

Global One Health (Minor)

The Global One Health minor is a 15-credit program exploring the interconnections between human, animal, plant, and environmental health. Students employ interdisciplinary perspectives and systems thinking to key Global One Health issues including emerging infectious diseases, challenges to sustainable food and water sources, climate change, and health disparities. The minor offers flexibility in course selection, catering to various interests and career goals in Global One Health. Through a curriculum that includes foundational courses, specialized electives, and experiential learning opportunities, students will gain critical skills and experience to address complex global challenges.

Admission to the Minor

To enroll in the program, students must have a minimum 2.0 GPA. Applications for any University minor, including this program, can now be submitted through the MyPack Portal. Admission relies primarily on the student's academic performance and does not need departmental approval. Students are encouraged to declare their minor early via the "Add a Minor" (<https://studentservices.ncsu.edu/academics/degrees/coda/coda-add-a-minor/>) option in the portal to secure seats in courses typically reserved for majors and minors of the department. Those looking to transfer a course from another institution to count towards the minor should consult the minor's advisor, Dr. Kristen Sullivan.

Completion of the Minor

All requirements for the minor must be completed no later than the semester in which the student expects to graduate from his or her major degree program. Students apply to graduate in the minor through MyPack at the same time that they apply to graduate in their major program.

Contact

Coordinator

Dr. Kristen Sullivan

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Minor Requirements

Code	Title	Hours
GOH 201	Foundations of Global One Health	3
GOH 302	Global One Health Applications	3
Electives (p.)		9
TOTAL		15

Electives - take 1 from each of the 3 groups

1. Integrated Human and Animal Health Perspectives

- **Focus:** Interconnectedness of health across species and environment
- **Inclusion Criteria** (courses must meet # 1):

- Courses examine the incidence and distribution of disease across populations
- Courses analyze the impact of society on health across species and ecosystems
- Courses include ecological dimensions of health
- Courses address health issues that affect or connect different species

2. Sustainable Food Systems and Plant Health

- **Focus:** Plant pathology, sustainable farming, food safety, agriculture's impact on health and ecosystems
- **Inclusion Criteria** (courses must meet #1):
 - Courses connect the health of plants to human/animal health
 - Courses emphasize the role of plant health in ecosystem health – including the effects of plant diseases, pests on the environment
 - Courses cover sustainable agricultural practices and food safety

3. Ecosystem Health and Climate Science

- **Focus:** Relationship between climate change and ecosystem health
- **Inclusion Criteria** (courses must meet #1):
 - Courses focus on how climate affects health outcomes across species and ecosystems
 - Courses connect health of species and environments to ecosystem function
 - Courses apply systems approaches to environmental issues
 - Courses apply methodological approaches to investigate climatic impacts on ecosystem health
 - Courses examine the impact of environmental policy on health across species and ecosystems

Electives List

Code	Title	Hours
Integrated Human and Animal Health Perspectives		3
AEC 370	Parasite and Disease Ecology	
AEC 437	Gut Microbial Ecology	
ANS 261	Swine Health and Biosecurity	
ANT 374	Disease and Society	
ANT 450	Culture, Ecology, and Sustainable Living	
BIO 432	Evolutionary Medicine	
ENT 207	Insects and Human Disease	
FW 411	Human Dimensions of Wildlife and Fisheries	
GPH 404	Epidemiology and Statistics in Global Public Health	
MB 200	The Fourth Horseman: Plagues that Changed the World	
MB 411	Medical Microbiology	
MB 470	Emerging and Re-emerging Infectious Diseases	
PRT 430	Tourism, Poverty, and Health	
SIP 112	Wicked Problems, Wolfpack Solutions: (Y)Our Health	
SOC 211	Community and Health	

SOC 381	Sociology of Medicine
SOC 426	Environmental Criminology
ST 404	Epidemiology and Statistics in Global Public Health
VMP 420	Disease of Farm Animals
ZO 233	Human-Animal Interactions
Sustainable Food Systems and Plant Health 3	
AEC 420	Introduction to Fisheries Science
AEC 424	Marine Fisheries Ecology
ALS 494	International Learning Experience in Agriculture and Life Sciences
ARE 433	U.S. Agricultural Policy
ARE 475	Food Policy
BAE 478	Circular Approach to Manure Management
CS 224	Seeds, Biotechnology and Societies
ENT 425	General Entomology
FS 352	Introduction to Microbiological Food Safety Hazards
HS 410	Community Food Systems
NTR 210	Introduction to Community Food Security
PB 215	Medicinal Plants
PB 407	Medical Ethnobotany
PP 241	The Worm's Tale: Parasites In Our Midst
PP 315	Principles of Plant Pathology
PP 318	Forest Pathology
SIP 116	Wicked Problems, Wolfpack Solutions: The Future of Food
STS 323	World Population and Food Prospects
Ecosystem Health and Climate Science 3	
AEC 245	Practicing Conservation Ecology
AEC 360	Ecology
AEC 384	Tropical Ecology in a Changing World
AEC 495	Advanced Special Topics in Applied Ecology
CE 478	Energy and Climate
ENV 250	Diversity and Environmental Justice
ES 300	Energy and Environment
ET 320	Fundamentals of Air Pollution
FOR 353	GIS and Remote Sensing for Environmental Analysis and Assessment
FOR 430	Forest Health and Protection
FW 221	Conservation of Natural Resources
FW 333	Conservation Biology in Practice
FW 460	International Wildlife Management and Conservation
IDS 201	Environmental Ethics
MEA 260	Human Dimensions of Climate Change
MEA 350	Marine Conservation Biology
MEA 409	Watershed Forensics
MEA 415	Climate Dynamics
NR 350	International Sustainable Resource Use
NR 406	Conservation of Biological Diversity
PB 360	Ecology
PB 450	Plant Ecology

PCC 201	Impact of Industry on the Environment and Society
PRT 203	Humans and the Environment
PS 336	Global Environmental Politics
SIP 114	Wicked Problems, Wolfpack Solutions: (Y)Our Changing World
SSC 455	Soils, Environmental Quality and Global Challenges
TOX 201	Poisons, People and the Environment

* Special Topics from AEC 295 can count as an elective in Ecosystem Health and Climate Science but must be approved on an individual basis.