

Astronomy 50 Lab, Section 01

Section 01: Mondays, 1:50pm–4:40pm, Olin 211: [Lab Schedule](#)

Section 02: Tuesdays, 9:00am–11:50am, Olin 206: [Lab Schedule](#)

Section 03: Tuesdays, 1:50pm–4:40pm, Olin 206: [Lab Schedule](#)

Instructor: Jon Marr (x6443, marrj@union.edu), Office Hours: W 1:30–3:00; Th 11–12:30

Astronomical Almanac Webpage for finding rise and set times and other data of major Solar System objects: <http://aa.usno.navy.mil/data/docs/mrst.php>

Humanity's development of scientific understanding started with observations of the sky. The development of a model of the Solar System by the ancient astronomers from Babylonia to ancient Greece to the Renaissance occurred without any prior knowledge. In that spirit, we will conduct similar observations of the sky, from which we will infer the physical dimensions of our Solar System from scratch.

Each lab section will make different measurements, although some calculations will require knowledge of measurements made in another section. The results of each section's observations therefore need to be communicated to other sections. Toward that goal, I will publish the "Astro50 Journal," and will include the best report for each lab. The journal will then be disseminated to all sections, on a weekly basis. In the following labs, any calculation that makes use of a previously published result must reference the previous report in the lab (put author or authors along with volume number of the journal in parentheses after the statement - see sample report).

Most of the lab observations will occur at times outside the official meeting time, some during the afternoon and some in the evenings. For each lab, we will discuss the possible times and try to work around your other commitments. Some labs will involve a number of observations spread over a week or a month - for these labs, I will meet with you the first time or two to help you get started, but you will be expected to continue with observations on your own.

Note: if you miss a lab due to illness, you cannot simply show up to another section, since different sections will be conducting different labs, and many of the actual observations will be occurring at other times. Contact me as soon as you are able so that we can work out a solution.

Each lab section will also conduct one lab in mid-May using portable telescopes to view magnified images of the Moon, Jupiter, Saturn, and Mars, weather permitting. If skies are clear, these labs will occur during the evenings (9–12 pm) of Mon, May 9 – Thur May 12. Backup dates, in case of uncooperative weather, are Sun, May 15 - Wed, May 18. Please try to keep all or most of these evenings reserved for this course. (You will only need to come one evening, but you need to have many reserved to allow for weather.)

There will be total of 4 labs for each section, although the amount of work for each lab varies. You are expected to put in a total of about 15 hours of lab time for this course.

You are also encouraged to attend an observatory open house, the dates of which are listed at <http://uobserve.com/open-house.php>

Lab Reports: For each lab, a report must be written and submitted electronically (via email or Nexus). A single report may be written by a group or pair—if you prefer. You may, also, each submit your own report. The due date for each report will be explained with the lab. Be aware that for some labs, the due dates are only 5 days after the start of the lab. The format of the lab reports should follow that described in “Guidelines for Lab Reports.”

Keep in mind that the lab reports will be reviewed and considered for publication in the lab journal. A report that “gets published” earns the author of that report a bonus of 10 points. (If there are multiple authors, the 10 points will be divided among the authors). When writing your reports, remember that your audience is not me, your instructor, but other Astronomy 50 students in the sections who have no knowledge of the lab that you performed.

VERY IMPORTANT: It is official policy of the Physics & Astronomy Department that a *passing grade in all lab courses requires the completion of every lab and turning in every lab report*. For this reason, attendance will be taken. If you know of a conflict, please raise this issue with me in advance so that we can work out an arrangement. If you miss a lab because of sickness, please contact me as soon as you can. And, finally, *you must turn in a report for every lab*. If there is any missing lab report at the end of the term, I will be obligated to inform Professor Hallenback, who will be required to give you an F in the course, regardless of your performance in his class.

Late Lab Reports: In order for the Astro50 lab journal to be distributed to all sections on time, it is crucial for reports to be turned in by the deadline. Late lab reports will not be considered for publication, and will be penalized by 25% if within one week of the due date, and 50% if later.

Academic Honesty: Each report must be a reflection of the knowledge and understanding of the author or authors. *Any report that has identical wording to another will be considered plagiarized!* Full details about the College’s policy on academic dishonesty may be found in the booklet “Plagiarism: A Cautionary Word to Students” furnished to all entering students and available from the Dean of Studies’ office.

Each report must include the following passage at the bottom of the title page, followed by your signature(s) with a date.

“I affirm that I have carried out my academic endeavors with full academic honesty.”

Matriculation at the College is taken to signify implicit agreement with the Academic Honor Code (available at honorcode.union.edu). It is each student’s responsibility to ensure that submitted work is his or her own and does not involve any form of academic misconduct. You are expected to ask your instructor any question you may have regarding reference sources, collaboration, citations, and plagiarism. Ignorance is not an excuse for breaching academic integrity.