

# HTST 395

## History of Energy



Department of History

### Description

This course introduces students to the history of energy. It will reconstruct the historical trajectories of important energy sources and engage with a number of historical approaches that can be adopted when studying the role of energy in different time periods and societies. We will look at the various forms of energy as well as the impact that technology, culture, and politics had upon their respective developments and uses. We will examine in detail how energy transformed societies in Europe and North America. The lectures will be structured chronologically as well as along core themes and will include international, national and local levels of inquiry.

### Learning Outcomes

After successful completion of this course, students will have had the opportunity to:

- identify and explain key developments in energy history
- engage with the central approaches of energy history
- describe political, social, economic, and cultural factors in energy history
- assess the role of ideas and technologies in energy history
- compare and connect energy histories of select countries
- understand and evaluate historical debates
- analyze primary and secondary sources
- engage with peers in informed discussions of historical problems
- expand critical thinking and formulate historical arguments

### Assessment

Method	Weight
Weekly Quizzes	10%
Weekly E-Journaling	10%
Bibliography	5%
Critical Essay	25%
Primary Source Interpretation	25%
Group Project: Digital Exhibit	25%

Fall 2021

Delivery: in person

MWF 10:00-10:50am, Room SH 274

**Instructor: Dr Petra Dolata**

Email: pdolata@ucalgary.ca

Office hours: via Zoom

Wednesdays 11:15am-12:30pm and by appointment (please email)

### Reading Material

Reading material will be posted on D2L. Details of those readings can be found below under "schedule."

### Deadlines

#### Weekly deadlines

Quizzes & E-Journaling

**8 October 2021**

Bibliography

**25 October 2021**

Critical Essay

**1 December 2021**

Primary Source Interpretation

Group Project deadlines

**1 November**

Background Research Summary

**15 November**

Image Selection

**22 November**

Draft Exhibit

**29 November**

Evaluating Draft Exhibit

**6 December (9am)**

Digital Exhibit

**6 & 8 December 2021**

Group Presentation

## Course Format

This course will be taught **in person**. There will be lectures on Mondays and Wednesdays. On Fridays, there will be guest lectures, class discussions on primary sources and group work. Students who are unable to attend in person may join via Zoom and OWL. Lecture slides will be uploaded onto D2L. Throughout the term, **students are members of one working group**. These groups will be automatically and randomly created via D2L. There will be five students to one group. Each group will also have their **dedicated group discussion areas on D2L**.

## Course Policies

- Students are expected to complete all assignments. Deadlines are firm. Two percentage points will be deducted from your grade for every day your paper is late.
- Assignments should be submitted electronically on D2L in a word document format.

## Classroom Policies

- Students are expected to arrive on time and prepared to learn and discuss material.
- Discussions depend upon students being able to refer to the readings in class, so have them there with you.
- Students should be considerate and respectful of their peers.

## Inclusiveness, Accommodation, Privacy, and Conduct

I am committed to creating an inclusive learning environment for all registered students. If you have conditions or circumstances that require a formal accommodation, be sure to register with Student Accessibility Services as soon as possible. Such circumstances may include disability or illness whether temporary or permanent, visible or invisible. If you face circumstances that require an informal accommodation or adjustment, such as the need to nurse or occasionally bring a child to class or the preference to be referred to by a different name or pronoun, please contact the instructor by email or during office hours as soon as possible.

To protect the privacy of others, students may not record in any format any activity that occurs within the classroom or online. As outlined in the [University Calendar](#), permission to sound-record lectures will only be given to students registered with Student Accessibility Services

## Grading Policies

All grades are awarded as percentages and the final calculation will be translated into a letter grade for submission to the Registrar. Students are expected to complete all assignments. Deadlines are firm. Two percentage points will be deducted from your grade for every day your paper is late. Requests for extensions should be submitted to the course instructor before the assignment due date.

## Details on Methods of Assessment

### Weekly Quizzes:

At the end of every week, students will have to complete a quiz on D2L which is based on the lectures and the required readings for the week. This is a multiple choice test with 20 questions. The quiz will be available as of Thursday morning and students will have 60 minutes to complete the quiz once they have started it. The deadline is Fridays at the end of day. That means students will have to start the quiz before Friday at 23:59 to be able to complete it. There will be 10 such quizzes starting in week 2. Together all 10 quizzes are worth 10 percent of the overall grade, and they will be immediately and automatically graded through the D2L system. While students will immediately see their grade, depending on accommodations and extensions they will have to wait a couple of days to see the correct answers. If you think there is a mistake in the quiz, and you were incorrectly graded please email the instructor. We will normally have a quick look at the quiz and any issue in Monday's class. In the first week there will be a slightly different quiz entitled "a little about you ..." which will be graded as either passed or

failed and counts as a bonus (10 points) toward the other quizzes. This is optional but it would really help me to get to know the class.

### **Weekly E-Journaling:**

Every week, students will write a half-page reflection (300 words). These will mostly be on the readings and lectures of the week, at times they may be required to be responses to a specific question or a primary source. The deadline is Thursdays at noon. They will have to be submitted weekly on D2L, but students are open to use their own journals (word documents, photos of handwritten journals, or Sway, which is offered through UCalgary) and upload them onto D2L. There will be 10 such e-journal entries starting in week 2. They are worth 10 percent of the overall grade. This assignment will be assessed based on the quality of the contributions and will be individually graded as excellent (100%), good (80%) and satisfactory (60%).

### **Bibliography**

Students will have to submit a bibliography on the topic of the primary source that they choose to write their source interpretation on (see primary source interpretation instructions below). Bibliographies must be properly formatted following Chicago Manual of Style and include at least 10 sources. Both books and journal articles should be among those sources. Internet sites, such as Wikipedia should not be used, but journal articles that were accessed via the internet, using databases such as JSTOR, Historical Abstracts, and Project Muse that are available on the library's website, are encouraged. Please submit electronically on D2L. This assignment which is worth 5% will be assessed based on appropriate sources (academic, peer-reviewed, historical sources and relevant for the topic) and correct formatting (Chicago Manual of Style).

### **Critical Essay**

Students will write one 2,000 word essay on a historical controversy. The essay is worth 25 percent of the overall grade. By discussing and comparing 2 academic contributions, the critical essay will discuss how different historians viewed the same historical events and developments, what specific perspectives they used, what aspects they focused on in particular and where they disagreed in their evaluation and interpretation of the events or developments. A list of readings for each topic, from which students have to choose, will be provided on D2L. A rubric will also be made available. The paper should conform in style to the standards laid out in the History Student's Handbook located on the Department of History web site at <http://hist.ucalgary.ca/sites/hist.ucalgary.ca/files/EssayHandbook.pdf>. Detailed instructions will be uploaded onto D2L. This assignment will be assessed based on completeness, depth of analysis, and writing.

### **Primary Source Interpretation:**

Students will write one 2,000 word primary source interpretation. It is worth 25 percent of the overall grade. Students will choose one primary source from a list that will be made available on D2L. A rubric will also be made available. A good primary source interpretation discusses both the time at which the source was produced and the source itself. The primary source needs to be contextualized through additional secondary source readings while the actual interpretation of the source itself is based on a very close reading of the historical document. The paper should conform in style to the standards laid out in the History Student's Handbook located on the Department of History web site at <http://hist.ucalgary.ca/sites/hist.ucalgary.ca/files/EssayHandbook.pdf>. Detailed instructions will be uploaded onto D2L.

### **Group Work: Virtual Exhibit**

In February 2022, it will be 75 years since oil was struck at Leduc just outside Edmonton. In 1947, Leduc #1 was the world's first major oil discovery after the Second World War initiating an oil boom in Western Canada. Throughout the term, groups of five students will create a virtual exhibit on Leduc 1947 using digitized photos, newspaper articles and oral histories as well as primary sources from digitized collections at the Glenbow Archives. Using the various steps of curating an exhibit, each group will carry out background research, select particular images and create proper citations and captions as well as put together textual and visual artefacts into an exhibit (including interpretive text and common theme) on OMEKA for class projects (UCalgary Library). All exhibits will be presented

in our last 2 classes on 6 and 8 December. The group work is worth 25 percent of the overall grade, all steps will be separately graded: background research (5%), selection of images, citation and captions (5%), evaluation of another group's draft exhibit (5%), exhibit (5%) and presentation of exhibit (5%). Group members will receive individual grades for background research, selection of images, citation and captions, and evaluation of another group's draft (15%). For the exhibit and presentation of the exhibit there will only be a group grade (10%), i.e. every group member gets the same grade. Detailed instructions will be uploaded onto D2L. There will also be a dedicated group chat on D2L. Several class sessions will be dedicated to this groupwork and include support from specialists.

**There is no registrar-scheduled final exam.**

## Learning Technologies Requirements

There is a D2L site for this course that contains relevant class resources and materials. In order to successfully engage in learning experiences in this class, students will need reliable access to the following technology: internet access and a computer, tablet, or other device to access D2L. Office hours will be conducted online, and students will need a microphone (built into device or separate).

## D2L

This course is taught through D2L, UCalgary's Learning Management System. The course's D2L site will be the most important and central point of information. You will find every detail concerning this course there. It will always feature the most up-to-date information. The instructor will communicate through D2L using both the announcements within D2L and the "email class" function (so please make sure to install D2L notifications and regularly check your UCalgary emails, as D2L will always use your official UCalgary email address). Students will upload all their assessments onto D2L and grades and feedback will equally be uploaded onto D2L.

**Students are encouraged to check D2L daily.**

## Class Schedule

Week	Date	Topics	Readings	Due Dates
1	8 Sep	Course Introduction	Kander, Astrid, et al. <i>Power to the People: Energy in Europe over the Last Five Centuries</i> . Princeton: Princeton University Press, 2014. Chapters 1 & 2 (available as e-book at UCalgary)	
	10 Sep	Energy Transitions		
2	13 Sep	Energetic Metabolism	Muldrew, Craig. <i>Food, Energy and the Creation of Industriousness Work and Material Culture in Agrarian England, 1550-1780</i> . Cambridge, New York: Cambridge University Press, 2010. Chapters 3 & 6 (available as e-book at UCalgary)	
	15 Sep	Agrarian Energy Systems		
	17 Sep	Discussion & Group Work		
3	20 Sep	Waterpower & Industrialization	Malone, Patrick M. <i>Waterpower in Lowell: Engineering and Industry in Nineteenth-Century America</i> . Baltimore: Johns Hopkins University Press, 2009. Introduction, Chapters 1 & 2 (excerpts) (available as e-book at UCalgary) <a href="https://energyhistory.yale.edu/units/water-power-industrial-manufacturing-and-environmental-transformation-19th-century-new-england">https://energyhistory.yale.edu/units/water-power-industrial-manufacturing-and-environmental-transformation-19th-century-new-england</a>	
	22 Sep	Energy Engineering		
	24 Sep	Discussion & Group Work		
4	27 Sep	Coal, Steam Power & Industrialization	Pomeranz, Kenneth. "Political Economy and Ecology on the Eve of Industrialization: Europe, China, and the Global Conuncture." <i>The American Historical Review</i> 107, no. 2 (2002): 425–46. Wang, Hsien-chun. "Discovering Steam Power in China, 1840s-1860s." <i>Technology and Culture</i> 51, no. 1 (2010): 31–54.	
	29 Sep	Library Session		
	1 Oct	Discussion & Group Work		
5	4 Oct	Industrial Illuminations	Nye, David E. <i>American Illuminations: Urban Lighting, 1800-1920</i> . Cambridge: MIT Press, 2018. Introduction, Chapters 1 & 2 (available as e-book at UCalgary) <a href="https://energyhistory.yale.edu/units/harvesting-light-new-england-whaling-nineteenth-century">https://energyhistory.yale.edu/units/harvesting-light-new-england-whaling-nineteenth-century</a>	
	6 Oct	From Whale Oil to Kerosene		
	8 Oct	Discussion & Group Work		<b>Bibliography 8 October</b>
6	13 Oct	Energy as a New Concept	Daggett, Cara New. <i>The Birth of Energy: Fossil Fuels, Thermodynamics, and the Politics of Work</i> . Durham, London: Duke University Press, 2019. Introduction (available as e-book at UCalgary)	
	15 Oct	Discussion & Group Work	Killen, Andreas. <i>Berlin Electropolis: Shock, Nerves, and German Modernity</i> . Berkeley, University of California Press. 2006. Chapter 1 (available as e-book at UCalgary)	
7	18 Oct	The Rise of King Coal	Cavert, William M. <i>The Smoke of London: Energy and Environment in the Early Modern City</i> . Cambridge:	

	20 Oct	Coal & Pollution	Cambridge University Press, 2016. Prologue & Part I (available as e-book at UCalgary)	
	22 Oct	Discussion & Group Work	<a href="https://energyhistory.yale.edu/units/rise-coal-19th-century-united-states">https://energyhistory.yale.edu/units/rise-coal-19th-century-united-states</a>	
8	25 Oct	Petroleum Monopolies	Frank, Alison Fleig. <i>Oil Empire Visions of Prosperity in Austrian Galicia</i> . Cambridge, Mass.: Harvard University Press, 2005. Introduction & Chapter 3	<b>Critical Essay 25 October</b>
	27 Oct	Petroleum: A Global Commodity	<a href="https://energyhistory.yale.edu/units/antitrust-and-monopoly">https://energyhistory.yale.edu/units/antitrust-and-monopoly</a>	
	29 Oct	Discussion & Group Work		
9	1 Nov	Electricity & Hydropower	Luby, Brittany. <i>Dammed: The Politics of Loss and Survival in Anishinaabe Territory</i> . Winnipeg: University of Manitoba Press, 2020. Introduction and Chapters 1&2 (available as e-book at UCalgary)	<b>Group Project Research 1 Nov</b>
	3 Nov	Hydroimperialism	<a href="https://energyhistory.yale.edu/units/electricity-consumption-culture-gender-and-power">https://energyhistory.yale.edu/units/electricity-consumption-culture-gender-and-power</a>	
	5 Nov	Discussion & Group Work	<a href="https://niche-canada.org/2016/03/22/11595/">https://niche-canada.org/2016/03/22/11595/</a>	
<b>10</b>		<b>Reading Week</b>	<b>No classes</b>	
11	15 Nov	Hydrocarbon societies	Christopher R.W. Dietrich. <i>Oil Revolution: Anticolonial Elites, Sovereign Rights, and the Economic Culture of Decolonization</i> . Cambridge: Cambridge University Press, 2017. Introduction & Chapter 8 (available as e-book at UCalgary)	<b>Group Project Image 15 November</b>
	17 Nov	Oil Crises & the Search for Alternatives	<a href="https://energyhistory.yale.edu/units/oil-shocks-1970s">https://energyhistory.yale.edu/units/oil-shocks-1970s</a>	
	19 Nov	Discussion & Group Work		
12	22 Nov	Nuclear Power	Brown, Kate. <i>Plutopia: Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters</i> . Oxford, New York: Oxford University Press, 2013. Introduction and Part I (excerpts) (available as e-book at UCalgary)	<b>Group Project Draft Exhibit 22 November</b>
	24 Nov	Nuclear Waste and Anti-Nuclear Protest	<a href="https://energyhistory.yale.edu/units/nuclear-energy-environment-and-debating-costs-progress">https://energyhistory.yale.edu/units/nuclear-energy-environment-and-debating-costs-progress</a>	
	26 Nov	Discussion & Group Work	<a href="https://niche-canada.org/2016/06/15/wildly-nuclear-elliott-lake-and-canadas-nuclear-legacy/">https://niche-canada.org/2016/06/15/wildly-nuclear-elliott-lake-and-canadas-nuclear-legacy/</a>	
13	29 Nov	Alberta's Energy History	Chastko, Paul. <i>Developing Alberta's Oil Sands: From Karl Clark to Kyoto</i> . Calgary: University of Calgary Press, 2007. Introduction & Chapters 3 & 4 (available as e-book at UCalgary)	<b>Group Project Evaluation 29 November</b>
	1 Dec	History of the Oil Sands	<a href="https://niche-canada.org/category/member-initiatives/silent-rivers/">https://niche-canada.org/category/member-initiatives/silent-rivers/</a>	<b>Source Interpretation 1 December</b>
	3 Dec	Discussion & Group Work	<a href="https://niche-canada.org/2019/02/11/the-epic-of-canol/">https://niche-canada.org/2019/02/11/the-epic-of-canol/</a>	
14	6 Dec	Group Presentations		<b>Group Work Digital Exhibit 6 December</b>
	8 Dec			

## Departmental Grading System:

The following percentage-to-letter grade conversion scheme is used in all Canadian Studies, History, and Latin American Studies courses, except for HTST 200.

Percentage	Letter Grade	Grade Point Value	Description
90-100	A+	4.00	Outstanding performance
85-89	A	4.00	Excellent performance
80-84	A-	3.70	Approaching excellent performance
77-79	B+	3.30	Exceeding good performance
73-76	B	3.00	Good performance
70-72	B-	2.70	Approaching good performance
67-69	C+	2.30	Exceeding satisfactory performance
63-66	C	2.00	Satisfactory performance
60-62	C-	1.70	Approaching satisfactory performance.
56-59	D+	1.30	Marginal pass. Insufficient preparation for subsequent courses in the same subject
50-55	D	1.00	Minimal Pass. Insufficient preparation for subsequent courses in the same subject.
0-49	F	0	Failure. Did not meet course requirements.

**Please Note:** Students are expected to reach the grade range to receive that letter grade (i.e. to receive an A- a student will have earned an 80 or 3.7 in the course). Assume that there will be no rounding up unless a faculty member announces otherwise.

## Program Advising and Student Information Resources

- For program advising in the Faculty of Arts, contact the [Arts Students Centre \(ASC\)](#).
- For questions about admissions, student awards, common registration issues, financial aid and student fees, contact [Enrolment Services](#)
- Sometimes unexpected circumstances may affect your time table. You can change your registration during the course change period. Please see the [Registration Changes and Exemption Requests](#) page.

**Attention history majors:** *History 300 is a required course for all history majors. You should normally take this course in your second year.*

## Writing

All written assignments and written exam responses are assessed partly on writing skills. Writing skills include surface correctness (grammar, punctuation, sentence structure, etc.) and general clarity and organization. Research papers must be properly documented according to the format described in [The History Student's Handbook](#).

## Academic Misconduct

Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For more information, please see the U of C Student Academic Misconduct [Policy](#) and [Procedure](#) documents, and visit the [Academic Integrity Website](#).

## Plagiarism

Plagiarism occurs when students submit or present the ideas and/or writing of others as if they were their own or when they submit their own work to two different classes. Please see [The History Student's Handbook](#) for more details, but to summarize, plagiarism may take several forms:

- Failing to cite sources properly
- Submitting borrowed, purchased, and/or ghostwritten papers
- Submitting one's own work for more than one course without the permission of the instructor(s) involved
- Extensive paraphrasing of one or a few sources, even when referenced properly, unless the essay is a critical analysis of those works

Plagiarism is a serious academic offence, and written work that appears to contain plagiarized passages will not be graded. All such work will be reported to the Faculty of Art's associate deans of students who will apply the penalties specified in [the university calendar](#).

## Academic Accommodation

It is the student's responsibility to request academic accommodations according to [the Student Accommodations policy](#). Students needing an accommodation based on disability or medical concerns should contact Student Accessibility Services (SAS) in accordance with the [Procedure for Accommodations for Students with Disabilities](#). Students who require an accommodation in relation to their coursework based on a protected ground other than Disability should communicate this need in writing to their Instructor.

SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit [Student Accessibility Services](#).

## Research Ethics

If a student is interested in undertaking an assignment that will involve collecting information from members of the public, they should speak with the course instructor and consult the [CFREB Ethics](#) website before beginning the assignment.

## Instructor Intellectual Property

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

## Copyright Legislation

All students are required to read the University of Calgary policy on [Acceptable Use of Material Protected by Copyright](#) and requirements of [the Copyright Act](#) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under [the Non-Academic Misconduct Policy](#).

## Copyright of Educational Materials

The University of Calgary has opted out of the Access Copyright Interim Tariff proposed by the Copyright Board. Therefore, instructors in all University of Calgary courses will strictly adhere to Copyright Act regulations and the educational exceptions permitted by the Act for both print and digital course material. No copyrighted material may be placed on course D2L or web sites without the prior permission of the copyright holders. In some cases, this may mean that instructors will require you to purchase a print course pack from the University of Calgary bookstore or consult books on reserve at the library. Please see the [University of Calgary copyright page](#).

## Freedom of Information and Protection of Privacy

Student information will be collected in accordance with usual classroom practice. Students' assignments will be accessible only by the authorized course faculty and teaching assistants. Private information related to the individual student is treated with the utmost regard.

## Media Recording

The instructor may use media recordings to record the delivery of a lecture for various reasons, including lecture capture and self-assessment. Students will be informed of media recordings in advance and the recording device will be fixed on the instructor. In the event that incidental student participation is recorded, the instructor will ensure that any identifiable content (video or audio) is masked, or will seek consent from identifiable students, before making a recording available to the class.

## Media Recording for the Assessment of Student Learning

The instructor may use media recordings as part of the assessment of students, by prior arrangement. This may include but is not limited to classroom discussions, presentations, clinical practice, or skills testing that occur during the course. These recordings will be used for student assessment purposes only and will not be shared or used for any other purpose.

## Sexual and Gender-Based Violence Policy

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the [sexual violence policy](#).

## Other Useful Information

Please see the Registrar's [Course Outline Student Support and Resources](#) page for information on:

- Wellness and Mental Health
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk