

# ENVIRONMENTAL PUBLIC HEALTH, COMPREHENSIVE MAJOR

(Code 640-001)

## University Requirements

### GRADUATION REQUIREMENTS FOR BACCALAUREATE DEGREE

Credit Requirements	
Minimum total for graduation <sup>1</sup>	120
Upper division credits (courses numbered 300 and higher)	39
Liberal Education Core ( <a href="http://catalog.uwec.edu/undergraduate/graduation-requirements/#header1">http://catalog.uwec.edu/undergraduate/graduation-requirements/#header1</a> )	36
Academic Concentrations ( <a href="http://catalog.uwec.edu/undergraduate/graduation-requirements/#header16">http://catalog.uwec.edu/undergraduate/graduation-requirements/#header16</a> )	
Grade Point Requirements ( <a href="http://catalog.uwec.edu/undergraduate/graduation-requirements/#header14">http://catalog.uwec.edu/undergraduate/graduation-requirements/#header14</a> ) <sup>2</sup>	
Total	2.00 average
Resident	2.00 average
Major	2.00 average
Minor	2.00 average
Certificate	2.00 average
University Residency Requirements ( <a href="http://catalog.uwec.edu/undergraduate/graduation-requirements/#header15">http://catalog.uwec.edu/undergraduate/graduation-requirements/#header15</a> )	
Minimum total	30
Senior year	23
Major, Standard, upper division in residence	12
Major, Comprehensive, upper division in residence	21
Certificate	25 percent of credits

### Procedures Required for Graduation

Obtain admission to the degree program and/or the College offering it.

Apply for graduation on CampS.

<sup>1</sup> Certain programs exceed this minimum.

<sup>2</sup> See special requirements in each College.

## Applicability of Credits Toward Graduation

**Junior College or Two-Year College Credits.** A maximum of 72 semester credits earned in a junior college or two-year college will be accepted as degree credits at UW-Eau Claire.

**Extension Credits.** Credits earned in credit outreach courses offered by UW-Eau Claire are treated as resident credits. Credits earned in extension courses offered by other units of the University of Wisconsin System are treated as transfer credits. All other (non-UW) extension and correspondence credits are normally limited to one-fourth of the total required for graduation from any curriculum.

**WTCS Credits.** A maximum of 72 semester credits earned in college parallel programs at Madison Area Technical College, Milwaukee Area Technical College, Nicolet Area Technical College, or Chippewa Valley Technical

College may be accepted as degree credits at UW-Eau Claire. A set number of general education courses will be accepted from other technical schools. Occupational and technical courses may also be considered for transfer if the quality and content of the course work from the technical college is judged to be comparable to course work at UW-Eau Claire. Refer to the Transfer Credit Wizard ([https://my.uwec.edu/psp/PUBLIC/EMPLOYEE/HRMS/c/EAU\\_SS\\_CUSTOM.EAU\\_TRNCRDZWZ.GBL](https://my.uwec.edu/psp/PUBLIC/EMPLOYEE/HRMS/c/EAU_SS_CUSTOM.EAU_TRNCRDZWZ.GBL)) or contact the UW-Eau Claire Admissions Office for information about the current transfer policy.

**USAFI Credit.** UW-Eau Claire will accept up to 32 semester credits for work done through the United States Armed Forces Institute, under the provision for non-UW correspondence credit (see Extension Credits above).

**Activity Credit (band, chorus, drama, KINS 100-184 courses)** Students may count toward graduation no more than one credit of KINS 110-184 courses. Students may count toward graduation no more than four credits earned in any single activity course and no more than 12 credits resulting from any combination of activity courses (excluding KINS 110-184 courses).

**Other Restricted Credits.** For other University restrictions, see the following: Cooperative Education; Credit by Examination; Satisfactory/Unsatisfactory Registration; Transfer of Credits. College or departmental restrictions may also be placed on Independent Study (399-499 courses), Directed Study (395-495), and other types of credits.

APPLICABILITY OF CREDITS TOWARD GRADUATION	Credit Restrictions
<b>Satisfactory/Unsatisfactory</b>	
Total degree credit	maximum 12
Major, Standard	maximum 1 course
Major, Comprehensive	maximum 2 courses
Minor	maximum 1 course
<b>Credit by Examination</b>	
Total degree credit	maximum ¼ of total
Major or minor	maximum ½ of total
<b>Two-Year College Credits</b>	
Total degree credit	maximum 72 credits
<b>Activity credit (band, chorus, drama, KINS 100-184)</b>	
Total KINS 100-184	maximum 1 credit
Total Band, chorus, drama	maximum 12 credits
Single course band, chorus, drama	maximum 4 credits
<b>Extension credits</b>	
UW-System	no maximum
Other extension/correspondence	maximum ¼ of total
<b>USAFI</b>	
USAFI	maximum 32 credits

## Liberal Education Core

The University of Wisconsin-Eau Claire measures learning outcomes to ensure that its graduates have achieved a liberal education and prepared themselves to contribute to a complex society. Upon graduation, each undergraduate will have met the five learning goals of our liberal education core and the 12 learning outcomes they comprise.

### LIBERAL EDUCATION CORE REQUIREMENTS a minimum of 36 credits

#### Knowledge Goal

Knowledge Outcome 1 (K1): Natural Sciences (<http://catalog.uwec.edu/undergraduate/attribute-k1/>) Two (2) learning experiences

One experience in laboratory science must be selected from either K1 or K2.

Knowledge Outcome 2 (K2): Social Sciences (<http://catalog.uwec.edu/undergraduate/attribute-k2/>) Two (2) learning experiences

One experience in laboratory science must be selected from either K1 or K2.

Knowledge Outcome 3 (K3): Humanities (<http://catalog.uwec.edu/undergraduate/attribute-k3/>) Two (2) learning experiences

Knowledge Outcome 4 (K4): Fine Arts (<http://catalog.uwec.edu/undergraduate/attribute-k4/>) One (1) learning experience

#### Skills Goal

Skills Outcome 1 (S1): Written and Oral Communication (<http://catalog.uwec.edu/undergraduate/attribute-S1/>) Two (2) learning experiences

One S1 must meet the University Writing Requirement (<http://catalog.uwec.edu/undergraduate/graduation-requirements/#header10>)

Skills Outcome 2 (S2): Mathematics (<http://catalog.uwec.edu/undergraduate/attribute-S2/>) One (1) learning experience

One S2 to meet the University Mathematics Requirement (<http://catalog.uwec.edu/undergraduate/graduation-requirements/#header11>)

Skills Outcome 3 (S3): Creativity (<http://catalog.uwec.edu/undergraduate/attribute-S3/>) One (1) learning experience

#### Responsibility Goal

Responsibility Outcome 1 (R1): Equity, Diversity, and Inclusivity (<http://catalog.uwec.edu/undergraduate/attribute-R1/>) Two (2) learning experiences

One R1 must satisfy Design for Diversity (<http://catalog.uwec.edu/undergraduate/attribute-DDIV/#header13>)

Responsibility Outcome 2 (R2): Global Perspectives (<http://catalog.uwec.edu/undergraduate/attribute-R2/>) One (1) learning experience

Responsibility Outcome 3 (R3): Civic and Environmental Issues (<http://catalog.uwec.edu/undergraduate/attribute-R3/>) One (1) learning experience

#### Integration Goal

Integration Outcome 1 (I1): Integration (<http://catalog.uwec.edu/undergraduate/attribute-I1/>) Two (2) learning experiences

Service-Learning (<http://catalog.uwec.edu/undergraduate/attribute-SL/#header13>) 30 hours

Integration Outcome 1 (I1): Integration (<http://catalog.uwec.edu/undergraduate/attribute-I1/>) Two (2) learning experiences

### Service-Learning Goal

Service-Learning (<http://catalog.uwec.edu/undergraduate/attribute-SL/#header13>) 30 hours

## College Degree Requirements Bachelor of Science in Environmental Public Health

**University Graduation Requirements.** All candidates for degrees must fulfill the requirements for credits, curriculum, GPA, and University residency as specified in the section of this catalog titled University Graduation Requirements (<http://catalog.uwec.edu/undergraduate/graduation-requirements/>).

**College Graduation Requirements: Grade Point Averages.** All candidates for degrees in the College of Arts and Sciences must earn minimum resident and total GPAs of 2.00 in the major, the minor, and the certificate. The resident and total GPAs for the major are computed using all attempted credits applicable to the major including those offered by departments other than the major department. The resident and total GPAs for the minor and certificate are computed similarly.

**Major-Minor and Major-Certificate Requirements.** A standard major (a minimum of 36 credits) must be supplemented by a minor (a minimum of 24 credits) or by a certificate (12 to 18 credits) to meet graduation requirements for completing a first and second degree program. No minor or certificate is required with a Comprehensive Major (60 or more credits) or with two majors of 36 or more credits each.

Certain degree programs, which include Comprehensive Majors, may require more than the minimum of 120 credits for graduation.

Acceptable academic program combinations are determined at the college level. A major and a minor or a major and certificate or two majors (if available) may not be elected in the same department or program, except in the approved combinations listed here (<http://catalog.uwec.edu/undergraduate/arts-sciences/#academicprogramstext>).

**College Credits.** Earn at least 90 credits in courses offered by the College of Arts and Sciences.

## Bachelor of Science in Environmental Public Health Degree in the College of Arts and Sciences (B.S.E.P.H.)

Fulfillment of all University Graduation Requirements (which includes the Liberal Education Core); all College-level degree requirements (major and minor/certificate emphases, GPAs, earning at least 90 credits in Arts and Sciences course work).

## Major Requirements

(Code 640-001)

Advisors: J. Boulter, C. Pierce, L. Suppes.

Practitioners in the field of environmental public health control environmental health hazards and preserve and improve environmental factors for the achievement of optimum health, safety, comfort, and well-being. Students gain the educational background necessary to appreciate cultural values and protect air, water, soil and food resources. Graduates are employed in

regulatory agencies and industries concerned with environmental quality and the public's health. This comprehensive major includes both foundation classes in biology, chemistry, physics, and mathematics, and specialized courses in environmental and public health, such as food and water sanitation, air pollution, industrial hygiene, vector-borne disease control, and environmental toxicology.

## Mission

The Environmental Public Health (ENPH) major provides undergraduate students with a comprehensive understanding of science and its application to protect human environmental health. The degree prepares students for careers as Environmental Health Professionals and safety specialists, integrating a scientific background, technical skills, and professional ethics.

## Goals

The ENPH major strives to prepare graduates with the knowledge, awareness, and skills to:

1. Understand the natural world through applied chemistry, biology, physics, and mathematics;
2. Identify short- and long-term hazards to human and environmental health through critical thinking;
3. Serve the public by addressing human health risks through research, communication and intervention;
4. Identify and address cross-cultural, economic, and technological barriers to serving public health interests; and
5. Demonstrate professional ethics, values, and responsibility in all areas of practice.

## Scholarships

Ten scholarships are available to students in the ENPH major. Additional information may be obtained from the faculty or by visiting the Financial Aid Website. Students are invited to participate in the Student National Environmental Health Association, the goal of which is to improve the health and well-being of people by focusing on environmental public health issues and introducing students to professional organizations.

## Practicum/Internship

The ENPH major provides students with an innovative, full-time, paid summer internship experience typically with an off-campus health-related agency or industry. The internship is typically completed during the summer months between the junior and senior year.

## Bachelor of Science in Environmental Public Health (B.S.E.P.H.)

The B.S.E.P.H. degree is accredited by the National Environmental Health Science and Protection Accreditation Council. Graduates are prepared to take the National Environmental Health Association exam for the Registered Environmental Health Specialist/Registered Sanitarian credential.

Code	Title	Credits
<b>ENPH Major Requirements</b>		
Minimum sixty-six semester credits, including:		
<b>Core Science Courses (included in the ENPH Major Designation)</b>		
BIOL 151	Biology of Humans	4
BIOL 221	Foundations of Biology I	4
CHEM 325	Organic Chemistry I with Laboratory	4
And select one of the following two courses:		3-5
BIOL 250	Microbiology	

BIOL 361	Biology of Microorganisms	
<b>Core ENPH Courses (field trips required in some courses)</b>		
ENPH 110	Introduction to Environmental Health	3
ENPH 364	Occupational Safety Management	3
ENPH 422	Radiation, Air Pollution and Health	3
ENPH 432	Preparation for Practicum	2
ENPH 435	Practicum in Environmental Public Health	3
ENPH 441	Water and Wastewater	3
ENPH 443	Microbial Safety of Food	4
ENPH 445	Hazardous and Solid Waste Management	3
ENPH 460	Fundamentals of Industrial Hygiene	3
ENPH 476	Vector-Borne Disease Control	3
ENPH 490	Environmental Toxicology and Risk Assessment	3
ENV/GEOG 377	U.S. Environmental and Sustainability Policy	3
PH 450	Epidemiology	3

<b>Elective Options</b>		
Choose two courses from the Communications/Policy category		
CJ 207	Introduction to Rhetoric and Society	
CJ 272	Social Media and Communication	
CJ 307	Small Group Communication	
CJ 357	Professional Communication	
CJ 452	Health Communication	
ECON 268	Environmental Economics	
ENGL 312	Science Writing	
ENGL 313	Technical Writing	
ENGL 409	Grant Proposal Writing	
PHIL 306	Ethics of Health Care	
PHIL 320	Environmental Ethics	
POLS 346	Public Policy in the United States	
Choose two courses from one or both of the following categories		
Human Health and Sustainability		
ENV 140	Water Problems, Water Solutions	
ENV 310	Sustainable Cities	
ENV 330	Waste & Society: Energy, Food, and Efficiency	
ENV/GEOG 378	International Environmental Problems and Policy	
GEOG 178	Planet Earth: Conservation of the Environment	
or BIOL 180	Environmental Biology and Conservation	
PH 115	Global Health	
PH/NRSG 225	Introduction to Public Health	
Technology and Science		
CHEM 213	Quantitative Analysis	
GEOG 135	Planet Earth: Our Digital Globe	
GEOG 335	Geographic Information Systems I	
PHYS 212	General Physics	
<b>Other requirements outside the major</b>		

MATH 108	Earth Algebra	
or		
MATH 109	Algebra for Calculus	
or		
Competency to enter MATH 111 A Short Course in Calculus		
MATH 246	Elementary Statistics	4
CHEM 105 & CHEM 106 & CHEM 109	General Chemistry I Lecture and General Chemistry I Laboratory and General Chemistry II with Lab	
PHYS 211	General Physics	

## Satisfactory/Unsatisfactory Policy

The only credits that may be earned under the Satisfactory/Unsatisfactory option are for Independent Study. S/U credits may not total more than three.

## Internship

An internship or practical experience is a requirement for the B.S.E.P.H. degree. Typically between the junior and senior year, each student is required to enroll in three credits of summer practicum (ENPH 435) and pay fees to the University. Students anticipating enrollment in the practicum should notify the Environmental Public Health faculty no later than February 1, and enroll in ENPH 432 the spring semester prior to their summer practicum.

## Program Learning Outcomes

Students completing this program will be expected to meet the following learning outcomes:

- Explain the scientific principles associated with environmental health hazards, risk assessment, and inequitable burden across communities.
- Apply methods to analyze environmental health hazards and risks.
- Communicate environmental health risks to the public.
- Apply and evaluate interventions to protect the public's health and foster sustainability.
- Demonstrate professional ethics, values, responsibility, and collaboration.

## Sample Degree Plan

### Environmental Public Health, Comprehensive Major, B.S.E.P.H.

The following is a sample degree plan, based on the 2023-2024 catalog. It is based on the 120-credit graduation requirement and assumes no transferred credits, no requirements waived by placement tests, no courses taken in the summer or winter, no repeated courses, and no remedial courses that may be required. This sample degree plan is intended for first-year students entering UW-Eau Claire in the fall semester. Your own degree plan may differ depending on the course of study selected (second major, minor, etc.). UW-Eau Claire cannot guarantee all courses will be offered as shown, but will provide a range of courses that may enable prepared students to fulfill their requirements in a timely period. This sample degree plan is just a guide. Please consult your advisor, your degree audit, and the catalog to create your own degree plan. Note: In order to earn the required minimum of 120 credits for the degree in four years, you should plan to take 15 credits each semester or 30 credits each year.

To earn a degree, students must fulfill all University Graduation Requirements, including the Liberal Education (LE) Core. LE Core course work in the following sample degree plan uses abbreviations such as LE-K1, LE-S2, LE-R3, and LE-I1 to represent the learning outcomes students will meet via completion of

their liberal education course work. Please click (<https://catalog.uwec.edu/undergraduate/graduation-requirements/>) here for a description of the Liberal Education Core outcomes and requirements. Note that the LE Core may be completed through both course and non-course experiences.

### FIRST YEAR

#### FIRST SEMESTER

CHEM 105	General Chemistry I Lecture	3
CHEM 106	General Chemistry I Laboratory (LE K1/LE-K1L)	2

OR

CHEM 115	Chemical Principles (LE-K1, LE-K1L, 6 credits, Fall only) <sup>a</sup>	
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#### SECOND SEMESTER

CHEM 109	General Chemistry II with Lab	4
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#### SOME TIME IN THE FIRST YEAR

ENPH 110	Introduction to Environmental Health (LE-K1, LE-R3)	3
MATH 109	Algebra for Calculus (LE-S2)	4
LE Option		3
ENPH Elective <sup>b</sup>		3
WRIT 114	Intensive Blugold Seminar in Critical Reading and Writing (LE-S1)	5

OR

WRIT 116	Blugold Seminar in Critical Reading and Writing (LE-S1, 5 credits)	
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OR

WRIT 118	Accelerated Blugold Seminar in Critical Reading and Writing (LE-S1, 2 Credits)	
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OR

WRIT 120	Blugold Seminar in Critical Reading and Writing for Transfer Students (LE-S1, 2 Credits)	
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LE Option		3
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<b>TOTAL FIRST YEAR</b>		<b>30</b>
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### SECOND YEAR

#### SECOND SEMESTER

ENPH 445	Hazardous and Solid Waste Management (Spring Only)	3
BIOL 151	Biology of Humans (LE-K1, Spring Only)	4

#### SOME TIME IN THE SECOND YEAR

MATH 246	Elementary Statistics (LE-S2)	4
BIOL 221	Foundations of Biology I (LE-K1L)	4
ENPH Elective <sup>b</sup>		3
LE Option		3
PHYS 211	General Physics (LE-K1L)	5
LE Option		3

<b>TOTAL SECOND YEAR</b>		<b>30</b>
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#### SOME TIME IN THE FIRST OR SECOND YEAR

ENPH Elective <sup>b</sup>		3
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### THIRD YEAR

#### FIRST SEMESTER

ENPH 441	Water and Wastewater (Fall Only)	3
PH 450	Epidemiology	3

BIOL 250	Microbiology (Fall/Winterim only)	3
OR		
BIOL 361	Biology of Microorganisms	
<b>SECOND SEMESTER</b>		
ENPH 460	Fundamentals of Industrial Hygiene (Spring Only)	3
ENPH 432	Preparation for Practicum (Spring Only)	2
ENPH 443	Microbial Safety of Food (Spring Only)	4
<b>SOME TIME IN THE THIRD YEAR</b>		
ENPH 435	Practicum in Environmental Public Health (Summer only)	3
CHEM 325	Organic Chemistry I with Laboratory	4
ENPH Elective <sup>b</sup>		3
LE Option		3
LE Option		3
<b>TOTAL THIRD YEAR</b>		<b>30</b>
<b>FOURTH YEAR</b>		
<b>FIRST SEMESTER</b>		
ENPH 364	Occupational Safety Management	3
ENPH 490	Environmental Toxicology and Risk Assessment (Fall Only)	3
ENPH 476	Vector-Borne Disease Control (Fall Only)	3
LE Option		3
<b>SECOND SEMESTER</b>		
ENV/GEOG 377	U.S. Environmental and Sustainability Policy	3
LE Option		3
<b>SOME TIME IN THE FOURTH YEAR</b>		
Electives to reach 120 credits for graduation (these will ideally be taken throughout all semesters)		
<b>TOTAL FOURTH YEAR</b>		<b>30</b>

**Minimum total for the baccalaureate degree = 120 credits**

a As an alternative to CHEM 105, CHEM 106, and CHEM 109.

b See catalog for ENPH elective categories and options.

**Note:** All students must complete the 30-hour Service-Learning Requirement via a non-credit or credit option (see University Graduation Requirements (<http://catalog.uwec.edu/undergraduate/graduation-requirements/>)).

**Course Suggestions:** GIS certificate.

#### RECOMMENDATIONS FOR HIGH IMPACT PRACTICES (HIPs)

The University of Wisconsin-Eau Claire encourages all students to participate in High Impact Practices. The following information identifies any specific recommendations that faculty in this major have concerning which HIPs might be most beneficial to students, and any recommendations about when those HIPs best fit into the degree plan. Students should also consult their faculty advisor for information on HIPs. There are many additional high impact opportunities available. Talk to your academic advisor for more information about incorporating HIPs like Study Abroad, Intercultural Immersion, Internship, and/or Student/Faculty Collaborative Research into your time at UW-Eau Claire.

**Required:** Students in the Environmental Public Health Major will complete a summer practicum experience that involves working with an agency or company in the field of environmental public health. Students will also have opportunities to engage in faculty-student research in several areas of environmental public health.

## Liberal Education (LE) Core Guidance

### Liberal Education Core (LE Core)

The LE Core comprises 17 learning experiences across 11 learning outcomes. Students must complete a minimum of 36 credits in courses approved for the LE Core.

- K1 – Natural Sciences; two experiences (one lab science experience is required in K1 or K2).
- K2 – Social Sciences; two experiences (one lab science experience is required in K1 or K2).
- K3 – Humanities; two experiences.
- K4 – Fine Arts; one experience.
- S1 – Written and Oral Communication; two experiences (one experience must satisfy the University writing requirement).
- S2 – Mathematics; one experience (must satisfy the University math competency requirement).
- S3 – Creativity; one experience (can be fulfilled in a student's major).
- R1 – Equity, Diversity, and Inclusivity; two experiences (one experience must meet the UW System Design for Diversity (DD) requirement).
- R2 – Global Perspectives; one experience.
- R3 – Civic and Environmental Issues; one experience.
- I1 – Integration; two experiences (one experience can be fulfilled in a student's major).
- SL—Service Learning; 30 hours

### Additional LE Core Information

- Most LE Core learning experiences are course based, and many courses meet more than one learning outcome (e.g., K3 and R2 or K1 and R3).
- Some learning experiences can also be met outside of a traditional course (e.g., undergraduate research (S3), study abroad (I1)).
- S1 – An English placement score that fulfills the University writing requirement fulfills one S1 experience.
- S1 – A foreign Language placement score that qualifies the student to enter the 102 level satisfies one S1 experience.
- S1, R2 – A foreign language placement score that qualifies the student to enter the 202 level satisfies one experience in S1 and the R2 experience.
- S2 – A math placement score that qualifies the student to enter Math 111, 112, 113 or 114 fulfills the S2 experience.

- S3 – Completion of two credits from any approved music ensemble fulfills the S3 experience.
- I1 – Any semester long study abroad program can fulfill one I1 experience.