



HIST 1250 Science and Technology in a Global Context

Fall 2025 Draft Course Outline

Department of History

Section: 01

Credits: 0.50

1 Course Details

Course Description

This course is an introduction to the culturally specific ways in which science and technology have developed historically from the ancient period through the twenty-first century. Emphasis will be placed on the patterns in which scientific knowledge and practices have traveled and been constructed across cultures and the interconnected but distinct histories of science and technology.

Restriction(s): ASCI*1000.

Lecture Schedule



* [REDACTED]
[REDACTED]
[REDACTED]

Exam Schedule

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

2 Instructional Support

Instructional Lead

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Instructional Support Team

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

3 Learning Resources

Required Sources

There are **no required textbooks** for HIST 1250. If you are interested in background reading for the course, I recommend 2 texts that roughly follow the structure, chronology, and thematic foci, of HIST 1250:

On the history of science: Poskett, James. *Horizons: The Global Origins of Modern Science*. Boston, MA: Mariner Books, 2022.

On the history of technology: Misa, Thomas J. *Leonardo to the Internet: Technology and Culture from the Renaissance to the Present, Third Edition*. Baltimore, MD: Johns Hopkins University Press, 2022.

All assigned texts for HIST 1250 will be posted through CourseLink. You may also refer to Section 5 below for a list of required readings.

Students will be expected to complete the weekly readings before HIST 1250 convenes and be prepared to discuss their major arguments/ideas with their classmates.

In addition to required texts, CourseLink will feature optional enrichment materials for further reading.

Campus Resources

Students are encouraged to take advantage of the campus resources available to them as members of the University of Guelph community. There are numerous academic resources offered by the [Learning Commons](#), including Supported Learning Groups, which offer courses related to time management strategizing, exam-taking prep, and leveling up study skills. You may also reach out to the [Program Counsellor](#) in your degree program for more information on university resources that promote student success within and beyond the classroom.

4 Learning Outcomes

Course Learning Outcomes

1. Appreciate the contributions of science and technology to world history.
2. Recognize that specific sciences and technologies are dependent on their social, cultural, and historical context and cannot be understood outside of them.
3. Recognize the ways in which knowledge and skills have travelled and been constructed across cultures.
4. Analyze how various actors and institutions (governments, universities, societies, industries) have shaped the history of science and technology.
5. Engage with the central issues, research approaches, and practices of history as a discipline.
6. Develop skills in critical reading, writing, and thinking.
7. Develop skills in library research and critical evaluation of information.

B.Eng. Graduate Attribute Learning Outcomes

If you are taking this course as part of your requirements for the B.Eng. program, the outcomes above support and are consistent with the following Graduate Attributes (GA) as outlined by the Canadian Engineering Accreditation Board (CEAB):

- **GA 7: Communication Skills:** An ability to communicate complex engineering concepts within the profession and with society at large. Such ability includes reading, writing, speaking and listening, and the ability to comprehend and write effective reports and design documentation, and to give and effectively respond to clear instructions.
 - **GA 9: Impact of Engineering on Society and the Environment:** An ability to analyze social and environmental aspects of engineering activities. Such ability includes an understanding of the interactions that engineering has with the economic, social, health, safety, legal, and cultural aspects of society, the uncertainties in the prediction of such interactions, and the concepts of sustainable design and development of environmental stewardship.
-

5 Teaching and Learning Activities

Date	Topic	Assignments Due Before Class Meets Unless Otherwise Specified
Class 1 September 8	Tipping Points?: Science and Technology in the Anthropocene	<p>[Optional] Wallace-Wells, David. "You Are Contaminated." <i>New York Times</i>. 4 August 2025.</p> <p>*Note that there are additional, enrichment readings that will be posted on CourseLink throughout the semester. These texts will not be required for the course, and will not be assessed.</p>
Class 2 September 15	Thinking Like A Historian: An Introduction to Major Ideas in the History of Science & Technology Case Study: The Ancient & Modern Histories of Artificial Intelligence	<p>Mayor, Adrienne. "The Robot and the Witch: Talos and Media." <i>Gods and Robots: Myths, Machines, and Ancient Dreams of Ancient Technology</i>. Princeton, NJ: Princeton University Press, 2020.</p> <p>Crawford, Kate. "Labor." <i>Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence</i>. New Haven, CT: Yale University Press, 2020.</p>
Class 3 September 22	Starting Points: Ancient Authorities, "New" Worlds, and the Global Columbian Exchange	<p>Poskett, James. "New Worlds" and "Heaven and Earth." <i>Horizons: The Global Origins of Modern Science</i>. Boston, MA: Mariner Books, 2022.</p> <p>*Guest Speaker from the University of Guelph Libraries.</p>

Class 4 September 29	Tools of Empire & Resistance: Technologies of the Transatlantic Slave Trades & Rebellions	Bosma, Ulbe. "Sugar Going West," "War and Slavery," and "Science and Steam." <i>The World of Sugar: How the Sweet Stuff Transformed Our Politics, Health, and Environment over 2,000 Years</i> . Cambridge, MA: The Belknap Press of Harvard University Press, 2023.
Class 5 October 6	Industrialization and Space: Urbanization, Disease, and the Ordering of the City in the Long Nineteenth Century	[Selections] Vann, Michael (Author), and Liz Clarke (Illustrator). <i>The Great Hanoi Rat Hunt: Empire, Disease, and Modernity in French Colonial Vietnam</i> . New York, NY: Oxford University Press, 2019. Research Proposal and Annotated Bibliography Due
No Class October 13	National Holiday. No class this week.	
Class 6 October 20	Midterm Exam	Midterm exam to be held in class, and begin promptly at 7:00 PM EST.
Class 7 October 27	The Rise of Big Science, Then and Now Case Study: The Global Circulation of Evolutionary Theory	Secord, James. "Global Darwin." <i>Darwin</i> . Edited by William A. Brown and Andrew C. Fabian. Cambridge, UK: Cambridge University Press, 2010. Schmalzer, Sigrid. "Introduction." <i>The People's Peking Man: Popular Science and Human Identity in Twentieth-Century China</i> . Chicago, IL: University of Chicago Press, 2008.

Class 8	Total War: Science and Technology During the First and Second World Wars	<p>Labatut, Benjamín. Translated by Adrian Nathan West. "Prussian Blue." <i>When We Cease to Understand the World</i>. New York, NY: Oxford University Press, 2019.</p> <p>Lindee, M. Susan. "The Logic of Mass Production." <i>Rational Fog: Science and Technology in Modern War</i>. Cambridge, MA: Harvard University Press, 2020.</p> <p>*Guest Speaker from the John McCrae House.</p>
November 3		

Class 9	The Atom Bomb and the Making of the Cold War	[Selections] Brown, Kate. <i>Plutopia: Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters</i> . Oxford, UK: Oxford University Press, 2013.
November 10		

Essay Outline Due

Class 10	The Information Age: Computation and Labor	Abbate, Janet. "Breaking Codes and Finding Trajectories: Women at the Dawn of the Digital Age." <i>Recoding Gender: Women's Changing Participation in Computing</i> . Cambridge, MA: Massachusetts Institute of Technology Press 2012.
November 17	Megaprojects: Visions of Modernity in the Cold War and Beyond	
	*This class will meet over Teams instead of in WMEN Room 103	<p>In addition, read 1 of the following:</p> <p>Option 1: Švelch, Jaroslav. "Power to the Clones." In Abbate, Janet, and Stephanie Dick, Editors. <i>Abstractions and Embodiments: New Histories of Computing and Society</i>. Baltimore, MD: Johns Hopkins University Press, 2022.</p>

Option 2: Tinn, Honghong. “From DIY Computers to Illegal Copies: The Controversy Over Tinkering with Microcomputers in Taiwan, 1980-1984.” *IEEE Annals of the History of Computing*, Volume 33, Number 2 (2011): 75-88.

Option 3: Stanton, Andrea. “Broken Is Word.” *Your Computer Is On Fire*. Edited by Thomas S. Mullaney, Benjamin Peters, Mar Hicks, and Kavita Philip. Cambridge, MA: Massachusetts Institute of Technology, 2021.

Class 11

November 24

Megaprojects: Visions of Modernity in the Cold War and Beyond

Siddiqi, Asif A. “‘Practically No Habitation’: The Logic of Location and Indian Space Dreams on the Bay of Bengal.” *Cosmic Fragments Dislocation and Discontent in the Global Space Age*. Edited by Asif A. Siddiqi. Pittsburgh, PA: University of Pittsburgh Press, 2025.

Sudbury, Sue, Director. *Indian Space Dreams*. 2019. 1 Hour, 17 Minutes.

Class 12

November 28

Engineering the Mind and Body

Poskett, James. “Genetic States.” *Horizons: The Global Origins of Modern Science*. Boston, MA: Mariner Books, 2022.

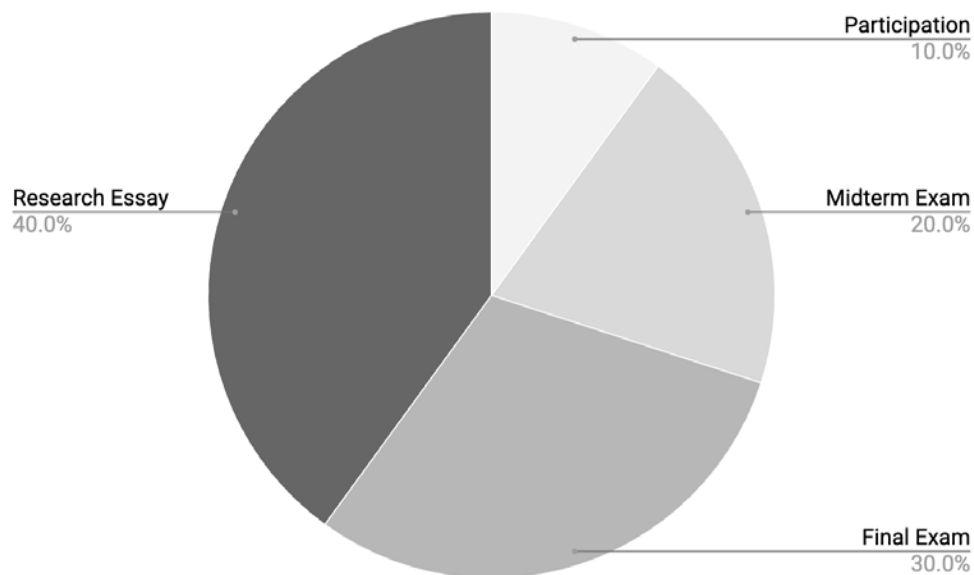
Final Research Essay Due.

6 Assessments

Class time will be dedicated to lectures, discussions, workshops, and occasionally, films. The lectures for HIST 1250 are designed to complement—not repeat—the assigned readings, so keeping up with the weekly reading material is essential for your success in the course. Although this is a large introductory survey, we will prioritize in-class discussions, reflections, and exercises to work through key concepts introduced in the lectures and course readings. I strongly encourage you to ask questions during class time.

Marking Schemes & Distributions

- **10%:** Participation
- **20%:** Midterm Exam
- **30%:** Final Exam
- **40%:** Research Essay



Participation – 10%

Participation comprises 10% of your overall grade, with 1% allotted for each meeting. You are granted two unexcused absences during the semester. Please note, however, that exam dates are excepted from this unexcused absence policy.

Participation will be assessed according to the completion of small in-class assignments, or exit tickets, which are intended to support your learning and prepare you for major course assessments. All exit tickets will be submitted electronically through CourseLink during class time.

Unless otherwise stated during class, exit tickets will be marked for completion credit only.

Participation marks may be excused, but they cannot be made up.

Please do not email the instructional support lead to notify of an unexcused absence.

Midterm Exam – 20%

The midterm exam will be held on October 20, 2025, during normally scheduled class time (7:00 PM EDT). It will take place in-person and last 2 hours. It will be a 'closed book' exam..

The midterm will consist of multiple-choice, matching, short-answer prompts, and a long-form essay. You will be provided with a list of possible essay questions one week before the midterm. While there are no length requirements for the written portion of the exam, you should aim for completeness in responding to the essay question.

The exam will cover major themes and subjects from the first half of the course. Provided you attend the lectures, take notes, and complete the readings, the exam will be straightforward.

This course does not treat exams as fixed measures of comprehension, but rather as mile-markers in learning. This midterm is intended to serve as a preparatory assessment to encourage students to evaluate their readiness for the close-of-semester assignments.

Final Exam – 30%

The final exam, which comprises 30% of your overall mark, uses the same structure as the midterm. It consists of multiple choice, matching, short-answer prompts, and one long-form writing assignment (with prompts provided ahead of time). Likewise, it is closed

book and will last 2 hours.

While the final exam is cumulative—covering material major themes and frameworks introduced in the first half of the course—it will prioritize lectures and readings from class 7 onward.

The final exam will consist of multiple choice and matching questions, short answer prompts, and 1 long-form writing assignment (with prompts provided one week in advance of the final).

The exams for HIST 1250 draw heavily from the course readings. You will be expected to know the major arguments of all required readings. Optional enrichment texts will not be assessed.

The test will also cover lecture materials. You will be expected to know the chronology and geography of historical events presented in course lectures, as well as conceptual frameworks used to interpret the history of science and technology.

If you take notes in class and complete the readings, you should do well in this course.

Research Essay Project – 40%

Research Proposal and Annotated Bibliography – 15%

Preliminary Outline – 5%

Final Essay – 20%

For the **research essay**, you will conduct a deep-dive into a topic of your choosing—subject to instructional support approval—within the history of science and technology. You have a wide degree of latitude with what topic you select and how you approach it.

As part of the essay, you will present an original claim and support it with scholarly evidence; however, how you present this material is up to you. Your final submission will be somewhere between 1,300 and 1,500 words in length with between 8 and 12 academic sources *meaningfully* incorporated within your original work of scholarship.

To ensure that you're prepared for this project, we will complete check-ins throughout the semester, beginning with the **Research Proposal and Annotated Bibliography (15%)**, which consists of two parts:

Part 1 of 2: You will propose to study a particular historical topic in the history of science and technology, explaining how you will tackle this project.

Part 2 of 2: For the annotated bibliography portion, you will prepare a list of 8-12 sources you plan to consult in your research. The majority of sources should be scholarly in nature—that is, a source published with an academic journal or press. You are expected to write a short paragraph for each source summarizing its main arguments and how you plan to use it within your research essay. Keep in mind that you are not expected to have read the entire source before drafting an annotation. All you need is a general idea, which you can glean from the following places: the abstract, book jacket, table of contents, and/or introduction. Feel free to look for book reviews to get a sense of the text.

Next, in November, you will submit a **Preliminary Outline (5%)** of your research essay. This should include a clear breakdown of your main argument, the key points you plan to address, and a meaningful integration of relevant sources to develop/bolster your argument. As part of this assignment, you will also participate in an in-class peer review, offering feedback on a classmate's outline.

Finally, you will submit the final research essay at a date specified in class.

More details on the research essay will be shared later in the semester.

Late Policy

Late assignments will receive a 2% deduction per 24 hour period, including weekends. In keeping with the policy of other courses in the History Department at UofG, late assignments will not be accepted without academic consideration beyond the last class day (28 November 2025). To be fair to the instructional support team, all late submissions will be placed at the back of the grading queue.

Turnitin

HIST 1250 employs the standard plagiarism detection software, Turnitin, which is integrated with CourseLink. Turnitin is programmed to detect possible plagiarism and unauthorized collaboration/copying as part of the ongoing efforts to maintain academic integrity at the University of Guelph.

Use of the Turnitin.com service is subject to the Usage Policy posted on its website.

You may screen your own assignments through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.

Turnitin, however, is not foolproof, and you are advised to review your work thoroughly to ensure that you properly attribute your sources.

8 University Statements

Artificial Intelligence Policy

The University of Guelph treats the unauthorized use of artificial intelligence in student assessments as a form of plagiarism. Unacknowledged, uncited use of AI within HIST 1250 course assignments is a violation of academic integrity and student conduct, and will not be tolerated.

Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part

could be construed as an academic offence should consult with a faculty member or faculty advisor.

The [Academic Misconduct Policy](#) is outlined in the Undergraduate Calendar.

Accommodation of Religious Obligations

If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor within two weeks of the start of the semester to make alternate arrangements.

See the Academic calendar for information on regulations and procedures for [Academic Accommodation of Religious Obligations](#).

Copies of Out-Of-Class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Copyright and Intellectual Property

The educational materials for this course have been developed for student use only and they are not intended for wider dissemination and/or communication outside of a given course.

Drop Date

Courses that are one semester long must be dropped by the end of the last day of classes; two-semester courses must be dropped by the last day of classes in the second semester. The regulations and procedures for [Dropping Courses](#) are available in the Undergraduate Calendar.

Email Communication

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

Health and Wellbeing

The University of Guelph provides a wide range of health and wellbeing services at the [Vaccarino Centre for Student Wellness](#). If you are concerned about your mental health and not sure where to start, connect with a [Student Wellness Navigator](#) who can help develop a plan to manage and support your mental health or check out our [mental wellbeing resources](#). The Student Wellness team are here to help and welcome the opportunity to connect with you.

Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

Recording of Materials

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Resources

The [Academic Calendars](#) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the Undergraduate Calendar for information on regulations and procedures for [Academic Consideration](#).
