

First Class Assignment – ENG5469 Oil & Gas Development & the Environment

Class 1 – Introduction and History

In the opening class, we will discuss the basics of oil and gas and have a short in-class discussion on the role of oil and gas companies in achieving the 1.5°C global warming target. You must read the materials on the basics of oil and gas, and you should familiarize with the debate materials so that you can offer an informed position.

- Energy, Economics and the Environment, 6th ed. Chapter 4: Oil and Gas Production. Read pages 148-164.
- Lowe, Oil and Gas Law in a Nutshell, 8th ed (2024), Chapter 1: The Formation and Production of Oil and Gas. Read pages 3-11.
- U.S. Energy Information Administration (EIA), *Where Our Oil Comes From*, www.eia.gov/energyexplained/oil-and-petroleum-products/where-our-oil-comes-from.php.
- U.S. EIA, *Natural Gas Explained*, <https://www.eia.gov/energyexplained/natural-gas/>.
- International Energy Agency, *Net Zero by 2050: A Roadmap for the Global Energy Sector*, <https://www.iea.org/reports/net-zero-by-2050>; https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf. Read pages 100-103.
- [Recommended, but not required] Lindsay Maizland and Anshu Siripurapu, Council on Foreign Relations, *How the U.S. Oil and Gas Industry Works*, August 11, 2022, <https://www.cfr.org/backgrounder/how-us-oil-and-gas-industry-works>.

Class Debate Materials

- International Energy Agency, *The Oil and Gas Industry in Energy Transitions*, December 2023, Read the Executive Summary.
- International Energy Agency, *Slowing demand growth and surging supply put global oil markets on course for major surplus this decade*, June 12, 2024, <https://www.iea.org/news/slowing-demand-growth-and-surgingsupply-put-global-oil-markets-on-course-for-major-surplus-this-decade>.
- Irina Slav, OilPrice.com, *Failing to Invest in Oil and Gas Would Be The “Road to Hell for America”* September 22, 2022, <https://oilprice.com/Energy/General/Failing-To-Invest-In-Oil-And-Gas-Would-Be-The-Road-To-Hell-For-America.html>
- Dharna Noor, The Guardian, *Top oil firms’ climate pledges failing on almost every metric, report finds*, May 21, 2024, <https://www.theguardian.com/us-news/article/2024/may/21/oil-companies-report-fossil-fuels-climate>.
- Jason Bordoff, NY Times, *Behind All the Talk, This is What is Big Oil is Actually Doing*, August 7, 2023, <https://www.nytimes.com/2023/08/07/opinion/oil-fossil-fuels-clean-energy.html>.
- Jillian Ambrose, The Guardian, *Shell waters down emissions cut pledge despite crucial climate decade*, March 14, 2024,

<https://www.theguardian.com/business/2024/mar/14/shell-warns-it-may-slow-emissions-reduction-during-crucial-climate-decade>.

- Clemens Kienzler et al., McKinsey, February 27, 2023, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/how-oil-and-gas-companies-can-be-successful-in-renewable-power>.