

## **COMPARATIVE STUDIES 170: SCIENCE AND RELIGION**

### **SAMPLE SYLLABUS**

**INSTRUCTOR:** (Instructor information omitted from sample syllabus.)

#### **COURSE DESCRIPTION:**

This course is designed to encourage students to think critically about major issues in the intersection of philosophy, science and religion. More specifically, this course will concentrate upon three seminal issues in the history of science and theology: Creation of the universe, as reflected in Scripture and in contemporary astrophysical theory; The Decentering of the earth in astronomical and theological theory, as reflected in the Copernican revolution and in recent Hubble research; The Decentering of human beings, as reflected in the continuing conflict between Darwinian evolution and creationism.

The course will be lecture format with discussion sections.

#### **COURSE OBJECTIVES AND ASSESSMENT:**

The aim of this course is to equip students with the means to arrive at their own reflective equilibrium concerning the deep metaphysical, ethical and methodological issues involved in assessing the relationship between science and religion. Students will be expected to acquire an analytical understanding of these issues and the principal arguments in favor of the various theses held in connection with them. Students will also be expected to learn how to critically analyze and assess differing positions, develop arguments in favor of their own views on them, and to learn how to express these views clearly in discussion and in writing.

**GEC Category: Arts and Humanities** coursework develops students' capacities to evaluate significant writing and works of art, and for aesthetic response and judgment; interpretation and evaluation; critical listening, reading, seeing, thinking, and writing; and experiencing the arts and reflecting on that experience. Expected outcomes are:

- Students develop abilities to be enlightened observers or active participants in the visual, spatial, musical, theatrical, rhetorical, or written arts.
- Students describe and interpret achievement in the arts and literature.
- Students explain how works of art and literature express social and cultural issues.

#### **TEXTBOOKS:**

Textbooks will be available at SBX Bookstore. Copies of the books will also be placed on reserve at the Sullivant Undergraduate Library (SL)

M. Drake, trans, *Discoveries and Opinions of Galileo*

S. McGrath, *Science and Religion*

G. Pigliucci, *Denying Evolution: Creationism, Scientism and the Nature of Science*

M. Ruse, *Can a Darwinian be a Christian?*

O. Gingerich, *God's Universe*

M. Shelley, *Frankenstein*

Selected articles will be put on CARMEN

**COURSE REQUIREMENTS:**

- Midterm exam (30%) – scheduled for 1<sup>st</sup> meeting of week 6
- In-class comprehensive final exam (40%) - as scheduled by University
- 1500 word paper (20%) – due 2<sup>nd</sup> meeting of week 8
- Attendance and class participation in recitation (10%) (Regular attendance is required. Students are allowed two missed classes without a written medical excuse, but will not get attendance credit if they miss more classes without a written excuse. Participation means active engagement in class discussions on a regular basis.)

**SCHEDULE OF READINGS:****I. Introduction: Methodological Issues (Weeks 1-2)**

Topics to be discussed: what methods do we use to ascertain religious and scientific truth? What are their epistemological underpinnings? Can the methods used by the disciplines be reconciled? If not, why not?

**Readings:**

McGrath, Chs. 1-3  
 “Genesis,” *King James Bible*, Chs. 1-2  
 Popper, “On Scientific Method” (on reserve)  
 Kuhn, selection from “The Nature of Scientific Revolutions” (on reserve)

**II. Cosmology and theology (Weeks 3 - 4)**

Topics to be discussed: Does the argument from Design, as introduced by Aquinas, and elaborated by Paley, and most recently Behe, work? What are the strengths and weaknesses of the argument?

**Readings:**

Aquinas, “The Five Ways”  
 Paley, excerpt from *Natural Theology* (on reserve)  
 Behe, selections from *Darwin’s Black Box* (on reserve)  
 McGrath, chapter 4

**III. God and Science -- The Medieval Tension (Week 5)**

Topics to be discussed: How did medieval philosophers reconcile the science of their day (Aristotle) with their respective religious account? Is this process defensible? (One of the medievals will be chosen for discussion (from Maimonides; Aquinas, or Ibn Rushd) and the text put on CARMEN.)

**Readings:**

Aristotle, selections from “On the Heavens” and “Physics” (on reserve)  
 Maimonides, selections from *The Guide for the Perplexed* (on reserve)  
 Aquinas, selections from *On the Eternity of the World* (on reserve)  
 Ibn Rushd, selections from *Tahafut al-Tahafut* (on reserve)  
 McGrath, ch 5

**IV. Aristotle, Astronomy and the Church: The Galileo Affair (Week 6)**

Topics to be discussed: What is the “Galileo Affair” and what is its relevance to the ‘science-religion’ story? How did Galileo try to reconcile his new astronomy with accepted teachings of the Church? How did he appropriate biblical hermeneutics to his task?

**Readings:**

Drake, introductory sections to “Letter on Sunspots”  
 Drake, Galileo’s “Letter to Grand Dutchess Christina”

**V. Darwin and Creationism: Historical Underpinnings (Week 7)**

Topics to be discussed: How did Darwin introduce and position his new science of evolutionary biology? How aware was he of the religious implications of his new research? What did he have to say about the accommodation of evolution to Christian theology?

**Readings:**

McGrath, Ch. 8  
 Pigliucci, Chs. 1-4  
 Darwin, selections from *On The Origin of Species* (on reserve)

**VI. Contemporary Reactions to Darwin and Evolution (Week 8)**

Topics to be discussed: How has Darwin been both demonized and lionized in contemporary scientific and religious circles? What is so threatening about the implications of Darwinian thought? Students will have a choice of articles to read, including but not limited to the following:

**Readings:**

Pigliucci, Chs. 5-8  
 Ruse, Chs. 1-5

**VII. Religion, Science, and Philosophy: tension and/or accommodation (Weeks 9 and 10)**

Topics to be discussed: What can we learn from these snapshots of the science/religion divide? Is there a way these fields can be reconciled, or is there an irreconcilable divide between the two? How did Mary Shelley view the tensions, and how are they reflected in her characterization of Dr. Frankenstein? What are the contemporary implications of Shelley’s characterization?

**Readings:**

McGrath, ch 9.  
 Gingerich, *God’s Universe* (entire)  
 Shelley, *Frankenstein* (entire)

**ACADEMIC MISCONDUCT**

The University understands academic misconduct to include “any activity which tends to compromise the academic integrity of the institution, subvert the educational process” (“Procedures of the Committee on Academic Misconduct”, Sept. 1989). With respect to this course, examples include, but are not limited to, such actions as cheating on exams and submitting a term paper written by another. No one should be unclear about whether *these* are wrong, but students are sometimes not clear about what constitutes plagiarism. ‘Plagiarism’ is defined by the University to be “the representation of another’s works or ideas as one’s own; it includes the unacknowledged word for word use and/or paraphrase of another person’s work, and/or the inappropriate unacknowledged use of

another person's ideas". There should be no misunderstanding about word for word transcriptions or simple paraphrases—these *must* be acknowledged through proper citations. It is sometimes not clear, though, when simply *using* the ideas of another requires citation. This is especially true in the context of a course, in which one is, presumably acquiring fundamental ideas of a subject matter from the text or the instructor. Certain ideas are "in the public domain", so to speak; they are ideas used by everyone working in the field, and do not require citation. Other ideas are such that their origin needs to be acknowledged. It is sometimes difficult for beginning students to distinguish these. It is helpful to remember that what is at issue is whether the failure to acknowledge a source would tend to misrepresent the idea as your own. The failure to acknowledge your source for a distinction between recklessness and negligence, for example, would not tend to misrepresent the distinction as your own since it is a distinction that anyone working in the field will draw in some way or other. To offer a *specific* account of this distinction that is offered by another without citing the source could easily tend to misrepresent the account as your own. It is clearly better to err on the side of over-acknowledgment in cases in which one is in doubt.

I view academic misconduct of any sort as a *very* serious violation of University requirements. University rules provide for extremely serious sanctions for academic misconduct, and I will, as I am required to do by Faculty Rule 3335-5-487, forward any cases of suspected misconduct to the Committee on Academic Misconduct. For more information, please see the Code of Student Conduct ([http://studentaffairs.osu.edu/info\\_for\\_students/csc.asp](http://studentaffairs.osu.edu/info_for_students/csc.asp)).

### **DISABILITY SERVICES:**

Students with disabilities that have been certified by the Office of Disability Services will be appropriately accommodated. They should inform me as soon as possible of their needs. The Office of Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>

