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«European Green Dimensions»

101081525 — JM EUGD — ERASMUS-JMO-2022-HEI-TCH-RSCH

PROGRAMME

Title: «European Green Dimensions»

Prof. in charge: Prof. Olena Mitryasova

Typology: Lecture; Seminar

Teaching course for Master's and PhD students

Location: Ecology Department,
Petro Mohyla Black Sea National University (PMBSNU),
68 Desantnykiv, 10, Mykolaiv, 54003 Ukraine

Teaching period: 2022/2023, 2023/2024 & 2024/2025 academic years;
spring semester

Amount: 90 hours (3 credits ECTS)

Abstract

The course will be constructing on the interdisciplinary base and cover key elements of strategy for sustainable development and European experience in the field of the green policy. The course will include such issues: green

initiatives; green roadmap; adaptation to the effects of climate change in the framework of the European green dimension; green economy; biodiversity conservation; energy efficiency, renewable energy; water resources management: water quality, wastewater treatment; protection of atmospheric air; environmental control and monitoring systems; industrial and household waste management, green, eco-friendly technologies, etc.

As an interdisciplinary course the one will focus on integration of environmental policy requirements into other policy areas. Also the course will comprise the international dimension, with the role of the EU in international environmental motions (e.g. Kyoto Protocol, UNESCO Roadmap for Implementing the Global Action Programme on Education for Sustainable Development, Sustainable Development Strategies, European Green Deal) and so on and the impact of European policy on other regions of the world. The course is interdisciplinary and connects the policy and tools of environmental management, principally addressing EU and Ukraine practices of environmental quality, natural resources, biodiversity and their progressive integration.

There are 90 hours of lectures and seminars (6 hours per week during 15 study weeks).

Language – Ukrainian.

Learning Outcomes

On successful completion of this module students will be able to:

- understand the difference between policies and tools of EU and Ukraine for environmental monitoring and management;
- explain goals and system of environmental management at national, regional/EU and global levels;
- understand and articulate key ecological challenges;
- articulate and understanding of the evolution of systems thinking, ecosystems thinking, the Ecosystem Approach and ecosystem services, and the implication of this for the continued evolution of integrated water and environmental management contexts;
- knowledge and understanding of EU green policy and its role in a globalized society; • understand and use topical and correct terminology related to the environmental management in Ukrainian and English;
- ability to conduct analysis, synthesis, creative reflection, evaluation and systematization of various information sources in conducting research European green policy;
- make use of information sources pertaining to global instruments and multilateral environmental agreements (MEAs) as well as EU environmental policy;
- knowledge of the basic principles, types, methods and means of environmental monitoring and their ability to assess and predict the state of the objects of the environment;

- understand of the environmental management system and procedures for activities of enterprises in order to environmental security, its functions, tasks at the global and national levels;
- knowledge of the latest advanced green technologies and innovations;
- discuss the evolving green policy and tools, principally addressing EU and Ukraine practices of adapting to climate change, natural resources, biodiversity.

Course schedule

Weeks	Form of study	Theme
1	Lecture Seminar (6 hs)	The green initiatives and green roadmap. The role of the EU in international environmental motions (e.g. Kyoto Protocol, UNESCO Roadmap for Implementing the Global Education for Sustainable Development, Sustainable Development Strategies, European Green Deal).
2	Lecture Seminar (6 hs)	The strategies of EU environmental policy (United Nations Environment Programme (UNEP), UN Climate Change Conferences: Bali, Poznan, Copenhagen, Cancún Transatlantic relations and climate change / EU & US relations on environmental issues). Roadmap for Ukraine's participation in the European Green Course.
3	Lecture Seminar (6 hs)	Green circular economy and low carbon development: EU and national dimension. Environmental guidelines of the green economy and climate policy.
4	Lecture Seminar (6 hs)	Natural resources, environmental quality and climate change. Overcoming climate change in the framework of the European Green deal. Adaptation to the effects of climate change.
5	Lecture Seminar	Integrated water management: challenges for the 21st century. Water and

	(6 hs)	development in Europe: environmental sustainability as precondition of European environmental policy and its best practices in water monitoring.
6	Lecture Seminar (6 hs)	Atmospheric air protection. Environmental control and monitoring systems.
7	Lecture Seminar (6 hs)	Sustainable and environmental land management. General principles of sustainable land management
8	Lecture Seminar (6 hs)	Biodiversity conservation. Pan-European Strategy for the Conservation of Biological and Landscape Diversity as a Mechanism for Implementing the Framework Convention in Europe.
9	Lecture Seminar (6 hs)	Energy efficiency, renewable energy. Types of renewable energy and their development. European energy policy. Sustainable energy and climate change: the EU experience for Ukraine.
10	Lecture Seminar (6 hs)	Industrial and household waste management.
11	Lecture Seminar (6 hs)	The best latest advanced green, eco-friendly technologies and innovations for sustainable development. Green nanotechnology and green chemistry.
12	Lecture Seminar (6 hs)	Zero pollution for the purity of the environment. Concerted efforts towards achieving Zero pollution levels by minimizing, recycling/reusing of liquid effluents, gaseous emissions and hazardous solid wastes.
13	Lecture Seminar (6 hs)	Energy and resource efficient construction. Policy options to promote green buildings.

14	Lecture Seminar (6 hs)	European best environmental practices: air, water, soil, waste management.
15	Lecture Seminar (6 hs)	Challenges for Ukraine in green policy, and practice due to association with the EU.
16	Exam	Written exam

Teaching methods

Interactive lectures, including power-point presentations, analysis of the literature, inclass debates, student's presentations and peer reviews, e-learning.

Grading

Component A (50%) – Examination

The exam will test student knowledge and understanding of the key concepts and theories encountered on the module.

Component B (50%) – Written study portfolio

A key emphasis of this module is study informed teaching and this is carried into the grade. Students will work on an portfolio of guided study activities, aimed at gaining and proving ability a number of core skills. The study portfolio will illustrate engagement across the module.

Upon successful completion, students will receive a certificate. For that learners are required to:

- attend all the lectures and seminars;
- successful pass the exam.

Reference

- Європейський зелений курс. – Режим доступу: <https://ukraine-eu.mfa.gov.ua/posolstvo/galuzeve-spivrobitnictvo/klimat-yevropejska-zelena-ugoda>
- Закон України про управління відходами. – Режим доступу: <https://zakon.rada.gov.ua/laws/show/2320-20#Text>
- Мітрясова О. Екологічний інтегрований менеджмент водних ресурсів у європейських країнах: навчальний посібник / Олена Мітрясова, Віктор Смирнов, Євген Безсонов / за ред. проф. Олени Мітрясової, - Миколаїв: ЧНУ імені Петра Могили, 2020. – 288 с.
- Модель циркулярної економіки. – Режим доступу: <https://business.dii.gov.ua/handbook/impact-investment/model-cirkularnoi-ekonomiki>

- Національна доповідь про стан навколишнього природного середовища в Україні у 2020 році. – Режим доступу: <https://mepr.gov.ua/news/38840.html>
- Природа та війна: як військове вторгнення Росії впливає на довкілля України. – Режим доступу: <https://ecoaction.org.ua/pryroda-ta-vijna.html>
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- 52 кроки до біорізноманіття. – Режим доступу: https://mepr.gov.ua/files/docs/Bioriznomanittya/52_kroku.pdf
- A European Green Deal. - https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
- Climate Change & Sustainable Development: New Challenges of the Century: Textbook / edited by prof. Olena Mitryasova. – Mykolaiv: PMBSNU, 2022. – 252 p. https://chmnu.edu.ua/wp-content/uploads/BOOK_ClimCh_SustDev_compressed.pdf
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- Land & Water. - <https://www.fao.org/land-water/solaw2021/en/>
- State of Global Water Resources 2021. - <https://reliefweb.int/report/world/state-global-water-resources-2021-enarzh>
- The EU Green Deal – a roadmap to sustainable economies. - <https://www.switchtogreen.eu/the-eu-green-deal-promoting-a-green-notable-circular-economy/>
- UN World Water Development Report 2022 - UNESCO.org. - <https://www.unesco.org/reports/wwdr/2022/en>
- Water Security, Issue 2: Monograph. – Edited by Olena Mitryasova & Chad Staddon. – Mykolaiv: PMBSNU – Bristol: UWE, 2021. – 444 p.
- Water quality monitoring stations. - <https://www.eea.europa.eu/data-and-maps/explore-interactive-maps/overview-of-soe-monitoring-stations>