

ASTRO 011 , Section 007: ELEM ASTRO LAB

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Instructor	Alexander Richert
Title	Graduate teaching assistant
Office Hours	11:30am–1:30pm Wednesdays, or by appointment
E-mail	arichert@psu.edu
Location	216 Osmond
Times	5:45pm–7:40pm Wednesdays
Start Date	14 January 2015
Course Credits	1

Required Text

This class uses a packet available at the campus bookstore, which contains the lab activities to be completed each week.

Course Description

This course has two main components (each described in detail below): in-class activities and a semester observing project. Each class will start with a few minutes of announcements, discussion, review, etc., and the rest of the class will be spent completing that week's activity.

Course Objectives

In this course, students will design and carry out experiments using real astronomical data. Specifically, students will learn to:

- develop answerable and scientifically interesting research questions;
- write step-by-step experimental procedures that are clear enough for someone else to follow;
- collect data and analyze it quantitatively (i.e., through statistical comparisons);
- clearly and concisely report results in writing and through illustrations (graphs, diagrams, etc.);
- make arguments from evidence, as well as critically evaluate the methods and claims of other experimenters.

Course Requirements

In class:

Each week, we will complete the next activity in the course packet (each must be completed in class and turned in by 1:10 sharp). It is strongly recommended that you work with a partner or small group, however note that your answers must be your own (i.e. written in your own words). Your attendance/punctuality, class participation, and overall effort will be reflected in your lab and participation grades. "Participation" includes consulting with classmates and asking the instructor questions whenever appropriate, as well as generally showing effort and staying on task.

Outside class:

Complete the semester project as per the instructions on ANGEL. Communicate with the instructor if you have any questions or need any help (in class, during office hours, or via email).

Course Prerequisites

ASTRO 001 or ASTRO 010 (may be taken concurrently).

Grading Policy

The contributions of each component of the course are as follows:

Lab assignments – 85%

Semester project – 10%

Participation – 5%

Attendance Policy

You must come to every class (on time) to complete the in-class activities and receive full points for participation. If you know in advance that you will be late or absent, notify the instructor as far in advance as possible, along with any relevant documentation.

Exam Policy

This course has no exams.

Academic Integrity

The Department of Astronomy and Astrophysics adheres to the Eberly College of Science policy of Academic Integrity, in accordance with the University policy. The Department's detailed policy is to be found on our policy page, where details of procedures in case of suspected violations are provided, as is the full text of the department's policy.

Although you may work on the lab activities in groups, you must write up your answers by yourself, in your own words. Copying some or all of another student's work and presenting it as your own is plagiarism, which is cheating, as is allowing someone else to copy your work. In this class there will be no warnings, even on a first offense. Academic dishonesty can result in a lowered course grade, as well as an "XF" grade. So please, don't cheat.

Disability Policy

Penn State welcomes students with disabilities into the University's educational programs. If you have a disability-related need for reasonable academic adjustments in this course, contact the Office for Disability Services (ODS) at 814-863-1807 (V/TTY). For further information regarding ODS, please visit the Office for Disability Services Web site at <http://equity.psu.edu/ods/>.

If you have any questions, please contact [Angel Support](#)