

1.3 Constellations and the Celestial Sphere

PRE-LECTURE READING 1.3

- *Astronomy Today*, 8th Edition (Chaisson & McMillan)
- *Astronomy Today*, 7th Edition (Chaisson & McMillan)
- *Astronomy Today*, 6th Edition (Chaisson & McMillan)

VIDEO LECTURE

- Constellations and the Celestial Sphere¹ (16:44)

SUPPLEMENTARY NOTES

Coordinate Systems

Earth

- See Earth².
- Longitude: 0° to 360°
- Latitude: -90° to +90°
 - -90°: South Pole
 - 0°: Equator
 - +90°: North Pole

Celestial Sphere

- See Celestial Sphere³.
- Right Ascension: 0° to 360° *or* 0 hr to 24 hr
- Declination: -90° to +90°
 - -90°: South Celestial Pole
 - 0°: Celestial Equator
 - +90°: North Celestial Pole

¹<http://youtu.be/hGoBe3J0SJM>

²http://en.wikipedia.org/wiki/Geographic_coordinate_system

³http://en.wikipedia.org/wiki/Celestial_sphere

EXERCISES

- Experiment with UNL's Longitude/Latitude Demonstrator⁴.
- Experiment with UNL's Celestial-Equatorial (RA/DEC) Demonstrator⁵.
- Experiment with UNL's Big Dipper 3D⁶.

⁴<http://astro.unl.edu/classaction/animations/coordsmotion/longlat.html>

⁵<http://astro.unl.edu/classaction/animations/coordsmotion/radecdemo.html>

⁶<http://astro.unl.edu/classaction/animations/coordsmotion/bigdipper.html>