# ENVIRONMENTAL PUBLIC HEALTH (ENPH)

## ENPH 110 Introduction to Environmental Health (3 crs)
- A basic understanding and interest in science is recommended prior to enrollment in this course. Wellness for one credit.

Health-oriented problems in the environment with attention directed to air and water pollution, solid waste, housing, occupational health and safety, food sanitation, animal zoonoses, ecology of health and disease, radiological health, energy, and global environmental health.

Attributes: Wellness Theory, GE IIIF Natural Science-Interdisciplinary Studies, LE-K1 Natural Sciences, LE-R3 Civic and Environmental Issues

Lecture/Discussion Hours: 3  
Lab/Studio Hours: 0

## ENPH 115 Global Environmental and Public Health (3 crs)
Explores endemic and emerging health issues affecting global populations. Aims to familiarize students with adverse health outcomes associated with global socio-economic disparities.

Attributes: GE IIIG Social Science-Interdisciplinary Study, LE-K2 Social Sciences, LE-R2 Global Perspectives

Lecture/Discussion Hours: 3  
Lab/Studio Hours: 0

## ENPH 150 Disease Detectives: Epidemics and Data (3 crs)
Prerequisite: MATH 20 or Placement in MATH 104 or above. No credit if taken after ENPH 450.

Introduction to disease outbreak investigation. Epidemiology as a scientific way of thinking using non-intensive mathematics including examples from current events.

Attributes: GE IIIF Natural Science-Interdisciplinary Studies, LE-K1 Natural Sciences, LE-R3 Civic and Environmental Issues

Lecture/Discussion Hours: 3  
Lab/Studio Hours: 0

## ENPH 225 Introduction to Public Health (3 crs)
- Wellness for one credit. Credit may not be earned in both ENPH 225 and NRS 225.

Examines population health and disease considering historical and current public health practice. Focus areas include cultural, political, environmental, and socio-economic influences that increase population vulnerability and risk. Effectiveness of public health interventions is analyzed.

Attributes: Wellness Theory, Cultural Diversity 1 cr., GE V University Wide, LE-DDIV Design for Diversity, LE-I1 Integration, LE-R1 Equity, Diversity, and Inclusivity

Grading Basis: A-F Grades Only

Lecture/Discussion Hours: 3  
Lab/Studio Hours: 0

## ENPH 291 Special Topics (1-3 crs)
Consent: Instructor Consent Required

A variable content course consisting of topics of special interest to students and faculty that are not covered in other environmental health courses.

Repeat: Course may be repeated for a maximum of 6 credits

Lecture/Discussion Hours: 1-3  
Lab/Studio Hours: 0

## ENPH 322 Radiological Health (3 crs)
Prerequisite: PHYS 211 and PHYS 212
Provides an overview of the types of radiation, sources, measurement and control of ionizing and nonionizing radiation, medical uses, protection from exposure, and current topics such as food irradiation, and nuclear power and weapons.

Lecture/Discussion Hours: 3  
Lab/Studio Hours: 0

## ENPH 397 Student Academic Apprenticeship (1-2 crs)
Prerequisite: Limited to environmental public health majors.  
Consent: Instructor Consent Required

Experience for qualified students to facilitate teaching and learning in ENPH courses. Students develop and enhance knowledge in ENPH and their abilities to communicate that knowledge to other students.

Repeat: Course may be repeated for a maximum of 4 credits

Lecture/Discussion Hours: 1-2  
Lab/Studio Hours: 0

## ENPH 399 Independent Study (1-3 crs)
Prerequisite: Minimum junior standing.  
Consent: Department Consent Required

An opportunity for students to pursue an environmental research topic of their choice in collaboration with a faculty mentor.

Repeat: Course may be repeated

## ENPH 422 Radiation, Air Pollution and Health (3 crs)
Prerequisite: PHYS 212 or PHYS 232; CHEM 103 or CHEM 105 and CHEM 106. No credit if taken after ENPH 322

Safety and health implications of ionizing radiation and human and environmental health consequences of air pollution in the context of public health.

Lecture/Discussion Hours: 3  
Lab/Studio Hours: 0
ENPH 432 Preparation for Practicum (2 crs)
Prerequisite: Limited to environmental public health majors. Minimum junior standing.
An interactive course covering expectations during practicum, presentations on various areas of environmental health practice, opportunities for shadowing, preparation of resumes, practice interviewing.
Grading Basis: A-F Grades Only
Lecture/Discussion Hours: 2
Lab/Studio Hours: 0

ENPH 435 Practicum in Environmental Public Health (3 crs)
Prerequisite: ENPH 432. Minimum junior standing.
Consent: Instructor Consent Required
A full-time supervised 10-week internship experience in an approved governmental agency, industry, or consulting company.
Attributes: LE-I1 Integration, Service-Learning, Full 30 Hours
Repeat: Course may be repeated for a maximum of 8 credits
Lecture/Discussion Hours: 3
Lab/Studio Hours: 0

ENPH 441 Water and Wastewater (3 crs)
Prerequisite: ENPH 110; BIOL 111 or BIOL 151; and CHEM 104 or CHEM 109 or CHEM 115 or consent of instructor.
Investigative procedures, sampling techniques, analysis and treatment of water and wastewater. Emphasis on water pollution, aquatic nuisances, drinking water quality, on-site waste disposal, municipal and industrial wastewater treatment, private wells, and groundwater contamination.
Lecture/Discussion Hours: 2
Lab/Studio Hours: 2

ENPH 443 Microbial Safety of Food (4 crs)
Prerequisite: BIOL 250, BIOL 306, or BIOL 361 or concurrent registration in any of these three courses. No credit if taken after ENPH 442.
Principles of food microbiology including common foodborne pathogens, strategies to protect the food supply, environmental sanitation, regulations, and HACCP. Environmental sampling of food and milk, common laboratory tests.
Attributes: Field Trip(s) Required
Grading Basis: A-F Grades Only
Lecture/Discussion Hours: 3
Lab/Studio Hours: 2

ENPH 445 Hazardous and Solid Waste Management (3 crs)
Examination of the generation, use, handling, and storage of solid waste, and of materials posing significant chemical, biological, and radiological risks to health. Several field trips will supplement in-class learning.
Attributes: Field Trip(s) Required
Lecture/Discussion Hours: 3
Lab/Studio Hours: 0

ENPH 450 Epidemiology (3 crs)
Prerequisite: MATH 245 or MATH 246 or PSYC 265
Fundamentals of epidemiology including measures of morbidity and mortality, descriptive epidemiology, and principles of epidemiologic study design. Selected topics related to infectious disease, chronic disease, and environmental epidemiology are included.
Attributes: GE V University Wide
Lecture/Discussion Hours: 3
Lab/Studio Hours: 0

ENPH 460 Fundamentals of Industrial Hygiene (3 crs)
Prerequisite: ENPH 110 and MATH 246.
The recognition, evaluation, and control of chemical, physical, biological and ergonomic stresses that may cause sickness or impaired health to employees or residents of the community.
Lecture/Discussion Hours: 3
Lab/Studio Hours: 0

ENPH 464 Occupational Safety Management (3 crs)
Access to computer with Internet access, some familiarity with Internet use, some familiarity with workplace safety issues. No credit if taken after ENPH 495 the spring of 2001.
Recognition and control of safety hazards in various workplaces, basic safety theory, applicable health and safety regulations, and ethical obligations. Behavioral change techniques. Opportunity for students to research specific workplace settings and issues.
Lecture/Discussion Hours: 3
Lab/Studio Hours: 0

ENPH 476 Vector-Borne Disease Control (3 crs)
Prerequisite: BIOL 151, BIOL 214, BIOL 221, BIOL 250, or consent of instructor.
Vector-borne disease health effects, identification of vectors and pests, and approaches for preventing vector-borne disease globally, nationally and regionally.
Lecture/Discussion Hours: 3
Lab/Studio Hours: 0

ENPH 490 Environmental Toxicology and Risk Assessment (3 crs)
Prerequisite: BIOL 211 or 111, ENPH 110 or 210, CHEM 325 or consent of instructor.
Examination of the principles, theories, and applications of human environmental toxicology through investigation of chemical, cellular, physiological, environmental, and ecological levels. Introduction to contemporary health risk assessment methods.
Lecture/Discussion Hours: 3
Lab/Studio Hours: 0
ENPH 491 Special Topics (1-3 crs)
Consent: Instructor Consent Required
A variable content course consisting of advanced topics of special interest to students and faculty that are not covered in other environmental health courses.
Repeat: Course may be repeated for a maximum of 6 credits
Lecture/Discussion Hours: 1-3
Lab/Studio Hours: 0

ENPH 495 Directed Studies (1-3 crs)
Consent: Department Consent Required
Permits the student to pursue a defined organized study of a problem in an intensive way under the direction of a department of public health professions staff member.
Repeat: Course may be repeated

ENPH 499 Independent Study (1-3 crs)
Prerequisite: Minimum senior standing.
Consent: Department Consent Required
An opportunity for senior students to pursue an environmental topic of their choice. A detailed project report will be required.
Repeat: Course may be repeated