From the Big Bang to Today

HONORS 200 Section XXX

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Term: Fall, 2004-2005
Course Schedule: Monday, 11:00-11:50 PM
Room: MacAlister 5051a

Objective: The purpose of this course is to review what we know of how the Universe began, grew, and evolved into our contemporary home.

Texts: Regrettably, no book does this subject justice. The closest is in French: Sciences de la Terre et de L'Univers, André Brahic, Michel Hoffert, André Schaal, et Marc Tardy, Vuibert, 20, rue Berbier-du-Mets 75647 Paris cedex 13, 1999, ISBN 2-7117-5280-1. Another resource, a VHS series entitled: Understanding the Universe by A. Filippenko, is available. Lectures appropriate to the material of this course will be provided below.

Grading: Grade (A, B, ···) based on

- Attendance: more than 2 absences = F
- Participation
  - Each student or student pair will lead a discussion of one of the topics.
  - At the beginning of the discussion the leader(s) will distribute to the class a written essay that provides a lucid description of the topic for the day.
  - The leader(s) will present an oral description of the material to be covered. This will cover the same material as the written presentation. The leaders will attempt to respond to questions from the class. Prof. Gilmore will be the information resource of last resort.
  - One week prior to the presentation, the leaders will present a “table of contents” for their topic. This presentation will include a brief (5 minute) summary of the topics to be covered.
– In the event that a written presentation is not available at the required time, class will be dismissed and the leaders will receive an F for this course.
– Grade will be based on the oral and written presentations in class and participation in class discussions.

**Topics to be Covered**

1. Following Shakespeare:
   - Cast of Characters (Montagues and Capulets)
   - Setting (They hate each other)

2. The Big Bang and the First Three Minutes

3. The next 400,000 years and COBE

4. The Dark Ages, Enlightenment, and Renaissance

5. The First Generation of Stars and Nucleosynthesis

6. Galaxies and Globular Clusters

7. Black Holes

8. Solar Accretion Disk


10. Earth: Composition and Structure

11. Earth: Evolution

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<td>Oct. 4</td>
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<td>Oct. 18</td>
<td>Big Bang</td>
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<td>Oct. 25</td>
<td>Next 400,000 years + COBE</td>
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<td>Dec. 6</td>
<td>Composition + Evolution of the Planets</td>
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