

Ay1 -- First observing exercise

Due wed April 15 -- return in class or to your TA.

Objective -- be able to use your star charts to find what is visible at present and where to look. (If you didn't get a star chart in class, you may find it at :<http://www.astro.caltech.edu/ay1/starchart.jpg>)

This should be an enjoyable exercise -- don't panic !

- 1) For the date of April 9, use the star chart to predict the approximate right ascension and declination of the sun. What are the two coordinates.
- 2) Name 3 constellations which will be at their highest elevation (on the meridian) at midnight.
- 3) Name 3 constellations which will be at their highest elevation (on the meridian) at 8PM.
- 4) On this date, Saturn is at RA = 11hr11m, Dec = +7deg. Place Saturn on your chart and try to find it visually looking at the sky. (It will be relatively bright and will NOT twinkle or scintillate.)
- 5) Visually find where in the sky the moon is on two nights (can be successive or separated) and give the approximate RA and DEC and note the lunar phases.
- 6) Draw a diagram showing the relative placement of the earth, sun and moon on these 2 nights (please not to scale !!)
- 7) The RA and Dec's of some other planets on April 9 are :

Mercury	1hr45m	+11deg
Venus	23hr52m	+5deg
Jupiter	21hr32m	-15deg

Place them on the chart and predict when and what direction to see them if possible (i.e not right next to the sun)