

ASTRONOMY 23 REMOTE – SYLLABUS

LAB SESSIONS: (ONL). Labs to do not start until late February, 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: Each lab will be posted on UVM Blackboard (Bb). You will complete the projects alone or in groups of up to 4, but not in the lab room. Three will involve your own outdoor observations. Each student will submit her/his lab report to Bb on the Report Form provided. Don't wait too long to start the observation projects. They take time and weather.

REPORT FORMAT: The .docx Report Forms supplied on Bb for each project must be used. You can complete them in a several ways, digitally or printed, but they must be submitted back to Bb in pdf format.

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

SUPPLIES: Purchase the lab kit at the bookstore for approximately \$19. It contains 2 lenses, lens holders, compass, metric ruler and tape measure. Photos and diagrams that you may need will be posted on Bb for each lab.

ASSISTANCE: TAs will be available on MS Teams to help at scheduled times. A short help video will also be posted with each lab project.

PROJECTS:

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