BACHELOR OF SCIENCE IN ENVIRONMENTAL HEALTH

Environmental health focuses on the study of how people interact with their environment—the air and water around us, the plants and animals we encounter, and the workplaces and homes where we spend much of our lives. The field is broad, encompassing the direct effects of the environment on human health, and the factors that adversely affect the ecological balances essential to human health and environmental quality.

Core Courses

APM 105	Survey Of Calc & Appl I	4
APM 106	Survey Of Calc & Appl II	4
APM 391	Intro/Probability&Stats	3
EFB 101	Gen Bio I:Organismal Bio&Ecol	3
EFB 102	General Biology I Laboratory	1
EFB 103	Gen Bio II:Cell Bio & Genetics	3
EFB 104	General Biology II Laboratory	1
EFB 303	Intro Envrn Microbiology	4
EFB 360	Epidemiology	3
EFB 400	Toxic Health Hazards	3
EHS 250	Foundations/Envrn Health	2
EHS 320	Disease Prevention	3
EHS 350	Environmental Health Managemnt	3
EHS 360	Environmental Sampling Methods	3
EHS 420	Prof Internship/Env Health	1 - 5
EHS 440	Occupational Health and Safety	3
EHS 480	Hazardous Waste Management	3
ENS 132	Orientation Seminar:EnvSci	1
ENS 470	Environmental Risk Assessment	3
ENS 494	Capstone Seminar	1

ESF 200	Information Literacy	1
EWP 190	Writing And The Envrnment	3
FCH 150	General Chemistry I	3
FCH 151	General Chemistry I Lab	1
FCH 152	General Chemistry II	3
FCH 153	General Chemistry II Lab	1
FCH 221	Organic Chemistry 1	3
FCH 222	Organic Chemistry Lab 1	1
FCH 223	Organic Chemistry II	3
FCH 224	Organic Chemistry Lab II	1
FCH 399	Intro/Atmospheric Sciences	3
NSD 114	Food Safety/Quality Assur	0 - 8
PHY 101	Major Concepts of Physics I	0 - 8
PHY 102	Major Concepts of Physics II	0 - 8

NOTE: PHY 101 and PHY 102 both include a lab.

General Education Electives

Course	Codes*	Credits
General Education Course in two of the following categories: US History & Civic Engagement, The Arts, Social Sciences, World History and Global Awareness, World Languages	G	6
General Education Course in Diversity, Equity, Inclusion and Social Justice	G	3

Focus Area Electives

21 credits required for breadth and depth of knowledge.

Breadth: 3 credits from each of 3 focus areas (total of nine credits)

Depth: 12 credits from a fourth focus area.

NOTE: Some Focus Area Elective courses may have prerequisites, effectively exceeding the 126 minimum credit requirement for the B.S.

NOTE: Only three credits total from the 21 can be from a 200-level course or lower without prior approval of the curriculum coordinator.

A. Built Environment

Courses		
EST 132	Orientation Seminar:EST	1
EST 220	Urban Ecology	3
EST 231	Environmental Geology	3
LSA 311	Natural Proc-Design&Plan	3
LSA 326	Land Arch Dsgn Studio I	5
LSA 451	Comprehensive Land Plan	3
LSA 470	Thematic Land Dsgn Studio	6

B. Geospatial Technology

Courses		
ERE 365	Principles of Remote Sensing	4
ERE 371	Surveying For Engineers	3
ERE 553	Intro to Spatial Information	1
ERE 566	Intro/Global Positioning Sys	1
ESF 300	Intro/Geospatial Info Tech	3

C. Soils

Courses		
ERE 511	Ecological Engr in the Tropics	3
FOR 332	Forest Ecology	4
FOR 345	Introduction to Soils	3
FOR 535	Advanced Forest Soils	3

FOR 635	For Soils/Their Analyses	3

D. Water and Wastewater

Students interested in this focus area are encouraged to take APM205 and APM206 in place of APM105 and APM106, as the higher level calculus is required for many of the courses; also students interested in this focus area are encouraged to take PHY211/221 and PHY212/222 in place of PHY101 and PHY102, as the higher level physics is required for many of the courses.

Courses

CEE 442	Treatment Proc. in Env. Eng.	0 - 8
EAR 401	Hydrogeology	0 - 8
EAR 420	Contaminant Hydrogeology	3
EFB 496	Topics/Envrn&Forest Bio	1 - 3
EFB 505	Microbial Ecology	2
ERE 275	Ecological Engineering	3
ERE 339	Fluid Mechanics	4
ERE 340	Engr Hydrology&Hydraulics	4
ERE 440	Water and Wastewater Treatment	3
ERE 480	Fate & Trnsprt of Contaminants	3
FCH 360	Physical Chemistry I	3
FCH 510	Environmental Chemistry I	3
FOR 487	Environmental Law and Policy	3

E. Solid/Hazardous Materials and Waste Management

Courses

CEE 341	Intro. to Environmental Engrng	0 - 8
EFB 496	Topics/Envrn&Forest Bio	1 - 3
ERE 275	Ecological Engineering	3
ERE 340	Engr Hydrology&Hydraulics	4
ERE 405	Sustainable Engineering	3
ERE 465	Environmental Systems Engrng	3

ERE 468	Solid & Hazardous Waste Engr	3
ERE 480	Fate & Trnsprt of Contaminants	3
FOR 487	Environmental Law and Policy	3

F. Hydrogeology

Courses		
EAR 401	Hydrogeology	0 - 8
EAR 420	Contaminant Hydrogeology	3
ERE 480	Fate & Trnsprt of Contaminants	3
ENS 496	Hydrology	3
	Human Health	
ERE 508	Water-An Incredible Journey	3
FOR 340	Watershed Hydrology	3
FOR 345	Introduction to Soils	3
FOR 442	Watershed Ecology & Management	3

G. Food Protection

Courses		
FST 102	Contemporary Food Issues	0 - 8
FST 307	Feeding the World: Global Agr	0 - 8
FST 402	Urban Food Systems	0 - 8
FST 421	Morality of a Meal: Food Ethic	3
NSD 114	Food Safety/Quality Assur	0 - 8
NSD 115	Food Science I	0 - 8
NSD 225	Nutrition in Health	0 - 8
NSD 427	Public Health Nutrition	0 - 8
NSD 455	Community Nutrition	0 - 8
NSD 481	Medical Nutr Therapy I	0 - 8

NSD 555	Food, Culture and Environ.	0 - 8

H. Public Health

Courses

PHP 221	Community Health Promotion	0 - 8
PHP 309	Health Disparities	0 - 8
FST 403	Right to Food and Nutrition	0 - 8
PHP 302	Influencing Healthy Behavior	0 - 8
PHP 305	Community Mental Health	0 - 8
PHP 313	Issues Challenges Healthcare	0 - 8
PHP 306	Understanding Health Systems	0 - 8
PHP 318	Dynamics of Addiction	0 - 8
PHP 414	Ethics & Law Hlthcare Adm	0 - 8
PHP 415	Public Health Ethics	0 - 8
PHP 437	LGBTQ Health Well Being	3
PHP 438	Native American Health Promotion	3
PHP 462	Culture&Reprod Health&Med	0 - 8
PHP 463	Global Health	0 - 8

I. Pre Medical Track

Students taking this track as their depth area must also select courses from 4 other focus areas, rather than three other focus areas for their breadth. This focus area does not count as one of the three breadth areas, but courses can count as Open Electives.

Courses

BTC 498	Resrch Prob/Biotechnology	1 - 9
EFB 307	Principles Of Genetics	3
EFB 308	Prin Of Genetics Lab	1
EFB 325	Cell Biology	3

EFB 385	Comparative Vert Anatomy	4
FCH 530	Biochemistry I	3
FCH 532	Biochemistry II	3

Open Electives

Six (6) Credit hours. Students can take more than the 4 hours of open electives, but need to be aware that those extra credits will not substitute for required courses. Students are encouraged but not required to use some of their open electives to do research projects either on or off campus within the EHS framework. Below are listed some courses that might be of interest to EHS students.

EST 203 Introduction to Sociology
EST 220 Urban Ecology
EST 245 Foundations of Environmental Communication
EST 321 Government and the Environment
EST 361 History of the American Environmental Movement
EST 390 Social Processes and the Environment
EST 395 Public Communication of Science and Technology
EST 426 Community Planning and Sustainability

EFB 217 Peoples, Plagues, and Pests
EFB 352 Entomology
EFB 453 Parasitology

LSA 190 Clashing Perspectives in the Built Environment

FOR 202 Introduction to Sociology
FOR 204 Natural Resources in American History
FOR 489 Natural Resources Law and Policy

Total Minimum Credits For Degree: 126

NOTE: For students considering a career in Environmental Risk Assessment or Environmental Remediation, it is strongly recommended that they that take:

ENV 165 Hazardous Waste Operations and Emergency Response (2 Credits) at Onondaga Community College over Winter Break. This course culminates with the awarding of the 40 hour HAZWOPER Certification, which is required by OSHA and many potential internship sponsors or employers.