

## Assignment #1

**Due Date:** Wednesday February 7th, 2017

**Instructions:** This assignment requires you to watch **Episodes 1-7** of the YouTube series “*Crash Course: Astronomy*”. The Crash Course series is an excellent series on various topics (I’ve gone through most of them), edited by professionals, and presented by a variety of YouTube stars and experts.

For this assignment, type up answers to the following 10 short answer questions, print out a paper copy, and bring it to me at the **beginning of class** on Thursday. Any assignment not submitted at the beginning of class is subject to the “Late Assignment” policy found on the syllabus. Good Luck.

**Max 40pts**

1. **What is Science? What purpose does science serve for society? For you? Compare and contrast science with art. (10pts)**
2. **Mr. Plait refers to “Odd and wonderful devices” that astronomers used to measure the heavens before the telescope. Research one of such devices and describe how it works. (8pts)**
3. **Why do only the brightest stars in the sky seem be colored? (2pts)**
4. **When you look to the west at what stars are just above the horizon at sunset on one night, you notice that they’ve dipped below the horizon on the next night. Why does this happen? What happens just above the horizon to the east? (5pts)**
5. **What is the radius of the circle on the celestial sphere that north pole traces out as the earth precesses as measured in degrees? (2pts)**
6. **Half of the moon is always lit, half is always dark. Why is it that the lit part of the moon seems to change to us from crescent to full from night to night? (2pts)**
7. **What is “The Old Moon and New Moon’s Arms” referring to? (2pts)**

8. What is the “Corona” of the sun? To get full credit, give a few pieces of information about it that aren’t given in the YouTube video (4pts)
9. What did Francis Bailey describe in 1836? What causes these glowing phenomena? (3pts)
10. Why is the moon ‘blood red’ during a lunar eclipse? (2pts)