

ASTRONOMY (B.S.)

The Bachelor of Science (BS) degree in Astronomy provides a rigorous physical sciences program for those with an interest in astronomy. The strong math, physics and astronomy background of this program will prepare students wanting to pursue graduate school. Moreover, the problem solving, data analysis, scientific communication, physical reasoning, and computational skills developed during the program provides preparation for careers in a wide range of STEM-related professional fields.

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.

Note: In some cases the requirements of a specific program will increase the number of credits above 120.

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

Students should consult with the Undergraduate Academic Advisor in the Department of Physics and Astronomy for more detailed information concerning the various degrees and options outlined below.

Code	Title	Credits
AST 1010	Discovering the Universe	1
AST 2010 & AST 2011	Descriptive Astronomy and Descriptive Astronomy Laboratory	5
AST 2030	Life in the Universe	3
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
AST 6080	Survey of Astrophysics	3
PHY 2170 & PHY 2171	University Physics I for Scientists and Engineers and University Physics I Experimental Laboratory	5
PHY 2180 & PHY 2181	University Physics II for Scientists and Engineers and University Physics II Experimental Laboratory	5
PHY 3300 & PHY 3310	Introductory Modern Physics and Introductory Modern Physics Laboratory	5
PHY 3750	Introduction to Computational Methods	1
PHY 6750 or PHY 6860	Applied Computational Methods Computational Physics	2-3
MAT 2010	Calculus I	4
MAT 2020	Calculus II	4

MAT 2030	Calculus III	4
MAT 2150	Differential Equations and Matrix Algebra	4
Two electives in Physics		6
Total Credits		66-67

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.