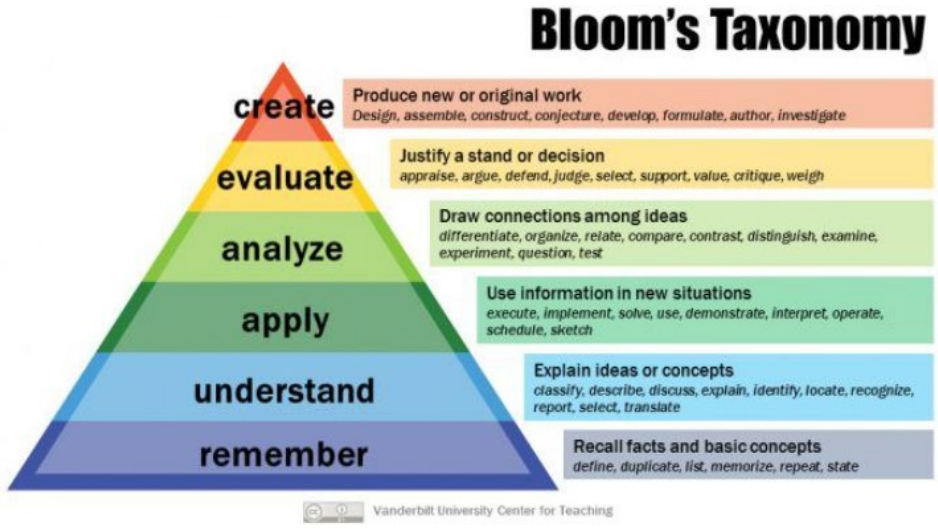
Research: Research refers to basic and applied research.

Resilient Communities: (NACCHO) *Community resilience* looks at a *community's* ability to withstand, adapt, and recover from a disaster or *public health* emergency.

Skill: (Mirriam Webster) the [repeatable] ability to use one's knowledge effectively and readily in execution or performance.

APPENDIX 2: BIBLIOGRAPHY

Blooms Taxonomy (2001). Blooms Taxonomy is a framework for categorizing educational goals: Taxonomy of Educational Objectives. EHAC Guidelines require Graduate students to be at a higher level of learning (e.g. “apply, analyze, evaluate”) than Undergraduate students (e.g. “remember, understand”).



Core Competencies for Public Health Professionals (2021). The Council on Linkages Between Academia and Public Health Practice (Council on Linkages). EHAC Graduate Guidelines are based upon the Core Competencies for Public Health Professionals that were developed by the Council on Linkages and published in 2021. The Core Competencies for Public Health Professionals are a consensus set of knowledge and skills for the broad practice of public health, as defined by the CDC Essential Public Health Services. The Core Competencies reflect foundation or **cross-cutting knowledge and skills** for professionals engaging in the practice, education, and research of public health. These competencies are organized into eight domains, representing skill areas within public health, and three tiers, which describe different types of responsibilities within public health organizations. EHAC Guidelines focus on the EPH aspects of these competencies.

10 Essential Public Health Services (Centers for Disease Control and Prevention 2020)

THE 10 ESSENTIAL PUBLIC HEALTH SERVICES

To protect and promote the health of all people in all communities

The 10 Essential Public Health Services provide a framework for public health to protect and promote the health of all people in all communities. To achieve optimal health for all, the Essential Public Health Services actively promote policies, systems, and services that enable good health and seek to remove obstacles and systemic and structural barriers, such as poverty, racism, gender discrimination, and other forms of oppression, that have resulted in health inequities. Everyone should have a fair and just opportunity to achieve good health and well-being.

Created 2020

APPENDIX 3: COURSE CROSWALK TABLE

Course Crosswalk Table - aligned with Competencies 1-27

Competency	Course or Experience	Learning objective specific to competency	Individual student assessment or deliverable	EHAC competency/Learning objective specific to competency included in syllabi?
Foundational Environmental Public Health Science				
1. Identify systems, policies, and events impacting environmental public health.				
2. Describe the process and importance of building community and organizational relationships with stakeholders to promote community/workplace health and resilience.				
3. Develop a research question and chose research and analytical methods appropriate for testing hypotheses to answer the research question.				
4. Demonstrate basic knowledge of informatics within the context of EPH research, practice, and teaching.				
5. Apply systems thinking concepts using a variety of frameworks (e.g., One Health, big data, social-ecological, planetary health, total worker health) to consider complex EPH problems.				
6. Apply epidemiological methods and principles to assess and compare the distribution and determinants of health outcomes to measure risks associated with an environmental and/or occupational health risk.				
7. Analyze toxicological concepts by applying methods such as Absorption, Distribution, Metabolism, and Excretion (ADME), dose-response threshold/non-threshold, and other modern techniques to evaluate potential risks from				

Competency	Course or Experience	Learning objective specific to competency	Individual student assessment or deliverable	EHAC competency/Learning objective specific to competency included in syllabi?
exposures to human health hazards important in EPH.				
8. Apply appropriate quantitative/qualitative statistical methods to analyze data associated with an EPH problem and/or intervention.				
9. Relate EPH sciences to the US CDC Essential Service				
10. Recognize the roles of implicit bias and social and environmental inequities in undermining EPH work.				
11. Evaluate the scientific rigor of methods and plausibility of association/causality when reading scientific literature and applying findings to making decisions. Interpret and evaluate data from peer-reviewed and other relevant literature.				
12. Apply principles of diversity, equity, inclusion, accessibility, and justice to the assessment, management, interventions, and communication of community environmental and/or workplace health risks.				
Risk Assessment				
13. Execute appropriate research methods to collect, manage, and analyze, and report data.				
14. Identify factors that affect the environmental public health and/or occupational health of a community and/or workplace.				
15. Apply the concepts of hazard identification, dose response, exposure assessment, and risk characterization for a community environmental public health and/or occupational health problem.				

Competency	Course or Experience	Learning objective specific to competency	Individual student assessment or deliverable	EHAC competency/Learning objective specific to competency included in syllabi?
16. Apply appropriate qualitative and/or quantitative methods to assess environmental public health and/or occupational health risks.				
Risk Management				
17. Identify specific needs and political dynamics that impact risk management activity.				
18. Apply health behavior theoretical constructs to inform risk management strategies.				
19. Identify relevant risk management strategies and regulations and their relationship to the authority and responsibilities of EPH professionals.				
20. Develop culturally appropriate risk management strategies for a community environmental and/or occupational health problem including planning for the assessment, implementation, and evaluation of those strategies.				
Communication				
21. Apply health behavior theoretical constructs to design culturally and linguistically appropriate risk communication product(s) for diverse audiences through multiple modes.				
22. Demonstrate interpersonal (written, oral, nonverbal, and listening) communication skills necessary to effectively interact with diverse audiences, including the public and professionals from within the field and outside the field to develop interdisciplinary problem-solving approaches.				

Competency	Course or Experience	Learning objective specific to competency	Individual student assessment or deliverable	EHAC competency/Learning objective specific to competency included in syllabi?
23. Discern among sources and types of valid information, misinformation, and disinformation. Develop responses to each.				
Technical Environmental Public Health Science knowledge and skills				
24. Describe environmental conditions, systems, and policies affecting community and occupational health and resilience.				
25. Demonstrate general technical knowledge and skills in at least half of the environmental public health science areas listed in Table 1. ** See Technical Knowledge Sheet below for completion.				
26. Demonstrate specialized technical knowledge and skills appropriate, at a graduate level, in at least one EPH area listed in Table 1. ** See Technical Knowledge Sheet/Tab below for completion.				
Culminating experience				
27. Create an independent product that synthesizes learning across the curriculum.				

*** 10 Essential Services in EPH for reference:** 1. Assess and monitor population health status, factors that influence health, and community needs and assets 2. Investigate, diagnose, and address health problems and hazards affecting the population 3. Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it 4. Strengthen, support, and mobilize communities and partnerships to improve health 5. Create, champion, and implement policies, plans, and laws that impact health 6. Utilize legal and regulatory actions designed to improve and protect the public's health 7. Assure an effective system that enables equitable access to the individual services and care needed to be healthy 8. Build and support a diverse and skilled public health workforce 9. Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement 10. Build and maintain a strong organizational infrastructure for public health

Technical Environmental Public Health Science Knowledge Areas Table

Technical Knowledge Areas (from Table 1 Technical EPH Science Knowledge and Skills)	Course or Experience	Learning objective specific to competency	Individual student assessment or deliverable	Is EHAC competency/Learning objective specific to competency included in syllabi?
Air Quality and Health				
All-hazard Preparedness				
Built Environment (e.g., Structural Needs, Community Needs)				
Disease Prevention and Control Measures				
Emerging Technology (e.g., Nano, Big Data)				
EPH Planning				
Food Protection				
Geographic Information Systems				
Geology including Hydrogeology and Soils				
Climate Change and Human Health				
Global EPH				
Injury and Violence Prevention				
Institutional EPH				
Occupational Health and Safety				
Radiation Health				
Recreational EPH				
Risk Modeling				
Solid and Hazardous Material and Waste Management				
Water and Wastewater				
Zoonotic and Vectorborne Diseases and Control Measures				