Science and Literature
First-Year Interdisciplinary Seminar
Fall 2013

In a 1959 lecture titled “The Two Cultures,” C. P. Snow famously declared, “the intellectual life of the whole of western society is increasingly being split into two polar groups,” with “literary intellectuals at one pole—at the other scientists.” Snow asserted that the two are separated by “a gulf of mutual incomprehension,” even “hostility and dislike.” Snow’s view of a fundamental antagonism between science and literature has its roots in the nineteenth-century; his concept of “two cultures” remains influential today. But was he right? This course addresses that question, seeking to deepen our understanding of the relationship between science and literature. Our readings will pair literary and scientific texts: we may consider Thomas Hardy’s *Tess of the d’Urbervilles* alongside Thomas Henry Huxley’s *Evolution and Ethics*; H. G. Wells’s *The Time Machine* alongside Herbert Spencer’s *Social Statics*; Aldous Huxley’s *Brave New World* and writing by contemporary eugenicists; Tom Stoppard’s *Arcadia* and chaos theory. Our discussions will be framed by important statement about the relationship between science and literature by Snow, Matthew Arnold, F. R. Leavis, and others.

*Course Goals:*

• to gain an understanding of the relationship between science and literature in the Anglo-American world of the past two centuries

• to become familiar with the methods of interdisciplinary study that will be crucial to your work as a Gallatin student

• to gain practice exchanging and developing ideas in a seminar-style class

*Required Texts:*

1. Books. All are available at the NYU Bookstore. Please purchase the specified editions.


** It’s especially important that you obtain the specified edition of this text!


2. Coursepack. Also available at the NYU Bookstore. There will be two volumes—one available immediately, the other available at mid-semester.

Copies of the books and the coursepack are available on three-day reserve at Bobst.

Course Requirements

• Informal writing assignments. There will be two types:

  1) 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. Commonplace entries are due by 2 am on Wednesdays. (Full instructions will be on a separate handout.)

  2) Response Papers. You'll write five 300-word papers, in response to prompts included on the assignment sheets. The purpose of these papers is to help you develop ideas for discussion and explore topics for your essays. On the day that responses are due, please bring two paper copies to class and be prepared to hand one in at the end of class. Electronic submissions of reading responses will not be accepted, so be sure to find a working printer in time for class.

• Participation & citizenship: You should arrive punctually and be prepared for class, which means that you've completed the reading and any assignments, and brought with you all necessary materials. You should also participate actively in seminar discussions and other activities, which includes contributing thoughtful comments and questions to discussion; engaging with other students as well as the professor; and listening attentively.

• Three formal essays:

  Paper 1: a five-page paper about either The Time Machine or Brave New World and one of the scientific texts we've read

  Paper 2: a seven-page essay which makes an argument about either Tess of the d'Urbervilles or Morpho Eugenia and one of the scientific texts we've read, and which engages with the debates about science and literature that we've studied.

  Paper 3: a final project for which there will be two options:

    — Option 1: an 8–10 page analytical essay about two of the literary texts that we've read (one of which must be a text you haven't yet written about)

    — Option 2: an artistic piece that engages creatively with science; this may be a short story, play, poem, video, piece of music, painting.

I'll hand out detailed paper assignments as we go.

• A five-six minute presentation connected to essay # 3, to be delivered during the last week of class.

Grading

15% Paper 1
20% Paper 2
30% Paper 3
15% Informal Writing
20% Class Participation

Grading Standards

• informal writing:

  I'll assess your commonplace assignment on the basis of whether they are or are not completed punctually. Missing entries will cause your grade to drop.

  I'll grade your response papers check, check-plus, check-minus. What I'm looking for here is that you've put some time into writing these papers and reflecting on the questions asked. (Same goes for your presentation in Week 15.)

• papers:

  a paper in the A-range follows the instructions for the assignment; explores a focused topic; presents a coherent argument; motivates that argument by telling the reader why it matters; supports the argument with well-chosen, effectively analyzed evidence; develops the argument through a progressive structure; contains very few errors of spelling, grammar, or punctuation.

  a paper in the B-range resembles an A-range paper in some ways, but may deviate somewhat from the assignment; may explore an unfocused topic; may present an argument that lacks coherence or motivation; may lack evidence to support that argument, or analyze its evidence insufficiently; may feature a structure that is formulaic or lacking logic; may contain multiple errors of spelling, grammar, or punctuation.

  a paper in the C-range resembles a B-range paper in some ways, but may deviate more drastically from the assignment; may explore an overly broad or otherwise problematic topic; may present a simplistic argument, or one that is obvious and lacks motive; may have significant problems working with evidence, including an absence of analysis or signs of misunderstanding; may feature a confusing structure; may contain distracting errors of spelling, grammar, or punctuation.

  a paper in the D-range falls short of addressing the assignment in some significant way.

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. Late papers will be penalized (normally, 1/3 of a grade for each day that they are late). Late informal writing (response papers and commonplace entries) will not be accepted.

• 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, smartphone, or Google Glass in class for any purpose, unless otherwise instructed. This means that you must print out any assignments or papers needed for class on any given day. Please turn off or silence your mobile phone.

You are welcome to email me with questions. Please note that I read email during regular working hours (Monday–Friday, - 9 am to 5 pm), and much more sporadically or not at all in the evening and on weekends.
Schedule

Please note that the schedule may change, with notice. Readings marked (cp) appear in the coursepack; readings not marked are books you should purchase.

Week One

Wednesday, September 4
Introduction

Week Two

Monday, September 9
Thomas Henry Huxley, “Science and Culture” (cp)
Matthew Arnold, “Literature and Science” (cp)
syllabus

Wednesday, September 11
C. P. Snow, The Two Cultures (cp)
F. R. Leavis, The Two Cultures? The Significance of C.P. Snow (handout)

Week Three

Monday, September 16
H. G. Wells, The Time Machine, to p. 70

Wednesday, September 18
Wells, Time Machine
Charles Darwin, On the Origin of Species (cp)
E. Ray Lankester, Degeneration: A Chapter in Darwinism (cp)

Week Four

Monday, September 23
Herbert Spencer, Social Statics (cp)
Thomas Henry Huxley, “The Struggle for Existence” (cp)
Bring your copy of The Time Machine to class
Due in class: Response Paper 1

Wednesday, September 25
Aldous Huxley, Brave New World, to p. 62

Week Five

Monday, September 30
Huxley, Brave New World, to p. 130
J. B. S. Haldane, Daedalus (cp)

Wednesday, October 2
Huxley, Brave New World, to p. 195
Aldous Huxley, “Science and Civilization” and “What is Happening to Our Population?” (cp)

**Week Six**

Monday, October 7

Huxley, *Brave New World*, complete
Due in class: Response Paper 2.

Wednesday, October 9

Thomas Hardy, *Tess of the d'Urbervilles*, through Chapter IV, p. 40

Friday, October 11

Due by 11:59 pm: Paper 1

**Week Seven**

Monday, October 14

No Class; Fall Break

Wednesday, October 16

*Tess of the d'Urbervilles*, through Chapter XIX, p. 110

**Week Eight**

Monday, October 21

*Tess of the d'Urbervilles*, through Chapter XXXII, p. 191
review Darwin, *On the Origin of Species* (cp)

Wednesday, October 23

*Tess of the d'Urbervilles*, through Chapter XLI, p. 244
George J. Romanes, “Weismann’s Theory of Heredity” (cp)

**Week Nine**

Monday, October 28

*Tess of the d'Urbervilles*, to Chapter LII, p. 322
Thomas Henry Huxley, *Evolution and Ethics* (cp)
Due in class: Response Paper 3

Wednesday, October 30

*Tess of the d'Urbervilles*, complete

**Week Ten**

Monday, November 4

A. S. Byatt, *Morpho Eugenia*, to p. 64

Wednesday, November 6

Byatt, *Morpho Eugenia*, to p. 87
Charles Darwin, *On the Origin of Species* (cp)
Asa Gray, *Darwiniana* (cp)
Week Eleven
Monday, November 11
Byatt, *Morpho Eugenia*, to p. 161
Charles Darwin, *The Descent of Man, and Selection in Relation to Sex* (cp)
Due in class: Response Paper 4

Wednesday, November 13
Byatt, *Morpho Eugenia*, complete

Week Twelve

Monday, November 18
Norbert Wiener, “Progress and Entropy” (cp)
Peter Coveney and Roger Highfield, “The Arrow of Time” (cp)
Due in class: Paper 2

Wednesday, November 20
Thomas Pynchon, “Entropy”

Week Thirteen

Monday, November 25
John Gribbin, *In Search of Schrodinger's Cat* (cp)
Michael Frayn, *Copenhagen*, Act One

Wednesday, November 27
Michael Frayn, *Copenhagen*, Act Two

Week Fourteen

Monday, December 2
Tom Stoppard, *Arcadia*, Act One

James Gleick, *Chaos: Making a New Science* (cp)

Wednesday, December 4
Stoppard, *Arcadia*, Act Two
Due in class: Response Paper 5

Week Fifteen

Monday, December 9
presentations

Wednesday, December 11
presentations

Thursday, December 13
Due by 11:59 pm: Paper 3