

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	ZELENE TEHNOLOGIJE V LOGISTIČNIH PROCESIH
Course title:	GREEN TECHNOLOGIES IN LOGISTICS PROCESSES

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Gospodarska in teh. logistika 1. stopnja		3.	5.
Professional higher education study programme economic and technical logistics 1. degree		3.	5.

Vrsta predmeta / Course type: IZBIRNI

Univerzitetna koda predmeta / University course code: VS3

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Laboratory work	Druge oblike študija Fieldwork	Samost. delo Individ. work	ECTS
24 e-P 21 a-P		24 e-V 21 a-V			90	6

Nosilec predmeta / Lecturer: MATJAŽ KNEZ

Jeziki / Languages: Predavanja / Lectures: SLOVENSKI / SLOVENE
 Vaje / Tutorial: SLOVENSKI / SLOVENE

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Prerequisites:

Ni pogojev.

None

Vsebina:

Content (Syllabus outline):

- Logistični procesi in zelene tehnologije
- Vloga države pri promociji zelenih tehnologij in obnovljivih virov energije
- Zelene tehnologije in obnovljivi viri energije
- Uvajanje in uporaba zelenih tehnologij in obnovljivih virov energije v logistične podsisteme
- Ekonomičnost integracije alternativnih goriv v logistične procese ter
- Energetsko upravljanje v logističnih organizacijah in novi tehnološki koncepti
- Študije praktičnih primerov uvedbe zelenih

- Logistical processes and green technologies
- The role of government in promoting of green technologies and renewable energy sources
- Green technologies and renewable energy sources
- Introduction and use of green technologies and renewable energy sources in the logistics subsystems
- Economics of alternative fuels integration in to logistics processes
- Energy management in logistics organizations and new technological concepts

tehnologij in zelenih virov energije

- Case studies of the implementation of green technologies and green energy sources

Temeljna literatura in viri / Readings:

Knez M., (2013) Zelene tehnologije v logističnih procesih E-gradivo – v pripravi. Univerza v Mariboru, Fakulteta za logistiko.

McKinnon A., Browne M., Whiteing A. (2012) Green Logistics, Improving the Environmental Sustainability of Logistics.

Muneer T. (2012) Solar Radiation and Daylight Models. Routledge

Makower J., 2009. Strategies for the Green Economy. McGraw Hill, New York.

MacKinnon D., Shaw J., Docherty I. (2008) Diverging Mobilities? Devolution, Transport and Policy Innovation. Elsevier.

Esty D.C., Winston A.S. (2009) Green to Gold. How smart companies use environmental strategy to innovate, create value, and build competitive advantage. John Wiley & Sons, Inc. Hoboken New Jersey.

Trainer T. (2007) Renewable Energy Cannot Sustain a Consumer Society. Springer.

Dodatna literatura: Izbrani članki ter nova izdana literatura s področja predmeta

Cilji in kompetence:

Cilj tega predmeta je:

- poznavanje in razumevanje zelenih tehnologij in okolju prijaznih obnovljivih virov energije,
- spoznati uveljavljene ter nove načine uporabe zelenih tehnologij in obnovljivih virov energije,
- razumevanje in pomen vzpostavitve energetskega managementa v podjetju.

Objectives and competences:

The objective of the course is to:

- Knowledge and understanding of green technologies and environmentally friendly renewable energy sources,
- Recognize the established and new ways of usage of the green technologies and renewable energy sources,
- Understanding the importance of establishing the energy management in the company.

Predvideni študijski rezultati:

Znanje in razumevanje:

- razumevanje poslovanja logističnih in nelogističnih podjetij v moderni in trajnostno naravnani družbi,
- poznavanje zelenih tehnologij, njihovih prednosti ter možnih integracij v logistične procese,
- Razumevanje pomena vzpostavitve energetskega managementa v podjetju

Prenesljive/ključne spretnosti in drugi atributi:

- študenti se usposobijo za uporabo teoretičnega znanja v praktičnih primerih

Intended learning outcomes:

Knowledge and understanding:

- understanding operations of logistics and “nonlogistics companies in modern and sustainable society
- Knowledge of green technologies and their advantages and possible integration of logistics processes
- Understanding the importance of carbon footprint and ways of reducing

Transferable/Key skills and other attributes:

- the ability to apply theoretical knowledge to professional practice.

Metode poučevanja in učenja:

Learning and teaching methods:

- Predavanja: pri predavanjih študent spozna teoretične vsebine predmeta. Del predavanj se izvaja na klasični način v predavalnici, del pa v obliki e-predavanj (e-predavanja se lahko izvajajo na videokonferenčni način ali s pomočjo posebej v ta namen didaktično pripravljenih e-gradiv v virtualnem elektronskem učnem okolju).
- Vaje: pri vajah študent utrdi teoretično znanje in spozna aplikativne možnosti. Del vaj se izvaja na klasični način v predavalnici, del pa v obliki e-predavanj (e-vaje se lahko izvajajo na videokonferenčni način ali s pomočjo posebej v ta namen didaktično pripravljenih e-gradiv v virtualnem elektronskem učnem okolju).

- Lectures: Students understand the theoretical frameworks of the course. Part of the lecture course is in a classroom while the rest is in the form of e-learning (e-lectures may be given via video-conferencing or with the help of specially designed e-material in a virtual electronic learning environment)
- Seminars: Students enhance their theoretical knowledge and are able to apply it. Part of the seminar is in a classroom while the rest is in the form of e-learning (e-seminars may be given via video-conferencing or with the help of specially designed e-material in a virtual electronic learning environment)

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
<ul style="list-style-type: none"> • Seminarska naloga in domače naloge • Pisni izpit 	<p>50</p> <p>50</p>	<ul style="list-style-type: none"> • Coursework and home work • Written examination

Reference nosilca / Lecturer's references:

1. JEREB, Borut, IVANUŠA, Teodora, ROSI, Bojan. Systemic thinking and requisite holism in mastering logistics risks : the model for identifying risks in organisations and supply chain. *Amfiteatru econ.*, Feb. 2013, vol. 15, no. 33, str. 56-73, tabele. <http://www.amfiteatruconomic.ro/ArticolEN.aspx?CodArticol=1175>. [COBISS.SI-ID [512476221](#)]
2. JEREB, Borut, CVAHTE, Tina, ROSI, Bojan. Mastering supply chain risks. *Advanced engineering*, 2012, year 6, no. 2, str. 157-170, tabele. [COBISS.SI-ID [512476477](#)]
3. KNEZ, Matjaž, PREDIN, Andrej, ROSI, Bojan. 'Forklift to grid' - how to synergise the electricity and logistics sectors = 'Viličar na omrežje' - kako sinergijsko povezati električno omrežje z logističnim sektorjem. *Journal of energy technology*, May 2012, vol. 5, iss. 2, str. 13-27. http://www.fe.uni-mb.si/images/stories/jet/e-jet/jet_5-2.pdf. [COBISS.SI-ID [1024091228](#)]
4. ROSI, Bojan, TOJNKO, Miran, CVAHTE, Tina, LERHER, Tone, JEREB, Borut, BÁLINT ČEH, Júlia. Load fastening and securing. *Logistics & sustainable transport*. [Spletna izd.], letn. 3, št. 1, str. 53-57, ilustr. <http://www.ilst.org/>. [COBISS.SI-ID [799904](#)]
5. KNEZ, Matjaž, PREDIN, Andrej, ROSI, Bojan. Poslovni model OVE/F2G V.1 za učinkovitejši energetski menedžment logističnih podjetij. *Proj. mreža Slov.*, apr. 2012, letn. 15, št. 1, str. 10-17, 43, ilustr. [COBISS.SI-ID [1024084572](#)]
6. JEREB, Borut, CVAHTE, Tina, ROSI, Bojan. Mastering supply chain risks. *Serb. J. Manag.*, 2012, vol. 17, no. 2, str. [271]-285, ilustr., tabela. http://aseestant.ceon.rs/index.php/sjm/article/view/1360/pdf_3, doi: [10.5937/sjm7-1360](https://doi.org/10.5937/sjm7-1360). [COBISS.SI-ID [512470333](#)]
7. JEREB, Borut, CVAHTE, Tina, ROSI, Bojan. Prepoznavanje in analiza tveganj v oskrbovalnih verigah. *Proj. mreža Slov.*, dec. 2011, letn. 9 [i. e. 14], št. 4, str. 4-12. [COBISS.SI-ID [15689781](#)]
8. STERNAD, Marjan, KNEZ, Matjaž, ROSI, Bojan. Improving city transport with the objective to reduce CO₂ emissions. *Transport problems*, 2010, vol. 5, iss. 4, str. 95-103. http://transportproblems.polsi.pl/pl/Archiwum/2010/zeszyt4/2010t5z4_12.pdf. [COBISS.SI-ID [512283197](#)]
9. ANDROJNA, Andrej, BIZJAK, Robert, ROSI, Bojan. Maintenance supply chain for nuclear power plants : information

technology support for human resources management. *Logistics & sustainable transport*. [Tiskana izd.], 2009, vol. 1 [!], iss. 4, str. 14-23, ilustr.
<http://www.jlst.org/uploads/maintenance%20supply%20chain%20for%20nuclear%20power%20plants.pdf>.
[COBISS.SI-ID [264167424](#)]

10. ROSI, Bojan, MULEJ, Matjaž. Diminishing traffic negative impacts over natural environment by a requisitely holistic approach to logistics. *Logistics & sustainable transport*. [Tiskana izd.], 2008, vol. 1, no. 1, str. [1-13].
http://www.jlst.org/uploads/transportokolje_rosimulej.pdf. [COBISS.SI-ID [264130048](#)]