

**Theology and Science**  
**PHI/PHY 125 - Spring 2020**

**MER (Merion Science Center) 113**

**TR 11:00am-12:15pm**

Instructor:	Dr. Tony Nicastro	Dr. Matt Pierlott
Office:	108 Merion Hall	Anderson Hall 220
Office Hours:	MW: 10-11, 1:30-2:30; R: 2-3	M: 2-4; TR: 12:30-2:00
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**Required Texts:**

- 1) PHI/PHY 125 Coursepack (available at the 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.

**Course Description:** This course is an inquiry into the interrelationship between theology and the natural sciences. Team taught by a physicist and a philosopher, 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

**\*Note:** This course is cross-listed as PHI 125 and PHY 125, and can fulfill either a “Humanities” or a “Science” slot of the University’s General Education Requirements (not both). *Students should be sure to enroll in the proper course prefix to fulfill the desired slot.*

Please be aware that this course is **not** an official Interdisciplinary course, and will **not** fulfill the “I” requirement of the General Education Requirements. *Students may **not** take both courses for credit.* This course (either prefix) also will serve Philosophy and Religious Studies majors or minors as an acceptable Philosophy or Religious Studies Elective.

### **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.

**Conduct of Course:** This class is team-taught by two instructors from two different departments, so it will not only be interdisciplinary in nature, but will reflect the different teaching styles and personalities of the instructors. Essentially, the class will combine lecture and discussion. Each class will typically begin with one of the instructors 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.

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

*General Education Goals:* In alignment with the WCU General Education requirements, this course also is designed to meet the following four student learning outcomes. Students will learn to: communicate effectively (Goal #1); think critically and analytically (Goal #2); employ quantitative concepts and mathematical methods (Goal #3); and understand various historical, cultural and philosophical traditions (Goal #6).

Students will learn to “express oneself effectively in common college-level written forms” (SLO 1a), which will be assessed in reflective essays and reading summaries. Students will learn to “Construct and/or analyze arguments in terms of their premises, assumptions, contexts, conclusions and anticipated counter-arguments” (SLO 2b), which will be assessed in reflective essays. Student will “employ quantitative methods to examine a problem in the natural or physical world” (SLO3a), which will be assessed in quizzes. Students will “apply the basic methods and thought processes of the scientific method for natural/physical science in a particular discipline” (SLO 3b), which will be assessed in quizzes and in-class activities. Students will “analyze, define, and explore what it means to be human” (SLO6a), which will be assessed in reflective essays. And students will “demonstrate an understanding of varied historical, culture and/or philosophical traditions” (SLO6b), which will be assessed in quizzes and reflective essays.

### **Graded Assignments and Activities:**

**Routine Reading Quizzes - 50%:** 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.

**Reflective Essays - 25%:** These will be submitted through D2L and require a specific format, which will be detailed on a separate instruction sheet posted on D2L.

**Reading Summaries – 15%:** These will be submitted through D2L and due before scheduled class. Students will be assigned particular readings for which to prepare summaries.

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

**Optional Final Assessment (Exam or Paper):** Students will have the option to take a final assessment if they wish to change their standing grade. Students who exercise this option will add an additional 30% to the potential maximum grade (i.e., 100 pts to 130 pts.). *Students should be aware that poor performance on the final assessment can potentially lower their standing grade, just as it might raise it.* Students will have a choice between taking a final exam or submit a final paper. The exam option will include multiple choice, short answer and mini-essay responses, comprehensively covering the material from the course. The paper option requires students to get approval for their paper topic and permission to submit a paper in

advance (this will not be open to students who have not demonstrated responsibility in the course and competence in the material). A separate paper instruction document will be posted on D2L

**Attendance:** 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.

**Intellectual Property Statement:** The instructors for this course utilize 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 instructors, 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 instructors, either in whole or in part, is permitted without the prior written permission of both instructors. 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 instructors may lead to other sites. The instructors do 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 instructors take no responsibility for material that is otherwise offered at web sites and make 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 instructors, they will remove references to it 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 their major department's handbook, the Undergraduate Course Catalogue, the Rams Eye View, or 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.

## **ACADEMIC INTEGRITY**

It is the responsibility of each student to adhere to the university's standards for academic integrity. Violations of academic integrity include any act that violates the rights of another student in academic work, that involves misrepresentation of your own work, or that disrupts the instruction of the course. Other violations include (but are not limited to): cheating on assignments or examinations; plagiarizing, which means copying any part of another's work and/or using ideas of another and presenting them as one's own without giving proper credit to the source; selling, purchasing, or exchanging of term papers; falsifying of information; and using your own work from one class to fulfill the assignment for another class without significant modification. Proof of academic misconduct can result in the automatic failure and

removal from this course. For questions regarding Academic Integrity, the No-Grade Policy, Sexual Harassment, or the Student Code of Conduct, students are encouraged to refer to the Undergraduate Catalog, the *Ram's Eye View*, and the University website at [www.wcupa.edu](http://www.wcupa.edu).

## **AMERICANS WITH DISABILITIES ACT**

If you have a disability that requires accommodations under the Americans with Disabilities Act (ADA), please present your letter of accommodations and meet with me as soon as possible so that I can support your success in an informed manner. Accommodations cannot be granted retroactively. If you would like to know more about West Chester University's Services for Students with Disabilities (OSSD), please visit them at 223 Lawrence Center. The OSSD hours of Operation are Monday – Friday, 8:30 a.m. – 4:30 p.m. Their phone number is 610-436-2564, their fax number is 610-436-2600, their email address is [ossd@wcupa.edu](mailto:ossd@wcupa.edu), and their website is at [www.wcupa.edu/ussss/ossd](http://www.wcupa.edu/ussss/ossd).

## **EXCUSED ABSENCES POLICY FOR UNIVERSITY-SANCTIONED EVENTS**

Students are advised to carefully read and comply with the excused absences policy for university-sanctioned events contained in the WCU Undergraduate Catalog. In particular, please note that the “responsibility for meeting academic requirements rests with the student,” that this policy does not excuse students from completing required academic work, and that professors can require a “fair alternative” to attendance on those days that students must be absent from class in order to participate in a University-Sanctioned Event.

## **REPORTING INCIDENTS OF SEXUAL VIOLENCE**

West Chester University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator, Ms. Lynn Klingensmith. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project. Faculty members are obligated to report sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred to the person designated in the University protection of minors policy. Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at the webpage for the Office of Social Equity at <http://www.wcupa.edu/admin/social.equity/>.

## **EMERGENCY PREPAREDNESS**

All students are encouraged to sign up for the University's free WCU ALERT service, which delivers official WCU emergency text messages directly to your cell phone. For more information, visit [www.wcupa.edu/wcualert](http://www.wcupa.edu/wcualert). To report an emergency, call the Department of Public Safety at 610-436-3311.

## ELECTRONIC MAIL POLICY

It is expected that faculty, staff, and students activate and maintain regular access to University provided e-mail accounts. Official university communications, including those from your instructor, will be sent through your university e-mail account. You are responsible for accessing that mail to be sure to obtain official University communications. Failure to access will not exempt individuals from the responsibilities associated with this course.

PHI/PHY 125 Theology and Science  
 Profs. Nicastro and Pierlott

Spring 2019  
 T/R 11-12:15 MER 113

### Tentative Calendar of Topics and Readings

Week / Dates		Tuesday	Thursday
1	Jan 21/23	Introductory Comments; Extracting Meaning	Gould, <i>Two Separate Domains</i> (D2L); Dawkins, <i>Science Discredits Religion</i> (D2L)
2	Jan 28/30	Barbour, <i>Ways of Relating Science and Religion</i> (Coursepack)	(cont.)
3	Feb 4/6	Arieti and Wilson, <i>The Scientific and the Divine</i> , Ch. 2. (D2L)	(cont.)
4	Feb 11/13	Schmidt, <i>Functions of Language and Science</i> ; Langer, <i>Understanding Myth</i> (Coursepack)	Gilkey, <i>Theories in Science and Religion</i> ; Popper, <i>Falsification</i> (Coursepack)
5	Feb 18/20	Jastrow, <i>God and the Astronomers</i> ; Wald, <i>Life and Mind in the Universe</i> (Coursepack)	Miller, <i>Finding Darwin's God</i> , Ch. 1
6	Feb 25/27	Miller, <i>Finding Darwin's God</i> , Ch. 2	Miller, <i>Finding Darwin's God</i> , Ch. 2 (cont.); Lewis, <i>The Naturalist and the Supernaturalist</i> (Coursepack)
7	Mar 3/5	Miller, <i>Finding Darwin's God</i> , Ch. 3	Polkinghorne, <i>More to the World than Meets the Eye</i> (Coursepack)
8	Mar 10/12	<b>SPRING BREAK</b>	<b>SPRING BREAK</b>
9	Mar 17/19	Miller, <i>Finding Darwin's God</i> , Ch. 4	Miller, <i>Finding Darwin's God</i> , Ch. 4 (cont.)
10	Mar 24/26	Miller, <i>Finding Darwin's God</i> , Ch. 5	Miller, <i>Finding Darwin's God</i> , Ch. 5 (cont.); Behe, <i>Evolution of a Skeptic</i> (D2L)
11	Mar 31/ Apr 2	Miller, <i>Finding Darwin's God</i> , Ch. 6	Miller, <i>Finding Darwin's God</i> , Ch. 6 (cont.); Asimov, <i>The 'Threat' of Creationism</i> (Coursepack)

12	Apr 7/9	Miller, <i>Finding Darwin's God</i> , Ch. 7	Haught, <i>Is Human Life only Chemistry?</i> (Coursepack)
13	Apr 14/16	Spivey and Smith, <i>New Testament Understanding of Miracles</i> ; Hick, <i>Miracles</i> (Coursepack)	Dawkins, <i>Miracles and Probability</i> ; Davies, <i>Do Miracles Exist?</i> (Coursepack)
14	Apr 21/23	Miller, <i>Finding Darwin's God</i> , Ch. 8	Cobb, <i>Process Theology and Environmental Issues</i> (Coursepack)
15	Apr 28/30	Miller, <i>Finding Darwin's God</i> , Ch. 9	Final Reflection
	May 7	<b>Thursday: 10:30am-12:30pm, In-class Final Exam (Optional)</b>	