BACHELOR OF SCIENCE (BS) DEGREE WITH A MAJOR IN ASTROPHYSICS

Program Learning Outcomes for the BS Degree with a Major in Astrophysics

Upon completing the BS degree with a major in Astrophysics, students will be able to:

1. Demonstrate a solid foundation of knowledge in astrophysics and deeper knowledge of subdivisions of the field related to their interests.
2. Identify, formulate, and solve challenging scientific and technical problems as encountered in astrophysics.
3. Read basic scientific literature and communicate scientific results orally and in writing with scientists and the general public.
4. Conduct directed research.

Requirements for the BS Degree with a Major in Astrophysics

For general university requirements, see Graduation Requirements (ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements). Students pursuing the BS degree with a major in Astrophysics must complete:

- A minimum of 73 credit hours to satisfy major requirements.
- A minimum of 133 credit hours to satisfy degree requirements.
- A minimum of 60 credit hours outside of major requirements.
- A minimum of 40 credit hours taken at the 300-level or above.

Students may obtain credit for some courses by advanced placement, and the department’s undergraduate committee can modify requirements to meet the needs of students with special backgrounds.

The courses listed below satisfy the requirements for this major. In certain instances, courses not on this official list may be substituted upon approval of the department’s undergraduate committee for input into Degree Works by the major’s official certifier. Students and their academic advisors should identify and clearly document the courses to be taken.

### Summary

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td></td>
<td>Total Credit Hours Required for the Major in Astrophysics</td>
<td>73</td>
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<tr>
<td></td>
<td>Total Credit Hours Required for the BS Degree with a Major in Astrophysics</td>
<td>133</td>
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### Degree Requirements

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<th>Code</th>
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<th>Credit Hours</th>
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<td></td>
<td><strong>Required Courses</strong></td>
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Select 1 from the following:

<table>
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<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td></td>
<td>PHYS 101 MECHANICS (WITH LAB)</td>
<td>4</td>
</tr>
<tr>
<td>&amp; PHYS 103 and MECHANICS DISCUSSION</td>
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Footnotes and Additional Information
* Includes coursework completed as distribution credit, FWIS, LPAP, upper-level, residency (hours taken at Rice), 60 hours outside of the major (if applicable), and any additional academic program requirements. The “hours outside of the major” requirement may include all of the above university requirements.

1 PHYS 491 and PHYS 493 must be taken concurrently.
2 PHYS 492 and PHYS 494 must be taken concurrently.

Policies for the BS Degree with a Major in Astrophysics

Program Restrictions and Exclusions
Students pursuing the major in Astrophysics should be aware of the following program restriction:

- Students pursuing the major in Astrophysics may not additionally declare the minor in Physics.

Transfer Credit
For Rice University’s policy regarding transfer credit, see Transfer Credit (ga.rice.edu/undergraduate-students/academic-policies-procedures/transfer-credit). Some departments and programs have additional restrictions on transfer credit. The Office of Academic Advising maintains the university’s official list of transfer credit advisors on their website: http://oaa.rice.edu. Students are encouraged to meet with their academic program’s transfer credit advisor when considering transfer credit possibilities.

Departmental Transfer Credit Guidelines
Students pursuing the major in Astrophysics should be aware of the following departmental transfer credit guidelines:

- Requests for transfer credit will be considered by the program director (and/or the program’s official transfer credit advisor) on an individual case-by-case basis.

For additional information, please see the Physics and Astronomy website: http://physics.rice.edu/

Opportunities for the BS Degree with a Major in Astrophysics

Academic Honors
The university recognizes academic excellence achieved over an undergraduate’s academic history at Rice. For information on university honors, please see Latin Honors (ga.rice.edu/undergraduate-students/honors-distinctions/university) (summa cum laude, magna cum laude, and cum laude) and Distinction in Research and Creative Work (ga.rice.edu/undergraduate-students/honors-distinctions/university). Some departments have department-specific Honors awards or designations.

Research in the Department of Physics and Astronomy
The Physics and Astronomy Department encourages undergraduate participation in research, both within the department and through extramural programs. For current opportunities, please visit the Department’s website and click on the Undergraduate Study link, at: http://www.physics.rice.edu/.

For additional information, please see the Physics and Astronomy website: http://physics.rice.edu/