History of Astronomy
Course Syllabus

Suggested textbook: The Cambridge Illustrated History of Astronomy (Ed. Michael Hoskin)

1. Astronomy in Prehistory and Antiquity – Overview
2. Greek and Hellenistic Astronomy
A. Measuring Earth's Radius, instruments before the sextant, the armillary sphere, the astrolabe, and other naked-eye astronomy tools
3. Copernicus
4. Tycho Brahe
5. Kepler
6. Galileo
B. Uraniborg Observatory, Tycho Brahe's Quadrants, and the Birth of Optics and Telescopes in the 17th Century (Galileo, Gregory, Cassegrain, Newton)

7. Newton, universal gravitation and celestial mechanics
C. The Longitude Problem, Measuring the Sun's Distance, and Determining the Speed of Light
8. The Discovery of New Planets
D. Measuring Luminosity and the Magnitude System
9. The Third Dimension
10. The Structure of the Universe
E. The First Large Telescopes: Herschel and the Leviathan of Parsonstown
11. The Birth of Astrophysics
F. Astronomical Photography, Spectra and Photographic Magnitudes, and the Solar Instruments of Secchi and Respighi in Rome
12. Stars and Nebulae
13. Defining the Structure of the Galaxy
G. The Great Optical Telescopes of the 20th Century and the Advent of CCDs
14. Spiral "Nebulae" and the Extragalactic Universe
15. Einstein and the New Theory of Gravitation
H. Radio Astronomy
I. Astronomy Beyond Earth's Atmosphere
16. Astrophysics Between the 20th and 21st Centuries