AST 321 The Future of Humanity

Spring 2013 (Unique Number 48000)

TIME, PLACE: MWF 11:00-11:50 AM, RLM 15.216B

INSTRUCTOR: J. Craig Wheeler - a theoretical astrophysicist specializing in exploding stars and related topics.

Office: RLM 17.230, phone: 471-6407
Email: wheel@astro.as.utexas.edu
Hours: MWF 5 PM or by appointment; do not hesitate to talk to me if you have questions or problems. My job is to help.

TEACHING ASSISTANT: Chris Lindner
Office: RLM 17.307
Phone: 471-8414
Email: lindner@astro.as.utexas.edu
Hours: by appointment

GRADES: Three formal writing assignments of about 25 pages total will constitute 75% of the grade. The remaining 25% will be based on class participation in discussion and content development.

COURSE DESCRIPTION: We will explore the possibilities for the future of humanity in an astronomical context: life on a pale blue dot within a vast Universe and a vast expanse of time. We will cover elements of cosmology and astronomy for context, the basics of biological evolution, including human evolution, and consider the current state of humanity. We will then try to extrapolate into the future in terms of natural and self-driven evolution, the promise and challenges of space travel, and related topics, all in the context of the great sweep of time before us, 10,000 years, a million years, a billion years.

PAPERS: All papers will be formatted as typed, double-spaced, on standard 8.5x11 paper and submitted electronically. They will be checked for plagiarism.
Paper 1, 5 pages, Preconceptions on the Future of Humanity, Due January 30
Paper 2, 10 pages, Topic of Choice, Due March 4
Paper 3, 10 pages, The Future of Humanity, Due April 29.

CLASS DISCUSSION: Mandatory component – I will call on individuals and expect them to respond with a summary of readings, opinions of those readings, and connections to other aspects of the course topics. Voluntary component – participation in class discussion, contribution of links, readings. Peer review of draft papers.

TEXT: The only required text is The Singularity is Near: When Humans Transcend Biology by Ray Kurzweil. We will also do some reading in Darwin, The Origin of Species and Descent of Man (available as free ebooks and from the UT library system), The Selfish Gene by Richard Dawkins (available electronically from the UT library system). Extensive use will also be made of online and other material.

Facebook: AST309N (group account, by invitation) – use the Facebook account to complement class discussion, post relevant links.

Twitter: follow ast309 (optional) - I post irregularly on the daily life of an astronomy professor.

WEB SITE: http://www.as.utexas.edu/astronomy/education/spring13/wheeler/321.html

DISABILITIES: Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259.