



# Theology and Science

## PHI/PHY 125 - Spring 2013

**MER (Merion Science Center) 112**  
**TR 11:00am-12:15pm**

|               |                         |                          |
|---------------|-------------------------|--------------------------|
| Instructor:   | Dr. Tony Nicastro       | Dr. Matt Pierlott        |
| Office:       | 108 Merion Hall         | 332D Anderson Hall       |
| Office Hours: | MWF 10-11; MR 1:30-2:30 | MWF 11-12; TR 12:30-1:30 |
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### 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.

**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

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. **Students should be sure to enroll in the proper course prefix to fulfill the desired slot. PHI (Philosophy) 125 can fulfill a "Humanities" slot, while PHY (Physics) 125 can fulfill a "Science" slot. After the drop/add period (first week of semester), students will not be able to switch prefix designations, and the course will not be able to be retroactively changed. By enrolling in this course under a specific prefix, students are legally accepting that these restrictions apply.** 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 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 three student learning outcomes. Students will learn to: think critically and analytically (Goal #3); demonstrate the sensibilities, understandings, and perspectives of a person educated in the liberal-arts tradition (Goal #4); make informed decisions and ethical choices (Goal #6).

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

**Routine Reading Quizzes - 75%:** 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 - 15%:** These will be submitted through D2L and require a specific format, which will be detailed on a separate instruction sheet posted on D2L.

**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 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 (25%), making the final grade out of 125 possible points.

**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.

**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 one of the instructors *before* you decide to act and please consult the Undergraduate Student Academic Integrity Policy. It is your responsibility to know what is and what is not considered academic dishonesty.

**Student Athletes:** If you are a student athlete, please provide the instructors 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.

**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 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.

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

Spring 2013  
 T/R 11-12:15 MER 112

TENTATIVE CALENDAR OF TOPICS AND READINGS

| Week / Dates |                  | Tuesday                                                                                               | Thursday                                                                                                                                                    |
|--------------|------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1            | Jan 29/31        | Introductory Comments; Extracting Meaning                                                             | Gould, <i>Two Separate Domains</i> (D2L); Dawkins, <i>Science Discredits Religion</i> (D2L); Overbye, <i>Who's Afraid of the Big Bad Bang?</i> (Coursepack) |
| 2            | Feb 5/7          | Barbour, <i>Ways of Relating Science and Religion</i> (Coursepack)                                    | (cont.)                                                                                                                                                     |
| 3            | Feb 12/14        | Arieti and Wilson, <i>The Scientific and the Divine</i> , Ch. 2. (D2L)                                | (cont.)                                                                                                                                                     |
| 4            | Feb 19/21        | 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 26/28        | 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            | Mar 5/7          | 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 12/14        | Miller, <i>Finding Darwin's God</i> , Ch. 3                                                           | Polkinghorne, <i>More to the World than Meets the Eye</i> (Coursepack)                                                                                      |
| 8            |                  | <b>Spring Break</b>                                                                                   | <b>Spring Break</b>                                                                                                                                         |
| 9            | Mar 26/28        | Miller, <i>Finding Darwin's God</i> , Ch. 4                                                           | Miller, <i>Finding Darwin's God</i> , Ch. 4 (cont.)                                                                                                         |
| 10           | Apr 2/4          | 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           | Apr 9/11         | 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 16/18        | Miller, <i>Finding Darwin's God</i> , Ch. 7                                                           | Haught, <i>Is Human Life only Chemistry?</i> (Coursepack)                                                                                                   |
| 13           | Apr 23/25        | 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 30/<br>May 2 | Miller, <i>Finding Darwin's God</i> , Ch. 8                                                           | Cobb, <i>Process Theology and Environmental Issues</i> (Coursepack)                                                                                         |
| 15           | May 9/11         | Miller, <i>Finding Darwin's God</i> , Ch. 9                                                           | de Chardin, <i>Some Reflections on Progress</i> (Coursepack)                                                                                                |
|              | May 16           | <b>Thursday: Final Exam 10:30-12:30 (MER 112)</b>                                                     |                                                                                                                                                             |