

ASTRONOMY

This major allows students to work with scientists who explore the structure of matter and how it organizes itself by observing the most elemental forms of nature and how they behave in both inner and outer space. USC Dornsife astronomers work with the Wilson Observatory (one of the world's largest interferometer telescopic arrays for stellar research), the Jet Propulsion Laboratory, and the High Degree Helioseismology Network.

BACHELOR OF ARTS (BA) GENERAL OVERVIEW

Eight lower-division courses:

- **Advanced Principles of Physics I, II, and III**
- **Calculus I, II, and III**
- **Linear Algebra and Linear Differential Equations**
- **Physics Discovery Series: Freshman Colloquium**

Additional four courses required for a Bachelor of Science (BS):

- **Mathematics of Physics and Engineering II**
- **Electricity and Magnetism A**
- **Introduction to Quantum Mechanics A and B**

Seven upper-division courses:

- **The Solar System**
- **Galaxies and Large-Scale Structures in the Universe**
- **Cosmology**
- **Stellar Astrophysics**
- **Mechanics**
- **Thermodynamics and Statistical Mechanics**
- **Senior Lab**

ACADEMIC OPPORTUNITIES

Colloquia: A mixture of USC and visiting professors deliver weekly lectures on special topics related to physics and astronomy. Notable past speakers include Michael Thompson from the National Center for Atmospheric Research, Aerospace Science Curator Ken Phillips from the California Science Center, and celebrated physicist and cosmologist Stephen Hawking.

Space Sciences Center: Research at the SSC involves both laboratory-based and space-based investigations of photoabsorption and emission processes in atomic and molecular gases in the spectral region from the extreme ultraviolet through the infrared.

Study Abroad: Earn credit while studying at noted universities in a variety of locations including the United Kingdom, France, Chile, and Australia.