UNIVERSITY OF MANITOBA HIST 1270 W (A01), 2019 Fall Session Department of History "New Directions in History: Inquiries into the Power Relations of the Modern World" ~ Energy and Power in the Modern World_~

> Tuesday, Thursday 1:00-2:15 p.m. Room: EITC E2 Room 320

Prof. Jarvis Brownlie Office: 450 Fletcher Argue Phone: 204-474-9101 Email: <u>jarvis.brownlie@umanitoba.ca</u> Office Hours: Tues. and Thurs. 11:30-12:30 p.m., or by appointment.

(Cartoon: Mike Peters, Dayton Daily News.)

Scope of Course

All humans and other animals need constant supplies of energy to survive. For millennia, humans lived by the power of food and muscle, with wood for heat and light and, later, assistance from wind and water. Only some two and a half centuries ago did this "organic" energy supply become supplemented, and eventually superseded, by "mineral" sources of energy: coal, oil, natural gas, and nuclear power, along with hydroelectricity. The history of human uses of different fuels provides a window into the use and distribution of power in both its senses, that is, energy for producing things, and social relations of authority or domination. The transition to the "mineral" energy regime, accelerating and accelerated by the industrial revolution, changed everything. Among countless other transformations, it made every industrialized economy dependent on energy sources for powering machines, in a context of radically unequal geographic distribution of coal, oil, and fast-flowing rivers. In every era since then, access to and control of those energy sources has determined each country's place in the world economy and has contributed to a great deal of conflict. Each transition in energy sources has altered the course of history, reorganized human relations with the natural world and each other, and led to dramatic changes in economies, cultures, standards of living, and social relations.

Course materials will include lectures, textbook readings, in-class discussion, videos, and some guest speakers.

A detailed weekly schedule is found on p 5-6 of this syllabus.

Required Text

R.W. Sandwell, ed., *Powering Up Canada: A History of Power, Fuel, and Energy from* 1600. Montreal/Kingston: McGill-Queen's University Press, 2016. - Available in the bookstore.

Additional readings may be required and will be posted to UM Learn.

Grading						
Assignment	Date	Value				
In-class test	October 15, 2019	20%				
First essay (1500 words)	October 22, 2019	20%				
Second essay (1500 words)	November 28, 2019	30%				
Final exam	End of term	30%				
Total		100%				

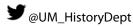
Evaluative feedback will be provided before the voluntary withdrawal date, November 18, 2019.

Since this is a course that meets the University Senate's W requirement, students must pass the requirement for written English in order to pass the course. **Please note: this means that you must submit, and receive at least a D on, <u>all</u> written assignments to obtain a passing grade.**

Late assignments will be penalized at the rate of 1% per day unless you have negotiated extra time with me beforehand. Extensions will be given only in cases of serious illness or emergency. **No assignments will be accepted after the last class of term.**

A+	88-100	B+	75-79	C+	65-69	D+	55-59
А	80-87	В	70-74	C	60-64	D	50-54
						F	0-49

Grade Distribution:



Students who wish to appeal a grade given for term work must do so within 10 working days after the grade for the term work has been made available to them. Uncollected term work will become the property of the Faculty of Arts and will be subject to confidential destruction

Academic Dishonesty

The work you submit for grading must be your own original work, written *by you* specifically for this course. When you use the words <u>or ideas</u> of others, you must give them credit in a footnote. University regulations provide severe penalties for academic dishonesty, in the form of plagiarism, cheating, exam personation, or duplicate submission. The common penalty for plagiarism is an F grade on the paper and also on the entire course; for the most serious cases, such as purchasing papers, the penalty can include a five-year suspension from courses in the Faculty of Arts. I make use of Google checks and internet sites designed to detect plagiarism.

The Faculty of Arts Academic Integrity policy may be found at: <u>http://umanitoba.ca/faculties/arts/student_resources/student_responsibilities</u> <u>integrity.html</u>

Technology in Class

"Giving your mind a break from the constant stimulation of technology allows it to better take in new things and have new thoughts ..." (See "5 Reasons Boredom Can Be Good for Your Health," *Huffington Post*, available online.)

I ask that, if at all possible, you use a pen and paper instead of a laptop to take notes in class. Studies have shown that you remember better when you write notes by hand. Equally importantly, a piece of paper will not distract you or your neighbours by luring you onto YouTube, email, online shopping, or any of the internet's million other temptations. If you absolutely **must** take notes on a laptop, please do not use it for any other purpose during class, especially online activities. Such behaviour is distracting for anyone sitting near you and fatal to your own learning.

Please put away your phone during class. You can get by for 75 minutes without checking your device and putting it away will significantly reduce your stress and improve your mental clarity. If there is some emergency and you need to have your phone with you, please let me know before class begins and then leave the class to check the phone and/or deal with the emergency. The goal here is to try to ensure that we are all fully present in the classroom, engaged in the learning process, and not constantly allowing our attention to be drawn away to



other things. It is also, of course, excellent practice for training our brains to focus despite the distracting world we live in. If I notice you using your phone in class or smiling at your computer, I may say something.

Student Resources

Academic Resources

You have access to several important resources to help you navigate your classes and university life more generally. There are writing tutors available to help you with your essays through the Academic Learning Centre (ALC): <u>http://umanitoba.ca/student/academiclearning/</u>. The History department will also make a writing tutor available exclusively to History students in the department on one day a week. More information about scheduling, etc., TBA.

The ALC page also has resources to help you with study skills, organization, as well as assistance for students using English as an Additional Language (EAL). Other issues, including accessibility services, workshops, and tips about academic integrity are addressed at the Student Advocacy Services webpage (http://umanitoba.ca/student/resource/student_advocacy/).

All of the above services can also be accessed under the heading of Student Resources on the Student Affairs website: http://umanitoba.ca/student/studentlife/index.html.

History students can also take advantage of the huge range of academic materials (including primary and secondary sources, as well as pages to help with writing and referencing) made available by the History subject librarian, tailored just for you! They are available on the Libraries page at this link: http://libguides.lib.umanitoba.ca/history. Students who need research assistance can also schedule an appointment with a librarian through the website.

Student Counseling Centre

Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as counseling. http://umanitoba.ca/student/counselling/index.html

Student Support Case Management

Contact the Student Support Case Management team if you are concerned about yourself or another student and don't know where to turn. SSCM helps connect students with on and off campus resources, provides safety planning, and offers



other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team. <u>http://umanitoba.ca/student/case-manager/index.html</u>

University Health Service

Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation. <u>http://umanitoba.ca/student/health/</u>

Student Advocacy

Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns. http://umanitoba.ca/student/advocacy

UM History Student Association (UMHiSA)

UMHiSA is a history undergraduate student run organization that seeks to establish a sense of community for students studying all facets of history, and provide support for them in their academic career. Students interested in fun times, spirited debate, new opportunities, a community of like-minded students, or all of the above, check out UMHiSA on our Instagram account <u>www.instagram.com/umhisa_undergrad/</u> or by emailing <u>umhisau@gmail.com</u>.

WEEKLY SCHEDULE

Thurs Sept 5 – Introduction: terms, concepts, overview, opening thoughts

<u>Week 1: Original "organic" energy sources: Muscle power</u> Tues Sept 10 – Food and muscles – uses & characteristics Thur Sept 12 – Concentrating energies: the example of slavery **Weekly reading:** *Powering Up Canada*, Ch. 2 – G. Colpitts, "Food Energy and the Expansion of the Canadian Fur Trade" (p 39-58).

<u>Week 2: Original "organic" energy sources: Wood, wind, water</u> Tues Sept 17 – Wood Thur Sept 19 – Wind and water – uses & characteristics Weekly reading: *Powering Up Canada*, Ch. 5 – J. MacFadyen, "Hewers of Wood: A History of Wood Energy in Canada" (p 129-161).

Week 3: Empire and energy

Tues Sept 24 – Europe and the Americas: vast (and timely) new resources Thur Sept 26 – Africa and the transatlantic slave trade – guest lecture, Dr. Joy Chadya Weekly reading: *Powering Up Canada*, Ch. 6 – E. Sager, "Wind Power: Sails, Mills, Pumps, and Turbines" (p 162-184).

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Week 4: First "mineral" energy regime: COAL

Tues Oct 1 – Britain and coal Thur Oct 3 – The steam engine & the industrial revolution Weekly reading: *Powering Up Canada*, Ch. 7 – J. Clayton & P. Van Huizen, "Water Power before Hydroelectricity" (p 185-210).

<u>Week 5: The coal revolution</u> Tues Oct 8 – Why Britain and not China? The "Great Divergence" Thur Oct 10 – Larger world impacts of coal **Weekly reading:** *Powering Up Canada*, Ch. 8 – A. Watson, "Coal in Canada" (p 213-250).

<u>Week 6: Second "mineral" energy regime: OIL</u> Tues Oct 15 – **IN-CLASS TEST ON TEXTBOOK** Thur Oct 17 – How and why did oil replace coal? **Weekly reading:** *Powering Up Canada*, Ch. 10 – S. Penfold, "Petroleum Liquids" (p 274-299).

Week 7: The oil and gas revolution

Tues Oct 22 – How oil changed the world Thur Oct 24 – Oil and the Middle East – guest lecture, Dr. Jennifer Dueck Weekly reading: *Powering Up Canada*, Ch. 11 – C. Duncan & R. Sandwell, "Manufactured and Natural Gas" (p 274-299).

<u>Week 8: The oil powers</u> Tues Oct 29 – Politics and war Thur Oct 31 – The "superpowers" and the politics of oil

<u>Week 9: Electricity</u> Tues Nov 5 – Development and impacts Thur Nov 7 – Hydroelectricity case studies: Manitoba, China, Brazil **Weekly reading:** *Powering Up Canada*, Ch. 9 – M. Evenden & J. Peyton, "Hydroelectricity" (p 251-273).

FALL BREAK NOV 11-15 – NO CLASSES

<u>Week 10: Nuclear power</u> Tues Nov 19 – Origins and development Thur Nov 21 – Geopolitical impacts **Weekly reading:** *Powering Up Canada*, Ch. 12 –L.S. MacDowell, "Nuclear Power" (p 329-352).



Week 11: Fracking, tar sands, and pipelines

Tues Nov 26 – Politics of pipelines and the Alberta tar sands Thur Nov 28 – Hydraulic fracturing ("fracking") and its impacts

Week 12: Sustainable energy sources: choices and prospects

Tues Dec 3 – Solar, wind, geothermal power

Thur Dec 5 – Exam prep

