Course Title	LAI313 The Global Environment	Instructor(s)	Melody Muguerza
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Class Style	Lecture	Office Hours	
Track		Mode of Instruction	
Credits	2 (new curriculum) 3 (old curriculum)	Allocated Year	Spring 2025
Active Learning	Category 2-(3): Presentations 2-(5): Surveys and Interviews Category 4: Interactive Lectures Facilitated Discussions Case Studies Think-Pair-Share Think-Group- Share	Compulsory or Elective	Elective
Course Overview	This course studies major current environmental issues and their causes. Complexity of environmental issues and the importance of balanced, objective, and critical analysis are key themes of the course. The course focuses on study of natural ecosystems, the interdependency of living things, their surroundings, and the impact of humans on ecosystems. Key topics include: ecology, climatic impacts and change, food and agriculture, energy sources, and biological diversity.		
Course Objectives	**I. Overall Objectives:** In this course, the students will learn concepts about ecosystems and the global environment, and understand the current environmental challenges and ways by which people and society could restore, preserve, and protect the environment. **II. Learning Content:** • Students will gain an understanding about the natural environment and basic concepts about the Earth's ecosystems and interactions between biotic and abiotic factors in the environment. Students will learn to apply the scientific method in analyzing changes in the environment by performing field investigations and/or using data from secondary sources. Students will demonstrate critical analysis and scientific writing in their reports, homeworks, and discussions. **III. Attainment Objectives:** 1) to evaluate major environmental topics in a rational and critical manner 2. 2) to understand and discuss human value and responsibility as a species in the biosphere 3. 3) to understand and discuss biodiversity, conservation, and good environmental management 4. 4) to recognize natural resources (renewable/non-renewable), their degree of symmetry and asymmetry 5. 5) to develop an awareness on the impact of advanced technology and the balance between improvement of living standards and resource waste, and degradation of life support systems **IV. Additional Objectives:** • help students appreciate and value the diversity and richness of our environment • improve students' English proficiency thru writing, listening, and speaking; improve critical thinking skills and build-up confidence in expressing their opinions/ideas during group discussions, think-pair-share, and recitations		
Prerequisite			

	No	Contents	Homework
Course	1	Introduction to Global Environment	Introduction to course, syllabus.

Schedule			Facts and some challenges in our environment. Group discussion and questions
	2	Ecosystems, Climate, and Biomes	What is Climate? What are Ecosystems? Team problem solving exercise
	3		Biomes presentation
	4	Community ecology	What is Ecology?
	5	Population Dynamics	What are populations, and why do populations change?
	6	Resources and Energy	Non-renewable, renewable, and perpetual resources.
	7	Biodiversity and Extinction	Biodiversity, measures of biodiversity Why we need to protect plant and animal diversity?
	8	Field Study	Biodiversity Index. Outdoor Activity
	9	Biodiversity Presentation	Group presentation
	9	Conservation	Definition of conservation, conservation strategies Global bioresources conservation.
	10	Pollution	The normal atmosphere, major atmospheric pollutants, major air pollution problems Greenhouse gases. Climate Change - Fiction or Reality? So What?
	11	Environmental Health	Environmental Toxicants – types, sources, and effects
	12		What are hazardous and intractable wastes?
	13		Responsible Waste Manage-ment
	14	Pesticides	Why we need pesticides? Benefits and problems
	15	Biomagnification	What is biomagnification?
Grading	15% Participation (Discussions, Asking Questions, Team Classroom Tasks) 20% Homework 25% Individual Report, Seminar/Presentation 40% Exams		
Textbooks			

References	Zehnder, C., Manoylov, K., Mutiti, S., Mutiti, C., VandeVoort, A. and Bennett, D., 2018. Introduction to environmental science.
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