My first exposure to environmental justice was when I co-taught a course by that name as an undergraduate student through the Stanford Workshops on Political and Social Issues. The course had a regional focus, looking at such issues as occupational exposure (farm workers in the Central Valley), siting of hazardous waste facilities (Kettleman City), and unequal exposure to air pollution (Los Angeles region).

It is now many years later and the field of environmental justice has evolved. I currently teach four courses in a department of Earth and Environmental Sciences; in each course I look for ways to inform the students not just about human-environment interactions, but how social justice is relevant to the specific topics we are studying. I believe it is important for the students to understand several aspects of environmental justice: how certain populations are subjected to disproportionate environmental harms, how disparate access to environmental resources may limit socioeconomic opportunities, and how either accidental or intentional policies can lead to these injustices. The specific topics vary in each of these courses, but these themes are central: access to limited resources, access to the economic benefits of resource extraction, access to the decision-making process, and exposure to harm.

In *“Introduction to Environmental Science,”* I discuss environmental justice explicitly in two separate units. When talking about New York’s debate about whether or not to allow high-volume horizontal hydraulic fracturing within the State, we discuss cases where there is conflict between those individuals threatened with air or groundwater pollution, and those who work, sign leases, or otherwise benefit economically from the drilling process. We also spend two classes discussing economics and ethics; a component of this is the question of how to value externalities. We discuss how unequal exposure, lack of participation in the political process, and consideration of the needs of future generations can be considered external costs, and incorporation of these costs is key to an ethical approach to environmental science.

In *“Energy and Society”* we address justice explicitly in three ways throughout the course. First, we discuss disparate exposure to environmental harm from the energy industry: the students read and discuss the 2002 report “Air of Injustice: African Americans and Power Plant Pollution.” The second discussion arises when talking about fossil fuels and the many security, economic, and political dimensions to the oil industry. The students read the 2003 paper from Annual Reviews entitled “Just Oil: The distribution of environmental and social impacts of oil production and consumption.” This paper is thought-provoking because it challenges the students to think about some of the indirect injustices that arise through a resource economy, and not just domestic or pollution-related challenges. It is not just the location and pollution from power plants, but also who is employed in the extraction industry, how those workers are treated from an economic and health perspective, or who has political control over oil resources and infrastructure. The third discussion centers on articles from a 2000 series on environmental justice published in the New Orleans Times-Picayune. The articles cover a diverse set of topics; for this course, we discuss the ones that are specifically energy-related. These include one about access to public transportation, siting of a road through sacred Native American land, and uranium mining also proposed on Native American land. The three articles address access to an environmentally beneficial resource (public transportation), land use (and lack of political power to address it), and exposure to environmental harm.

In focus of the course “Hydrology and Water Resources” is on the physical resource rather than water quality concerns.  As a result, the justice issues are most relevant have to do with access to and control over water resources.  Sample topics include who is involved in the decision-making process for construction of large dams and who does or doesn’t receive the benefits (cheap power, reliable water supply); political conflicts between regions/countries for access to scarce water resources (Israeli-Palestinian groundwater resources, Tigris-Euphrates basin); and allocation of limited and variable resources (Colorado River, climate change threats).

**Even when these courses do not explicitly discuss issues of environmental justice, the inherent values are reflected throughout the course material. Teaching within a department of Earth and Environmental Sciences, it is expected that natural science is at the core of these courses. However, I am not comfortable teaching these topics without introducing and integrating a human dimension. This includes economic valuation of our resources, consideration of internal and external costs in our personal and institutional decision-making process, regulatory frameworks for resource use or conservation, and implications of environmental quality on human health and prosperity. It would only be providing the students a part of the picture if we did not discuss inequities between these costs and benefits within and between populations and nations.**

**Many of the students who take my courses are not science majors. My ultimate goal is to provide for them a framework for thinking about environmental challenges they hear about in the future. Whether it is a flood or drought, energy crisis, or extreme weather event, they should go through the following thought process: 1) Why did this happen? 2) Who was affected and how? 3) What could be done to prevent or minimize the problem? 4) Is everyone affected involved in the solution? Addressing questions 2 and 4 is key to ensuring that, moving forward, we work – both as environmental professionals and as citizens of the world – to avoid unjust access to environmental benefits and exposure to environmental harm.**