Lab Lit: Science in the Contemporary Novel
IDSEM-UG1769
Thursday 3:30–6:10, Spring 2014

The past two decades have seen the publication of a surprising number of novels that center on science and scientific work. Though dubbed “Lab Lit” by biologist Jennifer L. Rohn, these novels feature not only laboratory scientists but the naturalists of Barbara Kingsolver’s *Prodigal Summer*, the mathematicians of Janna Levin’s *A Madman Dreams of Turing Machines*, and the neurosurgeon of Ian McEwan’s *Saturday*. This class takes an interdisciplinary approach to understanding this new genre. At times, we’ll use a literary studies perspective, asking how such novels create fictional drama and narrative suspense out of scientific work. We’ll also draw on research in the history and sociology of science that examines the construction of scientific identity and the dynamics of the scientific community, as we look at how these novels represent scientists and the scientific world. And we’ll turn to feminist critiques of science and work in science studies that interrogates the very nature of scientific research and thinking. In addition to the novels listed above, readings may include Richard Powers’s *Galatea 2.2*, Allegra Goodman’s *Intuition*, Alan Lightman’s *Einstein’s Dreams*, Max Weber’s “Science as a Vocation,” Bruno Latour and Steve Woolgar’s *Laboratory Life*, and essays by Evelyn Fox Keller and Sandra Hrdy.

**Course Goals**

This class is driven by a question: why have there been so many recent works of fiction in which science plays a significant role? What is science doing in these novels? As such, the course’s goal is for all of us—including me, the professor—to develop some answers to these questions.

To do so, we will be analyzing these novels carefully. Thus, one goal of the course is for you to hone your skills as readers of literature by developing your ability to ask interesting questions and develop compelling arguments about works of fiction.

We will deepen our understanding of science’s role in contemporary fiction by placing the novels we read into conversation with texts from other disciplines. We will read some scientific texts, but focus primarily on texts that think about what science is and how it works: that is, texts from the history of science, the sociology of science, and cultural studies of science. Thus, a second aim of this course is for you to develop your ability to draw connections between writing from different disciplines, using those connections to reach new insights and perspectives.

**Course Readings**

The following books have been ordered from the NYU Bookstore. You are welcome to obtain them another way, but you are required to have a hard copy rather than an electronic edition. I have arranged for copies of all books to be placed on reserve at Bobst.


Note: I also ordered Ann Patchett’s *State of Wonder*, but then decided not to put it on the syllabus. It is a possible subject for Paper 2, though, so feel free to purchase it now!

There will also be supplementary readings each week. Some of these will be distributed in class; some of them may be on our Classes site. For the latter: go to the Resources folder and click on the folder titled Readings. Please download and print the readings and bring them to class in hard copy.

**Course Requirements**

1) **Formal Essays**

There will be two formal papers. The first will be a five-six page paper in which you will analyze one novel in conjunction with one supplementary reading. The second will be an eight–ten page paper for which you will write about a novel that we haven’t read together, drawing on one or more supplementary reading to inform your argument.

2) **Informal Assignments.**

The purpose of these assignments is to help you read actively and to prepare you for class discussion.

a) **Commonplacing.**

Every week after Week 1, you’ll contribute an entry to an electronic commonplace book by posting two passages to the class’s blog. (Full instructions will be on a separate handout.)

b) **Blog entries.**

On four occasions, you will also submit a response paper in the form of a post to our class blog.

After the first blog entry, which will be slightly shorter and which everyone will complete, these should be about 400 words and will be due on different dates for different people; a detailed schedule and will be circulated after the first class.

Please prepare for class by reading the commonplace entries and blog posts. To that end, both will be due by 3:30 pm on the Wednesday before each class.

c) **Leading class discussion.**

On one of the days that you have a response paper due, you will be in charge of leading a class discussion of that week’s readings. (The schedule of these presentations will also be circulated after the first class.)
d) Presentation of final paper.

During the last two weeks of the semester, everyone will give short (five minute) presentations of their work on the final paper. More detailed instructions will follow.

Your informal assignments will be evaluated for thoughtfulness, effort, and timeliness of submission. I will assign a grade at the end of the semester; please feel free to ask me at any time about your standing in this requirement.

3) Class participation.

This class will be run as a seminar, which means that your participation is crucial. Please arrive for class on time with all of your materials (including the texts we are reading for the week) and be ready to contribute thoughtful comments and questions, responding not only to what I ask but also to ideas and queries presented by your classmates.

Your grade will be calculated as follows:

- 15% Participation
- 25% Informal Writing
- 25% Paper 1
- 35% Paper 2

Policies

- Written Work: Deadlines in this class are important; for that reason, extensions will be granted only in the case of illness, family emergencies, or religious observance; they must be arranged in advance. Late papers will be penalized (normally, 1/3 of a grade for each day that they are late). Late or missing informal writing assignments will also affect your grade.

- Attendance: You may miss up to two classes without penalty; after that, absence for reasons other than documented illness, family emergency, or religious observance will affect your grade. Habitual lateness will also affect your grade.

- Academic Integrity: As a Gallatin student you belong to an interdisciplinary community of artists and scholars who value honest and open intellectual inquiry. This relationship depends on mutual respect, responsibility, and integrity. Failure to uphold these values will be subject to severe sanction, which may include dismissal from the University. Examples of behaviors that compromise the academic integrity of the Gallatin School include plagiarism, illicit collaboration, doubling or recycling coursework, and cheating. Please consult the Gallatin Bulletin or Gallatin website (http://gallatin.nyu.edu/academics/policies/integrity.html).

- Technology: In order to make it easier for everyone to focus on the collaborative and cooperative work of the seminar, you may not use a laptop, tablet, reader, or smartphone, in class for any purpose, unless otherwise instructed. Please turn off or silence your mobile phone.
Schedule
— please note that this schedule may change, depending on the pace we establish —

Week One

Thursday, January 30
Introductions

Week Two
due by 3:30 pm on Wednesday, February 5th
This week only: everyone should post a 200–300 word blog entry to our class blog (in addition to commonplacing).
Your blog entry this week should discuss the two passages that you've commonplaced. You've posted a passage from Intuition, and a passage from Merton's “Priorities in Scientific Discovery.” What connection do you see between them?

Thursday, February 6
Allegra Goodman, Intuition, to Part V, “Inquiry”
Robert Merton, “Priorities in Scientific Discovery”

Week Three

Thursday, February 13
Goodman, Intuition, complete
Max Weber, “Science as a Vocation”
Steven Shapin, from The Scientific Life

Week Four

Thursday, February 20
Bruno Latour and Steve Woolgar, from Laboratory Life
Please bring your copy of Intuition to class with you

Week Five

Thursday, February 27
Ian McEwan, Saturday, to Chapter Four
E. O. Wilson, “The Mind,” from Consilience
Daniel Dennett, from Consciousness Explained

Week Six

Thursday, March 6
McEwan, Saturday, complete
C.P. Snow, from The Two Cultures
Two selections from The Literary Animal: Jonathan Gottschall and David Sloan
Wilson, “Introduction: Literature—a Last Frontier in Human Evolutionary Studies”
+ Ian McEwan, “Literature, Science, and Human Nature”
Steven Pinker, “Science is Not Your Enemy”
Leon Wieseltier, “Crimes Against Humanities”
Week Seven

Thursday, March 13
Richard Powers, *Galatea 2.2*
Alan Turing, “Computing Machinery and Intelligence”

Friday, March 14
Due at 6 pm: Paper 1

Spring Break

Week Eight

Thursday, March 27
Powers, *Galatea 2.2*, complete
John Guillory, “The Sokal Affair and the History of Criticism”
Alan Sokal, “Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity”
Alan Sokal, “Revelation: A Physicist Experiments with Cultural Studies”
Bruce Robbins and Andrew Ross, “Mystery Science Theatre”

Week Nine

Thursday, April 3
wrap up Powers and Guillory
Daniel Dennett, “Astride the Two Cultures: A letter to Richard Powers, Updated”
Barbara Kingsolver, *Prodigal Summer*, to Chapter 8 (100 pages)

Week Ten

Thursday, April 10
Kingsolver, *Prodigal Summer*, to Chapter 18
Rachel Carson, from *Silent Spring*

Week Eleven

Thursday, April 17
Kingsolver, *Prodigal Summer*, complete
Sarah Blaffer Hrdy, “Empathy, Polyandry, and the Myth of the Coy Female”
Evelyn Fox Keller, “Gender and Science” and “A World of Difference”

Week Twelve

Thursday, April 24
Alan Lightman, *Einstein’s Dreams*, complete
Stephen Hawking, from *A Brief History of Time*

Tuesday, April 22 & Wednesday, April 23
Meetings with me to discuss Paper 2

Week Thirteen

Thursday, May 1
Janna Levin, *A Madman Dreams of Turing Machines*, to p. 100
Listen to Radiolab segments about Turing and Gödel
Steven Shapin, “The Philosopher and the Chicken”
Paper 2 Presentations

Friday, May 2
Due at 6 pm: Optional Rough Draft of Paper 2

Week Fourteen

Thursday, May 8
Levin, *A Madman Dreams of Turing Machines*, complete
Paper 2 Presentations

Thursday, May 15
Due at 6 pm: Paper 2