Environmental and Toxicological Studies

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Description**:** It is now widely recognized that our environment plays a greater role than our genes in cancer causation and for certain other diseases. Spanning from chemistry to pathophysiology, the objective of this concentration is to learn how exposures lead to disease, and how we can prevent disease. Importantly, many environmental contaminants have been reduced in the US, but are still prevalent abroad, particularly in locations where Environmental Justice is a concern. Environmental health is therefore of critical importance to public health on a global level.

Restricted Electives

Required

20.201	**Fundamentals of Drug Development** (G)*	
	Prereq: permission of instructor	
20.213	**Genome Stability & Engineering in the Context of Disease, Drugs, Public Health**	
	Prereq: 5.07, 7.05; or permission of instructor	

1.089   **Earth's Microbiome** (U)
         Prereq. Biology GIR
     or
20.106J/10.84J **Applied Microbiology** (U)
         Prereq: Biology (GIR), Chemistry (GIR)

1.071J/12.300J **Global Change Science** (U)
         Prereq: 18.03
1.085J/12.336J **Air Pollution and Atmospheric Chemistry** (U)
         Prereq: 18.03

Electives
These additional subjects can enhance the learning objectives of the concentration.

1.010	**Probability and Causal Inference** (U)	
	Prereq: Calculus II (GIR)	
1.018	**Fundamentals of Ecology I** (U)	
	Prereq: None	
1.080	**Environmental Chemistry I** (U)	
	Prereq: Chemistry (GIR)	
20.104J/1.081J **Environmental Cancer Risks, Prevention and Therapy** (U)		
	Prereq: Calculus II, Biology (GIR), Chemistry (GIR)	
20.260	**Computational Analysis of Biological Data**	
	Prereq: 6.100A and 6.100B	