Requirements for Astronomy B.S. Degree - Space Science Track

Recommended for students pursuing an astronomy-related professional career after graduation. 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 of 60 credits in College courses.

**Astronomy Courses:**

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

**ASTRON 228:** Stars and Galaxies (3 cr, Spring semester only)

**ASTRON 301:** Writing in Astronomy (3 cr, satisfies Junior year writing requirement – Spring semester only)

**ASTRON 335:** Modern Astrophysics (4 cr, Fall semester only)

**ASTRON 339:** Astronomy in a Global Context (3 cr., satisfies integrative experience requirement - Spring semester only)

Three additional Astronomy courses (each at least 3 credits) at the 200 level or higher and one of these three courses must be at the 300 level or higher (the 300+ level course can be in related fields such as Geoscience or Physics)

**Some options for 200+ and 300+ Astronomy courses:**

- **ASTRON 220:** Special Topics in Astronomy (3 cr.)
- **ASTRON 223:** Planetary Science (3 cr.)
- **ASTRON 224:** Stellar Astronomy (4 cr, usually Fall semester)
- **ASTRON 225:** Galactic and Extragalactic Astronomy (4 cr, usually Fall semester)
- **ASTRON 226:** Cosmology (3 cr.)
- **ASTRON 330:** Topics in Astrophysics (3 cr.)
- **ASTRON 337:** Techniques of Optical and Infrared Astronomy (4 cr., Fall semester)

(Although not required, we encourage students to get involved in research and take an independent study course)
**Physics Courses:**

PHYSIC 151 (4 credits with lab): General Physics I (4 cr, Fall and spring semesters) or
PHYSIC 181 (4 credits with lab): (4 cr., Fall semester only)

PHYSIC 152 (4 credits with lab): General Physics II (4 cr., Fall and spring semesters) or
PHYSIC 182 (4 credits with lab): (4 cr., Spring semester only)

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

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

PHYSIC 287 (and associated lab PHYSIC 289): Physics III – Waves and Thermodynamics (4 cr, Fall semester only)

One additional (at least 3-credits) 400+ level course in Physics

**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)

**Concentration Requirement:**

Three courses (at least 3 credits each) in a related field agreed to by the student's Department Advisor. The courses used to satisfy the concentration requirement cannot be used to satisfy any of the requirements listed above.

**Suggested Course Schedule:**

**Freshman Year:**

Fall: ASTRON 191A, PHYSIC 151/181, MATH 131  
Spring: ASTRON 228, PHYSIC 152/182, MATH 132

**Sophomore Year:**

PHYSIC 281 (Fall), PHYSIC 287/289 (Fall), PHYSIC 284/286 (spring), MATH 233 (Fall and spring), Two additional 200+ level astronomy, Concentration courses

**Junior/Senior Years:**

ASTRON 301 (Spring), ASTRON 335 (Fall), ASTRON 339 (Spring). One additional 400+ level physics, and one additional 300+ level astronomy, Concentration courses