BS in Physics with Emphasis in Astronomy

Degree Program Description

Physics is the science that studies the structure and properties of matter and transformations of energy. With math as the language and experimental verification as a guide, physical study has established the fundamental laws of nature that are the foundation of all natural science and technology. The study of physics includes learning the general principles and the phenomena that have been discovered and developing the skills that enable such knowledge to be advanced through research. An emphasis area in astronomy is excellent preparation also for science teachers, laboratory technicians, computer programmers, and science journalists. It can also serve as the basis for graduate degrees in other fields, such as law or medical school. People with a degree (or background) in Physics with an emphasis in astronomy find jobs in planetariums, science museums, national observatories, national laboratories, federal agencies, universities, businesses or private industry.

Major Program Requirements

In addition to University (http://catalog.missouri.edu/academicdegreerequirements/universityrequirements/), general education (http://catalog.missouri.edu/academicdegreerequirements/ generaleducationrequirements/), and College of Arts and Science (http://catalog.missouri.edu/collegeofartsandscience/#undergraduatetext) requirements, students must also meet the following major program requirements. All major requirements in the College of Arts and Science must be completed with grades of C- or higher unless otherwise indicated.

Students interested in astronomy may choose to pursue a BS in Physics with an Emphasis in Astronomy (the emphasis will show up on the transcript). For this option, students must take the required physics courses (http://catalog.missouri.edu/collegeofartsandscience/physics/bs- physics/), and five additional astronomy/physics elective courses. Four of the astronomy/physics electives must be chosen from the list below:

- ASTRON 3010: Introduction to Modern Astrophysics 3
- ASTRON 4020: Astrophysical Techniques 3
- PHYSCS 4110: Light and Modern Optics 4
- ASTRON 4180: Solar System Science 3
- ASTRON 4250: Stellar Astrophysics 3
- ASTRON 4350: Galactic Astronomy 3
- ASTRON 4360: Extragalactic Astronomy 3
- ASTRON 4450: Introduction to Cosmology 3
- ASTRON 4460: Interstellar Medium 3
- ASTRON 4550: Cosmochemistry 3
- ASTRON 4950: Undergraduate Research in Astronomy 1-3
- ASTRON 4980: Senior Thesis in Astronomy 3

Semester Plan

Below is a sample plan of study, semester by semester. A student's actual plan may vary based on course choices where options are available.