

PHY 125 Theology and Science
Spring 2015

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Office hours: MWF, 10-11; MR, 1:30-2:30;
Other hours by appointment

REQUIRED TEXTS: 1) PHI/PHY 125 Coursepack (available at Dynamic Bookstore).
2) Miller, Kenneth. *Finding Darwin's God*. New York: Harper Perennial, 2007.

Reserved Materials: Various selections of materials may be made available on D2L or at the Library circulation desk.

SPRING SEMESTER SCHEDULE

20 Jan	8 a.m.	Tues	University classes begin
20 Jan	11:00 a.m.	Tues	First PHY 125 class
9-13 Mar		Mon-Fri	Spring Break – No classes
30 Apr	11:00 a.m.	Thurs	Last PHY 125 class
4 May		Mon	Last day of classes
8 May	10:30 p.m.	Thurs	<i>(Optional) Final Exam</i>

COURSE GOALS, DIRECTION AND OBJECTIVES

This course is an inquiry into the interrelationship between theology and the natural sciences. The course investigates how ideas of God have been affected by advances in the natural sciences, primarily physics and biology. The readings cover a range of positions by thoughtful advocates of competing visions on the compatibility of various scientific and religious claims.

Course Goals:

- (1) To show students concentrating either in the sciences or humanities how faith has reached accommodation with science in the past and to suggest that a constructive relationship between science and faith is also possible today;
- (2) To illustrate that persons from different disciplines can dialogue constructively about an issue that is often both incendiary and divisive;
- (3) To encourage critical thinking about the interplay between science, on the one hand, and deeply held beliefs concerning God and the transcendent, on the other, in the light of physical reality and its present interpretation;
- (4) To help students see for themselves the consequences, logical and otherwise, of holding particular views of both God and nature, and how they may operate and interact; and
- (5) To offer to the student not final answers, but a way to approach the scientific evidence and the philosophical/theological questions which have been raised—to show, in short, that Charles Peirce's maxim, "never bar the path to inquiry," still holds.

Essentially, the class will combine lecture and discussion. Each class will typically begin with the instructor offering a short lecture on the class readings, and the rest of the class will be a large group discussion. Sometimes small groups may be employed. The assigned readings will be the basis for much of the class discussion and active student participation is both encouraged and expected.

Educational Objectives of the Course:

1. Student will learn to think more critically and analytically about controversial issues often confused by rhetoric and passionate personal commitments.
2. Students will learn to communicate their ideas about the relationship between science and religion more effectively.
3. Students will learn to respond thoughtfully to diverse sets of opinion, appreciating the legitimacy of a variety of approaches to controversial issues, while being able to identify fundamental weaknesses and presuppositions of various positions.
4. Students will become familiar with contemporary methods and theories in science that have applicability to the relationship between science and religion, including modern theories of cosmology and biological evolution.

Students will learn the process of constructing theories in modern science and the relation of theory to experiment.

TENTATIVE CALENDAR OF TOPICS AND READINGS

Week / Dates		Tuesday	Thursday
1	Jan 20/22	Introductory Comments; Extracting Meaning	Gould, Two Separate Domains (D2L); Dawkins, Science Discredits Religion (D2L); Overbye, Who's Afraid of the Big Bad Bang? (Coursepack)
2	Jan 27/29	Gould, Two Separate Domains (D2L); Dawkins, Science Discredits Religion (D2L); Overbye, Who's Afraid of the Big Bad Bang? (Coursepack)	Barbour, Ways of Relating Science and Religion (Coursepack)
3	Feb 3/5	Barbour, Ways of Relating Science and Religion (Coursepack)	Arieti and Wilson, The Scientific and the Divine, Ch. 2. (D2L)
4	Feb 10/12	Arieti and Wilson, The Scientific and the Divine, Ch. 2. (D2L)	Take a breath.
5	Feb 17/19	Schmidt, Functions of Language and Science; Langer, Understanding Myth (Coursepack)	Gilkey, Theories in Science and Religion; Popper, Falsification (Coursepack)
6	Feb 24/26	Jastrow, God and the Astronomers; Wald, Life and Mind in the Universe (Coursepack)	Miller, Finding Darwin's God, Ch. 1 & 2

		[Miller, Finding Darwin's God, Ch. 1 introduced]	
7	Mar 3/5	Miller, Finding Darwin's God, Ch. 2 (cont.); Lewis, The Naturalist and the Supernaturalist (Coursepack)	Miller, Finding Darwin's God, Ch. 3
8		SPRING BREAK	SPRING BREAK
9	Mar 17/19	Polkinghorne, More to the World than Meets the Eye (Coursepack)	Miller, Finding Darwin's God, Ch. 4
10	Mar 24/26	Miller, Finding Darwin's God, Ch. 4 (cont.)	Miller, Finding Darwin's God, Ch. 5
11	Mar30/1 Apr	Miller, Finding Darwin's God, Ch. 5 (cont.); Behe, Evolution of a Skeptic (D2L)	Miller, Finding Darwin's God, Ch. 6
12	Apr 7/9	Miller, Finding Darwin's God, Ch. 6 (cont.); Asimov, The 'Threat' of Creationism (Coursepack)	Miller, Finding Darwin's God, Ch. 7
13	Apr 14/16	Haught, Is Human Life only Chemistry? (Coursepack)	Spivey and Smith, New Testament Understanding of Miracles; Hick, Miracles (Coursepack)
14	Apr 21/23	Dawkins, Miracles and Probability; Davies, Do Miracles Exist? (Coursepack)	Miller, Finding Darwin's God, Ch. 8
15	Apr 28/30	Cobb, Process Theology and Environmental Issues (Coursepack)	Miller, Finding Darwin's God, Ch. 9
	If time permits	Tuesday: de Chardin, Some Reflections on Progress (Coursepack) and Concluding Thoughts/Review	

ASSESSMENT POLICIES

Graded Assignments and Activities:

Routine Reading Quizzes - 90%: These may be a mini-essay, or short answer or multiple choice questions taking about 10-15 minutes. They will deal with the material covered in class since the previous quiz. One quiz grade, the lowest, will be dropped for every student, regardless of reason, i.e. a missed quiz, death in family, athletic event, etc. *There will be no make-up for a missed quiz, regardless of reason; please do not ask.* You should plan on taking all quizzes.

Participation - 10%: This consists of in-class contributions, online D2L discussions, discussions with instructor outside of class, and participation in course-related campus events.

Optional Final Exam: This will include multiple choice, short answer and mini-essay responses, comprehensively covering the material from the course. The final, if taken, will

be worth 1/3 of the Quiz Total (30%). If taken, the comprehensive final will be scored; it can help your final grade or it can hurt your final grade, depending on the score.

OTHER COURSE POLICIES

Attendance: Attendance in all class sessions is mandatory. Each student is allowed only three (3) unexcused absences. Class begins promptly, and repeated late arrivals may count as absences. Excessive absence will result in a severe penalty on the final grade and may result in failure for the course. If you are a student athlete, please provide the instructor with your travel and game schedule indicating when you will need to miss class to participate in athletic events. While travel for athletics is an excused absence, you will need to make up any missed work.

Academic Integrity: All graded work is to be done by the student receiving the grade. Plagiarized or academically dishonest work may receive zero credit, may result in a failure of the class, and potentially suspension or expulsion from the university. If you have any questions concerning what is or is not considered a violation, please see the instructor *before* you decide to act and please consult the Undergraduate Student Academic Integrity Policy. It is your responsibility to know what is considered academic dishonesty.

Learning Disabilities: In order to request academic accommodations due to a disability, please contact the Office of Services for Students with Disabilities (OSSD) at (610) 436-3217. If you have a letter from their office indicating that you have a disability that requires alternative academic accommodations, please present the letter to one of the instructors *in advance* of any assessments so we can discuss the accommodations that you might need in this class. We share the University's desire to comply with the ADA of 1990.

Public Safety Emergency Contact Number: The Emergency Communication Committee has made the recommendation that the emergency phone number for WCU's Department of Public Safety be listed on all course syllabi. That number is **610-436-3311**. This specific recommendation is made to help the campus be prepared in case of an emergency situation.

Intellectual Property Statement: The instructor for this course utilizes copyrighted materials under the "Freedom and Innovation Revitalizing United States Entrepreneurship Act of 2007" (Fair Use Act). Apart from such copyrighted materials, all other intellectual property associated with this course is owned and copyright protected by the instructor, including, but not limited to, course notes and discussions, supplementary materials posted or provided to students, assessment instruments such as quizzes and exams, and Power Point presentations. No recording, copying, storage in a retrieval system, or dissemination in any form, whether electronic or other format, by any means of the intellectual property of the instructor, either in whole or in part, is permitted without the prior written permission of the instructor. When such permission is granted, it must specify the utilization of the intellectual property and all such permissions and waivers shall terminate on the last day of finals in the semester in which this course is held. Links and references to on-line resources provided by the instructor may lead to other sites. The instructor does not sponsor, endorse or otherwise approve of any information appearing in those sites, nor are they responsible for the availability of, or the content located on

or through, external sites. Apart from materials used in accordance with the Fair Use Act, the instructor takes no responsibility for material that is otherwise offered at web sites and makes no warranty that such material does not infringe any third party rights. However, should any of this type of material be present and this fact is brought to the attention of the instructor, references to it will be removed from course materials.

Information on General Policies: For questions regarding Academic Dishonesty, the No-Grade Policy, Sexual Harassment, or the Student Code of Conduct, students are encouraged to refer to the Department's Handbook for Physics Majors, the Undergraduate Course Catalogue, the Rams Eye View, and the University Web Site. Please understand that improper conduct in any of these areas will not be tolerated and may result in immediate ejection from the class.