

# GLOBAL HEALTH, CERTIFICATE

The 15-credit certificate provides interdisciplinary perspectives on well-being, health inequities, and the root causes of global health challenges, and it is a great complement to many majors. The certificate is open to all UW–Madison students and welcomes all who are passionate about improving the health of populations across the world.

Students build knowledge about the global burden of disease and threats to well-being and are able to identify parallels between local, domestic, and international health issues. Through coursework and field experiences, students learn about public and global health careers and build valuable cross-cultural communication skills.

## CUSTOMIZE A PATH OF STUDY

The certificate curriculum is flexible including core courses, a diverse range of electives, and a credit-bearing field experience requirement, allowing students to enhance the connection between the certificate and their major field of study as desired. Students have added the certificate to more than 50 majors in Agricultural and Life Sciences, Letters & Science, Human Ecology, Education, Nursing, Engineering, and Business.

## LEARN THROUGH HANDS-ON, REAL-WORLD EXPERIENCES

A required field experience (<https://globalhealth.cals.wisc.edu/about-the-certificate/field-experiences/>) allows students to apply their coursework in a real-life setting where they examine global health issues and explore the connections among human, animal, plant, and environmental health alongside community members and health practitioners in Wisconsin, the U.S., and abroad.

## GAIN GLOBAL PERSPECTIVE

Core courses provide students with a strong global and comparative framework for understanding complex health challenges, and faculty-led field experiences, whether international or within the U.S., allow students to learn about global health challenges from leading experts in the field.

## BUILD COMMUNITY AND NETWORKS

Field experience courses provide opportunities for community-building and high-impact educational experiences in courses with fewer than 20 students. Many students also build connections and develop leadership skills through participation in the many student organizations (<https://globalhealth.cals.wisc.edu/involvement/student-orgs/>) on campus related to global health.

## HOW TO GET IN

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Undergraduate students from across campus are encouraged to consider completing the Certificate in Global Health. There are no prerequisites for declaring, and students pursuing the program are encouraged to declare

as early as possible so that they can best align the coursework with their interests and plan their field experience.

Students can declare the program by scheduling an appointment with their assigned Global Health advisor, or by filling out the online declaration form on the program's website (<https://education.ghi.wisc.edu/undergraduate-certificate-in-global-health/>).

Students declared in the certificate should plan to complete the program before or alongside their degree and major requirements, as they are not able to extend their time on campus to complete a certificate. Students declared in the Global Health major are not eligible to declare the certificate. Students may not declare both the Certificate in Global Health and the Health and the Humanities Certificate.

## REQUIREMENTS

### REQUIREMENTS MINIMUM REQUIREMENTS

- Minimum grade of C in all certificate coursework
- At least 50% of certificate coursework taken in residence

Code	Title	Credits
<b>Foundation Course Requirement</b>		<b>3</b>
NUTR SCI/ AGRONOMY/ ENTOM 203	Introduction to Global Health	
<b>Core Course Requirement (select one)</b>		<b>3-4</b>
Additional core courses can also be taken as elective courses, but a course cannot double count in both categories.		
A A E 352	Global Health: Economics, Natural Systems, and Policy	
AGRONOMY 377	Global Food Production and Health	
CSCS 500	Global Health and Communities: From Research to Praxis	
ENTOM/ ENVIR ST 205	Our Planet, Our Health	
MICROBIO 345	Introduction to Disease Biology	
HIST SCI/ ENVIR ST 213	Global Environmental Health: An Interdisciplinary Introduction	
NUTR SCI 379	Introduction to Epidemiology	
PL PATH 311	Global Food Security	
POP HLTH/ C&E SOC 370	Introduction to Public Health	
<b>Field Experience</b>		<b>1-4</b>
Field experiences are a central component of the certificate program, and range in length from one week to an entire semester. Students are encouraged to complete the field experience prior to their senior year, and should consult the program website for complete information on different field experience programs and courses. <sup>1</sup>		
LAND ARC 360	Earth Partnership Restoration Education: Indigenous Arts & Sciences	

LAND ARC 363	Earth Partnership: Restoration Education for Equity and Resilience	
LEGAL ST 473	Health Impacts of Unmet Social Needs (Note: this course requires an application prior to enrollment.)	
NURSING 436	Health and Illness Concepts with Individuals, Families, and Communities: Experiential Learning (Note: only open to Nursing students.)	
NUTR SCI/INTER-AG 421	Global Health Field Experience (Note: this is a topics course used for study abroad field experience programs as well as some local courses. Many field experiences require applications prior to enrollment, and students should consult the program website for complete information. ) <sup>1</sup>	
<b>Electives</b>		<b>4-8</b>
Select from electives list (see below) to reach a minimum of 15 credits total for the certificate.		
<b>Total Credits</b>		<b>15</b>

<sup>1</sup> Students are advised to consult the program website (<https://education.ghi.wisc.edu/undergraduate-certificate-in-global-health/curriculum/undergraduate-field-experiences/>) for additional information on field experience programs and courses.

## GLOBAL HEALTH ELECTIVE LIST GROUPED BY THEMATIC AREA

### Public and Community Health

Code	Title	Credits
ANTHRO 365	Medical Anthropology	3
C&E SOC/SOC 532	Health Care Issues for Individuals, Families and Society	3
C&E SOC/SOC 533	Public Health in Rural & Urban Communities	3
COM ARTS/JOURN/LSC 617	Health Communication in the Information Age	3
CSCS 500	Global Health and Communities: From Research to Praxis	3
ECON/POP HLTH/PUB AFFR 548	The Economics of Health Care	3-4
FRENCH 288	Doctors without Borders (Médecins Sans Frontières)	3
ISYE 417	Health Systems Engineering	3
KINES 355	Socio-Cultural Aspects of Physical Activity	3
LSC 515	Social Marketing Campaigns in Science, Health and the Environment	3
LSC 625	Risk Communication	3
MED HIST/HIST SCI 212	Bodies, Diseases, and Healers: An Introduction to the History of Medicine	3

MED HIST/PHILOS 505	Justice and Health Care	3
MED HIST/HIST SCI 509	The Development of Public Health in America	3
MED HIST/PHILOS 515	Public Health Ethics	3
MED HIST/HIST SCI/POP HLTH 553	International Health and Global Society	3
MED HIST/PHILOS 558	Ethical Issues in Health Care	3
MED HIST/HIST SCI/HISTORY 564	Disease, Medicine and Public Health in the History of Latin America and the Caribbean	3
NURSING/S&A PHM/SOC WORK 105	Health Care Systems: Interdisciplinary Approach	2
NUTR SCI 379	Introduction to Epidemiology	3
POP HLTH/C&E SOC 370	Introduction to Public Health	3
RELIG ST 102	Exploring Religion in Sickness and Health	3
RELIG ST 475	Religion, Global and Public Health	3
SOC WORK 206	Introduction to Social Policy	4
SOC WORK 646	Child Abuse and Neglect	2

### Social Determinants and Well-Being

Code	Title	Credits
ANTHRO 265	Introduction to Culture and Health	3
AFROAMER/HIST SCI/MED HIST 523	Race, American Medicine and Public Health	3
C&E SOC/AMER IND/SOC 578	Poverty and Place	3
CSCS 410	Human Trafficking: Global and Local Perspectives	3
CSCS 470	The Human Rights of Children and Youth: Global and Local Perspectives	3
GEN&WS 102	Gender, Women, and Society in Global Perspective	3
GEN&WS 103	Gender, Women, Bodies, and Health	3
GEN&WS/PSYCH 522	Psychology of Women and Gender	3
GEN&WS 534	Gender, Sexuality, and Reproduction: Public Health Perspectives	3
GEN&WS/INTL ST 535	Women's Global Health and Human Rights	3
GEN&WS/HIST SCI 537	Childbirth in the United States	3
GEOG 307	International Migration, Health, and Human Rights	3
HDFS/CNSR SCI 465	Families & Poverty	3
HIST SCI 360	Health Inequalities in the Long 20th Century	3

KINES 353	Health and Physical Education in a Multicultural Society	3
POLI SCI/ INTL ST 434	The Politics of Human Rights	3-4
PUB AFFR 520	Inequality, Race and Public Policy	3
RELIG ST 102	Exploring Religion in Sickness and Health	3
SOC 170	Population Problems	3-4
SOC/C&E SOC 343	Sociology of Health and Medicine	3

### Globalization and Development

Code	Title	Credits
A A E/INTL ST 373	Globalization, Poverty and Development	3
A A E/ECON 474	Economic Problems of Developing Areas	3
A A E/ECON 477	Agricultural and Economic Development in Africa	3
C&E SOC/ENVIR ST/ SOC 540	Sociology of International Development, Environment, and Sustainability	3
C&E SOC/SOC 630	Sociology of Developing Societies/ Third World	3
DS 341	Design Thinking for Transformation	3
DS 527	Global Artisans	3
ECON 448	Human Resources and Economic Growth	3-4
GEN&WS 525	Gender and Global Health in Critical Perspective	3
HISTORY/ INTL ST 330	Global History of Humanitarianism	3-4
INTL ST 101	Introduction to International Studies	3-4

### Agriculture, Food Systems, and Nutrition

Code	Title	Credits
A A E/AGRONOMY/ NUTR SCI 350	World Hunger and Malnutrition	3
AGRONOMY 377	Global Food Production and Health	3
AN SCI/DY SCI 370	Livestock Production and Health in Agricultural Development	3
BOTANY 240	Plants and Humans	3
BOTANY/AMER IND/ ANTHRO 474	Ethnobotany	3-4
C&E SOC/SOC 222	Food, Culture, and Society	3
C&E SOC/SOC 341	Labor in Global Food Systems	3
DY SCI/ AGRONOMY 471	Food Production Systems and Sustainability	3
DY SCI/AN SCI/ FOOD SCI/ SOIL SCI 472	Animal Agriculture and Global Sustainable Development	1
GEOG/ ENVIR ST 309	People, Land and Food: Comparative Study of Agriculture Systems	3
HORT 350	Plants and Human Wellbeing	2
HORT 370	World Vegetable Crops	3

HORT/ AGRONOMY 376	Tropical Horticultural Systems	2
HORT 380	Indigenous Foodways: Food and Seed Sovereignty	2
NUTR SCI 132	Nutrition Today	3
or NUTR SCI 332	Human Nutritional Needs	
NUTR SCI 377	Cultural Aspects of Food and Nutrition	3
NUTR SCI/ BIOCHEM 510	Nutritional Biochemistry and Metabolism	3
PL PATH/ BOTANY 123	Plants, Parasites, and People	3
PL PATH 311	Global Food Security	3

### Environmental Health and Sustainability

Code	Title	Credits
A A E/ENVIR ST 244	The Environment and the Global Economy	4
A A E/ECON/ ENVIR ST 343	Environmental Economics	3-4
A A E 352	Global Health: Economics, Natural Systems, and Policy	4
CIV ENGR 423	Air Pollution Effects, Measurement and Control	3
C&E SOC/ F&W ECOL/ SOC 248	Environment, Natural Resources, and Society	3
ENTOM/ ENVIR ST 205	Our Planet, Our Health	3
ENTOM 490	Biodiversity and Global Change	3
F&W ECOL/ AGRONOMY/ ENTOM/ M&ENVTOX 632	Ecotoxicology: The Chemical Players	1
F&W ECOL/ AGRONOMY/ ENTOM/ M&ENVTOX 633	Ecotoxicology: Impacts on Individuals	1
F&W ECOL/ AGRONOMY/ ENTOM/ M&ENVTOX 634	Ecotoxicology: Impacts on Populations, Communities and Ecosystems	1
GEOG/ ENVIR ST 139	Global Environmental Issues	3
HIST SCI/ ENVIR ST 213	Global Environmental Health: An Interdisciplinary Introduction	3
POP HLTH/ ENVIR ST 471	Introduction to Environmental Health	3
POP HLTH/ ENVIR ST 502	Air Pollution and Human Health	3
SOIL SCI/ ATM OCN 132	Earth's Water: Natural Science and Human Use	3
URB R PL 550	Transportation and the Built Environment	3

## Disease Biology

Code	Title	Credits
ENTOM/ ZOOLOGY 371	Medical Entomology	3
F&W ECOL/ SURG SCI 548	Diseases of Wildlife	3
M M & I 301	Pathogenic Bacteriology	2
M M & I/ENTOM/ PATH-BIO/ ZOOLOGY 350	Parasitology	3
M M & I 554	Emerging Infectious Diseases and Bioterrorism	2
MICROBIO 345	Introduction to Disease Biology	3
PATH/PATH-BIO 210	HIV: Sex, Society and Science	3
PATH 404	Pathophysiologic Principles of Human Diseases	3
PHM SCI 310	Drugs and Their Actions	2

## CERTIFICATE COMPLETION REQUIREMENT

This undergraduate certificate must be completed concurrently with the student's undergraduate degree. Students cannot delay degree completion to complete the certificate.

## LEARNING OUTCOMES

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1. Identify and articulate the global burden of disease, opportunities and threats to well-being, and the root causes and possible solutions to these challenges.
2. Demonstrate a holistic and critical perspective on human health and well-being.
3. Utilize global frameworks for policy development and action for improved health, well-being, and equity.
4. Identify local, national and international health issues, and the connections between these challenges.
5. Engage and communicate respectfully with diverse colleagues and local partners.
6. Reflect and demonstrate self-awareness, humility, and empathy toward multiple cultural perspectives and knowledge.

## ADVISING AND CAREERS

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#### ADVISING

Each certificate student is assigned an advisor who works to understand student goals and helps each student shape their path through the certificate. Advisors also provide students with advising around options to fulfill the field experience requirement and post-graduation plans such as "gap year" opportunities, jobs, fellowships, and graduate school.

Connect with Global Health Advisors (<https://globalhealth.cals.wisc.edu/advising/>)

### CAREER OPPORTUNITIES

Many graduates connect their major and certificate studies to best match employers looking for a global health perspective. Areas for future careers are extremely varied, but include healthcare professions, public health and epidemiology, research, policy, education, health communications, environmental health, and international development.

## PEOPLE

### PEOPLE

#### FACULTY AND INSTRUCTORS

Jeri Barak, Department of Plant Pathology

Kara Bresnahan, Department of Nutritional Sciences

Kerri Coon, Department of Bacteriology

Lori DiPrete Brown, Department of Civil Society and Community Studies

Malia Jones, Department of Community and Environmental Sociology

Richard Keller, Department of Medical History and Bioethics

Linda Oforka, Department of Entomology

Susan Paskewitz, Department of Entomology (faculty director)

Jonathan Patz, Nelson Institute for Environmental Studies

Paul Peppard, Department of Population Health Sciences

Daniel Phaneuf, Department of Agricultural and Applied Economics

Sherry Tanumihardjo, Department of Nutritional Sciences

Valentin Picasso Risso, Department of Agronomy

Monica White, Department of Community and Environmental Sociology

#### ADVISING HUB STAFF

Todd Courtenay, Advisor and Associate Director

Kelcey Daniels, Advisor

Megan Juneau, Advisor

## WISCONSIN EXPERIENCE

### WISCONSIN EXPERIENCE INTERNSHIPS

Local or international internships may be part of students' field experience requirement. Examples include: Community Health Internship Program with the Wisconsin Areas Health Education Centers (<https://ahec.wisc.edu/>); Resource Navigator Internship Program with the Center for Patient Partnerships (<https://patientpartnerships.wisc.edu/>); Wisconsin in Washington Internship Program (<https://studyabroad.wisc.edu/uwindc/>); and internships through the International Internship Program (<https://internships.international.wisc.edu/>).

## GLOBAL ENGAGEMENT

Immersive field experiences (<https://globalhealth.cals.wisc.edu/about-the-certificate/field-experiences/>) are a hallmark of the certificate program and include both local and international opportunities. Local field experiences are offered in Madison and throughout Wisconsin. International field experiences are offered across the globe: Mexico, Costa Rica, Ecuador, Tanzania, Ghana, Uganda, Sri Lanka, Nepal, Thailand, Japan, China, Spain, and Austria.

## RESEARCH EXPERIENCE

Many students pursuing the certificate choose to be involved in research (<https://globalhealth.cals.wisc.edu/involvement/research/>) and are mentored by leading researchers in global health. Examples include: studying the effects of climate change on human and ecosystem health; researching ways to prevent Lyme disease spread by ticks; examining how women's empowerment leads to better health outcomes; or investigating methods to evaluate population vitamin A status which informs global health policy.

## COMMUNITY ENGAGEMENT AND VOLUNTEERING

Several student organizations (<https://globalhealth.cals.wisc.edu/involvement/student-orgs/>) on campus are related to global health. These organizations can be a great way to connect with other students with similar interests, network, get involved in the local community (<https://globalhealth.cals.wisc.edu/involvement/community-engagement/>), and learn more about global health or other similar topics. Examples include Slow Food, Community Health Volunteers of Madison, and Partners in Health Engage.