

## **Philosophy 2330: Science and Society Spring 2017**

### **Basic Information**

Instructor: Joel Velasco

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Office: 265G Eng/Phil

Office Hours: T, W, TH 11-12:00 or by appointment

Class meets T/TH, 9:30-10:50 (in Phil 150)

### **Course Description**

Within the last several centuries, scientific knowledge and the technology it has made possible have drastically altered our world. Yet many unresolved questions remain about how scientific knowledge is produced, what makes science different from other ways of learning about things (if there are any), and exactly what science says about what the world is really like. In this class, we will reflect on the nature of science and how it does and should affect our lives.

During the course we will examine such questions as whether there is a sharp dividing line between science and non-science (a “demarcation criterion”) and we will carefully consider the relationships between science and religion, between science and ethics, between science and the humanities, and between science, business, and politics. Finally, we will examine the role that science plays in a democratic society such as ours and how we as citizens should think about funding and directing scientific research.

In addition to introducing students to the philosophy of science and its relevance to contemporary life, the course also aims to develop students’ ability to think and write clearly about complex ideas and arguments.

### **Texas Higher Education Coordinating Board (THECB) Language, Philosophy, and Culture Description and Objectives**

Courses in this category focus on how ideas, values, beliefs, and other aspects of culture reflect and affect human experience.

Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.

1. **Critical Thinking Skills:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication Skills:** to include effective development, interpretation and expression of ideas through written, oral and visual communication
3. **Personal Responsibility:** to include the ability to connect choices, actions and consequences to ethical decision-making

4. **Social Responsibility:** to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

**TTU Language, Philosophy, and Culture Student Learning Outcomes**

1. Identify methodologies of historical, literary, philosophical, and/or aesthetic research and recognize their applicability to everyday life.
2. Develop analytical arguments in written and/or oral forms.
3. Evaluate events, ideas, and artistic expressions in terms of multiple cultural contexts and value systems.
4. Demonstrate ways in which the humanities are fundamental to the health and survival of any society.

**TTU College-Level Core Competence Statement:** Students graduating from Texas Tech University should be able to: think critically and to evaluate possible multiple interpretations, cultural contexts, and values.

<b>THECB OBJECTIVES</b>	<b>TTU S.L. OUTCOMES</b>	<b>ASSESSMENT METHODS</b>
<b>Critical Thinking Skills</b> include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Identify methodologies of historical, literary, philosophical, and/or aesthetic research and recognize their applicability to everyday life.	Short essays, midterm exam, final essay
<b>Communication Skills:</b> to include effective development, interpretation and expression of ideas through written, oral and visual communication	Develop analytical arguments in written and/or oral forms.	Short essays, midterm exam, final essay
<b>Personal Responsibility:</b> to include the ability to connect choices, actions and consequences to ethical decision-making	Demonstrate ways in which the humanities are fundamental to the health and survival of any society.	Short essays, midterm exam, final essay
<b>Social Responsibility:</b> to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities	Evaluate events, ideas, and artistic expressions in terms of multiple cultural contexts and value systems.	Short essays, midterm exam, final essay

## Grades

The grades will be based on class participation, short essays, a midterm exam, and a final exam.

- Class Participation (10%): Effective class participation is based on coming to class prepared to engage in class activities, especially exercises in which you work together in groups with other students to invent an example or solve a puzzle that illustrates central concepts for that day. The best way to prepare for class is to read and think about the material indicated on the syllabus before coming to class.
- Short Essays (30%): Periodically throughout the semester (see due dates marked on the course schedule), you will be asked to write short essays (approximately 1 double-spaced page and absolutely not more than 2 double-spaced pages). These short essays are intended to stimulate you to think independently and creatively about the readings for that week. There will be 6 short essays in all, and I will drop your lowest short essay score.
- Midterm Exam (30%): There will be one midterm examination. The midterm will be divided into two parts, short answer and essay. The short answer section will test knowledge of important concepts, often by either providing an example to which you must apply the concept or by asking you to supply an example yourself that illustrates the concept. Questions in the essay portion of the exam will test your ability to reconstruct chains of philosophical argumentation, for example, the back-and-forth between two contrasting views. The essay questions may also ask you critically assess ideas or arguments.
- Final Exam (30%): The final exam will be just like the midterm exam in terms of format. It will be held at the regularly scheduled final exam time (May 11<sup>th</sup> at 7:30 am).

### Rough Grading Scale:

92—100% → A  
90—92% → A-  
88—90% → B+  
82—88% → B  
80—82% → B-  
78—80% → C+  
70—78% → C  
65—70% → C-  
50—65% → D  
0—49% → 0

### Late Paper Policy

In the absence of a documented excuse, late short essays will not be accepted (recall that I do drop the lowest short essay score).

**Religious holy days:** a student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent for the observance of a religious holy day shall be allowed to take an exam or complete an assignment scheduled for that day within a reasonable time after the absence.

**ADA Statement:** Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

**Rough Course Schedule (subject to change) – see the course webpage at <http://joelvelasco.net/teaching/2330>**

Weeks 1, 2: Introduction and the Nature of Science

Week 3: Science and Religion

Weeks 4, 5: Galileo and the Scientific Revolution

Weeks 6, 7: Darwin and Evolutionary Theory

Week 8: Midterm Exam

Weeks 9-11: Evolution and Ethics

Weeks 12-15: Science and Values