

General Education Natural Science Learning Outcomes

1. Students apply physical/natural principles to analyze and solve problems (*This outcome will be assessed by writing a report of one of the labs. It will count as 7.5% of your final lab grade.*)
2. Students explain how science impacts society (This outcome will be assessed in lab using an assignment involving writing a letter to a public official about an astronomy-related current event. *It will count as 2.5% of your lab grade.*)

Course-specific Learning Outcomes

ASTR 130 (Lecture)

- Students distinguish the nature and significance of the following: instruments used in astronomy, stars (binary, variable), star clusters, interstellar matter, galaxies and cosmology.
- Students demonstrate how the measurement of light is used to interpret physical characteristics of the universe.
- Students recognize the origins of astronomical objects.
- Students apply physical laws to reveal the nature of astrophysical phenomena.

ASTR 130L (Lab)

- Students distinguish the nature and significance of the following: instruments used in astronomy, stars (binary, variable), star clusters, interstellar matter, galaxies and cosmology.
- Students demonstrate how the measurement of light is used to interpret physical characteristics of the universe.

- Students recognize the origins of astronomical objects.
- Students apply physical laws to reveal the nature of astrophysical phenomena.
- Enhance teamwork and communication skills.
- Learn lab safety.