

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 completed at least 12 hours of NC State coursework and maintain 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	Counts towards
GOH 201	Foundations of Global One Health	3	
GOH 302	Global One Health Applications	3	
Electives (http://catalog.ncsu.edu/electives/)		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

Course List

Code	Title	Hours	Counts towards
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	HS 410	Community Food Systems
FW 411	Human Dimensions of Wildlife and Fisheries	NTR 210	Introduction to Community Food Security
GPH 404	Epidemiology and Statistics in Global Public Health	PB 215	Medicinal Plants
ST 404	Epidemiology and Statistics in Global Public Health	PB 407	Medical Ethnobotany
MB 200	The Fourth Horseman: Plagues that Changed the World	PP 241	The Worm's Tale: Parasites In Our Midst
MB 411	Medical Microbiology	PP 315	Principles of Plant Pathology
MB 470	Emerging and Re-emerging Infectious Diseases	PP 318	Forest Pathology
PRT 430	Tourism, Poverty, and Health	STS 323	World Population and Food Prospects
SOC 381	Sociology of Medicine	Ecosystem Health and Climate Science 3	
SOC 426	Environmental Criminology	AEC 245	Global Conservation Ecology
VMP 420	Disease of Farm Animals	AEC 360	Ecology
ZO 233	Human-Animal Interactions	AEC 380	Water Resources: Global Issues in Ecology, Policy, Management, and Advocacy
Sustainable Food Systems and Plant Health 3		AEC 384	Tropical Ecology in a Changing World
AEC 420	Introduction to Fisheries Science	CE 478	Energy and Climate
AEC 424	Marine Fisheries Ecology	ENV 250	Diversity and Environmental Justice
ARE 433	U.S. Agricultural Policy	ES 300	Energy and Environment
ARE 475	Food Policy	FOR 353	GIS and Remote Sensing for Environmental Analysis and Assessment
BAE 478	Circular Approach to Manure Management	FW 333	Conservation Biology in Practice
CS 224	Seeds, Biotechnology and Societies	FW 460	International Wildlife Management and Conservation
CS 411	Crop Ecology	IDS 201	Environmental Ethics
ENT 425	General Entomology	MEA 260	Human Dimensions of Climate Change
FS 352	Introduction to Microbiological Food Safety Hazards		

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
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.