

SYLLABUS
GREAT ACHIEVEMENTS IN ASTRONOMY
Thursday Feb 6, 2019, 11:00AM -12:45PM

Feb 6: Introduction

- Logistics
- Course Coordinator: Fred Peters (Background)
 - NOT an astronomer
 - B.S. Aeronautical Engineering (1957);
 - MBA (1970);
 - ABD for Ph.D., Public Administration
 - Retired, NASA 1997
 - Project Engineer during Apollo Program
- Course Background
 - Book: **Great Accomplishments** by Charles Murray
 - 20 categories, 20 individuals in each category
- Course Scope
- Who were the great Achievers

Feb 13: Knowledge Prior to Ptolemy

- Babylonian Contribution
- Greek Contribution
 - o Aristotle
- Hellenistic Contribution
 - o Stellar parallax

Feb 20: Claudius Ptolemy (2nd Century A.D.)

- The Ptolemaic system
- Astrology (General)
- **The Almagest**

Feb 27: Nicolas Copernicus (1473-1543)

- Background
- **De Revolutionibus** (1543)
- Heliocentric Universe
 - o Rheticus
 - o Osiander
- The Copernican Revolution
- Copernicus Death
- The Scientific Revolution (1500-1700)
 - o The Conflict between Science and Religion

Mar 5: Tycho Brahe

- Uraniborg (1546-1601)
- The 1572 Supernova
- The Great Comet of 1577
- The Tyconic Model of the Universe
- Tycho's Death

- Alchemy
- Was Tycho Murdered?

Mar 12: Johannes Kepler (1571-1636)

- Prague
- The War with Mars
- Witchcraft
 - Kepler's Witch
- **Somnium**

Mar 16: No Class

Mar 26: Galileo Galilei (1564-1642)

- Background
- The Telescope
- **Siderius Nuncius**
- Letter to the Grand Dutchess Christina

Apr 2: Galileo Galilei (1564-1642)

- **Dialogue Concerning the Two World Systems**
- The Inquisition
- Conflict with the Church
- Phase 1
- Phase 2
- The Trial
- The Galileo Affair Recap
- Death

Apr 9: The English Contribution

- Leonard Digges
 - The Perspective glass (telescope?)
- Thomas Digges (1546-1595)
- John Dee (1527-1603)
- Robert Recorde (1510-1558)
- William Gilbert
- Giordano Bruno (1548-1600)
- Francis Bacon (1561-1626)
- Thomas Harriot

Apr 16: The Science of Shakespear

- The Science of Hamlet