**Philosophy of Science, Nature, & Technology**

(PHIL 307i - 001)

Fall Semester, 2025

A close-up of a map

AI-generated content may be incorrect.A black and green triangle

AI-generated content may be incorrect.A painting of a person looking through a telescope

AI-generated content may be incorrect.

By taking an outside look at the natural sciences, with their methods, concepts, goals, and research tools, we aim to better understand how they function in their pursuit of knowledge of the natural world. What are the fundamental principles of nature themselves is also a concern, and thus we further contemplate the natural world from a metaphysical, aesthetic, and ethical point of view. These big-ticket philosophical issues are not only implicit in the work of scientists, they are highly relevant to the ways others engage with nature, including environmentalists, farmers, wildlife managers, and outdoor enthusiasts. Beginning with the Scientific Revolution, we consider the foundational ideas of René Descartes and his contemporary Galileo Galilei—both practicing scientists and philosophical thinkers. Next, we examine the philosophy of nature of Ralph Waldo Emerson and the philosophy of science of Charles Sander Peirce. These representatives of American thought (deemed the “American Plato” and “American Aristotle,” respectively) contribute significant advances to our understanding of nature and science. Lastly, in the philosophically inspired writings of the paleontologist Loren Eiseley, we treat some of the most compelling questions for humankind: the origin of life on Earth and the evolutionary place of the human species. Some particular philosophical issues that we address throughout the course are: the scientific method, religious and societal dogma, rationalism and empiricism, the purpose of science and technology, logical forms of reasoning, epistemic grounds for truth, the mechanistic view of nature, metaphysical monism and dualism, objective idealism, evolution, the beauty and practical uses of nature, anthropocentricism, and our ethical obligations to nature.

Tuesday & Thursday, 9:35–10:50AM Dr. Nicholas Guardiano

[nguardia@siu.edu](mailto:nguardia@siu.edu)