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LAW 931-001: *Climate Change Law & Policy*

University of Pennsylvania Law School

Professor Mark P. Nevitt - Sharswood Fellow, Lecturer in Law

Spring 2019 | Tuesday - Thursday 3:00 – 4:20 | Tannenbaum 320

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Course Overview: Climate change is one of the most challenging problems facing humankind. This semester, we will confront this problem head-on from a legal and policy perspective. Smart, solution-oriented lawyers will play a critical role in addressing the myriad problems caused by climate change.

Learning Objectives:

- Explain the basic causes of climate change and how it impacts the U.S. and global communities.
- Understand core climate change terms such as “climate adaptation” and “mitigation.”
- Understand the state of climate change litigation and the governing domestic legal framework to address climate change.
- Understand the main legal components of the formal international law frameworks (i.e. UN Framework Convention on Climate Change and the Paris Agreement).
- Explain the role of climate innovation and business in broader climate change laws and policies.
- Understand “climate change federalism” and the role of sustainability initiatives already underway at the state and local level.

Grading:

- A final examination will comprise 50% of the grade.
- Class participation as well as an in-class presentation (related to your research paper) will comprise 30% of the grade.
- A short paper will comprise 20% of the grade.

Oral Presentation & Paper:

- Every student will make a 10-12 minute presentation followed by a short Q+A session. Be sure to have 2 or 3 “take home” messages.
- The paper/presentation should address how a particular nation, state, locality, or industry is responding to climate change.
- I will issue the presentation schedule before spring break so you have adequate time to prepare. These presentations will begin immediately after spring break once you have a “feel” for the applicable laws, subject matter and research on your topic.
- Your presentation is related to your paper topic. Part of the goal of the presentation is to synthesize your research to assist you prior to handing in the final paper.
- As this course addresses both the law with policy implications, please be as clear as possible about what the *law* is and what the applicable *policy* is.

- You will write a summary paper of *your presentation topic* to be handed in at the end of the semester. This summary paper should be approximately 10 pages, 12-point font, Times New Roman, double-spaced. Please do not exceed 12 pages.
- Topics should be e-mailed to me by February 23rd.

Key Dates:

- Paper/Presentation Topic Selection Due: **February 23rd** (e-mail to me is fine).
- **Final Paper: Monday, April 29th, 5:00 p.m. EST** (I will provide a link to upload this)

Electronics & Absences:

- Laptops are permitted but must be used for class purposes only.
 - I feel strongly about this, and allow laptops but my views are mostly aligned with Prof. Cole's views at Georgetown, [here](#).
- Please let me know if you're going to miss a class. You are allowed to miss one class without explanation, though again, prior notice is appreciated. For any further absences (e.g. family/medical) please come talk to me. Inconsistent attendance may affect your final grade.

Required Book: Michael Gerrard & Jody Freeman, *Global Climate Change and U.S. Law (2nd edition)* **Please note: while this book focuses on U.S. law, there will be a significant international and national security law component to this course.

Exam: There is a 3-hour, open-book final examination.

Our Mutual Commitments

- If you have any questions about the course material I want to be as accessible to you throughout this semester as possible to ensure you are working towards the learning objectives, understand the material, and generally are enjoying the course.
- You likely selected this class because you have an interest in the topic. Climate Change Law & Policy is a rapidly developing area of law and I will do everything within my power to keep you apprised of the latest developments and bring in relevant guest speakers.
- You will be prepared for class and be ready to engage in class discussion upon arrival.

Schedule of Classes and Readings

Readings are incorporated into the syllabus, found in the book, or otherwise placed on Canvas. Please contact me if you are having difficulty accessing any portion of the reading.

Please note that readings may change to accommodate recent developments and to adjust for guest lecturers' schedules. In addition to the reading, you are highly encouraged to stay up to date on the latest climate change matters that are discussed in the news. Doing so will only assist in your participation grade. We will often begin each class with an "in the news" section on changes in climate change law and policy. Class assignments include a combination of readings, podcasts, and videos.

Part I: Climate Change: Overview and Scientific Basis

1. January 15th – Course Overview & Introduction

- Course Introduction and Administrative Remarks
- Review: Ryan Lizza, *As the World Burns* (The New Yorker, Oct 11, 2010)
- Class Video: Vicki Arroyo [Ted Talk presentation](#) – (to be watched in class)

2. January 17th – The State of Climate Science

- [Fourth National Climate Assessment – Report in Brief](#)
 - i. https://nca2018.globalchange.gov/downloads/NCA4_Report-in-Brief.pdf
 - ii. Read Summary Findings (11-21) and Read enough of Overview (pages 22-55) to convince your climate change skeptic uncle at Thanksgiving that climate change is real and caused by humans. 😊
- [UNIPCC – Global Warming of 1.5 degrees Celsius: Summary for Policy Makers](#)
- **Guest Speaker: Professor Irina Marinov, University of Pennsylvania**

Part II: Domestic Climate Change Law & Policy (Federal, State, Localities)

3. January 22nd – What’s Law Got to Do With It?

- *Gerrard & Freeman*, Chapter 1 (Introduction & Overview)
- Listen: State of U.S. Climate Law podcast (Council on Foreign Relations) -- Susanne Brooks link - <https://www.cfr.org/podcasts/us-climate-policy-susanne-brooks> (34 minutes)

4. January 24th - U.S. Domestic Law & Authority to Regulate - Mitigation

- *Gerrard & Freeman*, Chapter 3 (Evolution of U.S. Climate Policy)
- *Massachusetts v. EPA*, 549 U.S. 497 (2007).
 - i. Please read the entire opinion, but focus on Justice Stevens’ majority opinion

5. January 29th - U.S. Domestic Law & Authority to Regulate – Mitigation II

- *Gerrard & Freeman*, Chapter 4 (Clean Air Regulation)
- The Federal Common Law: *American Electric Power Co. v. Connecticut et. al.* 564 U.S. 410 (2011).
 - i. Please read Justice Ginsburg’s opinion closely. After *AEP*, what is the status of federal common law nuisance claims? State common law? Administrative Procedure Act challenges?

6. January 31st – U.S Domestic Law & Authority to Regulate (NEPA + Civil Remedies)

- Read: *Gerrard & Freeman, Chapter 5 Environmental Impact Review*
- Read: *Gerrard & Freeman, Chapter 8 Civil Remedies*

7. February 5th – The Role of State and Local Governments

- *Gerrard & Freeman*, Chapter 10 (State Initiatives)

- Editorial, *States will Lead on Climate Change in the Trump Era*, NY Times (Dec. 26, 2016), <http://www.nytimes.com/2016/12/26/opinion/states-will-lead-on-climate-change-in-the-trump-era.html>
- Vicky Arroyo et. al, *State Innovation on Climate Change: Reducing Emissions from Key Sectors While Preparing for a “New Normal,”* 10 *HARV. L. & POLY REV.* 385-393, 415-425 (2016).
- As part of your class reading assignment, look at what your hometown state is doing to address climate change. Is there a State Climate office? Office of Sustainability? Are there laws addressing climate change (or its effects such as sea level rise) within your state? We will discuss in class.

8. February 7th – Climate Change Adaptation - Flooding

- **Guest Speaker:** Ms. Shana Udvardy, UNION OF CONCERNED SCIENTISTS
- **Read:** *Underwater: Rising Seas, Chronic Floods and the Implications for U.S. Coastal Real Estate*, UNION OF CONCERNED SCIENTISTS
- **Skim:** <https://www.ucsusa.org/sites/default/files/attach/2018/06/underwater-insights-from-market-experts.pdf>

9. February 12th – The Role of State and Local Governments (Part II)

- *Gerrard & Freeman*, Chapter 12 (Local Initiatives)
- [Oliver Milman, The Fight Against Climate Change: Four Cities Leading the Way in the Trump Era The Guardian 12 Jun 17](#)
- [Jean Galbraith, AJIL Unbound, Two Faces of Foreign Affairs Federalism and What They Mean for Climate Change Mitigation](#)
- Optional: [Jonathan Rosenbloom, Fifty Shades of Gray Infrastructure: Land Use and the Failure to Create Resilient Cities](#)
- As part of your class reading assignment, look at what your hometown city (or closest major city) is doing to address climate change. Is there a local climate resiliency plan? An office of sustainability? How is climate change part of your state or localities long-term planning? What are the legal issues associated with state and local government action? We will discuss in class.

10. February 14th – No Class

11. February 19th Climate Adaptation Law

- **Read:** *Gerrard & Freeman*, Chapter 20: *Climate Adaptation Law*
- **Case Study:** Norfolk, VA Pilot Project
- **Skim:** [Legal Primer, Intergovernmental Panel Climate Project](#)

12. February 21st- Transportation and Land Use

- *Gerrard & Freeman*, Ch. 15: Transportation and Land Use
- [Gabe Pacyniak, Reducing Greenhouse Gas Emissions from Transportation, November 2015](#) (Georgetown Climate Center) [Read Executive Summary, Backgrounds and Findings]
- Uber/Lyft Reading: <https://www.ecowatch.com/uber-lyft-climate-solution-2615127829.html>

- Vision Zero reading: *Climate Change and Street Design* - <https://www.curbed.com/2018/10/10/17957532/climate-change-street-design-vision-zero>
- As part of your class reading assignment, pick one of your favorite cities (anywhere in the world) and research how transportation is being changed in response to climate change. More bike lanes? A new pedestrian plan? Vision Zero efforts?

13. February 26 – The Role of the EPA and the Waxman-Markey Act

- Guest Speaker: Mr. Michael Goo
- Skim *Gerrard & Freeman (Chapter 11 – Cap and Trade)* to understand the basic mechanics and legal issues associated with this technology.
- [7 Years Later, Failed Waxman-Markey Bill Still Makes Waves \(E&E News\)](#)

14. February 28 State of Climate Litigation - What is Old is New Again

- Nevitt & Percival, [Could Official Climate Denial Revive the Common Law of Nuisance?](#) 96 WASH. U. L. REV. ____ (2018). Please focus on Parts III & IV.
- *Juliana v. United States*, 217 F. Supp. 1224 (D. Or. 2016). Read enough to grasp the facts and Parts III and IV.
- Juliana Litigation – Adam Liptak, [Supreme Court Lets Youth Case Demanding Climate Action Proceed](#), Nov. 2, 2018.
 - i. In addition, be familiar with the latest developments in the Juliana case tracker here: <http://climatecasechart.com/case/juliana-v-united-states/>

**Spring Break, Week of March 4-8 –
Presentations Begin Following Break**

Part III: International Climate Change Law

15. March 12th: International Environmental Law Part I

- *Gerrard & Freeman*, Chapter 2 (*The International Climate Regime*)
- Read [Text](#) - United Nations Framework Convention on Climate Change (UNFCCC)

16. March 14th: International Environmental Law Part II

- Read: Paris Agreement Text <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>
 - i. Skim 1-21 and focus on the text of the agreement
- Read: Radoslov Dimitrov, [The Paris Agreement on Climate Change, Behind Closed Doors](#)
- Read: Michael Kimmelman, *The Dutch Have Solutions to Rising Seas: The World is Watching*, NY Times 15 Jun 2017
- Agriculture, Meat and Climate Change – Mark Hertsgaard, *Harvesting a Climate Disaster*, NY TIMES 12 Sep 12
- Andrew C. Revkin, *Poor Nations to Bear Brunt as World Warms*, N.Y. TIMES, Apr. 1, 2007.

Part IV: Climate Change & Energy

17. **March 19th – Guest Speaker: Energy (Mr. Doug Copeland)**
- *Skim: Gerrard & Freeman*, (Chapter 13: Electricity Background & Trends)

18. **Wednesday March 20 – Class Makeup (Nuclear Discussion)**

- **1:30 – 2:50 (T-345)**
- Is Nuclear Dead? Brad Plumer, *How Retiring Nuclear Power Plants May Undercut U.S. Climate Goals*, NY TIMES, 13 June 2017.
- Watch TED TALK: [Stewart Brand & Mark Z. Jacobson, *Does the World Need Nuclear Energy* \(Feb., 2010\).](#)
- CFR – The President’s Inbox: Energy and Climate.
<https://www.cfr.org/podcasts/presidents-inbox-energy-and-climate-change>
- [Jonathan Chait, *The Sunniest Climate-Change Story You’ve Ever Read*, N.Y. Magazine, Sept. 7, 2015](#)

19. **March 21st (Thursday): No Class**

V. Climate Security

20. **March 26th: Climate Security I: Overview and Domestic Law**

- Sarah Light, [Valuing National Security](#), 61 UCLA L. Rev. 1772 (2014).
- David A. Titley, *A Military View on Climate Change: It’s Eroding our National Security and We Should Prepare for It* (Oct. 6, 2016), <https://theconversation.com/a-military-view-on-climate-change-its-eroding-our-national-security-and-we-should-prepare-for-it-65535>.
- [Environmental and Energy Study Institute, *The National Security Impacts of Climate Change*](#)
- [Wharton Kleinman Energy Podcast](#) (Andy Stone and Mark Nevitt – Jan. 16th)

21. **March 28th - International Climate Security Part II: The Melting Arctic**

- [Nevitt & Percival, *Polar Opposites: Assessing the State of Environmental Law in the World’s Polar Regions*, 59 B.C. L. Rev. 1655 \(2018\).](#) Read Arctic Section and Parts III and IV; skim Antarctica Section
- Mark Nevitt, [Just Security Post: *Climate Change and Arctic Security*](#)
- Jugal Patel & Henry Fountain, [As Arctic Ice Vanishes, New Shipping Routes Open](#), N.Y. Times, 3 May 2017.

22. **April 2nd – International Climate Security Part III**

- Mark Nevitt, *The Commander in Chief’s Authority to Combat Climate Change*, 37 Cardozo Law Review 437 (2015) (Please Focus on Part IV).
- [Mark Z. Jacobson, *Written Testimony to U.S. House of Representatives Committee on Energy and Commerce* \(Nov. 19, 2015\).](#)
- [Climate Change will Stir Unimaginable Refugee Crisis, Says Military 11 Dec 2016](#)

23. **April 4th: National Security and Climate Change Part IV**

- **[Mr. John Conger Presentation]**

Part VI: Climate Change, Creative Lawyering and a Hopeful Future

24. April 9th: International Threats and International Litigation

- **Presentations Begin**
- [Urgenda Foundation Litigation](#): This is a complex opinion; read enough to understand the basic issues being challenged and the Court's decision.
- Read 48-68, Kristen Davies, [The Warming War: How Climate Change is Creating Threats to International Peace and Security](#), 30 Geo. Envtl. L. Rev 48 (2017).

25. April 11th: Clean Power Plan (Update)

- **We will discuss the current state of litigation, generally.**
- **Please be familiar with current Administration actions on the CPP [here](#).**
- Please read this [CRS summary](#) of Clean Power Plan, focusing on background, statutory authority, and judicial review.

26. April 16th: Carbon Taxation and Cap & Trade— Who Doesn't Love New Taxes?

- [Larry Summers Op-Ed \(Washington Post\)](#)
- [Coglianese and Nevitt Op-Ed \(Washington Post\)](#)
- Reuven S. Avi-Yonah & David Uhlmann, *Combatting Climate Change: Why a Carbon Tax is a Better Response to Global Warming than Cap & Trade*, 28 STAN. ENVT'L. L.J. 3 (2009). Read pages 4-8; 28-50.
- Martin Feldstein et al. [A Conservative Case for Climate Action](#), N.Y. Times, Feb. 8, 2017.
- Keystone XL Pipeline – find the latest information on the Keystone XL pipeline and be prepared to answer the question – where does this stand legally today?

27. April 18th: No Class

28. April 23rd: Carbon Capture and Carbon Technology – Wasted Effort or Silver Bullet?

- [Elizabeth Kolbert, Going Negative: Can Carbon Dioxide Removal Save the World?](#), *The New Yorker*, (Nov. 20, 2017). (You can listen to the audio or read - your choice!)
- Skim: *Gerrard and Freeman Chapter 17* (Carbon Capture & Sequestration).
 - i. Please read enough to get a basic understanding of the technology and the legal issues associated with carbon capture & sequestration.
- Fossil Fuel Divestment: Bill McKibben, *The Movement to Divest from Fossil Fuel Gains Momentum*, *The New Yorker* (Dec. 21, 2017)
- Research: Alaska National Wildlife Refuge (ANWR) Drilling – what is the status?

29. April 25th: Course Recap and Summation

- *Gerrard and Freeman: Chapter 23*.
- Gina McCarthy – [Get Moving with Climate Action](#)
- Course Summary and Final Presentations

****Final Papers Due: Monday, April 29th, 5:00 p.m. EST****

