I. Welcome to AS 101 - The Solar System

II. Introduce Self

III. Ask Students Questions

   A. How many of you have taken Astronomy before?
   B. What year are you?
   C. What college?
   D. What do you want to learn from AS 101?
   E. How many of you have had calculus?

IV. Ancient Peoples:

   A. Just as smart and observant as we are.
   B. Looked up at the night sky:

      1. They saw:
         a. Stars - lots of them - moving in a rhythm, varying within a day and a year.
         b. Planets, following the stars, but moving amongst them in a complex dance.
         c. Visible last night?
         d. Nova
         e. Comets

      2. They built Cosmologies
         a. Babylonians - Knew that 19 solar years equals 235 lunar months and built a calendar around that. Also knew that the sun changed its apparent speed in the sky as the year progressed.
         b. Sumerian (slide 1B1)
         c. Egyptians
         d. Greeks (1C1)
         e. Ptolemy (1D5)
f. Astrology

V. Today’s view:

A. The Universe is made of trillions of Galaxies
B. Big Bang - 11-14 G-years ago
C. Quasars - shine with the brilliance of 100 galaxies
D. Black holes
E. Stars Exploding - create heavier elements in Supernova explosions (show periodic table)
F. Nebular regions - where new stars form
G. Solar systems form with stars
H. Our Solar System
   1. The Sun
   2. The Terrestrial planets
   3. The Jovian planets
   4. The moons
   5. Comets, Asteroids, Meteors, and meteorites
   6. The space environment
   7. Earth
      a. History of the Earth’s interior and atmosphere
      b. Life
   8. Life elsewhere

VI. Class Theme - think about a manned mission to another Star

VII. Class Logistics - go through the syllabus.

VIII. Discuss Self

A. New Prof.
B. First time teaching AS 101
C. Will ask for feedback
D. Researcher
1. Space Physics
2. Plasma
3. Sun
4. Magnetosphere
5. Aurora
6. Computational Plasma Physics

E. Why does a research University hire scientists as teachers instead of professional pedagogues?