

Requirements for the Astronomy Minor

The astronomy minor is designed for students interested in developing a basic understanding of astronomy and astrophysics and analyzing issues through a scientific viewpoint. A minimum of 24 hours of AST and related courses are required, including 8 hours of upper-division electives to be chosen after consultation with an academic advisor.

The minor in astronomy consists of a minimum of 24 credit hours. At least 12 credit hours must consist of upper-division courses. Six of the upper-division hours must be taken from courses offered at the Tempe campus. Required courses include:

- AST 113 Astronomy Laboratory I, SQ (1)*
- AST 114 Astronomy Laboratory II, SQ (1)*
- AST 321 Introduction to Planetary and Stellar Astrophysics, SQ (3)*
- AST 322 Introduction to Galactic and Extragalactic Astrophysics, SQ (3)*

AND

Choose one:

- PHY 150 Physics I, SQ (4) **OR**
- PHY 121 University Physics I: Mechanics, SQ (3)* and PHY 122 University Physics Laboratory I SQ (1)*

AND

Choose one:

- PHY 151 Physics II, SQ (4) **OR**
- PHY 131 University Physics II: Electricity and Magnetism, SQ (3)* and PHY 132 University Physics Laboratory II SQ (1)***OR**
- PHY 252 Physics III, SQ (4)

Additional requirements:

- 8 credit hours of electives (chosen with approval of an astronomy advisor from upper division courses in physics and astronomy)
- Note that some courses may have math and other related sciences as pre-requisites.

*To secure SQ credit, both courses in the following combinations must be taken: AST321 and AST113, AST322 and AST114, PHY121 and PHY122, PHY131 and PHY132

ADVISING PROCEDURES

The DARS system will be used for tracking student progress and verifying completion of the minor. All students will be required to meet with an academic advisor in the School of Earth and Space Exploration (SESE) to declare the minor and confirm that the requirements are being met. SESE requires students to fill out the Change in Academic Program/Plan form at the following website to indicate the addition of a minor: <https://clas.asu.edu/students/forms> . Once the form has been filled out, the student's major advisor can officially add the minor for the student.

Transfer coursework must be evaluated by a SESE advisor before it can be applied toward the minor requirements. **Note: students cannot double count courses in their minor toward the CORE classes in their major. Therefore certain combinations of majors and minors are not permitted.**

Astronomy Minor Checksheet

Course	Title	Pre-requisites	Offered
AST321	Intro to Planet. & Stellar Astrophysics	Pre-requisites: MAT 265 or 270 with C or better; PHY 121 and 122 (or PHY 150) with C or better	F
AST113	Astronomy Lab I		F
AST322	Intro to Galactic & Extragalactic Astro.	Pre-requisites: MAT 270 (or MAT 265), PHY 150 (or PHY 121/122) with C or better	S
AST114	Astronomy Lab II		S
PHY150 or PHY121/122	Physics I	Pre-requisites: MAT 265 or MAT 270 with C or better; Pre/Co-requisite: MAT 266 or MAT 271 with C or better if completed	F/S
PHY151 or PHY131/132	Physics II	Pre-requisites: MAT 266 or MAT 271 with C or better; PHY 150 or PHY 121 and PHY 122 with C or better; Pre or Co-requisite: MAT 267 or MAT 272 (with C or better if completed)	F/S
PHY252	Physics III	Pre-requisites: MAT 272 or MAT 267 with C or better; PHY 151 (or PHY131 and PHY132) with C or better	F/S
AST minor electives		Must be upper division totaling at least 8 credits. Approved subjects include AST, PHY, SES, MAE, MAT. Students should confirm with an advisor before selection.	

Substitutions of AST minor requirements must be approved by a SESE advisor; F=Fall, S=Spring