

## UČNI NAČRT PREDMETA / COURSE SYLLABUS

**Ime predmeta:** MANAGEMENT OSKRBOVALNIH VERIG PRIHODNOSTI  
**Course title:** MANAGING SUPPLY CHAINS OF THE FUTURE

Študijski program in stopnja Study programme and cycle	Študijska smer Study option	Letnik Year of study	Semester Semester
LOGISTIKA SISTEMOV 2. stopnja		1.	1.
SYSTEM LOGISTICS 2 <sup>nd</sup> degree		1.	1.

**Vrsta predmeta (obvezni ali izbirni) /  
Course type (compulsory or elective)**

OBVEZNI  
COMPULSORY

**Univerzitetna koda predmeta / University course code:**

MAG

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work	ECTS
15 e-P 30 a-P		16 e-V 24 a-V			125	7

**Nosilec predmeta / Course coordinator:**

MATEVŽ OBRECHT

**Jeziki /Languages:**

**Predavanja / Lectures:** SLOVENSKI/SLOVENE

**Vaje / Tutorial:** SLOVENSKI/SLOVENE

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

Ni pogojev za sodelovanje pri tem predmetu.

**Prerequisites for enrolling in the course or for performing study obligations:**

There are no prerequisites for this course.

**Vsebina (kratek pregled učnega načrta):**

Temeljna področja obravnave predmeta so naslednja:

- Trendi v logistiki in oskrbovalnih verigah (OV) (družbenoekonomski, tehnološki trendi, prioritete EU, Cilji trajnostnega razvoja SDG, ogljično nevtralna logistika, trajnostni razvoj&digitalizacija)
- Upravljanje OV (Aktivnosti managementa, strateška piramida, PDCA model & Ansoff growth & Lean Six Sigma, Prioritisation, pomen MOV za konkurenčnost, učinek biča, inventory management)
- Oblikovanje OV (Gradniki OV, oblikovanje OV, strateško fit OV, strategije OV)
- Prilagajanje OV ključnim trendom (Identifikacija ključnih trendov in oblikovanje odpornih OV, večanje odzivnosti in

**Content (syllabus outline):**

Basic areas of course are:

- Trends in logistics and supply chains (SC) (socio-economic and technological trends in logistics and SC, Strategic priorities of the EU, UN Sustainable Development Goals, carbon neutral logistics, Sustainable development, Digitalisation)
- Supply chain management (Management activities and management pyramide, PDCA model & Ansoff growth & Lean Six Sigma, Decision phases in SCM & Prioritisation matrix, Competitive advantage of SCM, bullwhip effect, Inventory management)
- SC design (SC drivers, strategic fit SC, strategies of SCM)

fleksibilnosti v času motenj, upravljanje predvidljive variabilnosti)	<ul style="list-style-type: none"> <li>• SC mitigation and adaptation to new trends (Identifying core trends and designin resilient SC, Increasing SC responsiveness and flexibility in time of disruptions, Managing predictable variability)</li> </ul>
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### Temeljni literatura in viri / Reading materials:

<p>Osnovna literature/Essentialsources:</p> <ul style="list-style-type: none"> <li>• E-gradivo predmeta.</li> <li>• Obrecht, M. (2020). Life cycle management in supply chains. E-gradivo. Univerza v Mariboru, Fakulteta za logistiko. Izbrana poglavja iz/Some Chaptersfrom.</li> <li>• Chopra, S., Meindl, P. (2012). SupplyChainManagement. Prentice Hall, New York.</li> <li>• DHL CSI. 2020. The Logistics trend radar – 5th edition. DHL trend research.</li> <li>• UN. 2015. The 2030 Agenda for Sustainable development. A/RES/70/1. United Nations. Izbrana poglavja iz/Some Chaptersfrom.</li> <li>• Simchi-Levi, D., Kaminsky, P. (2007). Designing and Managing the Supply Chain. McGraw-Hill/Irwin, New York. ›Visit Amazon's Sunil Chopra Page</li> <li>• Brezet, H. and Van Hemel, C. Ecodesign: A promising approach to sustainable production and consumption. UNEP, Paris, 1997.</li> </ul> <p>Dodatna literature / Additionalsources:</p> <ul style="list-style-type: none"> <li>• Marinova, D. (ed.) The international Handbook on Environmental Technology Management. EE publishing, Cheltenham UK.</li> <li>• Monczka, R., Handfield, R., Giunipero, L., Patterson, J. (2012). PurchasingandSupplyChain Management. CengageLearning, Mason (OH).</li> <li>• Bouhaddou, I., Benabdelhafid, A., Ouzizi, L. and Benghabrit, Y.Product Lifecycle Management Model for Supply Chain Optimization, IFIP, 2012.</li> </ul>
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### Cilji in kompetence:

<p>Osnovni namen predmeta je identificirati nove trende s področja logistike in oskrbovalnih verig ter s ključnimi trendi povezati značilnosti in strategije managementa oskrbovalnih verig v sodobnih pogojih delovanja.</p> <p>Cilji predmeta so:</p> <ul style="list-style-type: none"> <li>• Identificirati in primerjalno analizirati ključne trende v logistiki in OV</li> <li>• Preučiti strategije oblikovanja dinamičnih in prilagodljivih OV</li> <li>• Povezati (souplebljati) različna managerska orodja in koncepte upravljanja OV</li> <li>• Povzeti in formulirati ključne trende v OV</li> <li>• Povezati ključne trende v strukturiranje in oblikovanje trajnostnih, odpornih in prilagodljivih sodobnih OV.</li> </ul>
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### Objectives and competences:

<p>The course introduces the identification and selection of core logistics and supply chain trends and to relate them with supply chain management strategies and applications to business in modern and unpredictable circumstances.</p> <p>Basic objectives are:</p> <ul style="list-style-type: none"> <li>• To identify and comparatively analyse core trends in logistics and SC</li> <li>• Examine strategies to design dynamic and responsive SC</li> <li>• Integrate (use) different managerial tools, approaches and concepts in SC management</li> <li>• Summarize and formulate core trends that impact SC</li> <li>• Combine core trends and concepts to structure and design sustainable, resilient and adaptive modern SC.</li> </ul>
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**Kompetence, ki jih študentje osvojijo:**

- Se naučijo sintetizirati informacije s področja trendov OV, na način, ki je lahko inovativen in vidi uporabno vrednost znanja ali procesov z vidika predmeta in prakse.
- Spoznajo in razumejo pomen integracije trendov v management OV, kar jim omogoča kritično presojo managerskih znanj, konceptov in pristopov.
- Obvladajo delo s skupino kot vodja ali kot član. Zna pojasniti naloge in ustrezno uporabiti zmožnosti članov skupine.
- Se usposobijo za avtonomnost in iniciativnost pri izvajanju opravil. Znajo uporabiti veščine ali razviti nove procedure za nove okoliščine.
- Spoznajo znanje stroke, delujejo tekoče (uglajeno), natančno in učinkovito.

Z vidika predmetnika je predmet Management oskrbovalnih verig prihodnosti mogoče opredeliti kot nadgradnjo predmetov vezanih na upravljanje logistike in OV ter osnovo za nadaljnji samostojni študij študentov na področju načrtovanja, simuliranja in optimiranja procesov upravljanja oskrbovalnih verig.

**Core competencies':**

- Can further synthesize information with critical awareness in a manner that may be innovative, utilizing knowledge or processes from the forefront of the discipline/practice.
- Has a level of conceptual understanding of integrating trends into SCM and critically assess managerial knowledge, tools and approaches.
- Can work effectively with a group as leader or member. Can clarify tasks and make appropriate use of the capacities of group members. Is able to negotiate and handle conflict with confidence.
- Can work autonomously and start with their own ideas and initiatives. Are able to use skills and develop new procedures regarding the new trends and SC design.
- Get familiar with professional knowledge, work professionally, efficiently and smoothly.

The purpose of the course is seen as an upgrade of logistics management and supply chain related bachelor courses and a strong base for further individual or group studies in the field of planning, simulations, optimizations of SC management processes.

**Predvideni študijski rezultati:**

Ob zaključku predmeta bodo študenti:

- Spoznali različne koncepte MOV in specifično uporabo le teh v različnih organizacijskih sistemih in okoljih,
- Znali presoditi družbenoekonomske in tehnološke trende v logistiki in oskrbovalnih verigah,
- Sposobni razumeti kompleksnost oskrbovalnih verig za obravnavo praktičnih izzivov prilagajanja OV na nove trende
- Identificirati in samostojno načrtovati poslovne modele in strategije za oblikovanje OV s pomočjo podpornih managerskih orodij.
- Znali uporabljati učne pripomočke in raziskovalno delovati z minimalnim vodenjem
- Znali jasno, samostojno in kompetentno komunicirati v strokovnih debatah s področja oskrbovalnih verig.

**Intended learning outcomes:**

By the end of the course participants should:

- get to know different supply chain management concepts as well as specific knowledge for its use in different organizational systems,
- Assess socio-economic and technology trends in logistics and SC,
- Understand complexity of for trend mitigation in SC,
- Identify and develop models and strategy for SC design by using supportive managerial tools.
- Is able to use full range of learning resources and can competently undertake research tasks with minimum guidance
- Can engage confidently in academic and

**Metode poučevanja in učenja:**

Predmet vključuje različne metode poučevanja in učenja, kot so: predavanja, diskusijske skupine, predstavite del, video predstavitve in filmi, primeri

**Learning and teaching methods:**

This course uses a range of teaching methods including lectures, discussion groups, videos and

iz prakse, predstavitve študentov in samostojni študij študentov.

Predavanja: pri predavanjih študent spozna teoretične vsebine z navezavo na prakso. 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. Praktične strokovne ekskurzije v podjetje. Del vaj se izvaja na klasični način v predavalnici, del pa v obliki e-vaj (e-vaje se lahko izvajajo na videokonferenčni način ali s pomočjo posebej v ta namen didaktično pripravljenih e-gradiv v virtualnem elektronskem učnem okolju).

films, case studies, student presentation and independent study.

Lectures: Students understand the theoretical frameworks and relations with practice. Part of the lecture course is held in standard 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).

Tutorials: Students enhance their theoretical knowledge and are able to apply it. Practical excursions to companies. Part of the seminar is in a classroom while the rest is in the form of e-learning (e-tutorials 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 %) / Share (in %)	Assessment methods:
<ul style="list-style-type: none"> <li>Opravljene obveznosti e-predavanj in e-vaj so pogoj za pristop k izpitu.</li> </ul>		<ul style="list-style-type: none"> <li>Successful completion of e-lectures and e-tutorials is a prerequisite for entering the exam.</li> </ul>
<ul style="list-style-type: none"> <li>e-vaje in e-predavanja.</li> </ul>	20%	<ul style="list-style-type: none"> <li>(e-tasks and quizzes). E-lectures and e-tutorials</li> </ul>
<ul style="list-style-type: none"> <li>Raziskovalna naloga.</li> </ul>	20%	<ul style="list-style-type: none"> <li>Research papers.</li> </ul>
<ul style="list-style-type: none"> <li>pisni izpit.</li> </ul>	60%	<ul style="list-style-type: none"> <li>written examination.</li> </ul>

#### Reference nosilca / Course coordinator's references:

- OBRECHT, Matevž, KAZANCOGLU, Yigit, DENAC, Matjaž. Integrating social dimensions into future sustainable energy supply networks. *International journal of environmental research and public health*, ISSN 1660-4601, 2020, vol. 17, str. 1-18, ilustr. <https://doi.org/10.3390/ijerph17176230>, doi: 10.3390/ijerph17176230. kategorija: 1A1 (Z, A', A1/2); uvrstitev: SSCI, SCI, Scopus
- LAZAR, Sebastjan, KLIMECKA-TATAR, Dorota, OBRECHT, Matevž. Sustainability orientation and focus in logistics and supply chains. *Sustainability*, ISSN 2071-1050, 2021, vol. 13, iss. 6, str. [1]-20, ilustr. <https://doi.org/10.3390/su13063280>. kategorija: 1A2 (Z, A', A1/2); uvrstitev: Scopus (d), SCI, SSCI, Scopus.
- OBRECHT, Matevž, DENAC, Matjaž. Technology forecast of sustainable energy development prospects. *Futures*, ISSN 0016-3287. [Print ed.], 2016, vol. 84, str. 12-22, ilustr. <http://dx.doi.org/10.1016/j.futures.2016.09.002>, doi: 10.1016/j.futures.2016.09.002. kategorija: 1A1 (Z, A'', A', A1/2); uvrstitev: Scopus (d), SSCI, MBP
- OBRECHT, Matevž, KNEZ, Matjaž. Carbon and resource savings of different cargo container designs. *Journal of cleaner production*, ISSN 1879-1786. [Online ed.], 1 Jul. 2017, vol. 155, 151-156 str. <https://doi.org/10.1016/j.jclepro.2016.11.076>, doi: 10.1016/j.jclepro.2016.11.076. kategorija: 1A1 (Z, A'', A', A1/2); uvrstitev: Scopus (d), SCI, Scopus, MBP
- OBRECHT, Matevž. Kontinuiranost poslovanja je glavni izziv oskrbovalnih verig. *Embalaža, okolje, logistika : strokovna specializirana revija za embalažo, okolje in logistiko*, ISSN 1855-4849, mar. 2020, [Št.] 147, str. 56-57, ilustr. [https://www.zelenaslovenija.si/media/uploads/revija/EOL\\_147/EOL\\_147.pdf](https://www.zelenaslovenija.si/media/uploads/revija/EOL_147/EOL_147.pdf). [COBISS.SI-ID 14631427]

