

RELI 421: Religion and Science

Tuesday/Thursday 12:30-1:45 pm

Dey Hall Room 208

Instructor: Nathan Schradle

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Office Hours: Tuesdays 2:00-3:00 or by Appointment



COURSE DESCRIPTION:

Religious and scientific worldviews have always been deeply entangled, and continue to interact in often perplexing ways, especially in contemporary political discourse. I hope that this course is able to shine some light on the complexity and richness of those interactions, especially as they have developed in the Christian West. To accomplish that task, we will endeavor to examine the historical relationship between a dominant strain of religious, scientific, and philosophical worldviews as they have developed in the North Atlantic world, from their ancient Greco-Christian (and more unified) roots through the Medieval Period, the Scientific Revolution, the 19th century professionalization of science, and more modern theories in physics and ecology. By focusing on the themes of cosmology, the origins of life and human nature, and the development of ecological thinking, we will unpack the many ways that contemporary debates about the roles of religion and science in our modern lives are informed by and embroiled in enduring historical debates and modes of understanding.

COURSE OBJECTIVES

Students will familiarize themselves with the historical, cultural, and philosophical contexts of famous mythologized moments in the history of science and religion (e.g. the Trial of Galileo, Darwin's Theory of Evolution, The Scopes Trial, etc.) and learn to evaluate the details and outcomes of these moments in light of those contexts.

Students will learn to do novel research on issues influenced by the entanglements of scientific and religious ways of thinking in both the form of a final research paper and participation in an in-class debate about a controversial issue at the nexus of science and religion.

Students will develop and build upon a capacity to imagine both the marked differences and profound similarities between the ways educated people have made sense of the world in different historical epochs.

POLICIES AND PROCEDURES:

GRADING SCALE:

Your grades will be determined according to the following formula. Specific criteria for each facet of your grade are included below the breakdown:

Reading Quizzes.....	15%
Midterm Exam.....	15%
Final Exam.....	10%
Final Paper.....	25%
Debate.....	20%
Participation.....	15%

READING QUIZZES:

Keeping up with the reading in this course is absolutely essential to even beginning to engage with the complex material we will cover in this course. As such, I will administer reading quizzes throughout the semester. These quizzes will not be announced in advance. They will be brief - designed to take up no more than 10 minutes of class time. They will be administered at the very beginning of class. If you miss these quizzes because of absence or tardiness, you will **not** be able to make them up. However, at the end of the semester, I will drop your lowest grade, even if it is a zero.

MIDTERM & FINAL EXAM:

Both exams will be in-class and closed note. Specific structure and contents will be discussed/reviewed as the exams approach.

The Midterm is on Thursday, March 9th during regularly-scheduled class.

The Final is scheduled for Friday, May 5th at 12 noon.

FINAL PAPER:

Each student will write an approximately 2000-2500 word (8-10 page) original research paper. More specific instructions will be discussed throughout the semester. However, there are three specific pieces of the assignment due on different dates that will comprise the grade. They are as follows:

March 10th (Friday): a 1-page proposal detailing your intended topic and the way it relates to the major themes and objectives of the course, as well as a list of 4 potential works-to-be-cited.

April 6th: Rough Draft (minimum 1000 words) on Sakai by 11:59 pm.

April 27th (final day of class): Final Draft due in class as a paper copy and on Sakai by 12:30.

DEBATE:

Each student in class will participate in one of six debates throughout the semester. We will discuss the formal structure of these debates throughout the course of the semester, and formalized instructions will be made available on Sakai once everyone has been able to state their interest level in the various topics and I have assigned teams. Those participating in each debate will be helped to select additional resources to use to prepare for the debate. Each student will be assigned a specific role, and each student's grade will be assigned individually. *These debates will require a great deal of research.*

The six debates are as follows. Please consider the following general themes to be refined into specific debate topics as the dates approach:

Thursday 2/9 – The Trial of Galileo

Tuesday 2/28 – Does the Theory of Evolution Disprove the Notion of a Creator God?

Tuesday 3/21 – The Scopes Trial

Thursday 3/30 – Does Modern Cosmology Suggest the Existence of a Creator God?

Tuesday 4/4 - Does Christian Doctrine mandate a response to Anthropogenic Climate Change?

Tuesday 4/18 – Who Should Decide the Future of Stem-Cell Research?

PARTICIPATION:

Because I want to reward students who come to class ready to actively engage, a full 15% of your grade will be determined based on the enthusiasm and frequency with which you ask questions during lectures and participate in discussions and in small group activities. Participation grades will be assessed at the end of each unit.

ATTENDANCE POLICY:

You may have one pre-arranged excused absence during the semester which does not count toward your total absences for the semester. Beyond that, you are allowed 2 absences during the semester, no questions asked. Any more than that, and it will affect your participation grade. More than 5 absences and your final course grade will be dropped by a letter, a consequence which will only increase with absences from there.

TECHNOLOGY POLICY:

You are all free to use your laptop computers to take notes and access readings (although you're strongly encouraged to take notes by hand and bring printouts of reading to avoid distraction). Please don't use the Internet for anything not related to class, especially anything with (distracting) video.

Absolutely no use of cell phones.

Repeated failure to meet either of these expectations will negatively impact your participation grade.

READINGS AND REQUIRED TEXTBOOK:

There is only one required book for this course. It has been made available both for purchase and rent in the Campus Bookstore, and is available online through the UNC Library's website:

Harrison, Peter. *The Territories of Science and Religion*. Chicago: University of Chicago Press, 2015.

All other readings will be made available on Sakai under "Resources." They will be listed by author, title, and date.

COURSE SCHEDULE:

Readings subject to revision depending on the direction of our most fruitful discussions

Thurs 1/12 – Course introduction, syllabus distribution

Harrison, *Territories*, Chapter 1, pgs. 1-19

Russell, "The Conflict of Science and Religion," pgs. 3-11

(both can be read AFTER class)

UNIT 1: ANTIQUITY AND THE MIDDLE AGES

Tues 1/17

Harrison, *Territories*, Chapter 2, pgs. 21-54

Thurs 1/19

Plato, selections from *Timaeus*, 12 pgs.

Mary-Jane Rubenstein, "A Single, Complete Whole," *Worlds Without End*, pgs. 21-39

Tues 1/24

Mary-Jane Rubenstein, "Ancient Openings of Multiplicity," *Worlds Without End*, pgs. 40-69

Lucretius, "Book One," *On the Nature of Things*, pgs. 1-14, 21-27

Thurs 1/26 – *Guest Lecture Luke Drake*

David Lindberg, "Early Christian Attitudes toward Nature," pgs. 47-55

David Lindberg, "Myth 1: That the Rise of Christianity Was Responsible for the Demise of Ancient Science," pgs. 8-18

Additional Reading to be selected by Lecturer

Tues 1/31

Harrison, *Territories*, Ch. 3, pgs. 55-81

Michael Shank, "Myth 2: That the Medieval Christian Church Suppressed the Growth of Science," pgs. 19-28

Syed Nomanul Haq, "Myth 4: That Medieval Islamic Culture was Inhospitable to Science," pgs. 35-42

Thurs 2/2

Al-Farabi, "Part 2," *The Philosophy of Plato and Aristotle*, pgs. 53-70

David C. Reisman, "Al-Farabi and the Philosophical Curriculum," *The Cambridge Companion to Arabic Philosophy*, pgs. 52-71

UNIT 2: ISLANDED IN A SEA OF STARS: THE SCIENTIFIC REVOLUTION

Tues 2/7

Peter Harrison Ch. 4, "Science and the Origins of Religion," pgs. 83-116

David Lindberg, "The Medieval Church Encounters the Classical Tradition: Augustine, Roger Bacon, and the Classical Tradition," pgs. 7-32 WSACM

Thurs 2/9 – Galileo Trial Debate

Dennis R. Danielson, "Myth 6: That Copernicanism Demoted Humans from the Center of the Cosmos," *Galileo Goes to Jail and Other Myths About Science and Religion*, pgs. 50-58

Maurice A. Finocchiaro, "That Galileo Was Imprisoned and Tortured for Advocating Copernicanism," *Galileo Goes to Jail and Other Myths About Science and Religion*, pgs. 68-78

David C. Lindberg, "Galileo, the Church and the Cosmos," pgs. 33-60 (WSACM)

Tues 2/14

Peter Harrison, "Myth 12: That Rene Descartes Originated the Mind-Body Distinction," *Galileo Goes to Jail and Other Myths About Science and Religion*, pgs. 107-114

Rene Descartes, "Third Meditation," and "Fifth Meditation," *Meditations on First Philosophy*, pgs. 24-36, 44-49

Thurs 2/16

"That the Scientific Revolution Liberated Science From Religion," *Galileo Goes to Jail and Other Myths About Science and Religion*, pgs. 90-98

Edward B. Davis, "That Isaac Newton's Mechanistic Cosmology Eliminated the Need for God," *Galileo Goes to Jail and Other Myths About Science and Religion*, pgs. 115-122

Jonathan Sheehan, "Providence and the Orders of the World," *Invisible Hands*, pgs. 11-47

UNIT 3: DARWIN'S DANGEROUS IDEA – PRECEDENTS AND LEGACY

Tues 2/21

Mott Greene, “Genesis and Geology Revisited: The Order of Nature and the Nature of Order in Nineteenth-Century Britain,” pgs. 139-160

Harrison, Ch. 5, “Utility and Progress,” pgs. 117-131

Thurs 2/23

Harrison, Ch.5 “Utility and Progress,” pgs. 131-144

Darwin, *Descent of Man*, selections

James Moore, “Myth 16: That Evolution Destroyed Darwin's Faith in Christianity – Until He Reconverted on His Deathbed,” pgs. 142.

Tues 2/28 **Debate – Does Darwinian Evolution refute the Christian Conception of a Creator God?**

Harrison, Ch. 6 “Professing Science,” pgs. 145 – 182

Matthew Stanley, “The Uniformity of Natural Laws,” and “The Limits of Science,” *Huxley's Church and Maxwell's Demon*, selections

David N. Livingstone, “Myth 17: That Huxley Defeated Wilberforce in Their Debate over Evolution and Religion,” pgs. 152-160

Thurs 3/2

G. Blair Nelson. “Men Before Adam?": American Debates Over the Unity and Antiquity of Humanity, pgs. 161-183

Jon H. Robert, “Myth 19: That Darwin Destroyed Natural Theology,” pgs. 161-169

Tues 3/7

Frank Palmeri, “The Social Psychology of Religion,” *State of Nature, Stages of Society*, pgs. 198-217.

David A Hollinger, “Damned For God's Glory: William James and the Scientific Vindication of Protestant Culture,” *William James and a Science of Religions: Re-experiencing The Varieties of Religious Experience*, pgs. 9-30

Thurs 3/9 ~ MIDTERM

SPRING BREAK (3/14 and 3/16)

Tues 3/21 Scopes Trial Debate

The Scopes Trial in History and Legend, *WSACM*, pgs. 245-265

Edward J. Larson, "Myth 20: That the Scopes Trial Ended in Defeat for Anti-Evolutionism," pgs. 178-186

Thurs 3/23

Christopher White, "A Multitude of Superstitions and Crudities," *Unsettled Minds*, pgs. 134-157

John Hedley Brooke, "Postscript: Science and Religion in the Twentieth Century," *Science and Religion: Some Historical Perspectives*, pgs. 438-456

UNIT 4 – MODERN-DAY INVOCATIONS OF AGE-OLD CONCEPTIONS

Tues 3/28

John Hedley Brooke, "Postscript: Science and Religion in the Twentieth Century," *Science and Religion: Some Historical Perspectives*, pgs. 456-478

Albert Einstein, "Cosmic Religion," pgs. 43-57

Matthew Stanley, "Myth 21: That Einstein Believed in a Personal God," pgs. 187-195

Thurs 3/30 Debate: Do Modern understandings of Cosmology suggest the existence of a Creator God?

Daniel Patrick Thurs, "Myth 22: That Quantum Physics Demonstrates the Doctrine of Free Will," pgs. 196-205

Mary-Jane Rubenstein, "Bangs, Bubbles, and Branes: Atomists Versus Stoics, Take Two," *Worlds Without End*, pgs. 142-176.

Tues 4/4 Debate: Does Christian Theological Doctrine mandate a response to Anthropogenic Climate Change?

Lynn White, Jr., "The Historical Roots of Our Ecological Crisis," pgs. 1-6

James Lovelock, "The Quest for Gaia," *The New Scientist 6 February 1975*, pgs. 304-306

Lynn Margulis and Dorion Sagan, "Gaia and Philosophy," *Slanted Truths*, pgs. 145-158

Thurs 4/6

Lynn Margulis, "A Pox Called Man," *Slanted Truths*, pgs. 247-264

Edward O. Wilson, "The Creation," *The Creation: An Appeal to Save Life on Earth*, pgs. 3-8, 15-36

Tues 4/11

Stephen Jay Gould "Preamble" and "NOMA Defined and Defended," *Rocks of Ages: Science and Religion in the Fullness of Life*, pgs. 3-10, 49-68

Richard Dawkins, "A Deeply Religious Non-Believer," *The God Delusion*, pgs. 31-50

Thurs 4/13

Andrew Hartman, "Introduction" and "Taking God's Country Back," *A War For the Soul of America*, pgs. 1-8, 70-101

Tues 4/18 - Debate: Who Should Decide the Future of Stem Cell Research?

David F. Noble, "The Powers of Perfection," and "The Politics of Perfection," *The Religion of Technology*, pgs. 172-208

CODA: MOVING BEYOND THE SCIENCE AND RELIGION PARADIGM

Thurs 4/20

Paul Feyerabend, "Introduction," *Conquest of Abundance*, pgs. 1-18

Paul Feyerabend, "Dehumanizing Humans," *The Tyranny of Science*, pgs. 92-112

Tues 4/25

Latour, "The Cult of The Factish Gods," *On the Modern Cult of the Factish Gods* pgs. 1-35

Thurs 4/27

Latour, "The Cult of the Factish Gods," *On the Modern Cult of the Factish Gods*, pgs. 35-66

FINAL EXAM: Friday, May 5th @ 12 Noon.