

ASTRONOMY (AS.AST)

ASSOCIATE OF SCIENCE

Program Outcomes: Upon successful completion of this program a student will be able to:

- explain basic astronomical phenomena and why they occur.
- apply the laws of physics and solve mathematical problems to explain the physical properties and processes that govern celestial bodies in the Universe.
- explain and discuss the impact and history of scientific theories.
- demonstrate proficiency in applying scientific procedures for making observations, measurements, and calculations typical of modern scientific research.

Required Major Courses (34 units)

<input type="checkbox"/> AST-1 – Introduction to Astronomy	3.0
<input type="checkbox"/> AST-1L – Astronomy Laboratory	1.0
<input type="checkbox"/> PHY-4A – General Physics I/Mechanics	4.0
<input type="checkbox"/> PHY-4B – General Physics II/Electricity and Magnetism	4.0
<input type="checkbox"/> PHY-4C – General Physics III/ Waves, Heat and Modern Physics	4.0
<input type="checkbox"/> MAT-3A – Analytic Geometry and Calculus I	4.0
<input type="checkbox"/> MAT-3B – Analytic Geometry and Calculus II	4.0
<input type="checkbox"/> MAT-3C – Analytic Geometry and Calculus III	4.0
<input type="checkbox"/> MAT-4 – Linear Algebra	3.0
<input type="checkbox"/> MAT-5 – Differential Equations	3.0

Major Electives (Complete 1 course – 4-5 units)

<input type="checkbox"/> CHM-1A – General Chemistry I	5.0
<input type="checkbox"/> CSS-1 – Introduction to Computer Science and Programming	4.0
<input type="checkbox"/> CSS-4 – Introduction to Scientific Programming	4.0

SUBTOTAL: 38-39 UNITS

General Education – Required Courses

Students must complete one of the following General Education Plans:

CSU-GE (see page 70)	39 units
IGETC (see page 72)	37 units

Students can double-count required courses and courses for General Education

- **Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.**

TOTAL: 60 ≤ UNITS