

# ASTRONOMY (B.A.)

This program is intended to provide students with foundational knowledge in astronomy and space science. Students will graduate with strong scientific preparation and communication skills and will have a wide range of career options including entry-level jobs as well as graduate education in law, business, education, social and physical sciences. In short, these students will have all the traditional options of liberal arts majors with the added advantage of a unique science background.

Admission requirements for this program are satisfied by the general requirements for undergraduate admission (<http://bulletins.wayne.edu/undergraduate/general-information/admission/>) to the University.

Candidates must complete 120 credits in course work including satisfaction of the University General Education Requirements (<http://bulletins.wayne.edu/undergraduate/general-information/general-education/>) and the College of Liberal Arts and Sciences Group Requirements (<http://bulletins.wayne.edu/undergraduate/college-liberal-arts-sciences/bachelors-degree-requirements/>), as well as the Departmental major requirements cited below. All course work must be completed in accordance with the regulations of the University (<http://bulletins.wayne.edu/undergraduate/general-information/academic-regulations/>) and the College (<http://bulletins.wayne.edu/undergraduate/college-liberal-arts-sciences/academic-regulations/>) governing undergraduate scholarship and degrees.

Students must receive a grade of C- or better in all physics and/or astronomy courses and prerequisite courses. A cumulative grade point average of 2.0 or higher for all course work is required for graduation.

Additionally, student must complete:

Code	Title	Credits
AST 1010	Discovering the Universe	1
AST 2010	Descriptive Astronomy	4
AST 2011	Descriptive Astronomy Laboratory	1
AST 2030	Life in the Universe	3
PHY 2170	University Physics I for Scientists and Engineers <sup>1</sup>	4
PHY 2171	University Physics I Experimental Laboratory	1
PHY 2180	University Physics II for Scientists and Engineers <sup>1</sup>	4
PHY 2181	University Physics II Experimental Laboratory	1
PHY 3300	Introductory Modern Physics	3
PHY 3310	Introductory Modern Physics Laboratory	2
PHY 3750	Introduction to Computational Methods	1
AST 4100	Astronomical Techniques	3
AST 4200	Astronomical Laboratory	2
AST 4300	Planetary Astronomy and Space Science	3
AST 5010	Astrophysics and Stellar Astronomy	3
AST 5100	Galaxies and the Universe	3
MAT 2010	Calculus I	4
MAT 2020	Calculus II	4
PHY 6750 or PHY 6860	Applied Computational Methods Computational Physics	2-3
<b>Total Credits</b>		<b>49-50</b>

<sup>1</sup> A student may present credits in PHY 2130, PHY 2140 or equivalent, in lieu of PHY 2170 and PHY 2180, with the consent of the Departmental Undergraduate advisor.

Electives to complete credits required for the degree may include any courses from the College of Liberal Arts and Sciences.

## Physics AGRADE Program

Seniors in Physics and Astronomy, with a minimum grade point average of 3.5, may enroll simultaneously in the undergraduate and graduate programs. These students can apply up to fifteen credits towards both the bachelors and masters degrees in physics. Contact Undergraduate Academic Advisor for further information.