

# ASTR 1010: Astronomy of the Solar System

## Lab Syllabus

Spring 2020, 715 Langdale Hall

**Course Description:** This course consists of 10 activities and two projects which are designed for helping students understand the key concepts discussed in the lecture, ASTR 1010: Astronomy of the Solar System.

**Student Materials:** Bring the following to class **every** lab period:

- Pencils & Eraser.

### Lab Grades (130 points total):

**1) Lab Activities:** 10 points each. 90 points total.

- Laboratory work is to be completed in class and turned in at the end of each lab period. **Late labs, or lab work done outside of class will not be accepted.**
- Each completed lab will be scored on a scale of 0-10 points. Your **lowest lab score will be dropped**. If you miss lab for any reason, that lab will be dropped.
- Your average lab score will count as 25% of your overall ASTR 1010 grade.
- Failure to attend at least a half of the lab (6 or more) will automatically result in an F for the lecture course because this is a lab science and lab attendance is required. Only failure of attendance will result in an F for the lecture, all other scenarios regarding lab grades will factor into your lecture grade normally.

**2) Term Project:** 20 points. You can choose any topic related to the **ASTR 1010** course (Solar System Astronomy) for your project. The type of project can vary by your lab instructor's discretion. Projects are presented at the end of the semester.

**3) Visiting an Observatory:** 10 points. You are expected to submit a report after attending one of the On-Campus Observations, any public observatory, or completion of Lab 24: Observing Phases of the Moon.

**4) Lab Evaluation:** 10 points. You will complete the lab evaluation in the last day of the lab. Attendance to this lab is mandatory.

**Attendance:** You must attend the lab section for which they have enrolled **every week**. You are not allowed to attend another section to make up a missed lab.

**Tardiness:** Arriving late to lab will result in a deduction of 0.5 points for every five minutes you are late (5-29 minutes) on that day's lab. If you arrive 30 or more minutes late, you will not be allowed to complete that day's lab and will receive a zero for that lab.

**Honesty Policy:** Students are expected to follow the honesty policies of the university. Any work that does not represent your own efforts will receive a score of zero. When group work is done, it is expected that each student in the group will reply to questions using their own words. **Do not copy other student's lab work or observation report.**

**Lab Website:** More information about labs, observing sessions, teaching schedules, extras can be found at <http://www.astro.gsu.edu/lab>

## Tentative Weekly Schedule

| Dates       | Description   |
|-------------|---|
| January 16  | Organization Day. <b>NO LABS MEET!</b>  |
| January 23  | MLK Day Week. <b>NO LABS MEET!</b>  |
| January 30  | Lab 1: The Celestial Sphere and Planispheres<br><b>Final reports:</b><br>Term project: Project Presentation (20 pts)<br>Visiting an Observatory (10 pts)<br>Both are <b>required</b> and cannot be dropped.   |
| February 6  | Lab 2: Phases of the Moon   |
| February 13 | <i>Handout:</i> Eclipses – <b>PROJECT TOPIC DUE!!</b>   |
| February 20 | Lab 3: Planetary Orbits   |
| February 27 | Lab 4: Mass of Jupiter  |
| March 5     | <i>Handout:</i> Scale Sizes of the Solar System   |
| March 12    | <i>Handout:</i> Simple Lenses and Telescope Design  |
| March 19    | Spring Break. <b>NO LABS MEET!</b>  |
| March 26    | Lab 7: Lunar Features – <b>PROJECT OUTLINE DUE!</b>   |
| April 2     | Lab 9: Impacts and Craters  |
| April 9     | Lab 8: Landscapes of Mars   |
| April 16    | <b>Term project due:</b> Project Presentation. Attendance is <b>required</b> .  |
| April 23    | Lab Evaluation. <b>Observatory/Moon Phase report due.</b><br>Attendance is <b>required</b> .<br><br>To receive credit for this lab, you must turn in the completed and signed Observatory Report page. Your lab instructor will announce, in lab, evening observations to be held on campus to complete this requirement, OR you can attend any public night at a local observatories such as <a href="#">Fernbank Science Center</a> , or <a href="#">Hard Labor Creek Observatory</a> . |

Lab Instructor Information:

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**[www.astro.gsu.edu/~merritt](http://www.astro.gsu.edu/~merritt)**

If you encounter problems that your lab instructor cannot handle, please contact your lecture class instructor.