

Environmental Crisis Studies

Syllabus

Instructors: **Boyang “Jack” Pan**

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Office Hour: By appointment

Introduction

“If you want to go quickly, go alone, if you want to go far, go together.”

-- African Proverb, *Our Choice* by Al Gore

Our environmental crisis involves complicated issues that no one academic discipline can resolve alone. Utilizing multidisciplinary research to address environmental challenges has become increasingly common in academia. This course will help students to gain a better understanding of the different disciplines involved in environmental issues and how these disciplines interact with one another. We will discuss current environmental topics from the perspective of these different disciplines. Eventually students will utilize what they have learned to investigate various environmental issues.

Some students might have an undeclared major but would like to study in an environmental field. This seminar will help those students to find their fields of interest and help them to choose their majors. I hope it will be a useful learning experience for you.

Reading

A short article may be assigned during the week prior to each class. A discussion about the assigned article will be held during class. These discussions will help students to better understand the articles and they will also serve as an introduction to the each week's lecture.

Homework Assignment

What: Reflection Paragraph.

Subject: Talk about what you learned during class.

Format: Half page, single spaced; typed or hand-written. Title of the document:

“Lastname_Firstname_Week#.”

Due date: At the beginning of class (4:00 P.M. Tuesday).

Submission: EEE Dropbox or a physical copy.

Grading:

The course will be graded “Pass” or “No Pass.”

2 points will be given for each day of attendance and participation.

1 point will be given for each submitted homework assignment.

Total points available: 30

“Pass” -- 25 or above

“No Pass” – below 25

Schedule:

<u>Week</u>	<u>Main Topic</u>
<u>1</u>	Class Introduction
<u>2</u>	Regional Environmental Crisis and Socioeconomic/Political Factors
<u>3</u>	Global Warming and Climate Change (the concept and mechanism)
<u>4</u>	Climate Change (the consequence, case study)
<u>5</u>	Anthropogenic Forcing and Environmental Degradation
<u>6</u>	Anthropogenic Forcing (case study)
<u>7</u>	Environmental Engineering and Energy Source of the Future
<u>8</u>	Geoengineering – when all else fails
<u>9</u>	Geoengineering – iron fertilization (case study), remote sensing
<u>10</u>	Put it all together and what we can do to help