LSC170: The Environment and (Y)Our Health

Section 050/Spring 2027

Course Description

What makes something toxic? How do we know when an environmental exposure is dangerous—and how much evidence should we need before we act? Why are some people and communities more affected than others, and who is responsible for protecting human health?

This course explores environmental health through these kinds of questions. Using historical events, real-world cases, and current environmental health challenges, students will examine how scientists have learned what can harm us, why the amount and timing of an exposure matter, why people can respond differently to the same exposure, and how scientific evidence is translated into regulation and action. We will also consider what happens when things go wrong, who bears the consequences, and how communities and individuals have helped drive environmental change.

This is a discussion-based course rather than a traditional lecture course. Students will debate cases, work through environmental health problems, reflect on what they are learning, and investigate an environmental health topic that interests them. By the end of the course, students should be able to recognize environmental health issues in the world around them, ask better questions about risks and evidence, and make more informed judgments about when—and how—we should act.

Learning Outcomes

By the end of this course, students will be able to:

- Describe key events that have shaped the fields of toxicology and environmental health;
- Apply basic toxicology and environmental health concepts, including exposure, dose-response, risk, and individual susceptibility, to real-world problems;
- Evaluate evidence used to determine whether an environmental exposure poses a risk to human health;
- Explain how scientific evidence, regulation, and other considerations influence decisions about environmental health risks;
- Recognize how environmental exposures and their consequences may differ among individuals and communities; and
- Develop and communicate an evidence-based position on an environmental health problem.

Date	Topic
Wednesday, January 13, 2027	What do you think environmental health is?
Wednesday, January 20, 2027	How did we learn what in the environment can harm us?
Wednesday, January 27, 2027	If DDT works, what's the problem?

Date	Topic
Wednesday, February 3, 2027	When does an exposure become a disaster?
Wednesday, February 10, 2027	Who gets harmed and who is responsible?
Wednesday, February 17, 2027	How would you prove something is toxic?
Wednesday, February 24, 2027	How much evidence is enough to act?
Wednesday, March 3, 2027	Is your food safe?
Wednesday, March 10, 2027	What's in your backyard
Wednesday, March 17, 2027	SPRING BREAK – NO CLASS.
Wednesday, March 24, 2027	Your call
Wednesday, March 31, 2027	Student-led environmental health cases
Wednesday, April 7, 2027	Student-led environmental health cases
Wednesday, April 14, 2027	Student-led environmental health cases
Wednesday, April 21, 2027	So, what do you think environmental health is now?