Instructions

Two-page Research Paper

Use of material that is not your own (e.g. plagiarized material from web pages, papers written by others) may result in severe penalties in the course and/or by the university.

Topic
You will select one category from the following list and compare the nine planets in this category: What are the similarities and differences? Why are they similar or different? What are the consequences and implications?

• The discovery history
• Size, mass, density and location in the solar system
• Bulk composition
• Internal structure
• Formation and differentiation history
• Heat budget and thermal history
• Volcanic activities
• Impact cratering processes
• Fluvial or aeolian processes
• Plate tectonics
• Atmospheric composition
• Atmospheric structure
• Atmospheric motion
• Magnetic field
• Motion: orbits and rotation
• Satellites

Format
• Introduction: Introduce the topic and give a clear statement of the goal of the paper.
• Main body: Describe your findings, present your reasoning and evidence.
• Conclusions: Discuss remaining questions for future research, and/or personal perspective on the findings, and/or implications for humanity.
• Bibliography: show references to sources that are cited in paper.

Text
The text of the paper should be about two single-spaced printed pages. *Handwritten paper will not be accepted.*

Figures and Tables
• If you decide to include figures and/or tables, they must be relevant and important.
• Any figures and/or tables must be numbered and must be referred to in the text (e.g., “... the heat sources for Mars are summarized in Table 1...”).
• Figures must have captions at the bottom explaining what is in them.
• Tables must have titles at the top.

Citations
• You should generally not quote references verbatim, but summarize the ideas and cite the references for each idea you present that is highly technical or specific.
• Put the author name(s) and the year in parenthesis immediately after the statement you want to attribute to their work. For more than two authors, write the first author’s name followed by et al.
For example:
... In the case of Jupiter, the observed heat flow is explicable on the basis of cooling from an initially hot condition, possibly with some addition from the gravitational energy released from the rainout of helium drops. The same explanation accounts for the heat flow of Saturn, except that the energy from the helium segregation is somewhat greater [Hubbard and Stevenson, 1984].

Note that 1984 is the publication year. This type of citation is used in scientific papers. Usually direct quotations are not given. The information is summarized in the author’s own words, and the source of the information is given as the citation in parentheses.

Bibliography
Use formats close to this:
• For books:
• For articles:
  Bibring et al., 2005. Mars surface diversity as revealed by the OMEGA/Mars Express Observation, DOI:10.1126/science.1108806
• For web pages:

Due date: 4pm Friday May 6th