

ASTRONOMY 23 REMOTE – SYLLABUS

LAB SESSIONS: Remote. No labs are due until the week of Sept 21! This is so the 005 course material can get ahead of the lab projects.

PREREQUISITE: Astronomy 005, taken previously or concurrently.

PURPOSE: These projects will help solidify the concepts you learn in the 005 course, as well as illustrate how astronomers figure out the things they do.

FORMAT: This laboratory course supplements the topics in Astronomy 005, with 9 projects. Three will involve your own outdoor observations. Each student will submit his/her lab report to UVM blackboard (Bb) at the end of each session on the Report Form provided. Don't wait too long to start the observation projects. They take of time.

REPORT FORMAT: The Report Forms supplied on Bb for each project must be used. They are posted in .docx format, and you must fill them out digitally for resubmission to Bb, either in that format or in pdf. Instructions to help with that will also be posted on Bb.

GRADING: Each in-lab project counts 10%, except for #6, which is worth 20%.

SUPPLIES: Purchase the lab kit at the bookstore for \$18.79. It contains 2 lenses, lens holders, compass, metric ruler and tape measure. Photos and diagrams that you may need will be posted on Bb.

PROJECTS:

Instructions, Report Forms and any supplementary materials for each lab will be posted on Bb each week starting Sept17, and will be due 5 days later. TAs will be available on MS Teams for help at scheduled times, to be posted before the first lab.

The lab projects include:

- 1 - *Lenses and Telescopes*
- 2 - *Stellar Coordinates and Star Charts*
- 3 - *Mountains and Craters on the Moon*
- 4 - *Retrograde Motion of the Planets*
- 5 - *Solar and Sidereal Days (outdoor observations)*
- 6 - *Sidereal and Synod Months (outdoor observations) (twice as long)*
- 7 - *H-R Diagram (outdoor observations)*
- 8 - *Hubble Law*
- 9 - *Star S2 and Our Galactic Black Hole*