# Spring 2024 Natural Science Colloquia

## Sustainable Plastics

James Eagan, TTH 10:45 am – 12:00 pm

HONOR 370 – 001

This course introduces students to sustainable plastic technologies, challenges, and the principals of the circular economy. Students will be able to understand the how different kinds of plastics are recovered, sorted, and recycled (or not). Topics covered include polymer recycling, composting, bio-based plastics, and life cycle analysis.

## The Art and Science of Modern Beekeeping

Laura Zinke, TTH 2:00 pm – 3:15 pm

HONOR 370 - 002

Did you know that a honey bee only produces 1/12th of a teaspoon of honey in her lifetime? Is there such thing as ethical or natural beekeeping? This Honors colloquium offers a comprehensive exploration into the world of modern beekeeping. From understanding honey bee biology and hive maintenance to the ethical considerations and controversy surrounding beekeeping practices.

## Our Great Lakes

Ira Sasowsky, TTH 10:45 am – 12:00 pm

HONOR 370 – 003

This natural sciences colloquium examines the role of water in our everyday lives, with particular emphasis on the Great Lakes of North America. Using the overarching topic of Great Lakes, we will explore as a group, learning from each other's experiences, and the background of the professor (an expert in groundwater), as well as from assigned readings and discussions. An optional field trip to Lake Erie will be held on non-class day.

## Global Environmental Issues

Michael Dunbar, TTH 3:30 pm – 4:45 pm, TTH 5:15 pm – 6:30 pm

HONOR 370 – 004, 006

As the human population grows towards 8 billion, what kind of lasting impact do we have? During the semester we'll be exploring how our unsustainable lifestyles have impacted the earth's natural resources, species, environments, and offer a prognosis for the future. Our discussions, proposals and debates will examine how to confront some of these issues and how we can act on a local and personal level.

## Deep Yet Accessible Problems in Math

James Cossey, MWF 9:40 am – 10:30 am

HONOR 370 – 005

We sometimes give students the impression that getting through the Calculus sequence is the be-all and end-all of math. But there is so much more to math than that – including many deep, yet easily accessible (and fun!) problems that have nothing to do with calculus. We'll explore twin primes, stable marriages, and let the Harlem Globetrotters of the future put our brains back where they belong. People will die in a duel, a grown man will cry, and we'll save Rand-McNally money on ink. No math background beyond high school algebra is needed – just come open-minded.

## The Great Debate: Nature Vs. Nurture

Sarah Psihountakis, TTH 12:15 pm – 1:30 pm
HONOR 370 – 007

The Nature versus Nurture debate has been deeply rooted in the search for what aspects of behavior are either inherited (genetic) or acquired (learned). Is it our genes that impacts our behavior or is it our environment? In this course, we will examine the nature versus nurture debate- its origin and how it has influenced future theorists, critically analyze each side of the debate and apply to our own behavioral development, reflect on how genetics and the environment impact overall development, and develop discussion skills within our online classroom environment, emphasizing effective and respectful sharing of personal experiences.

## Nuclear Energy

Andrew Knoll, MW 2:00 pm – 3:15 PM
HONOR 370- 008

Is nuclear energy the solution to our current energy crisis? This class will explore the history of the technology and its future potential in a way that is easy to understand for students from all backgrounds.

## Astrobiology and the Origins of Life

Nita Sahai, TTH 2:00 pm - 3:15 pm
HONOR 370- 009

Students gain an understanding of the origins of the Universe, the nature of life, the problem of the origin of life, early Earth environments, biomolecule synthesis under prebiotic environmental conditions, he coevolution of biochemistry and geochemistry after life emerged, life in extreme environments, organic molecule synthesis in space, the habitability of planets, the astrobiology of Mars, the moons of giant planets, water worlds, and exoplanets (planets outside our solar system), synthetic biology and living machines.

## The Psychology of Physical Activity

Alan Kornspan, T 7:45 am – 9:00 am (Hybrid), 9:15 am – 10:30 am (Hybrid)
HONOR 370- 010, 11

The focus of this course is on the psychology of physical activity within the context of natural science. The course will cover scientific methodology and scientific writing utilized in the psychology of physical activity. The colloquium will be divided into two main sections. The first section introduces the historical and contemporary developments of the science of the psychology of physical activity. The second part of the course examines various phenomenon related to the science of flow states, stress, anxiety, and arousal in sports and exercise. Interactive applied activities will be provided throughout the course to help students understand how the science of the psychology of physical activity can be applied to sports and exercise.

## The Psychology of Physical Activity

Alan Kornspan, Online Asynchronous

HONOR 370- 501

The focus of this course is on the psychology of physical activity within the context of natural science. The course will cover scientific methodology and scientific writing utilized in the psychology of physical activity. The colloquium will be divided into two main sections. The first section introduces the historical and contemporary developments of the science of the psychology of physical activity. The second part of the course examines various phenomenon related to the science of flow states, stress, anxiety, and arousal in sports and exercise. Interactive applied activities will be provided throughout the course to help students understand how the science of the psychology of physical activity can be applied to sports and exercise.

## Technoculture and Society

Robert Williams, Online Asynchronous

HONOR 370- 502

Focusing on the intersection between Culture, Political Economy, Science, and Technology, this colloquium introduces students to their relationship with this growing techno-entanglement. Students will explore ways in which people interact with the environment - both built and natural, and with one another by examining sociocultural processes such as science and technology, race and social inequalities, bodies and medicine, social aspects of climate change, political power, policies that legislate human interactions with the natural world, and global ecological futures. Students will also participate in the virtual application of ethnographic frameworks to contemporary environmental issues and the writing of papers to report their findings.