

SCIENCE FOUNDATIONS, CERTIFICATE

The physical and life sciences enable us to better understand the workings of the universe and living things. The courses in this cluster, which are designed to enhance your understanding of science, will provide you with the foundations needed for further studies in this area. The Certificate in Science Foundations at Penn LPS Online, which is for credit, is a 4-course, (4 c.u.*) online program of study. The objective of this certificate is to enable you to increase your skills as both a consumer and communicator of scientific information while at the same time honing the foundational skills required for careers in the sciences.

The goals of the Certificate in Science Foundations are to:

- Examine the basic concepts of the physical and life sciences
- Evaluate scientific materials, especially those containing quantitative information or speculations, using the scientific method
- Gain an appreciation of the ways in which the physical and life sciences intersect and interact
- Learn how to communicate scientific concepts effectively, whether it is to one's peers or to members of other communities
- Critically analyze data quantitatively using the appropriate mathematical, statistical or graphical tools

Curriculum

Students who complete the four courses listed below earn a Certificate in Science Foundations.

Code	Title	Course Units
MTHS Requirement: Select one of the following		1
MTHS 1000	Mathematical Foundations for Data Analytics	
MTHS 2000	Mathematics All Around You	
PHYL 1200	Foundations of Life Sciences	1
PHYL 1600	Foundations of Physical & Chemical Sciences	1
CLCH 3000	Communicating Science	1
Any course with Attribute = BCSF		
Total Course Units		4

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
