

Global One Health (GOH)

GOH 201 Foundations of Global One Health (3 credit hours)

This course is designed to provide students with a comprehensive understanding of Global One Health, emphasizing the interconnectedness of human, animal, plant, and environmental health. Students will engage with critical topics like emerging infectious diseases, sustainable food and water sources, and the intertwined issues of climate change and health disparities, using interdisciplinary approaches to tackle real-world challenges. The course will equip students with the foundational knowledge and skills to apply a One Health approach, utilizing systems thinking and interdisciplinary perspectives to address and manage health challenges at the global level.

Typically offered in Fall and Spring

GOH 302 Global One Health Applications (3 credit hours)

Global One Health Applications provides a comprehensive examination of key One Health issues through an interdisciplinary lens. The course delves into topics which may include antimicrobial resistance, emerging zoonotic diseases, climate change and vector-borne diseases, and the health impacts of environmental pollution. Topics are explored through intensive case studies, emphasizing collaborative analysis and problem-solving. The course culminates with students creating and presenting their own case studies, integrating interdisciplinary approaches learned throughout the course.

Prerequisite: GOH 201

Typically offered in Fall and Spring

GOH 550/PSC 550 Fundamentals of Citizen Science and Other Participatory Research Methods (3 credit hours)

Citizen science involves collective efforts that produce discoveries that scientists cannot achieve alone. Through project-based learning, students will become familiar with academic and gray literature across disciplines about citizen science and other forms of participatory research such as community mapping, volunteer monitoring, crowdsourcing, participatory sensing, and community-driven science. Students will critically examine ethical, legal, and emergent issues, and analyze theory and practice with particular attention to data quality, informal science learning, and democratization of science in society.

Typically offered in Fall only

GOH 551/PSC 551 Citizen Science Engagement Practicum (1 credit hours)

Students in this course gain hands-on experience in project management by organizing, implementing, analyzing, and assessing a citizen science event. With NC State Libraries as a partner in shaping the theme for an annual event to engage the student body, student work individually and in teams to facilitate engagement in an existing citizen science project. Activities might include recruitment presentations in residential villages, undergraduate courses, and public events, tabling and project demonstrations during the event, preparing data visualizations for individual report-backs and collective data summaries, and assessing measurable outcomes. The annual events will help NC State become a data-rich campus.

Prerequisite: PSC 550

Typically offered in Spring only

GOH 586/CBS 586 One Health: From Philosophy to Practice (2 credit hours)

Graduate/professional seminar (with team project) addressing intersections of veterinary medicine, human medicine, and environmental health. Co-listed at UNC CH Gillings School of Global Public Health and Duke University School of Medicine. Includes participants from these three institutions, plus related private-sector members, non-governmental organizations, and government professionals. Its purpose is to facilitate understanding of one health as a system of systems, and promote cross-campus and cross-discipline interactions. Weekly evening course held at NC Biotechnology Center, RTP. Requires graduate student standing at NCSU or professional student standing within the College of Veterinary Medicine. Limit: 15 students per university.

R: Graduate Student standing at NCSU or professional student standing within the College of Veterinary Medicine.

Typically offered in Fall only

GOH 811 Special Topics in One Health (1 credit hours)

This is a special topic, 1 credit discussion course that will explore the interdisciplinary origins and interdisciplinary foundations of Global One Health, as well as delve into its utility as a framework for analyzing emergent issues in our modern world. The format of the course is faculty and student led discussions with the goal of reviewing a topic in One Health with a written product at the end of the course.

R: Graduate Standing

Typically offered in Fall only