<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>APM105 Survey of Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>APM106 Survey of Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>APM391 Intro to Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>EWP190 Writing and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>EWP290 Research Writing and the Humanities</td>
<td>3</td>
</tr>
<tr>
<td>EFB101 General Biology I: Organismal Biology and Ecology</td>
<td>3</td>
</tr>
<tr>
<td>EFB102 General Biology I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>EFB103 General Biology II: Cell Biology and Genetics</td>
<td>3</td>
</tr>
<tr>
<td>EFB104 General Biology II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>EFB303 Introduction to Environmental Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>EFB360 Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>EFB400 Toxic Health Hazards</td>
<td>3</td>
</tr>
<tr>
<td>EHS250 Foundations of Environmental Health</td>
<td>2</td>
</tr>
<tr>
<td>EHS360 Environmental Sampling Methods</td>
<td>3</td>
</tr>
<tr>
<td>EHS350 Environmental Health Management</td>
<td>3</td>
</tr>
<tr>
<td>EHS320 Disease Prevention</td>
<td>3</td>
</tr>
<tr>
<td>EHS440 Occupational Health and Safety</td>
<td>3</td>
</tr>
<tr>
<td>EHS420 Internship in Environmental Health</td>
<td>4</td>
</tr>
<tr>
<td>EHS480 Hazardous Materials Management</td>
<td>3</td>
</tr>
<tr>
<td>EHS494 Environmental Health Capstone</td>
<td>1</td>
</tr>
<tr>
<td>ENS132 Orientation Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ENS470 Environmental Risk Assessment</td>
<td>3</td>
</tr>
<tr>
<td>ESF200 Information Literacy</td>
<td>1</td>
</tr>
<tr>
<td>FCH150 General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>FCH151 General Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>FCH152 General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>FCH153 General Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>FCH221 Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>FCH222 Organic Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>FCH223 Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>FCH224 Organic Chemistry II Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>FCH399 Introduction to Atmospheric Science</td>
<td>3</td>
</tr>
<tr>
<td>NSD114 Food Safety and Assurance</td>
<td>2</td>
</tr>
<tr>
<td>PHY101 Major Concepts of Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY102 Major Concepts of Physics II</td>
<td>4</td>
</tr>
</tbody>
</table>

**GENERAL EDUCATION REQUIREMENTS**
Nine (9) credit hours beyond the core: Choose three of the 6 categories, minimum three credits from each; see program web page for choices.
<table>
<thead>
<tr>
<th>American History</th>
<th>The Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Civilization</td>
<td>Other World Civilizations</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Social Science</td>
</tr>
</tbody>
</table>
FOCUS AREAS: UPPER DIVISION ENVIRONMENTAL HEALTH
To ensure that EHS undergraduates obtain both depth and breadth of knowledge, a minimum of 21 elective credit hours across the focus areas must be obtained through courses designed for juniors or seniors (i.e., mostly courses numbered 300 or higher).

Students must select four focus areas, and select at least one course from each of the four areas for a minimum of 3 credits per focus area (12 credits total). This provides the breadth of knowledge. Students will then select one of those four focus areas that best aligns with their career goals, and select at least three additional courses from that focus area, for a minimum of 12 credit hours within that one focus area. That provides the student with the depth of knowledge in that area.

A. The Built Environment.
EST132 Introduction to the Built Environment
EST220 Urban Ecology
EST231 Environmental Geology
LSA311 Natural Processes in Design and Planning
LSA326 Landscape Architectural Design Studio I
LSA451 Comprehensive Land Planning
LSA470 Thematic Landscape Design Studio

B. Geospatial Technology.
ERE365 Principles of Remote Sensing
ERE371 Surveying for Engineers
ERE553 Introduction to Spatial Information
ERE566 Introduction to Global Positioning Systems
ESF300 Introduction to Geospatial Information Technologies
ERE553 Introduction to Spatial Information
ERE566 Introduction to Global Positioning Systems
FOR357 Practical Vector GIS

C. Soils.
EF511 Ecological Engineering in the Tropics
FOR345 Introduction to Soils
FOR332 Forest Ecology
FOR535 Advanced Forest Soils
FOR635 Forest Soils and Their Analysis

D. Water and Wastewater
(Students interested in this focus area are encouraged to take AMP205 and AMP206 in place of AMP105 and AMP106, 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 also required).
CIE442 Treatment Processes in Environmental Engineering
EAR420 Contaminant Hydrogeology
EAR54 Hydrogeology (May require additional lower division prerequisites – check with instructor)
EF438 Phytoremediation
EF505 Microbial Ecology
ERE339 Principles of Fluid Mechanics
ERE275 Ecological Engineering
ERE340 Engineering Hydrology and Hydraulics
ERE440 Water Pollution Engineering
ERE480 Fate and Transport of Contaminants in Environmental Systems
FCH360 Physical Chemistry
FCH510 Environmental Chemistry
FOR487 Environmental Law and Policy
E. Solid/Hazardous Materials and Waste Management
CIE341 Introduction to Environmental Engineering
EFB438 Phytoremediation
ERE275 Ecological Engineering
ERE340 Engineering Hydrology and Hydraulics
ERE405 Sustainable Engineering
ERE465 Environmental Systems Engineering
ERE468 Solid Waste Management
ERE480 Fate and Transport of Contaminants in Environmental Systems
FOR487 Environmental Law and Policy

F. Hydrogeology
(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)
EAR420 Contaminant Hydrogeology
EAR541 Hydrogeology (May require additional lower division prerequisites – check with instructor)
ENS496 Hydrology and Human Health
ERE480 Fate and Transport of Contaminants in Environmental Systems
ERE508 Water – An Incredible Journey
FOR340 Watershed Hydrology
FOR345 Introduction to Soils
FOR442 Watershed Ecology and Management

G. Food Protection
FST102 Food Fights: Contemporary Food Issues
FST307 Feeding the World: Global Agri-Food Governance
FST402 Feeding the City
FST421 Morality of a Meal
NSD225 Nutrition in Health
NSD427 Public Health Nutrition
NSD455 Community Nutrition
NSD481 Medical Nutrition Therapy I
NSD555 Food Culture and Environment

H. Public Health
PHP221 Community Health Promotion (3)
PHP309 Health Disparities and Underserved Populations (3)
FST403 The Human Right to Adequate Food and Nutrition
PHP302 Influencing Healthy Behavior
PHP305 Community Mental Health Promotion
PHP313 Issues and Challenges: US Health Care Delivery
PHP306 Understanding Health Systems: Macro and Micro Perspectives
PHP 318 Dynamics of Addiction
PHP414 Introduction to Ethics & Laws in Healthcare Administration
PHP415 Public Health Ethics
PHP437 LGBTQ Health and Well Being
PHP438 Native American Health Promotion
PHP462 Culture and Reproductive Health and Medicine
PHP463 Global Health

I. Pre Medical Track (Students taking this track as their depth area must select courses from 4 other focus areas for their breadth, and then take the remainder of the course work from this area. This focus area does not count as one of the four breadth areas for non-pre-med majors, but courses can count as Open Electives.)
BTC498 Research in Biotechnology
EFB307 Genetics
EFB308 Genetics Laboratory
EFB320 Cell Biology  
EFB385 Comparative Vertebrate Anatomy  
FCH530 Biochemistry I  
FCH532 Biochemistry II

OPEN ELECTIVES
Six (6) Credit hours. Students can take more than the 6 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 their 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 245 Foundations of Environmental Communication  
EST 321 Government and the Environment  
EST 361 History of the American Environmental Movement  
EST 388 Psychological Principles of Risk Communication  
EST 390 Social Processes and the Environment  
EST 393 Environmental Discourse and Communication  
EST 395 Public Communications of Science and Technology  
EST 423 Rhetorical Practices in Environmental Communication  
EST 426 Community Planning and Sustainability

EFB 217 Peoples, Plagues, and Pests  
EFB 220 Urban Ecology  
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

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