



LB492 Section 753

History of Science in Europe:

Darwin in Literature, Architecture, and the Arts

Summer 2009

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Course Description

Charles Darwin famously remarked in the *Origin of Species* (1859) that “when the views entertained in this volume on the origin of species, or when analogous views are generally admitted, we can dimly foresee that there will be a considerable revolution in natural history.” Today we can clearly see how revolutionary Darwin’s masterpiece proved to be, and not just in natural history. There has been no field of human thought untouched by the “one long argument” Darwin made a century and a half ago. In this course, we will take advantage of our unique opportunity in England to explore both the philosophical and biological underpinnings of evolutionary theory.

You will engage Darwin’s ideas by engaging the world he inhabited from the complementary directions of science, history and philosophy. He did not think, observe and write in isolation: he joined the debates and absorbed the ideas of a country in tumult. Darwin’s Britain led a worldwide industrial revolution and, as a result, politics, religion, economics, social arrangements and humanity’s relationship with the natural world were all under exciting, contentious, disquieting renegotiation.

In Britain you will explore Darwin and his complicated



world by visiting sites closely entwined with his revolution and its consequences, such as Down House, Kew Gardens, the Natural History Museum, Cambridge University and Oxford University's Museum of Natural History. You will study each place carefully, aided by reading, writing and discussion.

In the Senior Seminar course, we will focus our exploration of Darwin's England on Literature, Architecture, and the Arts. We'll read books in which Darwinian themes predominate, one by H. G. Wells, who was a student of T. H. Huxley (Darwin's Bulldog), and the other by the American novelist, Kurt Vonnegut. We'll also take advantage of the time we have in Cambridge at the Darwin 2009 Festival to visit the *Endless Forms* exhibit at the Fitzwilliam Museum and to attend the Wednesday Afternoon Focus Sessions on "Darwin on Stage" and "Darwin in Poetry".

When the course ends, you will have a fuller scientific, historical and philosophical understanding of Darwin's ideas and their influences on literature, architecture and the arts.

Our policy is to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact us early—preferably before the start of summer semester (May 1st)—to discuss their individual needs for accommodations.

Required Reading

Everyone in the study-abroad program will read:

- Charles Darwin, *On the Origin of Species* (1859)
- Janet Browne, *Darwin's Origin of Species: A Biography* (2006)
- Darwin's England: A Primary Source Reading Packet* (2009)

The LB492 Group will also read:

- H. G. Wells, *The Time Machine* (1995) [recommended: Dover Thrift Edition]
- Kurt Vonnegut, *Galapagos* (1999) [recommended: Dial Press Trade Paperback]

There will also be a set of assigned readings for LB492, which will be made available in electronic format. This list will be available at the London 2009 Study Abroad program's pre-departure celebration on Sunday May 17, 2009.

You should have all the assigned reading by the start of summer semester (May 18th). You should bring all reading with you to London, with electronic reading stored on your laptop.

Assignments

You will complete the following assignments during Summer Semester (May 18 to August 20). Submit all assignments via email, unless told otherwise. You're welcome to turn in any assignment before the due date.

1. The *Illustrated London News* (ILN; 20 points)

You already completed this project when you identified, as a group and then individually, interesting images from the *Illustrated London*.

2. Exploring the *Origin* (30 points)

Part one. This assignment is similar in spirit to one on the *Illustrated London News*. Using your Dover Thrift Edition of the *Origin*, identify three passages, each from a different chapter in the book, to accomplish the following goals:

- The first of these passages should flag something interesting or cool. In 50-100 words, explain why.
- The second should be something you find really confusing. In 50-100 words, explain what you don't understand.
- The third passage should be something that you think would have been controversial in 1859. In 50-100 words, explain why this passage would have provoked argument.

When sending us a passage, you do not have to transcribe it. Instead, you can cut-and-paste it from the Complete Works of Charles Darwin Online:

<http://darwin-online.org.uk/majorworks.html>

▶▶ **Due: May 26**

Part two. We will post all of the chosen passages and their annotations to the course Angel website. Each student will then review three different passages (one passage from each of the three categories; chose passages from three different students) and comment (50-100 words) on why they either agree or disagree with that student's opinion.

▶▶ **Due: June 2**

3. Janet Browne's *Darwin's Origin of Species* (50 points)

Read Browne's excellent book about Darwin's book. Then, write a short (300 to 500-word; 2 pages, double-spaced) essay explaining how reading Browne cleared up a misunderstanding you had about the history of evolutionary biology. ▶▶ **Due: June 8.**

4. Paper I: Darwin and the Arts (A Class Jigsaw Exercise) (100 points)

In this first of two short-medium papers, we will work as a group to construct a picture of the relationship and influence of Darwin's ideas on an array of aspects of literature, architecture and the arts. For this paper, each member of the class will choose one different aspect of the arts and describe how Darwin's ideas have influenced that cultural aspect. You will write an 800- 1000 word essay (4 pages, double-spaced) on the topic, and give a brief oral presentation of your paper to the class while we are in England. ▶▶ **Paper Due: June 27.**

5. Paper II: Bridging the Two Cultures: On the Intersection of Biology and Literature (100 points)

In this second of two short-medium papers (800 - 1000 words; 4 pages, double-spaced), you will explore C. P. Snow's idea that the Humanities and the Sciences represent two cultures in need of a long, sturdy bridge. You should construct your paper around a description of the evolutionary process, from a biologist's perspective, starting with a genetic mutation and ending with a fixed phenotypic difference in two separate populations. Then, relate your evolutionary model to the two books that we are reading for the course (*The Time Machine*, and *Galapagos*). Ask yourself, and explain to your reader, how the elements of evolutionary theory manifest themselves in these two books. Have the authors bridged the two cultures? If so, how? If not, why not?

▶ **Due: TBD**

6. Travel Diary (100 points)

The exhaustive travel diaries Darwin kept during the voyage of HMS *Beagle* provided the foundation for his meteoric rise to the top of British science. You will also record the key features of your three weeks in England. Your travel diary will to record your intellectual engagement with both the academic content of the program and life in Britain generally. You should record at least ten entries during the three-week program. I will score each of ten entries for 10 points each.

Not all of your entries have to be text. For Victorian naturalists like Darwin, the sketchpad was a crucial record-keeping tool. Today, we have cameras. We encourage you to submit photographs (with some written explanation) as part of entries. (If of an artistic bent, include your own sketches as well).

7. Research paper (400 points)

You will write an original 12- to 15-page (3,200 to 4,000 word) research paper as the capstone project in this course. You have wide latitude in choosing a research topic within our course topic area, but you must address some aspect of Darwin and the Arts.

This project has several components:

A **research proposal**, three pages plus preliminary bibliography, will explain your topic and the approach you will take to it. You will complete the proposal in England, drawing upon your experiences for inspiration. ▶ **Due: July 14**. You will present your proposal and then consult with me on it, in England, between **July 15 and 18**. The proposal and interview are worth 100 points.

A **completed draft** (not a "rough draft") and a peer-review exercise. In your draft, you will present your research in polished form. You will then have an opportunity to edit and comment upon the draft written by one of your classmates. I will review your draft and return it with substantial comments (150 points). I will also review and evaluate the comments you make on the draft written by your classmate (50 points). The draft and peer-review exercises are worth a total of 200 points. ▶ **Due: August 6 (draft); August 13 (peer review)**.

You will write a **revised draft** in which you incorporate suggestions made by me, and in which you address points made in the review done by your classmate. The final draft is worth 100 points. ► **Due: August 20.**

8. Participation (200 pts.)

Full and active participation from everyone is crucial to the success of the program. Attendance is **mandatory** for all group activities unless you have a serious and unavoidable reason for absence. It is also essential that you show up on time for every activity, since we run a strict schedule. You also need to demonstrate that you've read the information for each excursion that is included in *Darwin's England: A Primary Source Reading Packet* (2009).

You **must** accompany the group on the in-town and day-long trips to the Museum of London (6/29), Greenwich (6/30), the South Kensington Museums (7/1), Down House (7/2), the University of Oxford (7/3), the Darwin Festival (7/6 – 7/8), Kew Gardens (7/14), the London Museums of Health and Medicine (7/15), the Natural History Museum (7/16), and Westminster Abbey (7/17).

The penalty for a missed daily activity is severe: we will dock your final course grade 100 points for each unexcused absence.

Academic Misconduct

The penalty for academic dishonesty is course failure. Academic dishonesty includes (but not be limited to): cheating on assignments or examinations; fabricating data; plagiarizing, which means misrepresenting as your own work any part of work done by another (this includes using substantial chunks of lightly or unmodified text from another source, *even if you cite the source in your paper*); submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of all instructors concerned; depriving another student of necessary course materials or interfering with his or her work; and facilitating another in academic dishonesty. For more information, consult:

<http://www.lymanbriggs.msu.edu/current/honesty.cfm>

http://www.msu.edu/unit/lbs/academics/academic_honesty.html

<http://www.msu.edu/unit/ombud/honestylinks.html>

We encourage you to submit major writing assignments to turnitin.com. This service produces an “originality report” for each assignment, which can reveal problems with a paper, both in terms of inadvertent plagiarism (faulty paraphrasing, inadequate citation, etc.) and style (excessive use of quotations), before you submit it for a grade.

Discuss any questions about what does and does not constitute plagiarism with me.

Due Dates and Values of Graded Components

Assignment	Due Date	Points
<i>Illustrated London News</i> assignment	completed	20 points
<i>Origin of Species</i> assignment part one part two	May 26 June 2	15 points 15 points
Browne's <i>Darwin's Origin of Species</i>	June 8	50 points
Short Paper I: Darwin and the Arts (Jigsaw)	June 27	100 points
Short Paper II: Bridging the Two Cultures: On the Intersection of Biology and Literature	TBD	100 points
Travel Diary	August 20	100 points
Research paper Proposal Completed draft Revised draft	July 14 – July 17 August 6 August 20	400 points
Participation	June 27 – July 18	200 points
TOTAL		1000 points

Grade Scale

The grading scale for this course is as follows:

4.0 1000-900	3.5 899-850	3.0 849-800
2.5 799-750	2.0 749-700	1.5 699-650
1.0 649-600	0 < 600	

Note: There is no “curve”. Everyone can succeed (i.e., earn a 4.0).

Program Angel site

Important information, including course readings and assignments, are available on the study-abroad program's Angel site:

<https://angel.msu.edu/>

Once at Angel, enter your MSU NetID and password in the log-on window to reach your personal page. From there, click on the course name for access to the course site.

Schedule

Do the pre-England reading assignments in this order:

Browne, *Darwin's Origin of Species* (introduction, chapters 1-3)

Darwin, *On the Origin of Species* (all)

Browne, *Darwin's Origin of Species* (introduction, chapters 4-5)

May 17.—Sunday

Barbeque and final pre-departure group meeting at Prof. Smith's (933 Lantern Hill Drive, East Lansing), 1-4pm.

May 18.—Monday

The official start of summer semester. You should have copies of all the assigned reading by this point. Begin work on pre-England assignments, if you have not done so already.

May 26.—Tuesday

▶▶ Due: Exploring the *Origin* assignment, part one

June 2.—Tuesday

▶▶ Due: Exploring the *Origin* assignment, part two

June 8.—Monday

▶▶ Due: Janet Browne assignment

The schedule of activities in England is provisional and subject to change.

June 27.—Saturday

Program begins. Check into the dorms.

▶▶ Due: Short Paper I: Darwin and the Arts (Jigsaw)

June 28.—Sunday

Short orientation meeting at Hyde Park. Welcome dinner in the evening.

June 29.—Monday

Museum of London. Walking tour of Darwin's London.

June 30.—Tuesday

Greenwich.

July 1.—Wednesday

South Kensington Museums: Science Museum, Victoria & Albert

July 2.—Thursday

Down House.

July 3.—Friday

University of Oxford

July 5.—Sunday

Travel to Cambridge in the evening

July 6.—Monday

Darwin 2009 Festival—University of Cambridge

July 7.—Tuesday

Darwin 2009 Festival—University of Cambridge

July 8.—Wednesday

Darwin 2009 Festival—University of Cambridge

Return to London

July 14.—Tuesday

Kew Gardens

July 15.—Wednesday

London Museums of Health and Medicine.

July 16.—Thursday

Natural History Museum.

July 17.—Friday

Westminster Abbey. Highgate Cemetery. Group dinner in the evening.

July 18.—Saturday

Overseas program ends.

August 6.—Thursday

▶▶ Due: completed draft of the research paper

August 20.—Thursday

Final day of Summer semester

▶▶ Due: revised draft of the research paper