



Center for International Programs and Sustainability Studies

Course Title: Sustainability and Resource Management in the Ancient World

Course code: HIS 3130

Total contact hours: 60

Pre-requisites: None

COURSE DESCRIPTION

In this course students will learn about the relationship ancient civilizations like Egypt, China, Mesopotamia, India, Greece, Rome, the Celts, and the Pre-Columbian Americans had with their environment. Students will explore how these cultures interacted with nature and managed resources, as land, forests, water, and minerals. Also, they will be able to identify the main characteristics that allow civilizations to create a sustainable relationship with their surroundings and habitat if the case. This historic overview will allow students to compare our present-day societies with the Ancient World.

COURSE PRE-REQUISITES

This course presents no prerequisites.

AUDIENCE

This course is structured for International Students attending the Study Abroad program at Universidad Veritas. However, courses are not exclusive to foreigners so a few native students could enroll in this course. Some of the courses are also taught in Spanish as part of our Bachelors in Sustainability Management.

This is a theoretical-practical course, and it seeks to clarify the following question:

How to apply sustainable solutions to improve human relationship with the environment, based on the studies of ancient civilizations and their resource management skills?

To respond the query, we will study the following **generative topics**:

- Ancient History studies.
- Research about the use of land, water, and forest.
- Climate, geography, and demographic development.
- Agriculture.
- Urbanism.
- Ancient Technology.
- Culture and society of the Ancient World.

Along the course, the following **skills** will be fostered:

- The ability to learn how the ancient cultures relate with land, water, and their natural surroundings.
- The ability to identify the main characteristics that allow them to create a sustainable relationship with their environment.
- The ability to recognize the trends that affected the equilibrium this civilization had with Earth.
- The ability to compare our present-day societies with the Ancient World.

The following **values and attitudes** will be promoted among students

- Teamwork and leadership.
- Systemic thinking.
- Logical and communicative intelligence.
- Problem solving.
- Learning how to learn.
- Empathic and reliable negotiation.

COMPETENCIES, CRITERIA AND EVIDENCE

At Veritas University competencies are reflexive and integrated actions that respond to the professional profile and to context issues ideally and ethically through the integration of abilities, skills and knowledge. What follows are the discipline and core competencies and their correspondent key competencies and evidence of learning for this course. What follows are the discipline and core competencies and their correspondent key competencies and evidence of learning for this course.

Competencies	Key competences	Evidence of learning
Discipline Analyzes ancient civilizations management of natural resources to create proposals (or to propose solutions) that can promote an improved relationship with our environment, considering ancient civilizations' correspondence with nature.	Researches the past events as a comprehension of the relationship between ancient civilizations and their environment.	Reading comprehension Reports Class discussions Argumentative Essays
	Identifies the importance of creating sustainable practices, considering ancient civilizations' relationship with nature and their natural resources management.	Research Report Problem Resolutions Project
	Determines the ecological impact of the ancient civilizations to their	Research Report Problem Resolutions Project

	environment considering the use of natural resources.	
Core/Generic		
Integrates knowledge, skills and attitudes to learn continuously and through one's life pursuing an efficient development in the knowledge-based society.	Learning to learn	Research report
Builds the necessary knowledge, skills and attitudes to learn how to communicate orally and in written form in the different disciplines that make up the curriculum.	Communicate thoughts of the discipline orally, in an iconic way, and in written form.	Class discussion
Integrates the necessary knowledge, skills, and attitudes to learn teamwork and leadership techniques.	Execute teamwork and leadership.	Problem Resolution Project
Integrates the necessary knowledge, skills and attitudes to learn interpersonal communication techniques.	Relate well to others Manage and solve conflicts Negotiate reliably and empathetically Speak responsibly Listen attentively	Research Project

COURSE CONTENTS

Unit I. Introduction and general topics

- Sustainability
- Resource Management
- Environment
- Natural Resources
- Land Use
- Social Metabolism
- The Ancient World

Unit 2. Prehistory

- Stone Age
- Hunters and Gatherers
- The beginning of agriculture and civilization

Unit 3. First Civilizations

Mesopotamia

- Geography and Climate
- Land between rivers (The Tigris and Euphrates)
- Agriculture and writing: the beginning of History
- Irrigation and the First Cities
- Religion and Nature

Egypt

- Geography
- Land (Black and Red)
- The Nile River
- The Desert

- Religion and Sustainability

Unit 4. Ancient Asia

China

- Geography
- Climate
- The Silk Road: trade and communication
- Innovations and Technology
- Rice
- The degradation and relocation of Centers

India

- Geography
- The Indus Valley
- Religion and Nature
- Hinduism and Buddhism

Unit 5. The Mediterranean

The Mediterranean Ecosystem

- Geography
- Climate
- Civilizations and Ecological Impact
- Phoenicians and Mycenaeans (Sea and Trade)

The Greeks

- Geography
- The City States
- Religion, thought and nature

- Ecological Impact

Rome

- The Empire
- Geography
- Climate
- Natural Defenses
- Infrastructure and buildings.
- Land Use and Ecological Impact
- Ecology and the Fall of Rome

Unit 6. The Celts

- Geography
- Climate
- Culture
- Religion and Nature: The sacred tree

Unit 7. Pre-Columbian America

- Geography and Climate
- Agriculture and land use
- Mining and precious stones
- Aztecs, Mayas, Olmec, Incas, Guaranies, Boricuas, Native North Americans

Unit 8. The Ancient Roots of Ecological Crisis

- Cause and Effects

METHODOLOGY

The methodology utilized in this course is conceived as an analysis and synthesis process that will use each activity to obtain an understanding of the historic importance of ancient civilizations and their administration and management of the natural resources.

The argumentative essay, the reading comprehension of articles, and research project will serve to corroborate learning. Sharing with other students and providing bases for the importance of history in the evolutionary process of natural resource management will serve to develop the competency-based education skills of learning to learning, investigation, comparison, communication, and teamwork.

Teamwork is promoted through class discussion, presenting techniques, and the resolution of a problem, where learning is developed via teacher guidance. Individual work like essays allow to practice skills of analysis, reflection and synthesis. The role of the teacher will be as a moderator and facilitator of the learning and teaching process, allowing the build-up and autoregulation of the learning from the students.

EDUCATIONAL RESOURCES

To guarantee good development of the course, therefore, to guarantee learning, the following resources are available: an updated bibliographic database, multimedia equipment that students can use for their individual presentations; whiteboards and other school equipment for weekly sessions, and readings provided by the educator. Most of the lessons will take place in the classroom. During independent work periods, students will be able to attend the institution.

A campus library, study rooms, and computer labs are available for the students' independent work time. Free Wi-Fi connection for students, educators, and staff is provided on campus, which gives students the possibility to work not only in the library or computer labs, but also around campus.

LEARNING EVALUATION

In order to make the course or program better competencies-based evaluation compiles and evaluates evidence by taking into account feedback providing pre-established criteria. The course evaluation must be aligned with the competencies and the teaching methodology. There is a rubric for each evaluation resource and the details will be provide in **CANVAS LMS**. Even though the rubric grants a grade, it is also a quantitative and qualitative description of the students' performance. The rubrics include the core and discipline key competences.

ASSIGNMENTS	PERCENTAGE VALUE
Research Project: (15% written report, 5% oral presentation) <ul style="list-style-type: none">○ Pre-Columbian Civilizations: Sustainability and Ecological Impact (Mayas, Olmec, Guaranies, Boricuas, Native North Americans)	20%
Argumentative essays: (10 % each) <ul style="list-style-type: none">○ From Hunter Gatherers to the First Cities: The Environmental Impact in Mesopotamia○ The Importance of Religion and Thought with Sustainable Practices in the Ancient World	20%
Oral Reading Comprehension Report (2 per student)	20%
Field Trip Report	10%
Problem Resolution Group Project: Ancient sustainable Practices and Technology applied in the modern world	30%
Total	100%

LEARNING STRATEGIES

1. Research Project

Learning through a research project “Pre-Columbian Civilizations: Sustainability and Ecological Impact” will allow student to do a profound analysis of a culture’s relationship with their natural resources, the sustainable practices and the ecological impact in the environment. They should use at least 4 scholar resources to develop these studies and present their conclusions to their classmates.

A research project “Pre-Columbian Civilizations: Sustainability and Ecological Impact” will allow student to do a profound analysis of the sustainable practices and ecological impact of a specific civilization of the Pre Columbian-World (not studied in class). Choose one of the following: Aztecs, Mayas, Olmec, Incas, Guaranties, Boricuas, Native North Americans.

2. Argumentative essay

Two argumentative essays as an academic writing tool allows each student to express opinions, interpret, and evaluate one or more topics by formally including adequate justification. The point is to show evidence of research and to demonstrate the ability to compose argument explanations clearly. The essay is an individual and original piece of writing about “From Hunter Gatherers to the First Cities: The Environmental Impact in Mesopotamia” and “The Importance of Religion and Thought with sustainable practices in the Ancient World”.

The essay aim to determine the relationship humans developed with their environment in the Ancient World.

3. Reading Comprehension Report

Students will exercise the capacity of critical thinking, and oral and written expression through the presentation of reports and oral presentations about reading resources or documentaries.

The analysis of two reading resources (chosen by the students). The analysis is going to be represent in class using the following criteria:

1. main purpose of the article and key question
2. main ideas and arguments (most important information)
3. **critical analysis** of the thoughts and ideas offer by the author (point of views)
4. If the document accomplishes it purpose. (Main conclusion)
5. A visual aid as PowerPoint is going to be used to present the analysis.

4. Field Trip Report

Field Trip reports contain information about what the students see and learn in the field and personal opinions based on knowledge and observation. Due to the nature of the course, sustainable practices and the resource management inspired in ancient civilizations will be discussed.

The report is two 1.5-spaced pages minimum (not including images or References section) extending to a maximum of four pages, depending on the number of activities performed during the trips. This is a formal paper; follow the general format indicated for the rest of written assignments.

5. Workshop for Project Based Learning (PBS or Project Based Learning)

The Problem Based Learning methodology promotes three basic aspects in students: knowledge management, reflective practice, and the ability to adapt to change.

Knowledge management seeks that the student acquires strategies and techniques to learn by him/herself. This implies to become aware of the assimilation, reflection, and interiorization of knowledge to value and deepen from a personal perspective. This process allows students to take responsibility, develop a critical attitude, and to apply decision making abilities during the process of learning how to learn.

ATTENDANCE

Regarding classes:

1. Students are only allowed a total of two (2) nonconsecutive (back-to-back) class absences. A student shall fail the course if more than two absences are registered.
2. Three late arrivals to class (within the first 15 minutes) are treated as one absence. Attending class 30 minutes late without an official justification will also count as an absence.
3. In the case of an absence from any assignment evaluated in class (presentations, evaluations, field trips, etc.) a student will be given a grade zero unless an official document is presented within one week of the absence.
4. If a student presents an official document to excuse the absence, the missed assignment is to be presented on that same day.

Regarding field trips:

5. An unjustified absence on a field trip will immediately result in the loss of all points assigned to that specific trip. However, if an official document justifying the absence is presented, 50% of the assignment points may be obtained on presentation of a complementary research assignment, to be agreed upon with the professor, within one week of the field trip.

6. An absence on a field trip may be justified should two course field trips coincide. In such a case, and in order to avoid losing points, students shall be able to opt for carrying out a research assignment.

CODE OF CONDUCT

Professors have the right to expel a student from the classroom should he / she/ they:

1. Be disruptive in the classroom.
2. Behave in a disrespectful way.
3. Be under the influence of alcohol or even smells like alcohol.
4. Be under the influence of any illegal drug.
5. Shows hygiene problems that may disturb other students.

ELECTRONIC DEVICES

The use of cell phones, smart phones, or other mobile communication devices is disruptive, and is **therefore prohibited during class**. Please turn all devices OFF and put them away when class begins.

Devices may be used **ONLY** when the professor assigns a specific activity and allows the use of devices for internet search or recording. Those who fail to comply with the rule must leave the classroom for the remainder of the class period.

PROGRAM POLICIES

The student must comply with the provisions of the Veritas University student regimen regulation. To consult it you should go to the CANVAS portal and download it.

BIBLIOGRAPHY

Chang-Qun, Duan .(1998). Relocation of Civilizations in Ancient China: Environmental Factors. USA: Ambio. 27 (7) 572-575. Retrieved from <http://www.jstor.org/stable/4314793>

Date, Ranjana. (2008-2009) Water Management in Ancient India. USA: Deccan College post-Graduate and Research Institute. 68/69. 377-382 Retrieved from <http://www.jstor.org/stable/42931221>

Diamond, Jared. (2011) Collapse: How Societies Choose to Fail or Succeed. New York, U.S.A: Penguin Books.

Gruber, Jacob W. (1948) Irrigation and Land Use in Ancient Mesopotamia. USA: Agriculture History Society. 22(2), 69-77. Retrieved from <http://www.jstor.org/stable/3739264>

Hughes, J. Donald. (2014) An environmental history of the world: humankind's changing role in the community of life. Baltimore, E.E.U.U.: Editorial Johns Hopkins University Press

Hughes, J. Donald. (2008, August.) Sustainable Agriculture in Ancient Egypt. Agricultural History Society, 66(2), 12-22. Retrieved from <http://www.jstor.org/stable/3743841>

Hughes, J. Donald. (1975) Ecology in Ancient Civilizations E.E.U.U. New Mexico, USA: New Mexico Press

Hughes, J. Donald. (2008, August.) Three Dimensions of Environmental History. Environment and History, 14, no.3, 319-330. Retrieved from <http://www.environmentandsociety.org/node/3339>

Narayanan, Vasudha (2001) Water, Wood and Wisdom: Ecological Perspectives form the Hindu Traditions. The MIT Press. 130(4). 179-206, Retrieved from <http://www.jstor.org/stable/20027723>

Ponting, Clive (2007) A New Green History of the World. U.S.A.: Penguin Books.

Smyntyna, Olena V. (2003, December) The Environmental Approach to Prehistoria Studies: Concepts and Theories. Wiley For Weleyan University, 42(4), 44-59

Swearer, Donald K. (2006, April) As Assessment of Buddhist Eco-Philosophy. The Harvard Theological Review. 99(2), 123-137. Retrieved from <http://www.jstor.org/stable/4125290>

Worster, Donald (1990) Transformations of the Earth: Toward and Agroecological Perspective in History, The Journal of American History, 76, no.4, 1087-1106

CHRONOGRAM

Weeks	Contents	Learning strategies
1	Class Welcome	Course presentation and Reading the syllabus. Organizing group assignments Assigns reading comprehensions
2	Unit I Introduction and general topics <ul style="list-style-type: none"> ○ Sustainability ○ Resource Management ○ Environment ○ Natural Resources ○ Land Use ○ The Ancient World 	Magisterial class Topic discussion
2	Unit 2: Prehistory <ul style="list-style-type: none"> ○ Stone Age ○ Hunters and Gatherers ○ The beginning of agriculture and civilization 	Magisterial class Video Documentary
3	Unit 3: First Civilizations Mesopotamia <ul style="list-style-type: none"> ○ Geography and Climate ○ Land between rivers (The Tigris and Euphrates) ○ Agriculture and writing: the beginning of History ○ Irrigation and the First Cities ○ Religion and Nature 	Magisterial class Video Documentary Group Discussion <u>Individual Reading</u> <u>Comprehension Presentation</u> <ul style="list-style-type: none"> ○ Gruber, Jacob W. (1948) Irrigation and

		Land Use in Ancient Mesopotamia
4	<p>Unit 3: First Civilizations</p> <p>Egypt</p> <ul style="list-style-type: none"> ○ Geography ○ Land (Black and Red) ○ The Nile River ○ The Desert ○ Religion and Sustainability 	<p>Magisterial class</p> <p>Video Documentary</p> <p>Group Discussion</p> <p><u>Individual Reading</u></p> <p><u>Comprehension</u> <u>Presentation</u></p> <ul style="list-style-type: none"> ○ Hughes, J. Donald. (2008, August.) Sustainable Agriculture in Ancient Egypt
5	<p>Unit 4: Ancient Asia</p> <p>China</p> <ul style="list-style-type: none"> ○ Geography ○ Climate ○ The Silk Road: trade and communication ○ Innovations and Technology ○ Rice ○ The degradation and relocation of Centers 	<p>Magisterial class</p> <ul style="list-style-type: none"> ○ Creating a Comparison Chart: Chang-Qun, Duan (1998) Relocation of Civilizations in Ancient China: Environmental Factors. <p><u>Argumentative Essay:</u> From Hunter Gatherers to the First Cities the Environmental Impact in Mesopotamia</p>
6	<p>Unit 4 Ancient Asia</p> <p>India</p> <ul style="list-style-type: none"> ○ Geography 	<p>Magisterial class</p> <p>Video Documentary</p> <p>Topic Discussion</p>

	<ul style="list-style-type: none"> ○ The Indus Valley ○ Religion and Nature ○ Hinduism and Buddhism 	<p><u>Individual Reading</u></p> <p><u>Comprehension Presentation</u></p> <ul style="list-style-type: none"> ○ Date, Ranjana. (2008-2009) Water Management in Ancient India. ○ Narayanan, Vasudha (2001) Water, Wood and Wisdom: Ecological Perspectives form the Hindu Traditions ○ Swearer, Donald K. (2006, April) As Assessment of Buddhist Eco-Philosophy
7	<p>Unit 5: The Mediterranean</p> <p>The Mediterranean Ecosystem</p> <ul style="list-style-type: none"> ○ Geography ○ Climate ○ Civilizations and Ecological Impact ○ Phenicians, Minoians and Mycenaean (Sea and Trade) 	<p>Magisterial class</p> <p>Video Documentary</p> <p><u>Work on the Problem</u></p> <p><u>Resolution Group Project:</u></p> <p>Definition of the Problem</p>
7	<p>Unit 5: The Mediterranean</p> <p>The Greeks</p> <ul style="list-style-type: none"> ○ Geography ○ The City States ○ Religion, thought and nature ○ Ecological Impact 	<p>Magisterial class</p> <p>Video Documentary</p> <p><u>Individual Reading</u></p> <p><u>Comprehension Presentation</u></p> <ul style="list-style-type: none"> ○ Hughes, J. Donald. (1975) Ecology in

		<p>Ancient Civilizations:</p> <p>A. Greek Religion and the Natural Environment 48-55:</p> <p>B. Greek Attitudes toward Nature 56-67</p>
8	<p>Work on the Problem Resolution Group Project</p>	<p>Ancient Sustainable Practices and Technology applied in the modern World:</p> <p>Developing a Plan to Solve the Problem</p>
9	<p>Unit 5: The Mediterranean Rome</p> <ul style="list-style-type: none"> ○ The Empire ○ Geography ○ Climate <p>Unit 5: The Mediterranean Rome</p> <ul style="list-style-type: none"> ○ Land Use and Ecological Impact ○ Ecology and the Fall of the Rome 	<p>Magisterial Class</p> <p><u>Individual Reading</u></p> <p><u>Comprehension Presentation</u></p> <ul style="list-style-type: none"> ○ Hughes, J. Donald. (1975) Ecology in Ancient Civilizations: The Impact of Roman Civilizations on the Natural Environment 99-114 / 115-27 <p><u>Argumentative Essays: The Importance of Religion and Thought with sustainable practices in the Ancient World (Egypt and India)</u></p>
10	<p>Unit 6: The Celts</p> <ul style="list-style-type: none"> ○ Geography 	<p>Magisterial Class</p> <p>Video Documentary</p>

	<ul style="list-style-type: none"> ○ Climate ○ Culture ○ Religion and Nature: The sacred tree 	<u>Individual Reading</u> <u>Comprehension Presentation:</u> Ancient Celts and the Environment
10	Unit 7: Pre-Columbian America <ul style="list-style-type: none"> ○ Aztecs, Incas, ○ Olmec, Mayas, Guaranies, Boricuas, Native North Americans 	Magisterial Class Research Project Presentations.
11	Work on the Problem Resolution Group Project	Prepare written report.
12	General Conclusion	Problem Resolution Project Class conclusions based on the reading: Hughes, J. Donald. (1975) Ecology in Ancient Civilizations- The Ancient Roots of our Ecological Crisis