

SUSTAINABLE FOOD and AGRICULTURE

Describe the main biophysical and socioeconomic constraints in food systems at global and local scales.

1. Apply knowledge of agricultural soils and plant growth to solve problems related to crop production, soil conservation, and natural resource management.
2. Identify the links between food systems and other aspects of the Earth system, including water, energy, and climate systems.
3. Assess and critique proposed policy or technological solutions that claim to make food systems more sustainable.

FOUNDATION & BREADTH:

- BIO 81 or BIOHOPK 81; or HUMBIO 2A & 2B; or EARTHSYS 116; or BIOHOPK 175H
- CHEM 31A & 31B or 31M or GEOLSCI 2
- ECON 1
- GEOLSCI 1 or GEOLSCI 4 or EARTHSYS 117 or EARTHSYS 128
- MATH 19, 20, 21
- MATH 51 or CME 100
- GEOPHYS 110 or PHYSICS 41 or PHYSICS 45
- Statistics: EARTHSYS 100A or EARTHSYS 101A or BIO 202 or ECON 102A or STATS 101 or 110 or 116 or 141 or CME 106 or BIOHOPK 174H

The courses listed above do not need to be taken for a letter grade.

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- EARTHSYS 10
- EARTHSYS 111
- EARTHSYS 112
- EARTHSYS 210 A or B (Senior Capstone & Reflection)
- EARTHSYS 210P (Capstone Project) or EARTHSYS 199: Honors Program in Earth Systems
- EARTHSYS 260 (Internship)
- WIM: EARTHSYS 191, EARTHSYS 177C, EARTHSYS 149, BIOHOPK 47, BIOHOPK 175H or another designated WIM course in a related department - must be approved by an advisor. Your WIM course may not also count towards your track or electives, if counted as a WIM.

ENVIRONMENTAL, JUSTICE, ETHICS, AND HUMAN RIGHTS

Complete ANY of the following Courses:

- ANTHRO 123C - "Third World Problems?" Environmental Justice Around the World
- EARTHSYS118 - Heritage, Environment, and Sovereignty in Hawaii
- EARTHSYS125 - Shades of Green: Exploring and Expanding Environmental Justice in Practice
- EARTHSYS194 - Topics in Writing & Rhetoric: Introduction to Environmental Justice: Race, Class, Gender and Place
- ENVRES 215A - Topics in International Justice, Rights, and the Environment
- ETHICSOC 136R - Introduction to Global Justice
- ETHICSOC171 - Justice
- ETHICSOC 178M - Introduction to Environmental Ethics
- RELIGST 7N - Religion, Ecology, and Environmental Ethics
- STS190 - Environment and Society

TRACK SUB-CATEGORIES: A total of seven courses are required from the Sustainable Food and Agriculture Focus Areas. Check Explore Course for availability and updates.

Fundamentals of Agriculture Production and Economics (both required)

ECON 106 World Food Economy
EARTHSYS 185 Feeding Nine Billion

Biogeophysical Dimensions (3 required)

Required

EARTHSYS 155 Science of Soils

Alternatives (choose 2)

BIO 115 The Hidden Kingdom: Evolution, Ecology, and Diversity of Fungi
EARTHSYS 142 Remote Sensing of Land
EARTHSYS 256 Soil and Water Chemistry
HUMBIO 113 The Human-Plant Connection
HUMBIO 130 Human Nutrition

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Social Dimensions (choose 1)

ARCHLGY 124	Archaeology of Food: Production, Consumption, and Ritual
BIO 144	Conservation Biology: A Latin American Perspectives
EARTHSYS 289	FEED Lab: Food System Design & Innovation
ECON 118	Development Economics (Pre-requisites: ECON 51 and 102B)
HUMBIO 113S	Healthy/Sustainable Food Systems: Maximum Sustainability across Health, Economics, and the Environment (Offered every other year)
HUMBIO 166	Food and Society: Exploring Eating Behaviors in Social, Environmental, and Policy Context

Applied Study in the Field (choose 1)

EARTHSYS 180	Principles and Practices of Sustainable Agriculture
EARTHSYS 181	Urban Agriculture in the Developing World
EARTHSYS 182A	Ecological Farm Systems