

### GENERIC ELECTIVES (GE-3): Climate Change and Human History

#### Credit distribution, Eligibility and Pre-requisites of the Course

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course
		Lecture	Tutorial	Practical/ Practice		
Climate Change and Human History	4	3	1	0	12 th Pass	NIL

#### Learning Objectives

Climate change is an urgent and significant global challenge that has far-reaching implications for human societies. This course explores the historical dimensions of climate change and its impact on human civilizations. By examining the complex relationship between climate, global warming and cooling, and human societies, students will gain a comprehensive understanding of how we arrived at the current state of the climate crisis, which is considered a defining feature of the Anthropocene era. By introducing students to interdisciplinary, it welcomes students from various academic backgrounds, including humanities and social sciences. By integrating perspectives from different disciplines, we aim to foster a comprehensive understanding of climate change as a multifaceted issue with profound implications for human societies. The course critically analyzes climate change denialism, exploring its historical roots, ideological underpinnings, and its impact on public discourse and policy-making.

#### Learning outcomes

After completing this course, students should be able to -

- Understand the historical relationship between climate and human societies.
- Explore climate as an active historical actor rather than a passive backdrop.
- Examine case studies from around the world to illustrate the impact of climate on human civilizations.
- Gain insights into the history of weather and climate.
- Analyze the phenomenon of climate change denialism and its historical and ideological roots.
- Foster interdisciplinary dialogue and collaboration among students from different academic backgrounds.

#### SYLLABUS OF GE

**Unit 1:** Anthropogenic Climate Change and Studying History

**Unit 2:** End of the Ice Age and the Early Holocene Human History; Plant and Animal Domestication; Civilisations; Mining

**Unit 3:** Climate Disasters and Social Transformations-Empires; Wars; Famine: Population Movements and Migrations

**Unit 4:** Little Ice Age and Seventeenth Century Crisis

**Unit 5:** Capitalism and Nature- Climate Change Denialism vs. Climate Justice; Metabolic Rift; Planetary Boundaries.

## **Practical component (if any) - NIL**

### **Essential/recommended readings**

**Unit 1:** The unit explains the concept of climate change and how climate can be studied as a historical actor. The unit is also aimed to evaluate the various scientific traditions that engage anthropogenic climate change. This will enable the students to appreciate the history of scientific ideas on the issues of global warming and the Anthropocene. (Teaching time: 9 hours approx.)

#### **Readings:**

- James R. Fleming, "Climate, Change and History", *Environment and History*, Vol. 20, No. 4, (November 2014), pp. 577-586
- David Wallace-Wells, *The Uninhabitable Earth: Life After Warming* (New York: Tim Duggan Books, 2019).
- Steffen, Will, Crutzen, Paul J and McNeill J. R. (2008). "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature", *Ambio*, Vol. 36, No.8, pp. 614-621.
- Michael E. Mann, *The Madhouse Effect: How Climate Change Denial Threatening Our Planet* (New York: Columbia University Press, 2016), Chapter 2, pp. 15-29;

**Unit 2:** This unit will examine the influence of climate on human civilisations, including the ecological, migratory, and cultural implications of changing climate conditions. They provide a deeper understanding of how past climatic shifts have impacted the trajectory of human societies. This unit shall provide overview on how domestication and agriculture began with the end of the Ice Age and what was the influence of climate on human civilisations. (Teaching time: 3 weeks approx..- 9 lectures)

#### **Readings:**

- R. Fleming, *Historical Perspectives on Climate Change* (New York: Oxford University Press, 1998).
- John L. Brooke, *Climate Change and the Course of Global History* (New York: Cambridge University Press, 2014), Chapter 7.
- Vardy, Mark, Michael Oppenheimer, Navroz K. Dubash, Jessica O'Reilly, and Dale Jamieson. "The Intergovernmental Panel on Climate Change: Challenges and Opportunities." *Annual Review of Environment and Resources*, Vol. 42, No.1, (2017), pp. 55-75.

**Unit 3:** The unit examines how shifts in climate, including cooling temperatures and droughts, disrupted agricultural production, weakened the empire's economy, and contributed to social and political instability. The unit also considers the role of climate change as contributing factor to the collapse of the empires of the past centuries. (Teaching time: 9 hours approx.)

#### **Readings:**

- Kyle Harper, *The Fate of Rome: Climate, Disease, and the End of an Empire*
- Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed*. New York: Viking 2005, pp. 157-177.
- Joseph Tainter, *Collapse of Complex Societies*. Cambridge: CUP, 1988, pp. 1-21.
- Brian M. Fagan. *Floods, Famines and Emperors: El Nino and the Fate of Civilizations*. Basic Books, 1999.
- Vasile Ersek, *How climate change caused the world's first ever empire to collapse*, *Future of the Environment*, 9th January 2019, <https://www.weforum.org/agenda/2019/01/how->

**Unit 4:** This unit enquires into the Seventeenth Century Crisis that coincided with the peak of the Little Ice Age and refers to a period of widespread political, social, and economic turmoil that occurred in Europe during the 17th century. The unit will also explain to the students how its impact varied across different regions. (Teaching time: 3 weeks approx.- 9 lectures)

**Readings:**

- John L. Brooke, *Climate Change and the Course of Global History* (New York: Cambridge University Press, 2014), pp.444-466.
- Dagmore Degroot, *The Frigid Golden Age: Climate Change, the Little Ice Age, and the Dutch Republic, 1560–1720* (Cambridge: Cambridge University Press, 2018).
- Wolfgang Behringer, *A Cultural History of Climate*. Cambridge: Polity. Chapters 2 & 3.
- G. Parker, *Global Crisis, War, Climate Change and Catastrophe in the Seventeenth Century*. Yale University Press, 2013, [Introduction and chapter 1]

**Unit 5:** The use of fossil fuels as the main source of energy has fundamentally redefined human relationships with nature. By exploring the link between the use of fossil fuels and the emergence of capitalism, this unit explores how industrialisation did play a central role in anthropogenic climate change. It also introduces and elaborates on two key theoretical concepts- the Metabolic Rift and Planetary Boundaries to understand how climate change reproduces class, gender, and race. It also elaborates on the nature of the ongoing debates on the issues of climate change, including the powerful tendency to deny climate change as well as the strengthening of climate justice movements in the global peripheries. (Teaching time: 9 hours approx.)

**Readings:**

- Michael E. Mann, *The Madhouse Effect: How Climate Change Denial Threatening Our Planet* (New York: Columbia University Press, 2016).
- "The Intergovernmental Panel on Climate Change: Challenges and Opportunities" by Diana Liverman and Ronald L. Mitchell, *Annual Review of Environment and Resources*.
- J. N. Foster, *The Vulnerable Planet: A Short Economic History of the Environment*. New York: Monthly Review Press, 1999.
- J. B. Clark, "Ecological Imperialism and the Global Metabolic Rift: Unequal Exchange and the Guano Nitrates Trade," *International Journal of Comparative Sociology*, 50, 2009, 311-334.
- Vardy, Mark, Michael Oppenheimer, Navroz K. Dubash, Jessica O'Reilly, and Dale Jamieson. "The Intergovernmental Panel on Climate Change: Challenges and Opportunities." *Annual Review of Environment and Resources*, Vol. 42, No.1, (2017), pp. 55–75.

**Suggestive readings:**

- Ashley Dawson. *Extinction: A Radical History*. New York: OR Books, 2016.
- Amitav Ghosh. *The Great Derangement: Climate Change and the Unthinkable*. Chicago: The University of Chicago Press, 2017.
- Amitav Ghosh. *The Nutmeg's Curse: Parables for a Planet in Crisis*. Chicago: The University of Chicago Press, 2021.
- Awadhendra B. Sharan. *In the City, Out of Place: Nuisance, Pollution, and Dwelling in Delhi, c. 1850-2000*. Delhi: Oxford University Press, 2014.
- B. L Turner and Jeremy A. Sabloff. "Classic Period Collapse of the Central Maya Lowlands: Insights About Human-Environmental Relationship for Sustainability," *Proceedings of the National Academy of Sciences*, 109, (2012), 13908-14.

- Bhattacharya, Neeladri. "Pastoralists in a Colonial World", in David Arnold & Ramachandra Guha, eds., *Nature, Culture, Imperialism: Essays on the Environmental History of South Asia*. Delhi: Oxford University Press, 1995. pp. 49-85.
- C. Merchant, *Ecological Revolutions: Nature, Gender, and Science in New England*. University of North Carolina Press, 1989.
- Carolyn Merchant. *The Death of Nature: Women, Ecology and the Scientific Revolution*. San Francisco: Harper, 1980.
- Christian Parenti. *Tropic of Chaos: Climate Change and the New Geography of Violence*. New York: Nation Books, 2011.
- Dipesh Chakraborty. "The Climate of History: Four Theses." *Critical Inquiry* 35, no. 2 (213), 197-222.
- Edmund Burke III. "The Big Story: Human History, Energy Regime and the Environment" in Edmund Burke III and Kenneth Pomeranz, eds., *The Environment and World History*. Berkeley: University of California Press, 2009. pp. 33-53.
- Eileen Crist. and Helen Kopnina. "Unsettling Anthropocentrism", *Dialectical Anthropology*, Vol. 38, No 4, (2014) pp. 387-396.
- J. R. McNeil and Maudlin. *A Companion to Global Environmental History*. Oxford: Wiley-Blackwell, 2012. Introduction pp. xvi-xxiv.
- J. R. Stewart and C. B. Stringer. "Human Evolution Out of Africa: The Role of Refugia and Climate Change." *Science* 335, no 6074 (2012), 1317-1321.
- Jason Moore. *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. London: Verso, 2015.
- Joshua P. Howe, *Behind the Curve: Science and Politics of Global Warming*. Seattle: University of Washington Press, 2014.
- Lamb, Helmut H., *Climate History and the Modern World*, London, 1995.
- Mike Davis. *Late Victorian Holocausts: El Nino Famines and the Making of the Third World*. London: Verso, 2001.
- Naomi Klein. *This Changes Everything: Capitalism vs the Climate*. London: Allen Lane, 2014.
- Richard Bulliet. *Hunters, Herders and Hamburgers: The Past and Future of Human-Animal Relationships*. New York: Colombia University Press, 2005, pp. 205 -224.
- Shiva, Vandana. *Soil, not Oil. Climate Change, Peak Oil and Food Security*. Zed Books, 2009.
- Timothy Mitchell. *Carbon Democracy: Political Power in the Age of Oil*. London: Verso, 2011.
- Timothy Mitchell. *Carbon Democracy: Political Power in the Age of Oil*. London: Verso, 2011. pp. 231-254.
- Vaclav Smil. *Energy and Civilisation* Cambridge: MIT, 2007. pp. 127-224.
- William Dickinson. "Changing Times: the Holocene Legacy" in J. R. McNeil and Alan Roe, eds., *Global Environmental History: An Introductory Reader*. London: Routledge, 2013. pp 3-23.
- Weart, Spencer, *The Discovery of Global Warming*. Cambridge, MA, 2003.
- White, Sam, 'Climate Change in Global Environmental History' in J. R. McNeill and E. S. Maudlin, eds., *Companion to Environmental History*, (Oxford: Blackwell, 2012) pp. 394-410.
- Wolfgang Behringer, "Weather, Hunger and Fear: Origins of the European Witch-Hunts in Climate", *Society and Mentality, German History*, Vol. 13, No. 1, (January 1995), pp. 1-27

**Note:** Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.