

Religion 104: Religion and Science

Tuesday/Thursday, 12:30 – 1:50 p.m.

202 Hall of Languages

Prof. M. G. Hamner, mghamner@syr.edu; Tuesdays 2-3 p.m., 512 HL and by appt.

Teaching Assistants:

Mr. Dan Cheifer, dpcheife@syr.edu; Wednesday s 1-2 p.m., 514 HL

Ms. Kandace Geldmeier, ksgeldme@syr.edu; Tuesdays 2-3:30, 514 HL

Is the relationship between religion and science one of warfare or harmony? How would you decide? Based on what concepts or historical events? Some have argued that the debates between faith and reason, or between belief and fact, have defined the last century and, indeed, can be seen to define the entire modern history of Western Europe and the United States. This course sets out to explore the range and influence of these debates, paying special attention to Galileo and Darwin.

Learning Outcomes

The objectives of this course are three-fold.

1. To explore what constitutes 'science' and what constitutes 'religion.' These terms are not self-evident, and their epistemology has changed over the centuries.
2. To teach students some of the history of the hostility, overlap, and support evidenced in the exchanges between research scientists and religious authorities. Studying this history should give students the skills and insights sufficient for entering into contemporary debates.
3. To give students the opportunity to use those skills and insights by providing class time to primary texts and to contemporary debates.

Required writings:

- Phil Dowe, *Galileo, Darwin, and Hawking: The Interplay of Science, Reason, and Religion*. Available at the SU bookstore.
- Course readings available through Blackboard. These readings are marked with an "*" in the syllabus.
- Primary source selections available through Blackboard Please print these out for class, or upload them to the computer you bring to class.

Requirements: Students will be assessed by writing and by examination.

You must complete all quizzes, the midterm and the final to pass the course.

1. Attendance and Participation. I assume you will attend lectures. Evidence of persistent absence will count against you. (10%)
2. Four short (15 min.) quizzes on key word vocabulary, name identification, and major date identification. Dates are listed in the syllabus. Terms and dates will be drawn from both readings and lectures. The purpose of these is to encourage you to keep up with the readings, and to come to class. (7.5 % each = 30%)
3. One midterm exam: identification of passages from primary sources, and short answer questions about specific concepts or persons. (25%)
4. One cumulative final exam: The final will include questions analogous to the midterm exam for the material covered *since* the midterm, a few questions taken from the midterm, and three synthetic questions that will require you to think about the issues covered over the entire course of the semester. (35%)

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Official Policies:

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The Policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. My policy is to count plagiarized work as a "zero" and not allow it to be made up. I may also press charges. For more information and the complete policy, see <http://academicintegrity.syr.edu/>.

Disability Statement: Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students should be registered with the Office of Disability Services (ODS), 804 University Avenue, Room 309 (315) 443-4498 and have an updated accommodation letter for the instructor. Accommodation and related support services such as exam administration are not provided retroactively and must be requested in advance. For more information about services and policy, visit the Office of Disability Services website at <http://disabilityservices.syr.edu/> or contact the office at the addresses below:

Syracuse University	Phone: (315) 443-4498
Office of Disability Services	TDD: (315) 443-1371
804 University Avenue Room 309	Email: odssched@syr.edu
Syracuse, NY 13244-2330	

Emergencies and Religious Holidays: Please inform me in writing (email) if you must miss class, or a paper due date. In fairness to the other students, if you do not notify me *before* the class, screening or due date, I cannot allow you to make up the work. *This policy includes emergencies, deaths in the family, and medical conditions.* By university policy, if you will miss class or assignments because of a religious holiday, I need to be informed in writing *one week* before the holiday. Travel days around the holiday are not excused.

GROUND RULES: Ensure your full attendance and participation grades by regarding the following:

- Please speak with respect and care for those who might disagree with you.
- Please use gender neutral language.
- Please respect the class process and your peers: come to class on time.
- If you must leave during class, please don't return.
- Please turn off your cell phones, blackberries, iphones and other identity extensions.

Syllabus of assignments

Week 1: Introduction and Basic Framework

Tues	Jan 19	Introductions and discussion of key words and concepts
Thu	Jan 21	Read: Dowe, "Introduction" (1-8), Polkinghorne, "The Frontier," from <i>Traffic in Truth: Exchanges between Science and Theology</i> ,* McGrath, "Introducing the Dialogue between Science and Religion,"* and Russell, "The Conflict of Science and Religion", from <i>Science and Religion: A Historical Introduction</i> .*

Week 2: Plato and Aristotle

Tues	Jan 26	Read: the selection on Plato's Forms.*
Thu	Jan 28	Read: the selection on Aristotle's Four Causes.*

Week 3: Early models of cosmology

Tues	Feb 2	Read: Dowe, 8-16; Copernicus* (full text is available at http://www.webexhibits.org/calendars/year-text-Copernicus.html); and look over the model of Ptolemy's theories at https://people.scs.fsu.edu/~dduke/ptolemy.html).
Thu	Feb 4	Quiz #1 (15 minutes) Read: Dowe, pages 16-22; Plato's <i>Timaeus</i> lines 27c-34a (line numbers listed on the Greek side of the page) at http://www.ellopos.net/elpenor/physis/plato-timaeus/genesis.asp ; Genesis 1-2.*

Week 4: The Patristic period and the Reformation

Tues	Feb 9	Read: Dowe, pages 22-26 and Augustine*. (For those interested in the Church Fathers, you may wish to see excerpts from Aquinas on creation at http://www.nd.edu/~afreddos/translat/aquinas1.htm).
Thu	Feb 11	Read: Dowe, pages 26-29; Calvin*. (Those interested in the Protestant Reformation will enjoy Luther's 95 Theses at http://www.iclnet.org/pub/resources/text/wittenberg/luther/web/ninetyfive.html).

Week 5: Galileo

Tues	Feb 16	Dowe, pages 29-39; begin to read <i>Starry Messenger</i> , http://www.bard.edu/admission/forms/pdfs/galileo.pdf
Thu	Feb 18	Finish reading <i>Starry Messenger</i> . I strongly suggest you begin reading the "Letter to the Grand Duchess Christina (see link under Tuesday, February 23).

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Week 6: Galileo, continued

Tue Feb 23 Read: "Letter to the Grand Duchess Christina,"
<http://www.fordham.edu/halsall/mod/galileo-tuscany.html>;
and "Sentence and Apology."*
Thu Feb 25 Quiz #2 (15 minutes)
Read: selections from Brecht's *Galileo*.*

Week 7: Hermeneutics or the Art of Interpretation

Tue March 2 Read: Brecht, continued, and Dowe, pages 40-56.
Thu March 4 Read: Osiander's foreword to Copernicus's *De Revolutionibus* at
<http://www.webexhibits.org/calendars/year-text-Copernicus.html>.

Week 8: Midterm

Tue March 9 Discussion of hermeneutics, continued. In class review for
the Midterm.
Thu March 11 *Midterm Exam. No make-up exams allowed.*

Enjoy your spring break!

Week 9: The Development of the Scientific Method

Tue March 23 Read: Dowe, page 57-69.
Thu March 25 Read: Dowe, pages 70-81 and Bacon, "Author's Preface"
from *Novum Organum*, at
http://www.constitution.org/bacon/nov_org.htm.

Week 10: Miracles

Tue March 30 Read: Dowe, pages 82-91.
Thu April 1 Read: Dowe, pages 91-103. Next week entails more
reading, so I recommend you get a head start.

Week 11: Darwin

Tue April 6 Read: Dowe, pages 104-124, and Paley.*
Thu April 8 Read: Darwin, selections from *Origin of Species* at
<http://www.literature.org/authors/darwin-charles/the-origin-of-species/>. Read the Introduction, the summary of Chapter
4 (at the end), and Chapter 14.

Week 12 Darwinism

Tue April 13 Quiz 3 (15 minutes)
Read: Dowe, pages 125-136, and Darwin, *OS* Chapter 3
(the first four and last nine paragraphs). See April 8 for the
hyperlink.
Thu April 15 Read: Darwin, *OS*, Chapter 6. See April 8 for the hyperlink.

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Week 13: Cultural reverberations of *Origin of Species*

Tues	April 20	Read: Dowe, pages 137-141, Ronald L. Numbers, "Creationism Since 1859," and Edward J. Larson, "The Scopes Trial"*
TBA:		Screening of <i>Inherit the Wind</i> (Kramer, 1960: 128 min) Bird: Videotape PN1997 I54 1999.
Thu	April 22	Discussion of <i>Inherit the Wind</i> .

Week 14: Some perspectives from Judaism and Hinduism

Tue	April 27	Quiz #4 (15 minutes) Read: TBA
Thu	April 29	Read: TBA

Week 15: Concluding Thoughts and Questions

Tue	May 4	Review for the final.
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Final Exam review will be announced by Ms. Geldmeier and Mr. Cheifer.

The Final Exam is scheduled for Thursday, May 6, 3:00 – 5:00 p.m. You must take the final to pass the course.