Capstone Course (UN554, Spring 2011):
Certainty and Uncertainty in Science and Religion

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Class Meetings: Wednesday 4:00-6:20, Devlin 221

This syllabus provides a basic summary of the course. Other course materials will be posted on the course web site, which is on the BC Blackboard course management system.

Description of Course:

Life is uncertain. There will always be uncertainty and risks that we have to accept as part of our lives. In this course, we will explore how each of us relates in our own ways to science and/or religion as paths towards dealing with the uncertainties of life, and how our perspectives on these two worldviews have affected our life choices. The current “creationism-versus-evolution” controversy provides a rich and thought-provoking example of the different ways that people turn to science and/or religion to understand their place in the world. We will begin our exploration of science and religion by delving into this controversy over teaching biblical creation in public school science classes as an alternative to the theory of evolution and geological theories of the Earth’s origin. Exploring this controversy will provide us with a springboard for exploring the relationship between science and religion in general and how each might contribute to the development of one’s personal worldview.

The issues that inevitably arise in grappling with the creation/evolution controversy open up much broader questions about science, religion, belief, and knowledge. Understanding this controversy requires grappling with such questions as: What is science? What is religion? How does scientific knowledge differ from religious beliefs and experiences?

This course will provide you with an opportunity to reflect on how your views on these types of questions affect who you are, how you act in the world, what your life choices have been so far, and what you expect your life choices to be after graduation from BC.

Schedule of Topics and Readings:

The schedule of class topics and readings (all available online) is listed below. However, life is uncertain and change is one of the few things that we can be certain about. Also, the topics we discuss in this course are “hot topics”, and we must allow for the inevitable unexpected events (both local and global) that comes with the territory of grappling with the hot topics of certainty and uncertainty. Thus, other readings will likely be added to this list as the course develops, and the order of class readings may change if some unexpected compelling events (either natural or human-made) occur that are related to our discussions. Students will be active participants in revising the course reading list as necessary to support the development of our discussions as the course progresses. In addition to readings, we will also watch video material relevant to our topic, such as excerpts from the movies Inherit the Wind and Contact, as well as educational videos and videos of lectures and debates.
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<th>Week</th>
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2. *Your Three Articles of Faith* |
| 2    | 1/26 | The “Creationism vs. Evolution” Controversy | 1. *The Evolution Wars (Time Magazine)*, Claudia Wallis (7 pages)  
2. Excerpts from the movie *Inherit the Wind* and “Dr. Dino” Video Seminar (40 minutes)  
4. *State vs. John Scopes (The Monkey Trial)*, Douglas Linder (5 pages)  
5. *Notes on “Inherit the Wind”*, Douglas Linder (3 pages) |
| 3    | 2/2  | Certainty and Uncertainty in Science | 1. *What is Science?*, Helen Quinn (2 pages)  
2. *Uncertain Science... Uncertain World*, Henry N. Pollack (11 pages)  
| 4    | 2/9  | How Old is the Earth? | 1. *The Age-of-the-Earth Debate (Scientific American)*, Lawrence Badash (6 pages)  
3. *Tao Te Ching*: 25 (1 page) |
| 5    | 2/16 | Are Science and Religion Incompatible? (I) | 1. *The Blind Watchmaker, Chapter 6*, Richard Dawkins (3 pages)  
3. *The Dawkins Delusion*, Allister and Joanna McGrath (5 pages) |
| 6    | 2/23 | Is Science Alone Enough? | 1. *When God is Gone Everything is Holy, Chapter 1*, Chet Raymo (6 pages)  
2. *The Case for God (Introduction)*, by Karen Armstrong (2 pages)  
3. Additional Readings (~20 pages) |
| 7    | 3/2  | Are Science and Religion Incompatible? (II) | 1. *God vs. Science (Time Magazine)*, David Van Biema (9 pages)  
2. *Are Science and Religion Incompatible*, Eugenie Scott (3 minutes)  
3. Additional Readings (~15 pages) |
2. *Atoms, Heat & What is Fire?*, Richard Feynman (5 minutes) |
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2. The Science of Right and Wrong: Can Data Determine Moral Values?, Michael Shermer (1 page)  
3. Additional Readings (~25 pages) |
| 3/30 | Is There Such a Thing as a Miracle? | 1. Engineers: Passengers’ Survival was Miracle by Design (USA Today), Alan Levin (2 pages)  
3. Additional Readings (~20 pages) |
| 4/6  | Should the Bible be Interpreted Literally? | 1. In the Beginning and The Garden of Eden, Genesis, Chapters 1 and 2 (4 pages)  
2. Religion and Science, Albert Einstein (3 pages)  
3. Additional Readings (~20 pages) |
| 4/20 | Reflections on Certainty and Uncertainty in Lifelong Commitments: Society and the Challenge of Sustainable Living | 1. Natural Hazards, Environmental Degradation, and the Urbanization of Planet Earth, Alan Kafka, Amy Frappier, and Noah Snyder (15 pages)  
2. Climate Heretic: Why Can’t we Have a Civil Conversation About Climate, Michal D. Lemonick (5 pages)  
3. Tao Te Ching: 17, 29 and 30 (3 pages) |
2. Excerpts from the movies Inherit the Wind and Contact (30 minutes)  
3. Tao Te Ching: 2, 3 and 79 (3 pages)  
4. Additional Readings (~20 pages) |
| 5/4  | Reflections on Certainty and Uncertainty in Your Lifelong Commitments: Career and Work | 1. My Mother, the Scientist, Charles Hirshberg (5 pages)  
2. A Personal View of Education, Alan V. Oppenheim (4 pages)  
3. Tao Te Ching: 9, 13, 24 and 27 (4 pages)  
4. Revisiting Your Three Articles of Faith  
5. Additional Readings (~10 pages) |
Writing Assignments:

1. On the first day of class, each student will write a short description of what they consider to be three “Articles of Faith” that characterize what they believe about life. What I mean by “Articles of Faith” is statements of fundamental beliefs that you have about the world. What do you fundamentally believe to be true about the world? These do not (necessarily) have to be “religious” beliefs. Students will present their three Articles of Faith during the first class. At the beginning of the second week of class, students will submit their Articles of Faith, along with a short description of their current understanding of the role of science and religion in their lives as their first weekly reflection paper. This paper must be word-processed, can be no longer than 300 words, and must fit on one page.

2. A one-page reflection paper will be due each week. These papers will generally be about your reflections on the previous week’s discussion and how that discussion relates to the readings assigned for the current week, but may at times be focused on a specific topic that has arisen as part of our discussions. This paper must be word-processed, can be no longer than 300 words, and must fit on one page.

3. Mid-term paper (12 pages minimum, Due on March 23, 2011): How have your views on science and religion, and your BC education, affected your life choices so far, and how might your evolving views on science and religion affect your life choices after you graduate from BC? This mid-term paper would be mostly focused on “life choices so far,” but will also begin to consider post-graduation life choices.

4. Final paper (12 pages minimum, Due on May 10, 2011): Follow-up to the mid-term paper, but now less emphasis on the “so far” part, and more looking forward to life after college. Also discuss how your thoughts on these issues have evolved over the time we have spent discussing them in this course.

5. In the last class of the semester, we will revisit your three Articles of Faith, and this will be an opportunity for you to revise your Articles of Faith (if they have changed over the course of the semester). This last class will also be an opportunity for you to reflect once again on your understanding of the role of science and religion in your life. Your revised Articles of Faith will be handed in at the beginning of the last class of the semester.

Grades will be based on:

1. Class participation - 25% of course grade.
2. Weekly reflection papers - 25% of course grade.
3. Mid-term paper - 25% of course grade.
4. Final paper - 25% of course grade.

Students are responsible for knowing all of the information in this syllabus. There may be corrections or addenda to what is written here, and if so they will be posted on the course Blackboard web site. The most current version of syllabus will always be the version on the web.