

# Science, Religion, and the End of the World

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**Course Description:** The sciences and the Christian tradition provide narratives about the end of the world. But how do these narratives relate? How do we evaluate them independently, and in comparison? What are the implications of the narratives for the way we live and think today, a time before the end of the world? This course, taught by a professor of astrophysics from Agnes Scott College and a professor of religious ethics from Columbia Theological Seminary, takes up those critical questions and provides students with opportunities to study widely, think critically, and learn respectfully in a cross-disciplinary setting. To encourage imaginative thinking, sources of study for the course will be a combination of speculative fiction novels, movies, and selections from other books and articles (to be made available in a course packet).

## **Required Texts:**

Bill Bryson, *A Short History of Nearly Everything*  
Philip K. Dick, *Do Androids Dream of Electric Sheep?*  
Doris Lessing, *The Memoirs of a Survivor*  
Cormack McCarthy, *The Road*  
Walter Miller, *A Canticle for Leibowitz*  
Mary Doria Russell, *The Sparrow*  
Various Authors, *Reader Packet* (see below)

## **Additional required texts for CTS Students:      Additional Recommended Text for CTS Students:**

Paul S. Fiddes, *The Promised End*                      Kelton Cobb, *Theology and Popular Culture*  
Hans W. Frei, *Types of Christian Theology*

## **Recommended Texts (for further reading):**

Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed*  
David Grinspoon, *Lonely Planet*  
Doris Lessing, *The Making of the Representative for Planet 8*  
Nevil Shute, *On the Beach*  
Alan Weisman, *The World Without Us*

## **Movies (All movies are on reserve at ASC and CTS):**

*12 Monkeys*  
*A.I.*  
*Sunshine*  
*The Matrix*  
*The Seventh Seal*

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AST 150 and HD 675a  
Spring 2011

## **Requirements:**

1. Attendance and participation. This class is driven by daily discussions about readings, lectures, and movies. The livelier the discussion, the better the class. (10% of grade)
2. Reflection papers. Over the course of the semester, Agnes Scott students will turn in four of six brief (2-3 page) reflection papers on topics described in the syllabus below, including the first and last papers. Columbia Students will turn in all six papers. (40% of grade)
3. Journal on speculative fiction readings and movies. These journals will be used to generate questions and ideas throughout the semester. You will write in your journal daily and select some passages to share at the end of the term. (10% of grade)
4. Final project. Students will work in groups of 3-4 to prepare a final project with an associated oral presentation to the class. Details will be forthcoming in a detailed project assignment. Projects should show evidence of critical and appreciative engagement with the required texts and/or additional works. Creativity is encouraged for both the project and the presentation. (40% of grade)

**Course Packet Contents** (in order of their appearance in the syllabus)

Gregory Benford, *Deep Time* (Harper Perennial, 2000), 1-29.

Robert John Russell and Kirk Wegter-McNelly, "Science," *The Blackwell Companion to Modern Theology* (Blackwell, 2004), 512-556.

*The Bible* (NRSV), various passages

Richard Mouw and Ted Peters, "Where Are We Going? Eschatology" in *Essentials of Christian Theology*, ed. by William C. Placher (Westminster-John Knox Press, 2003), 329-365.

Paul Boyer, "The Foreordained Future: Apocalyptic Thought in the Abrahamic Religions," *The Hedgehog Review: Critical Reflections on Contemporary Society* 10.1 (Spring, 2008), 60-75.

Krishan Kumar, "Utopia on the Map of the World," *The Hedgehog Review: Critical Reflections on Contemporary Society* 10.1 (Spring, 2008), 7-18.

Peter Ward and Donald Brownlee, *The Life and Death of Planet Earth* (Holt, 2004), 11-24.

Albert Borgmann, "On the Blessings of Calamity and the Burdens of Good Fortune," *The Hedgehog Review: Critical Reflections on Contemporary Society* 4.3 (Fall, 2002), 7-24.

Langdon Winner, "Are Humans Obsolete?" *The Hedgehog Review: Critical Reflections on Contemporary Society* 4.3 (Fall, 2002), 25-44.

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Date	Topic	Readings/Movies
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**Part I Introductions**

Jan. 19:	Introduction to class What is Theology? And why study it? (MD)	N/A
Jan. 24, 26:	What make science scientific? (CD) Time, Distance, & Size in Astronomy (CD)	Benford (packet) Bryson, 9-78
Jan. 31, Feb. 2:	Time and Culture (MD) Theological Interpretations of Culture (MD) <i>Leibowitz</i> Feb. 4 Movie (2 PM)	12 Monkeys Miller, <i>A Canticle for</i>

*Reflection Paper #1, due Feb. 2: Complete (and then expand on) the following sentence: "I chose to take this course because . . ."*

**Part II The End of the World**

Feb. 7, 9:	Narratives of the End (MD) End of the World Scenarios (CD)	Scripture (packet) McCarthy, <i>The Road</i>
Feb. 14, 16:	Theologies of Science (MD) The Life and Death of Planet Earth I (CD) Feb. 18 Movie (2 PM)	Russell and Wegter (packet) Bryson, 189-235 <i>Sunshine</i>

*Reflection Paper #2, due Feb. 16: You are sitting around with a group of friends in a coffee house one day and get into a conversation about belief. One of them, whom you don't know especially well, says, "The Bible is an archaic book written by people who didn't understand the way the world really works. Science has taught us better. Instead of reading old books, we should be reading the latest editions of Science magazine." How might you respond to that friend?*

Feb. 21, 23:	Utopias, Dystopias, and their Purposes (MD) The Life and Death of Planet Earth II (CD)	Kumar (packet) Ward and Brownlee (packet)
Feb. 28, Mar. 2:	Apocalypse and Eschaton I (MD) Probabilities and the End of the World (CD) Mar. 4 Movie (2 PM)	Boyer (packet) Mouw and Peters (packet) <i>The Matrix</i>

*Reflection Paper #3, due March 2: We've all seen cartoons of a wild-haired man carrying a sign that reads, "The End of the World is Coming! If you were to carry such a sign, what would it say? And why would it say that?"*

Mar. 7, 9:	Apocalypse and Eschaton II (MD) Sources of Nuclear Winter (CD)	Russell, <i>The Sparrow</i>
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- Mar. 14, 16:            *ASC Spring Break (no class for ASC students).  
Midterm Week for CTS Students, who meet with Mark on March 16  
to discuss Hans Frei's Types of Christian Theology*
- Mar. 21, 23:            Theological Anthropologies I (MD)            Dick, *Do Androids Dream . . .*  
The World Without Us (CD)

**Part III: The End of Humanity**

- Mar. 28, 30:            Theological Anthropologies II (MD)            Bryson, 335-349; 469-478  
A.I. and the End of Humanity (CD)            Winner (packet)  
Apr. 1 Movie (2 PM)            Borgmann (packet)  
A.I.

*Reflection Paper #4, due March 30: Answer the following question: What are people like?*

- Apr. 4, 6                *No class - group work (Groups work on presentation outline)*

- Apr. 11, 13            Providence and Fate (MD)  
The Anthropic Principle (CD)

*Special Session (time and place to be determined) for CTS students to discuss*

*Paul Fiddes, The Promised End*

*Reflection Paper #5, due April 15: Answer the following question: Is the universe essentially friendly or hostile to human beings?*

- Apr. 18, 20            Theodicy, Tragedy, and Hope (MD)            *The Seventh Seal*  
Does the Universe Need Humans? (CD)  
Apr. 22 Movie (2 PM)

- Apr. 25, 27            Presentations (optional SpARC presentation on Apr. 28)

*Reflection Paper #6, due Apr. 29: Complete (and expand on) the following two sentences:*

*Before I started this semester, these were my questions:*

*As we approach the semester's end, these are my new questions:*

- May 2                    What Happens After We Die? (MD)  
Summing Up

**Hints, Tips, and Rules for a Good Class**

Classes in religion can provoke controversy and disagreement—particularly when they take up matters which are already perceived as controversial in society. This can be one of those classes; as such, we need to keep several points in mind as we communicate with each other in this class. Among these are:

1. There is no reason to think that we all must agree on an issue in order to be part of this class or share common bonds to the same society. The willingness to charitably argue and express thoughtful disagreement is among the most important ways cultures move forward and they are intrinsic to transformational education. In fact, as a general rule of thumb in the classroom, we ought to be suspicious about any issue about which we all agree. When all heads nod in the same way, we are either exerting illegitimate control over other persons' heads or we have stopped using our own.
2. Disagreement can be many things: intellectual, heated, productive, mild, etc. Our burden is to keep it from being destructive or splintering. Toward that end, there are three rules for disagreement within this class:
  - a. Always remember that the person with whom you disagree is, like you, a finite creature who does not have all the answers but who is, nevertheless, a full person capable of independent thought who retains rights, including the right to disagree with you, no matter what you say or do. Demonizing others based on their positions is disrespectful to persons, contrary to the purposes of education, and simply in poor taste.
  - b. You should be able to state your opponent's position so clearly and fairly that your opponent would say, "Yes, that is what I mean." Only then can you rightly give a critique of that position.
  - c. You have the responsibility of following your thought through to its logical conclusions. If you don't like those conclusions, back up, figure out where you went wrong, and then either clarify or qualify your thought accordingly.
3. We who have the privilege of formal post-secondary education bear the responsibility of learning how to communicate clearly and correctly. For that reason, grammar will be graded on all written work. If you are worried about the quality of your writing, we recommend a trip to a writing center and/or the use of Strunk and White's Elements of Style. In written work, we will be looking for:
  - a. Concision: Good papers get to the point promptly, summarize concisely, and move quickly.
  - b. Clarity: Good papers develop a clear argument, have an obvious structure and avoid verbal wandering.
  - c. Consequence: Good papers are able to describe the significance and/or implications of the ideas presented therein.
  - d. Creativity: Good papers reveal original thought—or at very least, the summaries of others' thoughts presented in original ways.
  - e. Citation: Good papers will (where appropriate) cite books, movies or other sources assigned as part of the course.
4. There are few greater joys in life than sharing in thoughtful conversations with colleagues, and few more important conversations than those about the way we ought to live. This class can be filled with both types of conversation. Revel in it.