

# CARL SAGAN: WORKS AND VISIONS

Spring 2009 - UC Berkeley

TuTh 5PM - 6:30PM

224 Wheeler

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**Sponsor:** Joshua Bloom, Assistant Professor of Astronomy

## **Books & Materials:**

- Sagan, Carl, host. *Cosmos*. Adrian Malone. 1980. DVD. Public Broadcasting Service.
- *Carl Sagan: Works & Visions* Reader (available at Zee Zee Copy)

## **Course Objectives:**

Sagan: Works and Visions is intended to demonstrate the connectedness of the human species to its home planet and our role as stewards of a unique world. Moreover, we will investigate contextual development of significant theories in astronomy and the roles of religion and pseudo-science in past cultures. Students will develop familiarity with basic cosmological theories and formulate informed decisions about the possibilities for life in the universe. Subjects that will be covered include the history of scientific thought, earth and planetary science, exobiology, cosmology, secular humanism, and astronomy.

## **Standing Assignments:**

As a great deal of the course will be tailored to viewings of Carl Sagan's *Cosmos*, the assignments will primarily expand on topics presented in the episodes. The first assignment will be a "triple C" (convey concept creatively) art project with the intention of conveying cosmological scales of time and distance. As the episodes progress, a second assignment will require each student to observe the night sky and create his/her own constellation and a back-story or mythology to go along with it. As the series draws to a close, each student will tackle Drake's equation for estimating the number of possible civilizations in the universe by plugging in their own values for the equation's variables. You will then be expected to explain and justify your predictions during an in-class discussion. Once during the semester, each student will deliver a reading during discussion, presenting that week's required reading. Students will sign up to cover each week's readings during the first few sessions of class.

## **Attendance and Participation:**

The class will meet twice per week, covering an episode and then discussing it each

week. Attendance will be taken each class meeting, and is of the utmost importance for developing a thorough understanding and appreciation of the worldview presented in Cosmos. Your final grade will be lowered by 1% for each unexcused absence in excess of three. Exceptions will only be made for documented illnesses. If you must be absent, please make sure to find out what was shown or discussed in the previous class. Please try to arrive promptly as to avoid interrupting episode screenings and discussion. Your contributions to discussion are imperative to the class exploring Sagan's concepts and developing a clear understanding of our place in the universe.

**Quizzes:**

Quizzes will be given at the beginning of discussion following the completion of each episode of Cosmos. Students will be tested on general concepts presented in the episodes. Additionally, students will be tested on the various readings and showing of Contact.

**Grading:**

You cannot earn a Pass in the DeCal without completing all four standing assignments (triple C art project, constellation mythology, Drake's equation, and Sagan Reading Presentation).

<u>Assignment</u>	<u>Weight</u>
Triple C Art Project	15%
Constellation Mythology	15%
Drake's Equation	15%
Sagan Reading Presentation	15%
Quizzes	30%
Participation	10%

**Code of Student Conduct:**

During quizzes, no books, notes, phones, or computers will be allowed in the classroom. Though student collaboration on assignments and during discussion is highly encouraged, we must reiterate the necessity that all submitted work be your original creation done specifically for this course. If you fail to comply with these restrictions, your grade may be jeopardized.