



John Felice Rome Center
Course: Environmental Sustainability (ENVS 283/A03)
Spring 2025
Mondays | 9:00-12:00pm (meeting room tbc)
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Office Hours: Mon. 12:00-1:00pm (by appointment)

Course Description

This course will analyze the impacts of current global environmental challenges affecting our planet and our society. Most of the pressures on our ecosystems, climate, atmosphere and oceans are anthropic and testify how we have reached a critical juncture in our relationship with the environment. Human activities are ubiquitous and the consequences on the environment have become so severe that they have pushed key environmental parameters well beyond a range of natural variability, leading the Earth system to operate in a no-analogue zone. In order to analyze some of the key drivers of environmental degradation, the course will cover basic topics such as biodiversity and ecosystem services, air pollution and atmosphere, climate change and food systems. We will describe the impacts that anthropic activities, such as waste production and unsustainable consumption practices, are posing on our ecosystems and the related severe social and economic consequences. We will examine initiatives and actions that policy makers, stakeholders and citizens are carrying out to address these significant pressures and compare different approaches adopted at local, national and European level. This course will provide a basic understanding of sustainable development principles and an increased awareness and capability to interpret the complex interrelations between current environmental pressures and different social, economic, political and cultural contexts. Work in class will be complemented with practical activities regarding sustainability.

Learning Outcomes

On completion of the course students should be able to:

- Develop the basic concepts of the environmental sustainability.
- Determine the main drivers of environmental degradation and assess the social and economic risks.
- Provide examples of policy initiatives and projects to achieve high levels of individual and ecological wellbeing.
- Articulate and apply environmental sustainability indicators (to improve thinking, problem solving, and decision making).
- Improve awareness and communication skills related to the environmental sustainability.

Required Text / Materials

Assigned readings will be posted on Sakai

Assigned readings will be found on various scientific and policy publications, printed papers/slides

Each week's readings must be completed before coming to class

Attendance Policy

In accordance with the JFRC mission to promote a higher level of academic rigor, all courses adhere to the following absence policy. Prompt attendance, preparation and active participation in course discussions are expected from every student.

- For all classes meeting once a week, students cannot incur more than one absence.
- For all classes meeting twice a week, students cannot incur more than two absences.
- For all classes meeting three times a week, students cannot incur more than two absences.



This course meets once a week, thus a total of 1 absence will be permitted. Absences beyond these will result in 1% lowering of the final course grade.

The collective health of the JFRC is everyone's responsibility. Do not attend class if you are ill.

Assessment Components

- Participation 20%
- Midterm Exam 20%
- Assignments 20 %
- Presentation 15%
- Final Exam 25%

Participation

The topics addressed throughout the semester will be presented and discussed in class. Attending, participating and coming prepared to class are crucial aspects of this course. Students will be invited to share their views on the different topics during the lessons either individually or in group discussions while respecting different opinions of the other students. Group discussions will be organized weekly around different thematic issues covered during the semester. Readings will provide support and guidance to students for their class discussion.

Midterm Exam

The midterm exam is an initial assessment of your understanding of the basic concepts covered during the first part of the course. Students will have 2 hours to complete the exam.

Assignments

Students will be asked to complete assignments on specific topics covered during the semester (waste, air pollution and climate, food systems). The assignments will help students interpret the environmental challenges and allow them to be better prepared for the presentation and for both midterm and final exams. The assignments will be posted on Sakai.

Presentation

Students will be asked to identify a thematic topic of the course and to prepare a project presentation on a specific environmental pressure. The presentation should reflect a basic scientific understanding of the pressure as well as the capacity to identify and develop potential solutions to that pressure in accordance with sustainable development principles. The use of multi-media materials is also welcome.

Final Exam

The final exam will be based on the topics presented and discussed throughout the course. Students will have 2 hours to complete the exam.

Grading

- 94-100: A
- 90-93: A-
- 87-89: B+
- 84-86: B
- 80-83: B-
- 77-79: C+
- 74-76: C
- 70-73: C-
- 67-69: D+
- 60-66: D
- 59 or lower: F

Academic Honesty

Plagiarism and other forms of academic dishonesty are unacceptable at the JFRC and will be dealt with in accordance with Loyola University Chicago's guidelines. Please familiarize yourself with Loyola's standards here: http://www.luc.edu/academics/catalog/undergrad/reg_academicintegrity.shtml. You are responsible to comply with the LUC Student Handbook.

Late or Missed Assignments

Late or missed assignments will not be accepted for grading without the authorization of the instructor. ***As per the JFRC academic policies, students who miss any scheduled exam or quiz, including a final exam at the assigned hours will not be permitted to sit for a make-up examination without approval of the Associate Dean of Academic Affairs.***

Permission is given rarely and only for grave reason; travel is not considered a grave reason. Make-up exams will only be given for documented absences.

Accessibility Accommodations

Students registered with the Student Accessibility Center requiring academic accommodations should contact the Office of the Dean at the John Felice Rome Center, the first week of classes.

Course Schedule

Friday Class Days: Friday, 21 March

Monday Class Days:

Date	Topic	Readings
Week One (20 January)	Course overview/Introduction to sustainable development <i>Activity:</i> conceptualizing sustainable development	on sakai
Week Two (27 January)	United Nations Sustainable Development Goals The evolution of the concept of sustainable development: from limits to opportunities.	on sakai
Week Three (3 February)	Population dynamics, inter-generational responsibility and planetary boundaries: the role of consumer culture in shaping the future of our planet <i>Classroom discussion:</i> overconsumption and underconsumption, what are basic human needs and how to improve our ecological footprint? <i>Activity:</i> calculate your ecological footprint twice (one for your Italian experience and one considering your lifestyle at home) and write down the main differences and three ways to improve your environmental performance.	on sakai
Week Four (10 February)	Waste management Defining waste and its management <i>Activity:</i> Analyse how waste is managed in Rome and what are the key challenges to reduce the amount of waste produced. In class we will develop a concise action plan highlighting how	on sakai

to apply some of the principles and practices of the Zero Waste Movement in our daily life on campus and compare the differences with our habits and behaviours back at home.

Classroom discussion: Think and describe a product or service that you daily use and answer the following questions:

- 1) where, why, and how often do you use it.*
- 2) highlight its sustainable and unsustainable features, with a particular focus on waste management.*
- 3) imagine yourself as a designer of the product or service and provide ideas on how to improve the design of the product to reduce or eliminate waste.*

Assignment 1: In a short essay highlight what are the main messages of the zero waste management approach addressing economic, social and environmental benefits of such approach as well as relative costs.

Week Five (17 February)	Ecosystems and human activity Protecting biodiversity and conserving biomes <i><u>Activity:</u> In groups, walk around different sections of JFRC Campus. Discuss and respond to the assigned four questions.</i>	on sakai
Week Six (24 February)	Protecting biodiversity for the future of the planet <i><u>Activity:</u> Visit to the Botanical Garden. Analysing and conceptualizing the importance of local diversity and variety to ensure resilience and adaptation to environmental change.</i>	on sakai
Week Seven (3 March)	Mid Term Exam	
Spring break (7-16 March)		
Week Eight (17 March)	Atmosphere and Air Pollution <i><u>Activity:</u> Understanding the atmosphere and the related Consequences of pollutants on its balance and composition. Italian cities have one of the highest premature mortality rates in Europe due to poor urban air quality. Cities are increasingly recurring to hard measures to reduce the impact of air pollution on human health. In class, analyze the effectiveness of these plans and compare them with what is applied in cities in the US. In groups, identify possible measures that could complement or substitute these measures.</i> <i><u>Assignment 2:</u> develop an air pollution reduction plan building on the experiences carried out in cities in both Italy and the US. We will start working on the plan as group activity in class.</i>	on sakai
Week Nine (21 March)	Atmosphere and Air Pollution <i><u>Activity:</u> work in groups based on assignment 2. Discuss the solutions identified and building on your findings propose your own plan for the city of Rome. Choose, if needed, additional measures that could complement those identified in your assignments and find a catchy slogan. As a group you will be</i>	on sakai

presenting the plan to the class.

Week Ten (24 March)	<p>Climate Change</p> <p>Human activities and consequences linked to atmospheric alteration: main pressures and potential solutions to tackling climate change from mitigation to adaptation as well as new emerging approaches (e.g. geoengineering).</p> <p><i>Activity: group discussion on proposals to protect present and future generations from climate change. How to ensure progress? How to manage economic, social, and environmental impacts. How to monitor implementation and hold countries accountable? What is the follow up to the Paris agreement? In groups we will address these questions and discuss the way forward building on the IPCC findings and national, regional and global commitments to address climate change.</i></p> <p><i>Assignment 3: describe the links between anthropogenic pollutants and climate change, as well as the main challenges to address this problem. Develop a proposal describing three transformational steps to protect present and future generations from climate change, highlighting potential economic, social, and environmental impacts, if any, of your proposed actions.</i></p>	on sakai
Week Eleven (31 March)	<p>Sustainable Food Systems</p> <p><i>Activity: Conceptualizing sustainable food systems. Analyse the role of local and traditional knowledge in promoting sustainable food systems and the case of Italy's rural areas. The nutritional and ecological value of traditional foods. How does local traditional culture contribute or not contribute to promoting sustainable food systems. Compare different agricultural practices and how they influence our eating habits and their potential contribution to sustainable development.</i></p> <p><i>Assignment 4: "Sustainable Lifestyle Eating Experiment". Experience and reflect on the possibilities, obstacles, and constraints of a lifestyle transition towards "sustainable eating habits" as a potential contribution to solving environmental problems, promoting local economies, and increasing social equity. Keep a two day journal describing your "sustainable lifestyle experiment".</i></p>	on sakai
Week Twelve (7 April)	<p>All is linked: vision and approach to sustainability. How to apply sustainability principles in practice.</p> <p><i>Activity: work in groups, choose a topic (consumption patterns, biodiversity, waste management, atmosphere and climate change, sustainable food systems) and discuss how to improve the sustainable performance of the school community. Identify three main interventions and what is their potential contribution to the other four sectors. Present your findings to the class.</i></p>	on sakai
Week Thirteen (14 April)	<p>Practical Activity on Sustainability</p> <p>Visit to the urban agricultural garden in Monte Ciocchi, Rome</p>	on sakai
Week Fourteen (28 April)	Final exam	on sakai