UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Ime predmeta:	KROŽNO GOSPODARSTVO V LOGISTIKI
Course title:	CIRCULAR ECONOMY IN LOGISTICS

Študijski program in stopnja Study programme and cycle	Študijska smer Study option	Letnik Year of study	Semester Semester
LOGISTIKA SISTEMOV 3. stopnja		1.	1. in 2.
SYSTEM LOGISTICS 3rd degree		1.	1. in 2.

Vrsta predmeta (obvezni ali izbirni) / Course type (compulsory or elective)	IZBIRNI ELECTIVE
Univerzitetna koda predmeta / University course code:	DR

Predavanja Lectures	Seminar Seminar	Vaje Tutorial			Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work	ECTS
		AV	LV	RV				
20							160	6

Nosilec predmeta / Course coordinator:	**REBEKA KOVAČIČ LUKMAN**
Jeziki /Languages: **Predavanja / Lectures:**	SLOVENSKI/SLOVENE
Vaje / Tutorial:	SLOVENSKI/SLOVENE

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	Prerequisites for enrolling in the course or for performing study obligations:
Ni posebnih omejitev.	No special conditions.

Vsebina (kratek pregled učnega načrta):	Content (syllabus outline):
− Novi poslovni modeli za krožno gospodarstvo. − Trajnostna proizvodnja in potrošnja (s poudarkom na logistiki, redke surovine, sekundarni viri, snovni tokovi, ...). − Vidik potrošnikov – prehod iz lastništva v storitve. − Vrednotenje vplivov na okolje v celotnem življenjskem ciklu logističnih in z logistiko povezanih, procesov storitev in proizvodov.	− New business models for circular economy. − Sustainable production and consumption (with a focus on logistics, critical raw materials, secondary resources, resources flows, …). − A consumer perspective – a transition from ownership towards services. − Life cycle assessment of logistics processes, services and products.

Temeljni literatura in viri / Reading materials:

− KOVAČIČ LUKMAN, Rebeka, et al. Improving efficient resource usage and reducing carbon dioxide emissions by optimizing fleet management for winter services. *Journal of cleaner production*, ISSN 1879-1786. 10. Mar. 2018, vol. 177, str. 1-11.
− KOVAČIČ LUKMAN, Rebeka et al. Sustainable consumption and production : research, experience, and development : the Europe we want. *Journal of cleaner production*, ISSN 0959-6526., 2016, vol. 138, str. 139-147.

- Weetman C. Circular economy handbook for businesses and supply chains. Repair, remake, redesign, rethink. Kogan Page, 2016.
- De Angelis R. Business models in Circular Economy. Concepts, examples and theory. Springer International Publishing, 2018.

Cilji in kompetence:

- Interdisciplinarna znanja iz področja krožnega gospodarstva v logistiki.
- Sposobnost načrtovanja logističnih procesov in kompleksnega vrednotenja vplivov na okolje (tudi stroškov).
- Sposobnost samostojnega znanstveno-raziskovalno dela iz področja krožnega gospodarstva.

Objectives and competences:

- Interdisciplinary knowledge in the field of circular economy in logistics.
- Design of logistic processes and complex life cycle analyses (also cost analyses).
- Individual research work in the field of circular economy.

Predvideni študijski rezultati:

Znanje in razumevanje:
- Poznavanje krožnega gospodarstva v logistiki (vključujoč redke surovine, sekundarni viri, snovni tokovi ...).
- Zmožnost načrtovanja novih poslovnih modelov krožnega gospodarstva (npr. prehod iz lastništva v storitve).
- Zmožnost načrtovanja logističnih procesov in celovitega vrednotenja vplivov na okolje, upoštevajoč tudi stroške.
- Zmožnost uporabe naprednih znanstvenih metod, modelov, tehnik pri načrtovanju procesov in poslovnih modelov.

Prenesljive/ključne spretnosti in drugi atributi:
- Potrebno znanje za načrtovanje in modeliranje procesov ter vrednotenje vplivov na okolje.
- Poznavanje in uporaba naprednih računalniško podprtih orodjih.

Intended learning outcomes:

Knowledge and understanding:
- Knowledge of circular economy in logistics (including critical raw materials, secondary sources, resource flows …).
- Ability to design new circular economy business models (a transition from ownership towards services).
- Ability to design logistic processes and complex assessment of environmental impacts, considering costs.
- Knowledge of proper scientific-research anticipation and application of advanced methods, models, techniques by design of processes and business models.

Transferable/Key Skills and other attributes:
- The necessary engineering knowledge for design and model of processes and their environmental assessments.
- The knowledge and the application of the advanced computer-aided tools.

Metode poučevanja in učenja:

- Predavanja.
- Konzultacije.
- Samostojno delo.
- Projektno delo ali znanstveni članek.

Learning and teaching methods:

- Lectures.
- Consultations.
- Individual work.
- Project work or scientific paper.

Načini ocenjevanja:	Delež (v %) / Share (in %)	**Assessment methods:**
- Raziskovalna naloga. - Izpit (teoretično in praktično znanje).	50% 50%	- Research work. - Exam (theoretical and practical knowledge).

Reference nosilca / Course coordinator's references:

1. ŽIGART, Maja, KOVAČIČ LUKMAN, Rebeka, PREMROV, Miroslav, ŽEGARAC LESKOVAR, Vesna. Environmental impact assessment of building envelope components for low-rise buildings. *Energy*, ISSN 0360-5442. [Print ed.], Available online 22 August 2018, str. [1-20], doi: 10.1016/j.energy.2018.08.149. [COBISS.SI-ID 21646358], [JCR, SNIP, WoS do 9. 11. 2018: št. citatov (TC): 0, čistih citatov (CI): 0, čistih citatov na avtorja (CIAu): 0, Scopus do 7. 9. 2018: št. citatov (TC): 0, čistih citatov (CI): 0, čistih citatov na avtorja (CIAu): 0].

2. KOVAČIČ LUKMAN, Rebeka, GLAVIČ, Peter, CARPENTER, Angela, VIRTIČ, Peter. Sustainable consumption and production: research, experience, and development: the Europe we want. *Journal of cleaner production*, ISSN 0959-6526. [Print ed.], 2016, vol. 138, str. 139-147, doi: 10.1016/j.jclepro.2016.08.049. [COBISS.SI-ID 1024244572], [JCR, SNIP, WoS do 9. 9. 2018: št. citatov (TC): 14, čistih citatov (CI): 14, Scopus do 29. 8. 2018: št. citatov (TC): 17, čistih citatov (CI): 17].

3.KOVAČIČ LUKMAN, Rebeka, LOZANO, Rodrigo, VAMBERGER, Tamara, KRAJNC, Majda. Addressing the attitudinal gap towards improving the environment: a case study from a primary school in Slovenia. V: LOZANO, Rodrigo (ur.). *Environmental Management for Sustainable Universities (EMSU) 2010, European Roundtable of Sustainable Consumption and Production (ERSCP) 2010*, (Journal of cleaner production, ISSN 0959-6526, vol. 48, 2013). Amsterdam: Elsevier. 2013, vol. 48, str. 93-100, doi: 10.1016/j.jclepro.2011.08.005. [COBISS.SI-ID 15248406], [JCR, SNIP, WoS do 11. 11. 2018: št. citatov (TC): 22, čistih citatov (CI): 22, Scopus do 26. 11. 2018: št. citatov (TC): 24, čistih citatov (CI): 24] tipologija 1.08 -> 1.01.

Rebeka Kovačič Lukman ima več kot 100 bibliografskih enot, h indeks 10 in več kot 915 čistih citatov znanstvenih del. Njena znanstvena dela se uvrščajo v 1 % najbolj citiranih del področja. Je članica ožje skupine strokovnjakov pri Evropski Komisiji na področju financiranja krožnega gospodarstva v državah članicah EU. Je članica upravnega odbora ERSCP (European Roundatble on Sustainable Consumption and Production) Society in International Industrial Ecology Professionals.