PSCI 1500B: Technology, Nature, Power

Monday 9:35-11:25
Location available on Carleton Central
Weekly discussion classes: Monday, as assigned

Professor: James Meadowcroft Office hours by appointment

Email: <u>james.meadowcroft@carleton.ca</u>

Course description: content, objectives, and outcomes

This course focuses on interactions among technological change, the evolution of social and political order, and the transformation of the environment. It will examine specific technologies, including those that helped to define modernity (the printing press, firearms, chemical fertilizers, automobiles), and those that are shaping the future (the internet, artificial intelligence, bioscience, drones). It will consider how technological trajectories have influenced, and been influenced by, political experiences and institutions including bureaucracy, human rights, inequality, and globalization. And it will link this to the dramatic remolding of our planet (through process such as climate change), and the altering of the human experience of nature.

The course will emphasize the connections among technology, nature, and power -- with power understood in multiple dimensions: including relations among humans, between humans and their technological creations, and between humans and the non-human natural world.

It is open to students from a variety of degree programs, and it is intended to encourage dialogue among those who are pursuing different fields of study and contemplating varied career choices. The course will encourage students to develop their critical thinking in relation to these challenging topics, as well as to develop their skills in research and academic writing.

By the end of the course students will be able to demonstrate:

- an understanding of the complex interconnections among technology, social and political order, and the transformation of the natural environment
- appropriate cognitive, communicative, and transferable skills, including the exercise of critical judgement, utilising academic literature, developing independent analysis and argument, writing an appropriately formatted and referenced research paper, and deepening the capacity for independent learning.

Course format

The course involves weekly two-hour lectures and one-hour seminar groups.

Assessment

20%	Seminar group participation and reading responses
20%	Course journal entries
10%	Mid-term quiz in class on February 12, 2024
25%	Short research paper due April 10, 2024
25%	Final exam (during scheduled examination period)

Seminar group participation (10%)

This mark reflects the contribution made to the discussion classes. Attendance, keeping up with the readings, and the quality and consistency of participation are all relevant. Students are expected to read the assigned material <u>before</u> class, think about the discussion questions, and attend all sessions. Students should be prepared to discuss ideas raised by the lectures and readings, and contribute their own perspective. Students may miss no more than <u>one</u> discussion class without suffering any penalty. After that, absences that are not supported by documentary evidence of extenuating circumstances (for example, illness, bereavement, etc.) will result in a reduction of participation marks (because you can't participate if you are not there!).

Reading responses (10%)

Students will take turns writing brief commentaries (700 words each) on class readings over the course of the semester. These commentaries will prepare them to contribute to the discussion on this reading in the discussion group. These reading responses should go beyond summarizing the reading to *critically assess arguments and provide pertinent observations related to the theme of class.* The commentary should give evidence of thought. They are to be uploaded to Brightspace by midnight on the Sunday before the Monday class for which the readings are assigned. (for example, by midnight on Sunday January 21, for the class on Monday January 22). Students should be prepared to present their reading response in the seminar. Students are expected to do two such responses over the semester. If you submit more, we will count the best two towards your final mark.

Students with student numbers ending in 1 and 2, should prepare reading responses for weeks 2 and 8. Those with student numbers ending in 3 and 4 should do week 3 and 9. Those with numbers ending in 5 and 6 should do weeks 4 and 10. Those with numbers ending in 7 and 8 should do weeks 5 and 11. And those with numbers ending in 9 and 0 should do weeks 6 and 12.

Course journal entries (20%)

Students will keep a class journal during semester, adding at least one entry a week on Brightspace that reflects on the themes raised by the course. <u>You do not have to make a journal entry for the two weeks for which you are preparing a 'Reading response'</u>.

Journal entries are a less formal style of writing than an essay, research paper or book review. The challenge is to consider what you learned during the week -- from lectures, the seminar group, assigned reading, exposure to media, and you own research -- that relates to the topic of the course. You may note observations, conclusions, questions, and other reflective elements. You may write on one issue or include several commentaries. The journal entries should be written write in complete sentences (not just phrases or tweets), but do not require a fully integrated argument as for an essay. You can refer to books, news reports, and current events that you found of interest.

The purpose is for you to make a very personal statement about your learning around 'technology, nature and power'. Assessment of these journal contributions will focus on the quality of the reflection evident in the entries as well as the range of material you integrate. Entries should draw on your personal experience with the material. For example, what did you learn that was surprising? How do the course topics relate to your personal experience, to what you are learning in other courses, to events covered in the media, or things experienced by your family or friends, and so on?

The assignment rubric in Brightspace provides further guidance and lists a variety of 'topics'/'assignments' to help guide your journal entries.

Each week's entry should be between 300 and 500 words in length (but you can write more if you have something to say). They should be submitted no later than midnight each Sunday night during the semester: (January 14, 21, 28; February 4, 11, 18; March 3, 10, 17, 24, 31; and April 5.)

Mid-term quiz (10%)

A multiple-choice mid-term quiz will be administered in class on February 12. This will help students gauge their progress in understanding the material covered in the course.

Short research paper (25%)

This is to be an original piece of work on a theme related to the course. Students are expected to examine material on a specialist subject that goes beyond the course reading list. The paper should have a clear analytical orientation. It is to be between 2,000 and 2,500 words long.

To ensure success with this project students must consult with their Teaching Assistant (by late February) to discuss their potential topic. They will then submit a short outline of the paper together with an annotated bibliography of initial sources; this is to be no more than two pages in

total and submitted by March 4. Successful engagement in this planning/preparatory process will be accorded a 20% weighting in the mark for the research paper component of the final grade. Further guidance on acceptable topics and good research essay techniques will be provided over the semester. The paper is due on April 10 and is to be submitted through Brightspace.

References should adopt the format of the American Psychological Association. See material on how to reference your paper on the Brightspace course page.

Late assignments without documented leave will be penalized at the rate of three percent per day. All work should be properly referenced and annotated.

Final Exam (25%)

This will be a two-hour exam, scheduled during the formal exam period. It will cover all the material presented in the lectures and associated readings. The paper will contain two equally weighted parts: (a) short answer questions, where students will be asked to provide short (5-6 line) responses to a list of specific questions; b) essay questions where students will write a brief essay answer on two topics (selected from a list of five).

Reading and other course materials

There is no textbook for this course. Readings and other course materials are available through Brightspace. There are two kinds of course materials:

- *Core readings*: these are mostly academic articles, book chapters, and reports. There are two readings each week that provide an introduction to the issues, an anchor for class discussion, and a basis from which students can extend their investigations.
- On-line material: these are additional readings, short commentaries, media sites, and video clips. These provide alternative points of entry into the issues and link to current events and debates.

To get the most from this course, students should explore *both* the core academic readings *and* the additional on-line learning resources. Students may find some of the core academic readings challenging. This is to be expected. <u>Do not be discouraged</u>. You are not meant to memorize the content or grasp all the points of an intricate argument. Rather these readings are intended to broaden your horizons and get you thinking about complex issues in different ways. If you have trouble with some of the core readings, dig into the on-line material for that week -- which typically approach the main theme in a more accessible manner.

Weekly core readings are listed later in this course outline. The supplemental on-line material (and appropriate web links) can be found on Brightspace.

The weekly program of activities is fully integrated, so the same set of readings and media apply. Students should ensure that they have done the associated readings and/or viewing BEFORE each class. Reading the assigned material is the only way that you will benefit fully from this course.

Administrative Rules

Email communication: all email communication sent to the professor and teaching assistants should have as its subject heading: PSCI 1500. Carleton requires students, staff and faculty to use Carleton email accounts when conducting University business.

Teaching Assistants

The teaching assistants assigned to this course are graduate students with knowledge related to the environment, technology, and politics. Their role is to enrich your experience with this course. They should be you first port of call with questions about classes, readings, assignments, marks, and the organization of the course.

Course Overview

Week 1: Technology, nature power: an introduction (January 8)

Week 2: A brief history of technology (January 15).

Discussion class 1

Week 3: The evolution of societal organization and power (January 22).

Discussion class 2

Week 4: The transformation of nature (January 29).

Discussion class 3

Week 5: The automobile (February 5).

Discussion class 4

Week 6: Agriculture and food systems (February 12).

Discussion class 5

Mid-term examination

Week 7: Winter break: no class (February 19).

Week 8: Fossil fuels and climate change (February 26).

Discussion class 6

Week 9: Sanitation, medicines, and health (March 4).

Discussion class 7

Short research paper outline due

Week 10: Conflict and war (March 11).

Discussion class 8

Week 11: Communications and information technologies: the digital revolution (March 18).

Discussion class 9

Week 12: Shaping technological futures: robots, AI, designer babies, geoengineering, and space travel? (March 25)

Discussion class 10

Week 13: Technology, nature, power: a synthesis (April 1) Final exam preparation

Detailed course program

PART 1 (weeks 1-4)

The first part of this course offers an overview of linkages among the development of technology, societal organization, and the transformation of the environment. The first lecture introduces the course. The following three lectures offer a tour of human development: first, from the standpoint of technological advance; second, tracking the evolution of social structures and power; and third, in terms of environmental transformations. In each case, the starting point serves to introduce interactions across the other two domains.

Week 1: Technology, nature power: an introduction (January 8)

This session presents the structure of the course and initiates preliminary reflection on substantive issues. The lecture will focus on what this course is about.

- 'Can we define technology'. In *Technology Matters*. David E. Nye. MIT Press, 2007, pp. 1-15.
- 'Technology and history: "Kranzberg's laws"'. Melvin Kranzberg. *Technology and Culture* 27 (1986): 544-560.

Supplementary material: see Brightspace No discussion class this week Please start you class journal in Brightspace

Week 2: A brief history of technology (January 15)

This session traces the historical development of human technology. It will introduce important concepts applied in understanding socio-technological systems, the social construction of technology and technological change.

Skills element: reading and taking notes.

- 'Technological systems and industrial society'. In *A Social History of American Technology*. Ruth Cowan and Matthew Hersch. Oxford University Press, 2nd edition, 2018, pp. 107-131.
- 'World history and energy'. Vaclav Smil. In the *Encyclopedia of Energy,* volume 6. Elsevier, 2004, pp. 549-61.

Supplementary material: see Brightspace

Discussion class 1: see questions for the week on Brightspace.

Week 3: The evolution of societal organization and power (January 22)

The week examines the evolution of human societies and power. The lecture will explore different forms of social power, how social organization influences technological pathways, and the ways technologies help define economic, social, and political power.

Skills element: writing a journal entry.

- 'The nitrate wars'. Extract from *The Alchemy of Air.* Thomas Hager. Broadway Books, 2008, pp. 25-62.
- 'Do artefacts have politics?'. Langdon Winner. *Daedalus* 109 (1980): 121-136.

Supplementary material: see Brightspace.

Discussion class 2: see questions for the week on Brightspace.

Week 4: The transformation of nature (January 29)

This lecture explores the transformation of the global biosphere associated with the social and technological development of humankind. Human societies have always (intentionally and unintentionally) transformed their environments. And it will examine the changing scale and scope of the impacts since the second half of the twentieth century.

Skills element: Academic writing: references and plagiarism

- Lead in petrol makes the mind give way. Herbert Needleman and David Gee. In *Late lessons from early warnings: science, precaution, innovation*. European Environment Agency. Report 1/2013, pp. 46-75.
- Planetary boundaries: Guiding human development on a changing planet. Will Steffan et al. *Science* 347, 1259855 (2015). DOI: 10.1126/science.1259855

Supplementary material: see Brightspace.

Discussion class 3: see questions for the week on Brightspace.

PART 2: (weeks 5-11)

The second part of this course focuses on integrating technical, social, and environmental dimensions around six specific cases defined by: the automobile; agriculture and food systems; fossil fuels and climate change; sanitation, medicine and health; conflict and war; and the digital revolution.

Week 5: The automobile (February 5)

This week explores the automobile -- a critical twentieth century technological artefact, whose rise was associated with the advent of modern consumer society and the affirmation of US geopolitical power. It will consider transformations currently shaking this industry including vehicle electrification, autonomous vehicles, and alternative mobility regimes.

- 'The city and the car'. Mimi Sheller and John Urry. *International Journal of Urban and Regional Research* 24 (2000): 737-757.
- 'Cars and second order consequences'. Benedict Evans. Comment: March 29, 2017.
 Available at: https://www.ben-evans.com/benedictevans/2017/3/20/cars-and-second-order-consequences

Supplementary material: see Brightspace.

Discussion class 4: see questions for the week on Brightspace.

Week 6: Agriculture and food systems (February 12)

This week focuses on agriculture as a system of production and consumption. Advances in agricultural techniques have allowed a massive expansion of human numbers and transformed global ecosystems.

Skills element: developing a topic for a research essay. Determining a research strategy.

- 'The Columbian exchange: a history of disease, food, and ideas'. Nathan Nunn and Nancy Qian. *The Journal of Economic Perspectives* 24 (2) (2010): 163-188.
- 'How sustainable agriculture can address the environmental and human health harms of industrial agriculture'. Leo Horrigan, Robert S. Lawrence, and Polly Walker. *Environmental* health Perspectives 110 (2002): 445-456. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240832/pdf/ehp0110-000445.pdf

Supplementary material: see Brightspace.

Discussion class 5: see questions for the week on Brightspace.

Week 7: Winter break: no class (February 19).

Week 8: Fossil fuels and climate change (February 26)

This week focuses on climate change, examining its historical emergence, the geopolitical structure of the problem, progress to date and potential solutions. It explores technological options and political strategies.

Skills element: writing a good research paper.

- 'The climate mitigation gap: education and government recommendations miss the most effective individual actions'. Seth Wynes and Kimberly A Nicholas 2017 *Environ. Res. Lett.* **12** 074024.
- 'Accelerating low-carbon energy transitions' James Meadowcroft and Daniel Rosenbloom, in Sustainable Energy Transition in Canada, eds. Mark Winfield, Stephen Hill and James Gaede, UBC Press, Vancouver, 2023.

Supplementary material: see Brightspace. Discussion class 6: see questions for the week on Brightspace.

Week 9: Sanitation, medicines, and health (March 4)

Developments in sanitation, medicine and health care have been critical to extending human life expectancy, shaping demographic patterns, and influencing life experiences. This week engages with knowledge, technologies, and power in this domain, dealing with issues ranging from water and sewage systems to drugs and pharmaceutical companies.

- 'A new global sanitary revolution: lessons from the past'. Ben Fawcett and Maggie Black.
 33rd Water, Engineering and Development Centre International Conference, Accra, Ghana,
 2008, pp 41-45.
- Two readings from Marc Andre Gagnon on the pharmaceutical industry: (a) 'New drug pricing: does it make any sense'. *Revue Prescrire*, June 2015; 35 (380): 457-461. AND (b) 'Corporate influence over clinical research: considering the alternatives'. *Revue Prescrire*, April 2012; 32 (342): 311-314.

Supplementary material: see Brightspace.

Discussion class 7: see questions for the week on Brightspace.

Week 10: Conflict and war (March 11)

Conflict has been a continuous feature of human society, and warfare and technologies related to war have played a critical role in the development of social systems and ultimately the transformation of the non-human natural world. This class will examine the entwining of civilian and military technologies, considering issues such as the civilian and military applications of nuclear technologies, and the 'military industrial complex'.

• 'Introduction'. *In War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring.* Edmund Russel. Cambridge University Press, 2001, pp 1-16.

• 'Liberal Preferences as an Explanation for Technology Choices. The Case of Military Robots as a Solution to the West's Casualty Aversion'. Niklas Schornig. In *The Global Politics of Science and Technology*, volume 2, Maximilian Mayer, Mariana Carpes, and Ruth Knoblich, Springer-Verlag, 2014, pp. 67-82.

Supplementary material: see Brightspace. Discussion class 8: see questions for the week on Brightspace.

Week 11: Communications and information technologies: the digital revolution (March 18)

This week deals with the internet, and the information and communication revolution more generally, looking at the technological trajectory that gave it birth and the social transformations with which it is associated. It will deal with issues such as the power of the 'tech giants', democracy and the manipulation of information, surveillance, online shopping, social media, the sharing economy', and so on.

- 'Liberation versus control: the future of cyberspace'. Ronald Deibert and Rafal Rohozinski, *Journal of Democracy* 21 (2010), pp. 43-57.
- 'The "sharing" economy: labour, inequality and social connection on for-profit platforms'.
 Julliet B. Schor and William Attwood-Charles. Sociology Compass 11 (2017) e12393.
 DOI: 10.1111/soc4.12493

Supplementary material: see Brightspace. Discussion class 9: see questions for the week on Brightspace.

PART 3 (weeks 12-13)

The final part of the course will focus on technologies which are remaking contemporary society and are likely to become even more important in the future. This includes biotechnology, robotics and Artificial Intelligence (AI), geoengineering and space travel.

Week 12: Shaping technological futures? Robots, AI, designer babies, geoengineering, and space travel (March 25)

This will examine technological futures and the extent to which it is possible to control technological development pathways. It will engage with a variety of novel technologies that are reshaping the modern word and that will help define the future: including biotechnology, nano technology, Al and robotics, space travel, and radically extending the human life span.

- 'Opening up the politics of knowledge and power in bioscience'. Andy Stirling. *PLoS Biol*ogy 10 (1) (2012) e1001233 doi:10.1371/journal.pbio.1001233.
- Four short readings on emerging technologies:

Designer babies: https://www.theguardian.com/science/2017/jan/08/designer-babies-ethical-horror-waiting-to-happen

Geoengineering: https://news.harvard.edu/gazette/story/2013/10/geoengineering-

opportunity-or-folly/

Artificial Intelligence: https://futureoflife.org/background/benefits-risks-of-artificial-

intelligence/

Extending the human lifespan: https://www.newyorker.com/magazine/2017/04/03/silicon-

valleys-quest-to-live-forever

Supplementary material: see Brightspace.

Discussion class 10: see questions for the week on Brightspace.

Week 13: Technology, nature, power: a synthesis (April 1).

This lecture will draw lessons from discussion over the preceding weeks.

Skills element: examination technique

- 'Technological revolutions and techno-economic paradigms'. Carlota Perez. *Cambridge Journal of Economics* 34 (2010): 185–202. doi:10.1093/cje/bep051
- 'The Anthropocene biosphere'. Mark Williams, Jan Zalasiewicz, PK Haff, Christian Schwägerl, Anthony Barnosky and Erle Ellis. *The Anthropocene Review* 2015, Vol. 2(3) 196–219.

Supplementary material: see Brightspace.

No discussion class this week.

Appendix

Student Mental Health

As a university student, you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. Here is a list that may be helpful:

Emergency Resources (on and off campus): https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/

Carleton Resources:

Mental Health and Wellbeing: https://carleton.ca/wellness/

- Health & Counselling Services: https://carleton.ca/health/
- Paul Menton Centre: https://carleton.ca/pmc/
- Academic Advising Centre (AAC): https://carleton.ca/academicadvising/
- Centre for Student Academic Support (CSAS): https://carleton.ca/csas/
- Equity & Inclusivity Communities: https://carleton.ca/equity/

Off Campus Resources:

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, https://www.dcottawa.on.ca/
- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, http://www.crisisline.ca/
- Empower Me: 1-844-741-6389, https://students.carleton.ca/services/empower-me-counselling-services/
- Good2Talk: 1-866-925-5454, https://good2talk.ca/
- The Walk-In Counselling Clinic: https://walkincounselling.com

Requests for Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Academic consideration for medical or other extenuating circumstances: Please contact your instructor if you are experiencing circumstances that (a) are beyond your control, (b) have a significant impact your capacity to meet your academic obligations, and (c) could not have reasonably been prevented. Decisions on academic consideration are in your instructor's discretion; they will be guided by the course learning outcomes and the principle of good faith. Please see here for more details. For considerations relating to course work, your instructor may request that you complete the Self-Declaration form. To apply for a deferral of your final exam, you must submit the Self-Declaration form to the Registrar's Office no later than three days after the scheduled examination or take-home due date.

Pregnancy accommodation: Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form (click here).

Religious accommodation: Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details <u>click here</u>.

Accommodations for students with disabilities: If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation, or contact your PMC coordinator to send your instructor your Letter of

Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, reach out to your instructor as soon as possible to ensure accommodation arrangements are made. For more details, click here.

Accommodation for student activities: Carleton University recognizes the substantial benefits, both to the individual student and to the university, that result from a student participating in activities beyond the classroom. Reasonable accommodation will be provided to students who engage in student activities at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more information, please click here.

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline.

Sexual Violence Policy

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated. Survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support.

Academic Integrity

Academic integrity is an essential element of a productive and successful career as a student. Carleton's <u>Academic Integrity Policy</u> addresses academic integrity violations, including plagiarism, unauthorized collaboration, misrepresentation, impersonation, withholding of records, obstruction/interference, disruption of instruction or examinations, improper access to and/or dissemination of information, or violation of test and examination rules. Students are required to familiarize themselves with the university's academic integrity rules.

Plagiarism

The Academic Integrity Policy defines plagiarism as "presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own." This includes reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include, but are not limited to: books, articles, papers, websites, literary compositions and phrases, performance compositions, chemical compounds, art works, laboratory reports, research results, calculations and the results of

calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Examples of plagiarism include, but are not limited to:

- Any submission prepared in whole or in part, by someone else;
- Using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- Using another's data or research findings without appropriate acknowledgement;
- Submitting a computer program developed in whole or in part by someone else, with or without modifications, as one's own; and
- failing to acknowledge sources through the use of proper citations when using another's work and/or failing to use quotations marks.

Use of Artificial Intelligence

Unless explicitly permitted by the instructor in a particular course, any use of generative artificial intelligence (AI) tools to produce assessed content (e.g., text, code, equations, image, summary, video, etc.) is considered a violation of academic integrity standards.

Procedures in Cases of Suspected Violations

Violations of the Academic Integrity Policy are serious offences which cannot be resolved directly with the course's instructor. When an instructor suspects a violation of the Academic Integrity Policy, the Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student. Penalties are not trivial. They may include a mark of zero for the assignment/exam in question or a final grade of "F" for the course. More information on the University's Academic Integrity Policy can be found at: https://carleton.ca/registrar/academic-integrity/.

Intellectual property

Student or professor materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

Submission and Return of Term Work

Papers must be submitted directly to the instructor according to the instructions in the course outline. The departmental office will not accept assignments submitted in hard copy.

Grading

Standing in a course is determined by the course instructor, subject to the approval of the faculty Dean. Final standing in courses will be shown by alphabetical grades. The system of grades used, with corresponding grade points is:

Percentage	Letter grade	12-point scale	Percentage	Letter grade	12-point scale
90-100	A+	12	67-69	C+	6
85-89	Α	11	63-66	С	5
80-84	A-	10	60-62	C-	4
77-79	B+	9	57-59	D+	3
73-76	В	8	53-56	D	2
70-72	B-	7	50-52	D-	1

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by an instructor may be subject to revision. No grades are final until they have been approved by the Dean.

Carleton E-mail Accounts

All email communication to students from the Department of Political Science will be via official Carleton University e-mail accounts and/or Brightspace. As important course and university information is distributed this way, it is the student's responsibility to monitor their Carleton University email accounts and Brightspace.

Carleton Political Science Society

The Carleton Political Science Society (CPSS) has made its mission to provide a social environment for politically inclined students and faculty. By hosting social events, including Model Parliament, debates, professional development sessions and more, CPSS aims to involve all political science students at Carleton University. Our mandate is to arrange social and academic activities in order to instill a sense of belonging within the Department and the larger University community. Members can benefit through our networking opportunities, academic engagement initiatives and numerous events which aim to complement both academic and social life at Carleton University. To find out more, visit us on Facebook https://www.facebook.com/CarletonPoliticalScienceSociety/.

Official Course Outline

The course outline posted to the Political Science website is the official course outline.