

College of Sciences Career Guide
Bachelor of Science in Physics
Concentration in Computational Physics

About the Major and Concentration

The Bachelor of Science in Physics with a concentration in Computational Physics is intended to train students with the state-of-the-art knowledge in physics and scientific computing for either professional positions or graduate studies in computational physics or related areas.

Computational physics combines physics, computer sciences, and applied mathematics in order to provide scientific solutions to realistic and complex problems.

A computational physicist understands not only the workings of computers and the relevant science and mathematics, but also how computer algorithms and simulations connect the two. As the fields of science, engineering, and technology rapidly advance, computational physics are in great demand. Graduates of this degree program should possess an in-depth education in physics, mathematics, and computing as well as valuable skills in complex problem-solving and team work.

Skills

Mathematical Reasoning
Problem Solving
Ability to Interpret Data
Critical Thinking

Potential Career Opportunities

Astronomer
Astrophysicist
Atomic, Molecular, Optics Physicist
Chemical Physicist
Computer Scientist
Engineering Physicist
Geophysicist
Government Researcher
Medical Physicist
Nuclear Physicist
Space Physicist
STEM Education

Common Career Areas for this Major

Research and Development

Data and Analysis

Astronomy or Astrophysics

Energy and Renewable Energy

Computer Science

Engineering Physics

STEM Education