

**ERS 275 War and The Environment**  
**Spring Term 2021**  
**Syllabus**



Class: Online via LEARN (remote)  
Instructor: Kira Cooper  
Email: [kcooper@uwaterloo.ca](mailto:kcooper@uwaterloo.ca)  
Office hours: By appointment

**Course description**

This course will introduce students to the topic of war and the environment. It will explore how the environment can be instrumentalized in warfare and how warfare in turn shapes the environment. Through case studies of historical and modern conflicts, this course will examine how war and violence undermine sustainability progress and how we as consumers influence conflict. Additional topics including existential risks such as artificial intelligence, nuclear war, COVID-19, and climate change will also be addressed. Lastly, the course will explore reasons for hope in the age of the Anthropocene.

**Welcome message**

Welcome to ERS 275! I am very excited to have you join this course and hope that you find the content and assignments both interesting and engaging. Lectures are recorded and can be viewed at your convenience throughout the term. There are no required synchronous meetings, however, there will be opportunities to check in and have discussions throughout the term. Course deliverables consist of 2 written assignments, 1 short presentation (3-5 mins), and quizzes (best 2/3 count towards your final grade). There are also 2 opportunities for bonus marks.

### **Note on mental health**

It is in the nature of any course discussing war to cover a range of topics that can be very upsetting, especially for individuals who have personal experience with violent trauma. Please consider your mental health and wellbeing before, during, and after this course. If for any reason you are feeling overwhelmed by the content, know that there is free and confidential support available for you. More information and resources for mental health are available on LEARN and in the syllabus.

### **Learning objective and outcomes**

*Course objectives:*

The primary objective of this course is to develop an understanding of how war and conflict are linked with socio-ecological systems.

*By the end of term, students will be able to:*

1. Explain how war and conflict are linked with the environment;
2. List and describe socio-ecological impacts and drivers of violent conflicts;
3. Through a case study analysis, examine how resource consumption contributes to conflict;
4. Discuss how the war on nature impacts sustainability progress;
5. Investigate a conflict (either historical or present), and how it has shaped, and in turn been shaped by the socio-ecological environment; and
6. Examine reasons for hope in the age of the Anthropocene.

### **Required readings**

All course materials will be provided on the course website, which is accessible through UW-LEARN. You do not need to purchase any materials for this class.

### **Course website and general housekeeping**

All communications and correspondence will be shared through UW-LEARN. Please check here for announcements and other important information.

### **Communication**

I will be checking in regularly throughout the term via UW-LEARN. While there are no scheduled office hours, I am both happy and available to meet on an appointment basis. To schedule an appointment, discuss general course inquiries, or all other matters, I can be reached at [kcooper@uwaterloo.ca](mailto:kcooper@uwaterloo.ca). Be sure to include ERS 275 in the subject heading of your email. I do my best to return messages within 24 hours, except for messages received on weekends, when you can expect a response on Monday.

### **Course evaluation**

The following is a breakdown of how you will be graded for ERS 275. Information related to the assignments, presentations, bonus marks, and quizzes are available on LEARN.

	Grade	Due date	Grace period
<b>Bonus marks</b>			
Confidentiality Agreement & Statement of Honesty Form	1% <i>bonus</i>	May 17	May 19
Reflection: Reason for hope in the Anthropocene	1% <i>bonus</i>	July 26	July 28
<b>Course deliverables</b>			
Assignment 1	25%	May 26	May 28
Presentation: 5-minute flash talk (recorded)	15%	June 15	June 17
Assignment 2	30%	July 20	July 22
Quizzes (best 2 of 3 will count towards your final grade)	30%	July 26	July 28
Total	100%		
<b>**Note: All submissions are due by 12 PM EST**</b>			

### **Lateness**

This is a summer term course during an unusual time in history. Given that many of you are balancing co-op, work, and many other responsibilities, I want to be as supportive and understanding as possible. As such, I have made the following arrangements for grading:

- Instead of enforcing deadlines for each of the quizzes, they will all stay open until July 28, 2021 (after which time they will not be graded). You are free to complete the quizzes throughout the term, whenever it is most convenient to do so. Your best 2/3 quizzes will count towards your final mark.
- Assignment deadlines will be granted an automatic 2-day grace period wherein no notes, emails, or explanations are needed. This means that you can submit your assignment by the end of the grace period without any penalty to your grade.
- I am also offering ONE “get out of lateness free” card, which can be this term to applied one time to either Assignment 1 OR Assignment 2. More information is available on LEARN.

## Confidentiality Agreement & Statement of Honesty Form

- You will receive a 1% BONUS to your final grade if you submit the confidentiality agreement by **May 19<sup>th</sup> at 11:59 PM EST**. Otherwise, you will just receive a completion mark. Note, your assignments will receive a grade of 0 unless this form is signed and submitted.

## Reflection

- There is an opportunity earn an additional 1% bonus mark if you submit an example of a reason for hope during the age of the Anthropocene. More information is available on LEARN.

## Schedule

Assigned readings will consist of a range of materials including journals, reports, short films, documentaries, news articles, and so forth. I think it is important to gather information from a variety of sources to paint a more representative picture of the issues we will be covering. All materials, including recorded lectures, are available via LEARN.

Week		Topic	Readings
1	May 10	Introduction and course overview What is war?	Course syllabus
2	May 17	Drivers of war and conflict	(Peters, 2021) (Homer-Dixon, 1994)
3	May 24	Resource wars	(Watts, 2003) (Le Billon, 2007)
4	May 31	War and human health	(Bendavid et al., 2021) (Olivier et al., 2021)
5	June 7	War and the physical environment	(Tortorici & Fiorito, 2017) (Clerici et al., 2020) (Grima & Singh, 2019)
6	June 14	War on nature	Sharkwater (Documentary)* (Briggs, 2020)
7	June 21	Colonialism and imperialism	(Pasternak & Dafnos, 2018) (Harris, 2004)
8	June 28	Powering the war machine	(Novta & Pugacheva, 2021) (Belcher et al., 2020)

9	July 5	Presentations	No readings, please review presentations
10	July 12	Disasters and conflict	(Xu et al., 2016) (Menton et al., 2021) (Leyl, 2021)
11	July 19	Emerging technologies and existential risks	(Bostrom, 2019) (The Social Dilemma**)
12	July 26	Hope in the Anthropocene	(Goodall, 2003) (Baraniuk, 2017)
<p>*Link to viewing platform via UW Library will be provided on LEARN.  **UW library is trying to obtain screening rights to <i>The Social Dilemma</i>. If you have access to Netflix or other streaming services, please watch this film! In the event that UW library cannot get a copy of this documentary in time, this assigned reading will be replaced with other materials. (If we do not watch this film in class, it will <i>not</i> be included on a quiz).</p>			

### Referencing

Please reference all thoughts, images, lectures, and other materials that are not your own using the accepted [APA method](#). Be sure to include appropriate identifiers in-text and in the bibliography (e.g., a, b, c) to differentiate between lectures if you intend to cite more than one.

For example:

Cooper, KJ. (2021a). *This is how you cite a lecture*. University of Waterloo LEARN. URL

Cooper, KJ. (2021b). *Proper citation is key to writing*. University of Waterloo LEARN. URL

### Copyright and intellectual property

Students should be aware that this course contains the [intellectual property](#) of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent). For more information, please consult [Policy 73 – Intellectual Property Rights](#). In summary, no part of this course can be shared or posted on the internet.

### **Academic integrity**

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check the [Office of Academic Integrity](#) for more information.]

### **Grievance**

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4](#). When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

### **Discipline**

A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. [Check [the Office of Academic Integrity](#) for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to [Policy 71, Student Discipline](#). For typical penalties, check [Guidelines for the Assessment of Penalties](#).

### **Appeals**

A decision made or penalty imposed under [Policy 70, Student Petitions and Grievances](#) (other than a petition) or [Policy 71, Student Discipline](#) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72, Student Appeals](#).

### **Note for students with disabilities**

[AccessAbility Services](#), located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with [AccessAbility Services](#) at the beginning of each academic term.

### **Turnitin.com**

Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course. It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.

### **Religious Observances**

Students must inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

### **Communications with Instructor**

All communication with students must be through either the student's University of Waterloo email account or via LEARN. If a student emails the instructor from a personal account, they will be requested to resend the email using their personal University of Waterloo email account.

### **Recording lecture**

Use of recording devices during lectures is only allowed with explicit permission of the instructor of the course. If allowed, video recordings may only include images of the instructor and not fellow classmates. Posting of videos or links to the video to any website, including but not limited to social media sites such as: facebook, twitter, etc., is strictly prohibited.

### **Mental Health**

The University of Waterloo, the Faculty of Environment and our Departments/Schools consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges - physical and / or emotional. **Please note that help is available.** Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services <http://www.uwaterloo.ca/counselling-services> is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

### **Co-op interviews and class attendance**

Co-op students are encouraged to try and choose interview time slots that result in the least

amount of disruption to class schedules. When this is challenging, or not possible, a student may miss a portion of a class meeting for an interview. Instructors are asked for leniency in these situations; but, a co-op interview does not relieve the student of any requirements associated with that class meeting. When a co-op interview conflicts with an in-class evaluation mechanism (e.g., test, quiz, presentation, critique), class attendance takes precedence and the onus is on the student to reschedule the interview. CEE provides an interview conflict procedure to manage these situations. Students will be required to provide copies of their interview schedules (they may be printed from WaterlooWorks) should there be a need to verify class absence due to co-op interviews.

### Student Resources

<a href="#">Academic advisors</a>	<a href="#">Good 2 Talk or 1-866-925-5454</a>
<a href="#">AHS Peer Mentorship Program</a>	<a href="#">Here 24 Seven or 1-844-HERE247 (1-844-437-3247)</a>
<a href="#">International Student Resources</a>	<a href="#">Recreation and Athletics</a>
<a href="#">Student Financial Services</a>	<a href="#">Grand River Hospital Mental Health</a>

### Reading list:

Baraniuk, C. (2017). *The animals thriving in the Anthropocene*.

<https://www.bbc.com/future/article/20170801-the-animals-thriving-in-the-anthropocene>

Belcher, O., Bigger, P., Neimark, B., & Kennelly, C. (2020). Hidden carbon costs of the “everywhere war”: Logistics, geopolitical ecology, and the carbon boot-print of the US military. *Transactions of the Institute of British Geographers*, 45(1), 65–80.

<https://doi.org/10.1111/tran.12319>

Bendavid, E., Boerma, T., Akseer, N., Langer, A., Malembaka, E. B., Okiro, E. A., Wise, P. H., Heft-Neal, S., Black, R. E., Bhutta, Z. A., Bhutta, Z., Black, R., Blanchet, K., Boerma, T., Gaffey, M., Langer, A., Spiegel, P., Waldman, R., & Wise, P. (2021). The effects of armed conflict on the health of women and children. *The Lancet*, 397(10273), 522–532.

[https://doi.org/10.1016/S0140-6736\(21\)00131-8](https://doi.org/10.1016/S0140-6736(21)00131-8)

Bostrom, N. (2019). The Vulnerable World Hypothesis. *Global Policy*, 10(4), 455–476.

<https://doi.org/10.1111/1758-5899.12718>



- Briggs, H. (2020, April 5). Coronavirus: Putting the spotlight on the global wildlife trade. *BBC News*. <https://www.bbc.com/news/science-environment-52125309>
- Clerici, N., Armenteras, D., Kareiva, P., Botero, R., Ramírez-Delgado, J. P., Forero-Medina, G., Ochoa, J., Pedraza, C., Schneider, L., Lora, C., Gómez, C., Linares, M., Hirashiki, C., & Biggs, D. (2020). Deforestation in Colombian protected areas increased during post-conflict periods. *Scientific Reports*, *10*(1), 4971. <https://doi.org/10.1038/s41598-020-61861-y>
- Goodall, J. (2003). Disturbing Facts about War and the Environment. *Frontiers in Ecology and the Environment*, *1*(6), 283–283. <https://doi.org/10.2307/3868073>
- Grima, N., & Singh, S. (2019). How the end of armed conflicts influence forest cover and subsequently ecosystem services provision? An analysis of four case studies in biodiversity hotspots. *Land Use Policy*, *81*, 267–275. <https://doi.org/10.1016/j.landusepol.2018.10.056>
- Harris, C. (2004). How Did Colonialism Dispossess? Comments from an Edge of Empire. *Annals of the Association of American Geographers*, *94*(1), 165–182. <https://doi.org/10.1111/j.1467-8306.2004.09401009.x>
- Homer-Dixon, T. F. (1994). Environmental scarcities and violent conflict: Evidence from cases. *International Security*, *19*(1), 5–41.
- Le Billon, P. L. (2007). Geographies of War: Perspectives on ‘Resource Wars.’ *Geography Compass*, *1*(2), 163–182. <https://doi.org/10.1111/j.1749-8198.2007.00010.x>
- Leyl, S. (2021, February 5). Mark Carney: Climate crisis deaths “will be worse than Covid.” *BBC News*. <https://www.bbc.com/news/business-55944570>
- Menton, M., Milanez, F., Souza, J. M. de A., & Cruz, F. S. M. (2021). The COVID-19 pandemic intensified resource conflicts and indigenous resistance in Brazil. *World Development*, *138*, 105222. <https://doi.org/10.1016/j.worlddev.2020.105222>

- Novta, N., & Pugacheva, E. (2021). The macroeconomic costs of conflict. *Journal of Macroeconomics*, 68, 103286. <https://doi.org/10.1016/j.jmacro.2021.103286>
- Olivier, A., Guy, F., & Julia, M. (2021). The long-run effects of war on health: Evidence from World War II in France. *Social Science & Medicine*, 113812. <https://doi.org/10.1016/j.socscimed.2021.113812>
- Pasternak, S., & Dafnos, T. (2018). How does a settler state secure the circuitry of capital? *Environment and Planning D: Society and Space*, 36(4), 739–757. <https://doi.org/10.1177/0263775817713209>
- Peters, L. E. R. (2021). Beyond disaster vulnerabilities: An empirical investigation of the causal pathways linking conflict to disaster risks. *International Journal of Disaster Risk Reduction*, 55, 102092. <https://doi.org/10.1016/j.ijdrr.2021.102092>
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- Watts, M. (2003). Economies of Violence: More Oil, More Blood. *Economic and Political Weekly*, 38(48), 5089–5099.
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