

## [Emphasis - Astrophysics](#)

- [B.S. in Physics](#)
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### **B.S. in Physics** **Description**

The B.S. degree in physics is recommended for students wishing to go to graduate school in physics. There are optional emphases in astrophysics and biophysics. The degree prepares a student for teaching physics, for graduate or professional schools, such as law school or education school, and for jobs in technical fields. Students interested in teaching high school physics may need a secondary education certification along with the degree.

### **Minimum Total Credit Hours: 120**

### **General Education Requirements**

See the 'General Education/Core Curriculum' for the School of Liberal Arts.

### **Course Requirements**

A B.S. major in physics must have a working knowledge of mathematics, including differential equations. B.S. physics majors must take Math 261, 262, 263, 264, 319, and 353. All six required math courses should be completed by the end of the junior year. At least 45 hours of physics and astronomy courses are required for the B.S. degree, including Phys 211, 212, 221, 222, 303, 308, 309, 310, 317, 319, 401, 402, 451; at least 2 hours of Phys 463 and/or 464; and Phys 417 as an additional upper-division physics laboratory-based course in addition to Phys 319. Students may satisfy the Phys 211-212 requirements by demonstrating a high level of proficiency on an exam, but then will need to complete the 45 hours of physics and astronomy by taking additional higher-level Phys and Astr courses. Up to 6 hours of astronomy courses at the 300 level or higher can count toward the degree.

### **Emphasis - Astrophysics** **Course Requirements**

A B.S. major in physics must have a working knowledge of mathematics, including differential equations. B.S. physics majors must take Math 261, 262, 263, 264, 319, and 353. All six required math courses should be completed by the end of the junior year. At least 48 hours of physics and astronomy courses are required for the B.S. degree with emphasis in astrophysics, including Phys 211, 212, 221, 222, 303, 308, 309, 310, 317, 319, 401, 402, 451, Astr 325 and 436, at least 2 hours of Phys 463 and/or 464; and Phys 417 as an additional upper-division physics laboratory-based course in addition to Phys 319. (Typically, either Phys 321 or Phys 417 is taken as the other lab class.) Students may satisfy the Phys 211-212 requirements by demonstrating a high level of proficiency on an exam, but then will need to complete the 48 hours of physics and astronomy by taking additional higher-level Phys and Astr courses. Students in the B.S. program with emphasis in astrophysics may not minor in astronomy.

