

**PARP 6315 Epic of the Universe**

Fall 2008

Three Units

**Instructor: Brian Swimme**

Description of Course Content. We will study the central ideas and discoveries of the evolution of the universe. This new empirically-based cosmology represents a radical development of human mentality. Such authorities as the historian Lewis Mumford, the philosopher Stephen Toulmin, and the philosopher-scientist Alfred North Whitehead regard this development, to quote Whitehead, “the most intimate change in outlook the human race has yet encountered.” The paleontologist Pierre Teilhard de Chardin went even further, asserting that the discovery of the dynamics of cosmic evolution represented the most radical change in two million years of hominid intelligence, a breakthrough to the depth understanding of the universe’s dynamics.

The detailed narrative of the evolution of the universe amounts to a new cosmological epic – an account of how things came to be, and of what the role of the human is within the cosmos. Its importance for the next millennium is difficult to overestimate. This new epic is transcultural, a story with relevance for peoples throughout the planet.

Summary of Educational Purpose. Every known culture in human history organize its creative energies by means of its cosmological epic – its account of where the universe came from, how it developed, into its present state, and what meaningful role humans play in the midst of the cosmic drama. The tragedy of our present time is that though we are in the midst of a vast discovery concerning the origin and development of our evolutionary universe, we are trapped within a materialistic metaphysics that shields us from the significance of this discovery. A one-dimensional scientific materialism leaves us numb in the depths of our soul, and rather than rejoicing with the ecstasy of existence we choose to convince ourselves that the central purpose of our civilization is to transform the Earth Community into commodities.

The way forward includes learning both science and wisdom. Scientific data alone is not enough to escape the pathology of economism; on the other hand, a life-affirming world view, so long as it is unable to express its intuitions within the categories of thought common in our scientific era, will be too feeble

to influence the systems of the modern world. The purpose of this course is to educate students whose primary educational background is in the humanities, but who have an interest in studying the main forms of thought and the central discoveries that make up the scientific world view. The ultimate aim is to participate in the process of transformation that carries us from the destructive nature of our time to a new era of well being throughout the planet. Such a transformation will require leaders knowledgeable both in science and in philosophy, and the specific purpose of this class is to assist in the development of such leadership.

Learning Objective: Students who successfully complete this course will be able to:

- 1) Identify the significant events in the evolution of the universe in its galactic, stellar, and planetary developments.

- 2) Understand the procedures used by scientists to establish a consensually agreed upon narrative of the universe

- 3) Explain the main theories that have been constructed by scientists to organize the data of cosmic evolution.

Learning Activities: Lecture and discussion.

Criteria for Evaluation: Class Participation	20%
Midterm paper	20%
Final paper	60%

Level of Instruction: MA

Enrollment Limitations: Open

Class size: Open

Grading Options: Student's choice.

Required Texts

TBD

Recommended Reading

Barrow, John, *The Origins of the Universe*, HarperCollins, 1994.

Bartusiask, Marcia, *Through a Universe Darkly*, HarperCollins, 1993.

Chaisson, Eric, and Steve McMillan, *Astronomy Today*, Prentice Hall, 1993.

Couper, Heather, and Nigel Henbest, *Big Bang*, DK Publishing, 1997.

Davies, Paul, *The Mind of God*, Simon and Schuster, 1992

\_\_\_\_\_, The Last Three Minutes, HarperCollins, 1994.  
Earle, Sylvia, Sea Change, Fawcett Columbine, 1990.  
Harrison, E.R. Cosmology: The Science of the Universe, Cambridge Univer  
Press, 1986.  
Leslie, John, editor, Physical Cosmology and Philosophy, Macmillan, 1990.  
Lightman, Alan, Ancient Light, Harvard Univ Press, 1991.  
Hetherington, Norriss S. ed., Cosmology: Historical, Literary, Philosophical,  
Religious, and Scientific Perspectives, Garland Publishing, 1993.  
Swimme, Brian, and Thomas Berry, The Universe Story, Harper, 1992.  
Smoot, George, and Keay Davidson, Wrinkles in Time, William Morrow, 1994.  
Thorne, Kip, Black Holes and Time Warps: Einstein's Outrageous Legacy,  
Norton, 1994.

An annotated anthology of works from a variety fields all within the new  
cosmological framework can be found at [www.naturalgenesis.net](http://www.naturalgenesis.net).