

ONE HEALTH (ONEH)

College of Biological Science, College of Social and Applied Human Sciences, Ontario Veterinary College and Ontario Agricultural College. Department of Integrative Biology, Department of Sociology and Anthropology, Department of Geography and Environmental Geomatics, Department of Pathobiology, Department of Population Medicine, School of Environmental Sciences.

One Health offers student the opportunity to explore animal, environmental and human health from both the scientific and socio-cultural perspective. One Health is an approach to research and problem-solving that brings together different knowledge systems and perspectives in order to find solutions that ensure people, animals and our environment stay healthy.

This area of study is also available as a degree: Bachelor of One Health (<https://calendar.uoguelph.ca/undergraduate-calendar/degree-programs/bachelor-of-one-health-boh/#text>).

Minor Learning Outcomes

Problem Solving and Critical Thinking

- Critically evaluate ideas and arguments by gathering and integrating relevant information, assessing its credibility, recognizing context and assumptions, and synthesizing evidence (information) to formulate a position or draw conclusions.
- Identify and articulate problems and evaluate strategies that consider the interconnections between human, animal and environmental health, and their sociocultural and scientific determinants.

Communication

- Accurately and effectively communicate ideas, arguments and analyses, to a range of audiences, using graphic, oral and written forms.
- Translate complex issues to different stakeholders using a variety of media.

Professional and Ethical Behaviour

- Demonstrate integrity by respectfully considering diverse points of view, intellectual contribution of others, and different knowledge systems, and by demonstrating a commitment to honesty, ethical standards, confidentiality, equity, diversity and inclusion.
- Demonstrate mastery of key professional behaviours including adaptability, active listening, ethical reasoning, and leadership, when working individually or with others

Methodology and Techniques

- Evaluate analytical methods to interpret data and make evidence-based decisions.
- Apply a systems-based approach to complex Health challenges including identifying key factors and determining their interactions (balancing, synergistic, antagonistic) with each other and contributions to health; identifying key areas of vulnerability and limiting factors; and developing strategies to manage or mitigate them.

Breadth and Depth of Understanding

- Develop a holistic philosophy of health that includes human, animal, and environmental systems, and identify the role of socio-cultural,

economic, political and scientific determinants on sustainable and resilient health systems.

- Describe the major abiotic, biotic and social components of the environment, either managed or unmanaged, and describe evidence for current trends in environmental change facilitated by human activity.
- Describe the sources of sociocultural and biological (physiological and evolutionary) diversity and its potential impacts on health for a key societal challenge.
- Describe the relationships between environment change and ecosystem, human and animal health, and their significance to complex societal challenge such as climate change, food security, social change and policy development, conservation, and infectious diseases.

Minor Requirements (Honours)

This minor is not open to students registered in the degree: Bachelor of One Health.

A minor in One Health will consist of 5.00 credits:

Required Courses

Code	Title	Credits
ANTH*1150	Introduction to Anthropology	0.50
BIOL*1070	Discovering Biodiversity	0.50
GEOG*1220	Explaining Environmental Change	0.50
ONEH*1000	Introduction to One Health	0.50
ONEH*2000	Case Studies in One Health	0.50

Restricted Electives

Code	Title	Credits
Select 1.50 credits from key knowledge areas in One Health:		
ANTH*1120	Biological Anthropology	0.50
ANTH*2230	Regional Ethnography	0.50
ANTH*2660	Contemporary Indigenous Peoples in Canada	0.50
BIOL*1080	Biological Concepts of Health	0.50
BIOL*2060	Ecology	0.50
BIOL*3060	Populations, Communities and Ecosystems	0.50
ECON*2100	Economic Growth and Environmental Quality	0.50
ENVS*2330	Current Issues in Ecosystem Science and Biodiversity	0.50
ENVS*3210	Plant Pathology	0.50
GEOG*2210	Environment and Resources	0.50
GEOG*3020	Global Environmental Change	0.50
HIST*3310	Disease and History	0.50
IDEV*1000	Understanding Development and Global Inequalities	0.50
MICR*2420	Introduction to Microbiology	0.50
MICR*3230	Immunology	0.50
PATH*3610	Principles of Disease	0.50
PHIL*2030	Philosophy of Medicine	0.50
POLS*2100	Comparative Politics	0.50
POLS*2230	Public Policy	0.50

SOC*2280	Society, Knowledge Systems and Environment	0.50
SOAN*2290	Identities and Cultural Diversity	0.50
SOAN*3380	Contemporary Issues in Culture, Society, Nature	0.50
Select 1.00 credits from One Health areas of application:		
AGR*4600	Agriculture and Food Issues Problem Solving	1.00
ANTH*3550	Medical Anthropology	0.50
ANTH*4550	Topics in the Anthropology of Health	0.50
BIOL*3130	Conservation Biology	0.50
BIOL*4150	Wildlife Conservation and Management	0.50
ENVS*3010	Climate Change Biology	0.50
GEOG*3320	Food Systems: Issues in Security and Sustainability	0.50
GEOG*4210	Environmental Governance	0.50
ONEH*3000	Topics in One Health	0.50
POPM*3240	Epidemiology	0.50
POPM*4230	Animal Health	0.50
POPM*4040	Epidemiology of Food-borne Diseases	0.50
POLS*3370	Environmental Politics and Governance	0.50
POLS*3670	Comparative Public Policy	0.50
PSYC*3110	Topics in Health Psychology	0.50

In consultation with the One Health advisor for the minor a major-specific research, thesis, reading or literature review course may be substituted to meet the area of application credit requirement.