Requirements for Astronomy B.A. Degree

(Students starting before Fall 2023)

This track is designed for students seeking careers in teaching, museum work, science writing, pre-med, etc. Majors in this track must develop a plan to complete course requirements with their advisor.

The requirements listed below are the Department major requirements only. In addition, to graduate you will need to satisfy the University General Education requirements and the College requirement for proficiency in a foreign language. Two of the general educations requirements (Junior Year Writing and Integrative Experience) are discipline specific and are summarized below.

Astronomy Courses:

ASTRON 191A: First Year Seminar (1 cr., Fall semester only)

ASTRON 228: Astrophysics I: Stars and Galaxies (3 cr., Spring semester only)

JUNIOR YEAR WRITING: Students whose primary major is astronomy should take **ASTRON 301:** Writing in Astronomy (3 credits, Fall semester only) to satisfy the Junior Year Writing requirement. Students whose primary major is not astronomy, only need take the junior year writing course offered in their primary major.

ASTRON 335: Astrophysics II: Stellar Structure and Evolution (4 cr., Fall semester only)

INTEGRATIVE EXPERIENCE: Students whose primary major is astronomy can take either **ASTRON 339:** Astronomy in a Global Context (3 credits, Spring semester only) or **PHYSICS 440:** Intermediate Lab (4 credits, Fall and Spring semesters) to satisfy the Integrative Experience requirement. Students whose primary major is not astronomy, only need to take the integrative experience course offered in their primary major.

Three additional Astronomy courses (each at least 3 credits) and one of these three courses must be at the 300 level or higher in astronomy or closely related courses in other Departments, such as Physics or Geoscience (independent research, honors research or honors thesis do not satisfy this requirement)

Some options for 200+ and 300+ Astronomy courses:

ASTRON 220: Special Topics in Astronomy (3 cr.)
ASTRON 223: Planetary Science (3 cr.)
ASTRON 226: Cosmology (3 cr.)
ASTRON 330: Topics in Astrophysics (3 cr.)
ASTRON 337: Techniques of Optical and Infrared Astronomy (4 cr., Fall only)

Physics Courses:

PHYSICS 181: Physics I: Mechanics (4 cr., fall semester only) or **PHYSICS 151 (with lab):** General Physics I (4 cr., both semesters)

PHYSICS 182: Physics II: Electricity and Magnetics (4 cr. Spring semester only) or **PHYSICS 152 (with lab):** General Physics II (4 cr., both semesters)

PHYSICS 281: Computational Physics (3 cr, Fall semester only)

PHYSICS 284 (and lab PHYSICS 286): Modern Physics I (4 cr., Spring semester only)

PHYSICS 287 (and lab PHYSICS 289): Waves and Thermodynamics (4 cr., Fall semester only)

Math Courses:

MATH 131: Calculus I (4 cr., both semesters)

MATH 132: Calculus II (4 cr., both semesters)

MATH 233: Multivariate Calculus (3 cr., both semesters)

Suggested Course Schedule:

Freshman Year:	**Fall: ASTRON 191A, PHYS 181 or 151, MATH 131** **Spring: PHYS 182 or 152, MATH 132**
Sophomore Year:	**ASTRON 228 (Spring), additional 200+ level astronomy course, PHYS 281 (Fall), PHYS 287/289 (Fall), PHYS 284/286 (Spring), MATH 233**
Junior/Senior Years:	**ASTRON 301 (Fall), ASTRON 335 (Fall), ASTRON 339 (Spring), additional 200+ level astronomy course, additional 300+ level astronomy course**