

HISTORY 1805e
Science, Technology and Global History
WESTERN UNIVERSITY
Fall and Winter, 2012

Instructor:
Dr. Josh MacFadyen
Email: joshmacfadyen@gmail.com
Office: Lawson Hall 2270D
Office Hours: Thursdays 1-3 pm.

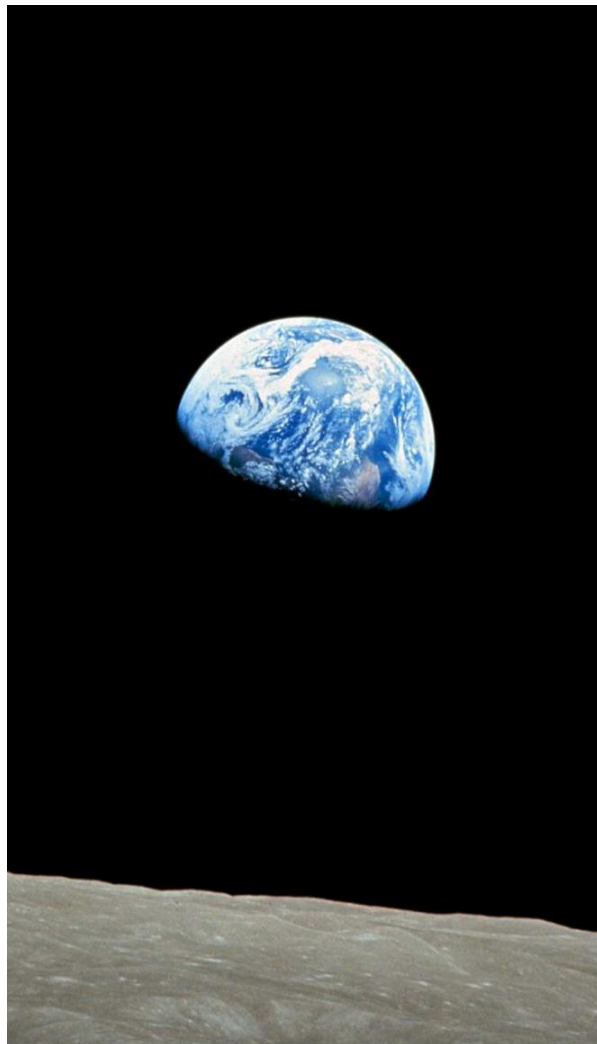
Department of History
Western University
UCC 63, University Community Centre
Time: Wednesday 6-9pm

Draft Syllabus

Course Description

History 1805e is an exciting introductory-level course about the global history of science and technology, and about the role science and technology have always played in history. It is intended for students planning to major in science or engineering, and also for history concentrators and other students in the social sciences or humanities. **In other words, all are welcome.** The course includes no technical math or science and we do not assume that students will have any particular historical background or technical expertise.

This course introduces students to “big history,” which uses the tools of scientists, social scientists, and historians to unite traditional history with the deep past of our species and our planet. We begin with the Big Bang and go all the way to the future. We examine the past at different scales, from microscopic bacteria to human beings to thousand-year empires.



We ask how the history of science and the world look different when viewed from India or China or Africa, from Renaissance Europe or ancient Greece. We consider alternate histories—what if things had happened differently?—and alternatives to the modern university and its disciplines. We talk about ways to end all life on earth and consider how science and history might help save the planet. Above all, **we argue against the separation of history and science**, discovering how science and technology have always been shaped by human history and vice versa.

And we do all that in one lecture a week!

Assignments

Students are expected to attend every lecture and to participate in class discussions and activities. Because there is no required textbook in this course, attendance and engagement are critical.

Students will write a number of short “history labs” (two per term, each worth 10%) on a variety of questions and topics. There will be a December exam and an April exam, each worth 30%. Both exams will include a mix of identifications and short essay questions based on the lectures and course readings. The December exam will cover the first half of the course; the April exam will cover both halves of the course but be heavily weighted to the second term.

Learning Outcomes

Students who pass this course will be able to:

- See “natural history and human history [as united] in a single, grand, and intelligible narrative.” (Christian, *Maps of Time*)
- Describe the basic history of the Universe as it is understood in the historical sciences, from the Big Bang to the present. This narrative covers the inanimate universe, the origin of stars and galaxies, the formation of our solar system, the evolution of life, the emergence of humankind, and foraging, agrarian and modern human lifeways.
- Integrate and critically evaluate sources of information from different disciplines, presented in different media, and conduct short research projects that enable them to answer questions of interpretation.
- Focus on “interconnections between people and communities in all eras of human history,” and identify crucial turning points “in the ways we humans produced and distributed food; organized ourselves in communities; defined and explored and populated our environment; experienced, responded to, and often created ‘worldwide’ crises; and increased or decreased in numbers.” (Bain and McArthur Harris, Preface to *This Fleeting World*)

Evaluation

First Term: 50%
History Lab #1: 10%
History Lab #2: 10%
December Exam: 30%

Second Term: 50%
History Lab #3: 10%
History Lab #4: 10%
April Exam: 30%



Readings

There is no required textbook for this course. Students who wish to supplement the lectures with a textbook are encouraged to read along in the following text, available at the campus bookstore and on reserve at Weldon. This is optional and not required.

- James McClellan and Harold Dorn, *Science and Technology in World History* (Second Edition) (Baltimore: Johns Hopkins University Press, 2006).

There will be required readings for some weeks and some of the written assignments; these will all be distributed online or in class.

Course website

History 1805 is supported by a OWL website. Please make sure you have signed-in there, as a variety of course materials and notices will be posted on the site. If you are having difficulty getting logged in you should contact me by email as soon as possible.

Course Outline

Big History	12 Sept
Life emerges	19 Sept
Evolution	26 Sept
Humankind	3 Oct
Civilizations and agri-cultures	10 Oct
The Exact Sciences in Antiquity	17 Oct

Old World Encounters	24 Oct (History Lab # 1 due)
The Measure of Reality	31 Oct
Scientific Revolution	7 Nov
The Columbian Exchange	14 Nov
Unending Frontier	21 Nov
The Discovery of Deep Time	28 Nov
The Great Divergence	5 Dec (History Lab # 2 due)
Exam	TBA
Electricity and Enlightenment	9 Jan
Cities and Germs	16 Jan
Are Whales Fish?	23 Jan
Darwin	30 Jan
Inventing the University	6 Feb
Reading week	13 Feb
Einstein's Clocks	18-22 Feb
World of War	27 Feb (History Lab # 3 due)
The Universal Machine	6 Mar
The Killer App	13 Mar
The Green Revolutions	20 Mar
Science Inc.	27 Mar
One Planet	3 Apr (History Lab # 4 due)
How to Use this Course	10 Apr
Exam	TBA

The Classroom Environment:

- Students are expected to treat each other respectfully and that should be reflected in both conduct and language.
- In this spirit, students will turn off cell phones and other audible devices when entering the classroom.
- Students will also turn off all texting devices during the class.
- Students are encouraged to use laptops to take notes and for course-related activities, but please no social media.

Special Needs:

- Students who have special needs that will influence in any way their ability to complete the required components of this course must notify the instructor and the Office of the Registrar in a timely manner.

Evaluation and the Standard of Work:

- Student's work will be evaluated on the basis of its content, organization and execution, and quality of writing.
- Papers which suffer from a very poor writing style may be returned to the student ungraded.
- Plagiarism: Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the Western Academic Calendar).
- *Turnitin: All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).*

Submission of Work:

- Extensions for the tutorial assignments may be given in some circumstances. Students seeking an extension must discuss their request with the tutorial instructor well in advance of the due-date. Assignments which do not meet the revised deadline, or which are submitted late without a formal extension, will have marks deducted at the rate of 5% per day.
- Assignments must be submitted by 6pm on the day they are due; otherwise, they will be considered late. Weekends count in the calculation of late days. Please do not submit assignments to the History office.
- Students must keep a disk copy or photocopy of their assignments. In the event the instructor does not have and/or never received an assignment you believe you have submitted, it is up to you to produce a copy of the original within 24 hours.

If you or someone you know is experiencing distress, there are several resources here at Western to assist you. Please visit <http://www.uwo.ca/uwocom/mentalhealth/> for more information on these resources and on mental health.

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

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The following rules pertain to the acknowledgements necessary in academic papers.

A. In using another writer's words, you must both place the words in quotation marks and acknowledge that the words are those of another writer.

You are plagiarizing if you use a sequence of words, a sentence or a paragraph taken from other writers without acknowledging them to be theirs. Acknowledgement is indicated either by (1) mentioning the author and work from which the words are borrowed in the text of your paper; or by (2) placing a footnote number at the end of the quotation in your text, and including a correspondingly numbered footnote at the bottom of the page (or in a separate reference section at the end of your essay). This footnote should indicate author, title of the work, place and date of Publication and page number. Method (2) given above is usually preferable for academic essays because it provides the reader with more information about your sources and leaves your text uncluttered with parenthetical and tangential references. In either case words taken from another author must be enclosed in quotation marks or set off from your text by single spacing and indentation in such a way that they cannot be mistaken for your own words. Note that you cannot avoid indicating quotation simply by changing a word or phrase in a sentence or paragraph which is not your own.

B. In adopting other writer's ideas, you must acknowledge that they are theirs.

You are plagiarizing if you adopt, summarize, or paraphrase other writers' trains of argument, ideas or sequences of ideas without acknowledging their authorship according to the method of acknowledgement given in 'A' above. Since the words are your own, they need not be enclosed in quotation marks. Be certain, however, that the words you use are entirely your own; where you must use words or phrases from your source; these should be enclosed in quotation marks, as in 'A' above.

Clearly, it is possible for you to formulate arguments or ideas independently of another writer who has expounded the same ideas, and whom you have not read. Where you got your ideas is the important consideration here. Do not be afraid to present an argument or idea without acknowledgement to another writer, if you have arrived at it entirely independently. Acknowledge it if you have derived it from a source outside your own thinking on the subject.

In short, use of acknowledgements and, when necessary, quotation marks is necessary to distinguish clearly between what is yours and what is not. Since the rules have been explained to you, if you fail to make this distinction, your instructor very likely will do so for you, and they will be forced to regard your omission as intentional literary theft. Plagiarism is a serious offence which may result in a student's receiving an 'F' in a course or, in extreme cases, in their suspension from the University.

MEDICAL ACCOMMODATION

The University recognizes that a student's ability to meet his/her academic responsibilities may, on occasion, be impaired by medical illness. Please go to https://studentservices.uwo.ca/secure/medical_accommodations_link_for_OOR.pdf to read about the University's policy on medical accommodation. Please go to <http://www.uwo.ca/univsec/handbook/appeals/medicalform.pdf> to download the necessary form. In the event of illness, you should contact Academic Counselling as soon as possible. The Academic Counsellors will determine, in consultation with the student, whether or not accommodation is warranted. They will subsequently contact the instructors in the relevant courses about the accommodation. Once a decision has been made about accommodation, the student should contact his/her instructors to determine a new due date for term tests, assignments, and exams.

If you have any further questions or concerns please contact, Rebecca Dashford, Undergraduate Program Advisor, Department of History, 519-661-2111 x84962 or rdashfo@uwo.ca