Gallatin School, New York University

First Year Writing Seminar- Debating Science: Great Scientific Controversies in Context (FIRST-UG388)

Fall 2012 - Monday & Wednesday 12:30 p.m. - 1:45 p.m. (7E12 Rm. 325SB)
Professor - José Perillán
Email – jgp10@nyu.edu
Office Hours – M & W 2 - 3 p.m., T & R 11 a.m. – 12 p.m. (411 Lafayette St. Rm. 302)

Course Description -

Is light a wave or a particle? Were the ‘Science Wars’ of the late 20th Century necessary? Is the atomic world deterministic or not? In the study of animal morphology does function dictate form or is it form that dictates function? What is the scale of our universe? These are some of the greatest debates that have gripped the scientific community over the past 350 years. Many of these debates have been restricted to a healthy dialog within the scientific community but on occasion they have sparked lively and even ad homonym exchanges between scientists. In this seminar we will explore the nature of these debates within their appropriate contexts. To grapple with these debates effectively we will need to examine primary and secondary source materials relating to the particular controversy, including biographical materials on their corresponding protagonists. As such, we will be studying works by scientists like: Isaac Newton, Robert Hooke, Georges Cuvier, Geoffroy St. Hilaire, Niels Bohr, Albert Einstein, Thomas Henry Huxley, Samuel Wilberforce, Harlow Shapely, Heber Curtis, Othniel Marsh, and Edward Cope. Readings will include works by these protagonists as well as supporting secondary source material.

General Expectations -

In this course we will focus on developing strong strategies for thinking, reading, and writing critically. Using a variety of readings, we will learn to deconstruct an author’s narrative and subsequently evaluate its effectiveness. With the help of supplementary readings and class discussions we will learn about concepts in modern physics and their context within historical debates. I look forward to animated yet respectful discussions of the topics covered.
**Attendance is Mandatory**-

In addition, on time attendance is expected. In the event of an unavoidable absence, please notify me by e-mail as soon as possible, and I will make arrangements with you to catch up on the work you missed. As this is a discussion based seminar, class participation is a significant portion of your grade, so please come to class on time, with your assignments completed, and prepared to engage the rest of the class in lively discussion.

**Readings –**

The following texts are required reading for this course. Books will be available for purchase through the NYU bookstore and all assigned readings that are essays, papers, or excerpts will be made available for copy or download.

**Books –**

*Required -*


*Recommended –*

**Reading & Writing Assignments –**

Students will be assigned both reading and writing assignments every week. The writing will include informal in-class writing, weekly responses to the assigned readings, and multiple revisions of the formal assignments. Formal assignments will include two shorter essays in addition to a literary critical essay.

Formal Assignment 1: Deconstructing an Historical Scientific Controversy (6 pages)

Formal Assignment 2: Quantum Dialogs (6 pages)

Formal Assignment 3: Analysis of Current Scientific Debate (8 pages)

All written assignments should be double-spaced, paginated, stapled, in 12-point font, and with 1-inch margins on all sides.

**Late Assignments -**

Because we use class time to review our assignment drafts and discuss these, **all homework should be done on time.** Late drafts will not only bring down your ‘Class Participation’ grade, but will also diminish the review experience for your fellow students. Final drafts will be downgraded for every day they are late. If there are extenuating circumstances, please **notify me in advance** of the due date so that we can make appropriate arrangements.

**Academic Honesty -**

Plagiarism and other forms of academic dishonesty are very serious offenses and will not be tolerated in this course. Any act, deliberate or otherwise, will be reported immediately to the Gallatin administration for disciplinary action. More information about Gallatin’s expectations for academic integrity can be found at: [www.gallatin.nyu.edu/academics/policies/policy/integrity.html](http://www.gallatin.nyu.edu/academics/policies/policy/integrity.html)

**Grading -**

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<td>E-Journal Response Papers</td>
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Tentative Syllabus -

Students are assigned weekly readings and reading response papers so they should come to class prepared to participate in class discussions. 1-2 page E-Journal response papers with reflections and observations on the reading assignments will be assigned weekly.

Week 1 – September 5

- Introduction to course – Science, Innovation, and Complexity
- ICCI communication – overview
- Reading assignment due (9/10): See Blackboard
- Reading response due (9/10)

Week 2 – September 10 & 12

- Reading critically – Close readings and evaluating controversy narratives
- Reading assignment due (9/17): Jonnes (Introduction – Chapter 7)
- Reading response due (9/17)

Week 3 – September 17 & 19

- Reading assignment due (9/24): Jonnes (Chapter 8 – Afterward)
- Reading response due (9/24)

Week 4 – September 24 & 26

- Reading assignment due (10/1): See Blackboard
- Reading response due (10/1)

Week 5 – October 1 & 3

- Reading assignment due (10/8): Kumar (Prologue – Chapter 8)
- First Draft Formal Assignment #1 due (10/8) – Peer Review
Week 6 – October 8 & 10

- Reading assignment due (10/17): Kumar (Chapters 9 – 15)
- Reading response due (10/17)
- **Formal Assignment #1 due October 17**

Week 7 – October 17

- Reading assignment due (10/22): See Blackboard
- Reading response due (10/22)

Week 8 – October 22 & 24

- Reading assignment due (10/29): Maddox (Prologue – Chapter 10)
- Reading response due (10/29)

Week 9 – October 29 & 31

- Reading assignment due (11/5): Maddox (Chapter 11 - Epilogue)
- Reading response due (11/5)

Week 10 - November 5 & 7

- Reading assignment due (11/12): Davies (Preface – Chapter 7)
- **First Draft Formal Assignment #2 due (11/12) – Peer Review**

Week 11 – November 12 & 14

- Reading assignment due (11/19): Davies (Chapter 8 – 12)
- Reading response due (11/19)
- **Formal Assignment #2 due November 19**

Week 12 - November 19 & 21 (Thursday the 22nd is Thanksgiving!)

- Reading assignment due (11/26): Larson (Full Text)
- Reading response due (11/26)
Week 13 – November 26 & 28

• Reading assignment due (12/3): See Blackboard
• Reading response due (12/3)

Week 14 - December 3 & 5

• Reading assignment due (12/10): Independent Research
• First Draft Formal Assignment #3 due (12/10) – Peer Review

Week 15 – December 10 & 12

• Bringing it all together
• Formal Assignment #3 due December 17th by 1 pm