SCIENTIFIC KNOWLEDGE AND INQUIRY

Area Goal: This Core Area of Inquiry will invite students to explore the fundamental principles, concepts, questions, and methods of science.

Area Objectives: In the study of scientific knowledge and inquiry, students will explore how empirical questions are addressed using the iterative methods and tools of science. Students will also examine the scientific underpinnings of environmental processes. This Core Area will prepare students to make reasoned decisions and informed judgments about the role science plays for people, communities, societies, and life on Earth.

Curriculum

Foundational/Tier I

Code	Title	Hours
ENVS 101	The Scientific Basis of Environmental Issues	3

Tier II

A requirement for all Tier II Courses: ENVS 101 The Scientific Basis of Environmental Issues. Please check requirements for declared majors/minors for exceptions.

Code	Title	Hours
Choose one of the following:		3
ANTH 101	Human Origins [D]	
ANTH 103	Biological Background Human Social Behavior [D]	
ANTH 104	The Human Ecological Footprint	
ANTH 105	Human Biocultural Diversity [D]	
ANTH 106	Sex, Science and Anthropological Inquiry [D]	
BIOL 110	Liberal Arts Biology	
ENVS 207	Plants and Civilization	
ENVS 218	Biodiversity & Biogeography	
ENVS 223	Soil Ecology	
ENVS 224	Climate & Climate Change	
ENVS 226	Science & Conservation of Freshwater Ecosystems	
ENVS 273	Energy and the Environment	
ENVS 283	Environmental Sustainability	
PHYS 101	Liberal Arts Physics	
PHYS 102	Planetary and Stellar Astronomy	
PHYS 106	Physics of Music	

D Courses with a Diversity Designation (https://www.luc.edu/core/core-diversity/) are indicated with a (D).

Area Learning Outcomes

After completing the two courses in this Area, students will be able to:

1. explain Earths' physical, chemical, and biological systems and the implications of their alteration by human activities.
2. describe how scientific data are collected, analyzed, and interpreted using the Scientific Method and fundamental scientific principles and concepts.
3. collect, analyze, and interpret scientific data to explore empirical questions.
4. communicate scientific processes and results.
5. articulate the philosophical or historical foundations of one or more contemporary scientific disciplines.