## Homework 9

Complete Part I first, by taking notes that you will keep for yourself. (<u>Do not turn these in.</u>) Type up your answers to each of the questions in Part II and submit it in one double-spaced, Word document with your name on the top under the title. Use 12-point Times New Roman Font with 1" margins on all sides. If you have to do a calculation, solve the problem by hand on a separate sheet of paper. Then take a picture of your work and paste it into your word document in an appropriate place. When you are done upload this into the <u>Dropbox on Blazeview</u>. If you are unable to use Word for the assignment, you may use another software package and upload a pdf instead.

## **PART I: Notes**

1. Read and take notes on the video "Space the final frontier".

## **PART II: Assignment (25 points total)**

- 1. Explain why Venus was not able to get rid of its CO<sub>2</sub>. (3 points)
- 2. Why does Mercury have such a large metallic core? (3 *points*)
- 3. What evidence is there that Uranus and Neptune experienced an extremely massive impact in their distant past? (3 *points*)
- 4. What is the asteroid belt? Between which two planets does the asteroid belt appear? (3 *points*)
- 5. What is the Kuiper belt? Where is it located? (3 points)
- 6. How does the moon's orbit compare to the ecliptic plane? (3 points)
- 7. Jupiter has an enormous magnetic field. What does that tell us about the interior of Jupiter in general? What, specifically, is the source of Jupiter's magnetic field? (3 *points*)
- 8. The larger the body, the longer it takes to cool inside. Calisto, a moon of Jupiter's, is much larger than Io. However, Calisto has a cold interior and Io has a hot interior. How can this be? (4 *points*)