

Gallatin School, New York University

First-Year Writing Seminar: Science on the Margins (*K10.0368 FYWS*)

Fall 2009 - Tuesday & Thursday 6:20 - 7:35 p.m. Room - Bobst 436

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Office Hours – Wednesday 12:30 – 1:30 p.m. Room - 715 Broadway (Office 416)

Course Description -

Is the "scientific method" a myth—an illusion propagated by the scientific establishment to maintain an aura of logic, objectivity, and inevitability? Science is a human enterprise, so it shouldn't shock us to realize that a good deal of politics infuse our national and international scientific policies and agendas. In reality, how extensive is this 'human' influence? This writing seminar will look at the advancement of science in the modern world and tensions between innovation and orthodoxy. Students will write, workshop and revise three essays and a literary critical essay. Readings may include: essays by Thomas Kuhn, Karl Popper, Albert Einstein, David Bohm, Rachel Carson, and Erwin Schrodinger; excerpts from fiction by Mary Shelley and Carl Sagan; a memoir by James Watson; and Evelyn Fox Keller's biography of Barbara McClintock.

General Expectations -

In this course we will focus on developing strong strategies for writing, reading and thinking critically. Using a variety of readings, we will learn to deconstruct an author's argument and subsequently evaluate its effectiveness. By extension we will also learn to construct strong arguments of our own. I look forward to animated yet respectful discussions of the topics covered.

Attendance -

Because we will be doing a significant amount of writing and discussion in each class session, on time attendance is expected. In the event of an unavoidable absence, please notify me by e-mail with as soon as possible, and I will make arrangements with you to catch up on the work you missed. 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 -

Einstein for the 21st Century: His Legacy in Science, Art, and Modern Culture Eds. Galison, Holton, and Schweber

Women, Science, and Technology: A Reader in Feminist Science Studies Eds. Mary Weyer et al.

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 three shorter essays in addition to a longer literary critical essay.

Formal Assignment 1: Defining Marginalization (3-4 pages)

Formal Assignment 2: Writing a Narrative (4-5 pages)

Formal Assignment 3: Exploring a Question (4-5 pages)

Formal Assignment 4: Literary Critical Essay (7-8 pages)

All written assignments should be double-spaced, 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. For final drafts, late papers will have **one-third of a grade** deducted per 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.

Grading -

Formal Assignment 1: Short Essay	15%
Formal Assignment 2: Short Essay	15%
Formal Assignment 3: Short Essay	20%
Formal Assignment 4: Literary Critical Essay	25%
Response Papers	10%
Peer Review Memos	5%
Class Participation	10%

Academic Honesty -

Plagiarism and other forms of academic dishonesty are a very serious offense and will not be tolerated in this course. Any act, deliberate or otherwise, will be reported immediately to the Gallatin administration for disciplinary action. We will discuss issues of academic honesty further in class.

Syllabus -

Students are assigned weekly readings every Thursday and should come to class the following Tuesday prepared to participate in class discussions. A 1-2 page response essay with reflections and observations on the reading assignments will be due each Tuesday.

Week 1 – September 8 & 10

- Introduction to course
- Writing as communication – overview
- Reading assignment: “Essential Tension” by Thomas Kuhn, “What Can We Know? Appearance and Reality” and “A Defense of Representationalism” by Bertrand Russell, and “Epistemology” by Richard Feldman.

Week 2 – September 15 & 17

- What are you writing about? - The importance of defining terms
- Reading assignment: “Marginality and Innovation in Science” by Gieryn and Hirsch and Simonton’s and Handberg’s Responses to Gieryn and Hirsh.

Week 3 – September 22 & 24

- Reading critically – deconstructing arguments
- **Draft for formal assignment 1 due September 24th**
- September 24th: peer review workshop – draft of formal assignment 1
- Reading assignment: Biagioli's Intro to *The Science Studies Reader* and Mary Wyer's intro to *Women, Science, and Technology*

Week 4 – September 29 & October 1

- Thinking critically – constructing arguments
- **Formal assignment 1 due October 1st**
- Reading assignment: "Physical Isolation and Marginalization in Physics: David Bohm's Cold War Exile" by Russell Olwell and "Dialectical Materialism and the Construction of a New Quantum Theory: David Joseph Bohm, 1917-1992" by Christian Forstner

Week 5 – October 6 & 8

- Reviewing and editing techniques
- October 8th – revision workshop of formal assignment 1
- Reading assignment: *Einstein for the 21st Century* (Introduction + Part 1 – 5)

Week 6 – October 13 & 15

- Constructing a narrative - jumpstarting the writing process
- **Draft for formal assignment 2 due October 15th**
- October 15th: peer review workshop – draft of formal assignment 2
- Reading assignment: *Einstein* (6-7 + 13-15)

Week 7 – October 20 & 22

- Playing with perspective
- **Formal assignment 2 due October 22nd**
- Reading assignment: *Einstein* (16-20)

Week 8 – October 27 & 29

- Asking the "right" questions
- Reading assignment: From Mary Wyer's *Women, Science and Technology* (Section 1)

Week 9 – November 3 & 5

- Looking for sources
- **Draft for formal assignment 3 due November 5th**
- November 5th: peer review workshop – draft of formal assignment 3
- Reading assignment: Wyer (Section 2)

Week 10 - November 10 & 12

- Theory of knowledge
- **Formal assignment 3 due November 12th**
- Reading assignment: Wyer (Section 3)

Week 11 - November 17 & 19

- Illusion or Reality?
- Reading assignment: Wyer (Section 4)

Week 12 - November 24

- What is a “Critical Literary Essay”?
- Reading assignment: Wyer (Section 5)

Week 13 - December 1 & 3

- Finding a topic and getting inspired
- Reading assignment: individual reading for your critical literary essay (CLE)

Week 14 - December 8 & 10

- Exercises in building your argument
- **Draft of formal assignment 4 (the critical literary essay) is due December 8th**
- December 8th: peer review workshop – draft of formal assignment 4
- Reading assignment: read your review partner’s final draft of the CLE and write a final peer review as a response.

Week 15 - December 15

- Bringing it all together
- **Formal assignment 4 (CLE) is due December 15th**