Philosophy 380: Nature of Science

Basic Information
Instructor: Professor Daniel Steel
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Campus mailbox: 503 S. Kedzie Hall
Campus phone: 353-4215
Office: 509 S. Kedzie Hall
Office hours: 10 am to noon Tuesday, or by appointment
Class Meeting Time and Place: 10:20-11:40, Monday and Wednesday, 315 Bessey Hall

Texts
The Science Wars, edited by Keith Parsons
Understanding Philosophy of Science, James Ladyman
The Beak of the Finch, Jonathan Weiner

Course Description
Within the last several centuries, scientific knowledge and the technology it made possible have drastically altered the world. Yet most of us have little understanding of how scientific knowledge is produced, what makes science different from other ways of learning about things, or what exactly science says about what the world is really like. Lack of understanding about these matters is not merely the result of ignorance, but derives in large measure from the difficult and intellectually challenging questions that these issues raise. This class, then, is an introduction to some central controversies concerning the nature of scientific method and knowledge. The course also aims to develop students’ ability to think and write clearly about complex ideas and arguments.

Grades
The grades will be based on class participation, several think pieces, and three argumentative essays.

- Class Participation (15%): The value of the experience that you can hope to gain from this course is highly dependent on your reading the material indicated on the syllabus before coming to class on that day. It is likely that you will sometimes find the readings difficult to understand. When this happens I encourage you to raise your questions in class. Each class will commence with a No Such Thing as a Dumb Question (NSTDQ) time, during which students are encouraged to ask any questions whatever about the readings for that day. Actively participating in NSTDQ time is an excellent way for you to earn credit for the participation portion of your grade. Of course, engaging in discussions in a thoughtful manner during other segments of class time will also contribute to your participation grade. Behaviors that will adversely affect your participation grade include: skipping class, sleeping in class, reading the newspaper in class, doing homework for another class in class, checking email in class, and listening to your iPod in class.

- Think Pieces (35%): Periodically throughout the semester, 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, or “think pieces,” are intended to stimulate you to think independently and creatively about the readings for that week. When computing your grade, I will drop your lowest think piece score.

- **Argumentative Essays (50%)**: One of the most useful skills you can gain from studying philosophy is the ability to make a clearly and cogently argued case for a particular perspective. There will be three essays assignments evenly spaced throughout the course of the semester that will ask you to defend some point of view with regard to the issues discussed in class. The essays should be approximately four to five pages in length. Since I hope that your ability to write philosophy papers will improve throughout the course of the semester, the later argumentative essays are weighted more heavily than the earlier ones. The first will count for 10% of your grade, the second 15%, and the third 25%.

**Course Schedule**

**Week 1**
8/29: Introduction
8/31: Parsons, pp. 19-38.

**Week 2**
9/5: No Class—Labor Day
9/7: Parsons, pp. 57-77.

**Week 3**
9/12: Parsons, pp. 43-55. **Think Piece 1 Due.**
9/14: Parsons, pp. 79-87.

**Week 4**
9/21: Parsons, pp. 171-192. **Think Piece 2 Due.**

**Week 5**

**Week 6**
10/3: Parsons, pp. 255-273. **First Argumentative Essay Due**
10/5: Parsons, pp. 277-303.

**Week 7**
10/10: Ladyman, pp. 11-30.
10/12: Ladyman, pp. 31-61. **Think Piece 3 Due.**

**Week 8**
10/17: Ladyman, pp. 62-77.
10/19: Ladyman, pp. 77-91.
Week 9
10/26: Ladyman, pp. 109-123.  **Think Piece 4 Due.**

Week 10
10/31: Ladyman, pp. 129-146.
11/2: Ladyman, pp. 146-160.

Week 11
11/7: Ladyman, pp. 162-174.  **Second Argumentative Essay Due**

Week 12
11/16: Ladyman, pp. 209-228.  **Think Piece 5 Due.**

Week 13
11/23: No Class—Thanksgiving Holiday

Week 14
11/30: Weiner, chapters 6-10.  **Think Piece 6 Due.**

Week 15
12/7: Weiner, chapters 16-20.

**Final Argumentative Essay Due:** In my office (509 S. Kedzie Hall), Wednesday, December 14, between 12:45 and 2:45 pm.