



Undergraduate Programs

Physical Sciences

Academic Units:

- > **Astronomy & Astrophysics**
astro.psu.edu
- > **Chemistry**
chem.psu.edu
- > **Physics**
phys.psu.edu

Are you interested in matter, energy, and their interactions?

A degree in one of our physical sciences majors might be right for you!

Our students in the physical sciences explore the solar system and beyond, use chemistry to solve real-world problems, and discover the laws that govern the natural world.

If you think you might be interested in the physical sciences, check out these majors:

- **Astronomy & Astrophysics**
- **Chemistry**
- **Physics**
- **Planetary Science & Astronomy**

The Eberly College of Science

is one of the most recognized and respected science colleges in the country.

Whether you know exactly which area of science you'd like to study, or if you're still deciding what your major will be—the opportunities for you are endless. From finding a career path to spending a semester studying abroad, securing an internship or doing groundbreaking research with our faculty—you'll discover which area of science is right for you.

Our team is here to help.

Still have questions?

Contact us at

futurestudents@science.psu.edu

Undergraduate Majors in Physical Sciences

A variety of degree options allows you to tailor your education to match your goals and interests.

Astronomy & Astrophysics

Astronomers study the fundamental problems of the nature and evolution of our universe. In this major, you can explore the properties and origins of the planets, stars, and galaxies, and of the universe as a whole.

Program Options:

- Computer Science option
- Graduate Studies option

You might like this program if...

- You enjoy applying the ideas of physics to the study of complex systems and phenomena beyond our own planet.
- You want to study the answers to big questions relating to astronomy, such as "How was the universe created?" and "How likely is it that life exists beyond Earth?"

Physics

Physicists study natural phenomena in the universe to discover the basic principles and laws that govern the physical world. In this major, you can study the fundamental conceptual, mathematical, computational, and experimental tools that are needed to tackle these scientific and technological challenges.

Program Options:

- General option
- Medical option
- Electronics option
- Computational option
- Materials-Nanotechnology option: Nanotechnology track
- Materials-Nanotechnology option: Materials track

You might like this program if...

- You are curious about how things work.
- You are fascinated by how the natural world is organized, how mathematics describes it, how experiments can probe its properties, and how one can predict new physical phenomena.

Chemistry

Chemists study matter and the changes it can undergo. In this major you can seek to gain a molecular-level understanding of compounds and materials through the building, measuring, and modeling of their properties, while learning to predict and explain changes when they react to form new substances.

Program Options:

- Analytical Concentration option
- Physical Concentration option
- Synthetic/Biological Concentration option

You might like this program if...

- You are curious about why the materials you encounter in daily life have certain properties and interact in different ways.
- You want to help create new and better chemicals for personal care, medicine, construction, agriculture, or energy storage.

Planetary Science & Astronomy

Planetary scientists study the Earth system in the context of the solar system and the universe as a whole. In this major, you can apply knowledge and methods from mathematics, geosciences, chemistry, biology, astronomy, and physics to explore the Earth and use telescopes to obtain astronomical data.

You might like this program if...

- You want to delve deeper into questions about black holes, life in the cosmos, and the origin of the universe.
- You have an interest in science communication or science education.

Additional Resources:

- > **Office of Diversity and Inclusion**
science.psu.edu/diversity
sci-diversity@science.psu.edu

