

Title of the course:	ENVIRONMENTAL SCIENCE FOR SUSTAINABILITY, ECOSYSTEMS AND TECHNOLOGY		
Course ID:	VE-NPT038		
Level of education:	Regular & Erasmus	Academic semester:	Spring
Professor's name:	DR. PETER PRACZKI	Academic title:	
Hours per semester:	26	Credits:	4
Exam:	Written exam:	Pre-requisites:	Management

Aims of the course

“There is no justification for taking away individuals’ freedom in the guise of public safety.”
 Thomas Jefferson

Since the first industrial revolution, the excessive growth of humanity has resulted in the worldwide expansion of endless short-sighted economic activities. Environmental pollution started to be more and more significant, due to the huge expansion of unsecured financial activities and socially unnecessary commodities production. Furthermore, as agriculture became more and more intensive to feed the increasing population, ecosystems are continuously and globally destroyed. Humanity therefore needs to face a fast turnaround towards a new ecological economy, based on new technologies. The global economic, energy, climate change, natural disasters, migration and water & food shortage are all unsolved expressions of the modern capitalism. One need to understand that the tackling of the biggest human global challenges, like surveillance capitalism, climate change, artificial intelligence, pandemics, nuclear weapons proliferation, armed conflicts etc. These global issues can only be solved based on international political, economic and cultural agreements and mutual understanding. One aim of the course is to interpret the World environmental, social and economic development and recognize that environmental viability depends on the maintenance and sustainable use of healthy ecosystem resources and human reasoning, in order to perceive the need of a new way of ethical and social thinking and to understand the historic changeover standing ahead of us. The course also discusses what we can do personally to implement these ecological and societal processes.

Scope of the course

“Be willing to ask questions about what is taken for granted.”

Noam Chomsky, 2010.

The course reviews various environmental topics and student’s interactive participation will be highly valued. In addition to the student’s professional preparations, the course does not only focus on deepening the investigated environmental contents, but also increases the student’s reasoning ability (thesis, antithesis, synthesis), based on group-conversations in English. An important part of the course is to increase the students’ self-confidence in the field of interactivity. Each student will have to perform an environmentally pre-selected presentation; which subject will be then discussed - based on assertive communication skills - by all participants. Each student’s presentation will also address - in some slides - how the presented environmental issue is handled in their own country. At the end of the course, students receive their grade based on a self-assessment, therefore no oral examination is required. The course is also paying attention on student’s innovative contributions, which brings new ideas to the course development. Another idea of the course is to better understand our environment, and improve student’s ability and skills to explore it.

The involvement of the course is to discover the biggest environmental issues, to explain the pros and cons of its development and to draw conclusions which can be constructive for the entire society. The beginning of wisdom is doubting, so the most important method in order to achieve this, is to prioritize on creativity and critical thinking. It is important that students meet different professional experts and get to know some environmental practical results achieved. Therefore, some events take place off campus.

Course outline

1. Presentation: Environmental Science for Sustainability, Ecosystems and Technology
2. Climate change / Global warming
3. World oil supply and the future of fossil resources
4. World population growth, demography and environment
5. Agriculture, food & farming solutions, see Cowspiracy - The Sustainability secret (movie)
6. COVID 19, global societal and environmental effects
7. Sustainable urban development, / discussion with András Ekés - director Mobilissimus Co.)
8. Renewable energy technology - global solutions, innovations and mobility (water engine cars)
9. Circular economy, ESG, The Great Reset and other societal & economical alternatives
10. Degrowth (non- ecological alternatives / discussion with M. Vincent Liegey (French Degrowth Alternative)
11. Technology for the scale & urgency of pollution cuts (visit to Rákospalota Waste Recovery Plant)
12. Media, mainstream and alternative media, fake news, misleading information, mass psychosis
13. Artificial Intelligence (AI), surveillance capitalism, robot technology and environment

Requirement and assessment

Interactive participation on sessions	40%
Thematic presentations	40%
Innovative contribution (adding new ideas to the course)	20%

Compulsory readings

Erich Fromm, (1956): The Art of Loving, Harper and Brothers, USA, NY
Rosenberg M. B. (1999): Nonviolent Communication... A Language of Compassion, PuddleDancer Press, USA

Recommended readings

Acemoglu, D.-Robinson J. A. (2012): Why Nations Fail, Crown Business, New York
Alter A. (2014): Drunk Tank Pink: And Other Unexpected Forces That Shape How We Think, Feel and Behave, Penguin Books, New York

Bakas A.-Creemers, R. (2010): Living Without Oil. Infinite Ideas Limited, United Kingdom
Bostrom Nick. (2014): Superintelligence, Oxford University Press

- Demset M. (2022): The Psychology of Totalitarianism, International Kindle Paperwhite, New York
- Duffy B. (2018): The Perils Of The Perception, Atlantic Books, London
- Joy M. Ph.D. (2010): Why We Love Dogs, Eat Pigs, And Wear Cows, Conari Press, San Francisco
- Kip Andersen – Keegan Kuhn (2004): Cowspiracy - The Sustainability secret (movie)
- Goleman, D.(2009): Ecological Intelligence. Penguin Random House, USA
- Gore, A. (2006): An Inconvenient Truth. Butler and Tanner Ltd. Great Britain
- Hopkins, R. (2008): The Transition Handbook. Green Books Ltd., Totnes
- Kohn A. (1986): No Contest, Houghton Mifflin Company, New York
- Kolbert, E. (2014): The Sixth Extinction. Henry Holt and Co., New York
- Ford M. (2015): The Rise of the Robots, Basic Books, New York
- Fromm, E. (1956): The Art of Loving, Harper & Brothers, New York
- Latouche, S. (2004): Degrowth Economics. Le Monde Diplomatique, November, France
- Liegey V.: (2013) [Un projet de décroissance. Manifeste pour une dotation inconditionnelle d'autonomie](#), Utopia, France
- Lovins, A. (2013): Reinvent Fire. Rocky Mountain Institute, USA
- Vance A. (2015): Elon Musk, Penguin Random House, London
- Mayer V.-Cukier S. K. (2013): Big Data, Houghton Mifflin Harcourt Publishing Company, Boston
- Paarlberg R. (2010): Food Politics, Oxford University Press
- Randers, J. (2012): 2052. A Global Forecast for the Next Forty Years. Chelsea Green Publishing, USA
- Rosenberg M. B. (2003): Life-Enriching Education, PuddleDancer Press, USA
- Yuval Noah Harari (2014): Sapiens - A Brief History of Humankind. Clays Ltd. Great Britain
- Yuval Noah Harari (2016): Homo Deus - A Brief History of Tomorrow. Great Britain
- Yuval Noah Harari (2018): 21 Lessons for the 21th Century. Penguin Random House, Great Britain