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 also 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) AND BACHELORS OF SCIENCE (BS) REQUIREMENTS OVERVIEW**

**Seven Lower Division Courses**
- Fundamentals of Physics I, II and III
- Calculus I, II, and III
- Mathematics of Physics and Engineering I
- Physics Discovery Series: Freshman Colloquium (recommended)

**Seven Upper Division Courses**
- The Solar System
- Galaxies and Large-Scale Structures in the Universe
- Cosmology
- Stellar Astrophysics
- Mechanics
- Thermodynamics and Statistical Physics
- Advanced Experimental Techniques in Physics

**Additional Three Courses Required for a Bachelor of Science (BS)**
- Electricity and Magnetism
- Introduction to Quantum Mechanics and its Applications
- Mathematics of Physics and Engineering II

**EXPERIENTIAL 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 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.

For additional information, including all major requirements, please consult the USC Catalogue or http://dornsife.usc.edu/physics/undergraduate-astronomy/