

## UČNI NAČRT PREDMETA / COURSE SYLLABUS

**Ime predmeta:** DISTRIBUCIJSKA LOGISTIKA  
**Course title:** DISTRIBUTION LOGISTICS

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

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

OBVEZNI  
COMPULSORY

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

UN

Predavanja Lectures	Seminar Seminar	Vaje Tutorial			Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work	ECTS
		AV	EV	LV				
21 a-P 24 e-P		18	24	3			120	7

**Nosilec predmeta / Course coordinator:**

DARJA TOPOLŠEK

**Jeziki /Languages:**

**Predavanja / Lectures:** SLOVENSKI/SLOVENE  
**Vaje / Tutorial:** SLOVENSKI/SLOVENE

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

Ni pogojev.

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

None.

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

- Vloga distribucije v oskrbovalni verigi.
- Struktura distribucijske mreže.
- Konkurenčni dejavniki, stroški in strategije distribucije.
- Ponudniki storitev, zunanje izvajanje, trg transportnih storitev.
- Sodobne distribucijske strategije.
- Načrtovanje distribucijskega sistema, transportnih procesov in virov.
- Vozni park in izbira vozil v odvisnosti od različnih dejavnikov.
- Oblikovanje cen transporta.
- Stroškovna učinkovitost in učinkovitost transportnih operacij.
- Spremljanje operacij v transportu in distribuciji.
- Spremljanje, analiziranje in uvajanje sprememb v transportu.

**Content (syllabus outline):**

- The role of distribution in the supply chain.
- Distribution network structure.
- Competitive factors, costs and distribution strategies.
- Service providers, outsourcing, transport services market.
- Modern distribution strategies.
- Distribution system design; transport processes and resources.
- Fleet and vehicle selection depending on various factors.
- Transport pricing.
- Cost-effectiveness and efficiency of transport operations.
- Monitoring transport and distribution operations.

- Usmerjanje vozil in izdelava načrta ukrepanja v izrednih razmerah.

- Monitoring, analyzing and introducing changes in transport.
- Routing vehicles and developing an emergency plan.

### Temeljni literatura in viri / Reading materials:

- E-gradivo predmeta.
- Brandimarte, P., Zotteri, G. (2007). Introduction to Distribution Logistics. John Wiley & Sons, New Jersey.
- Bektas, T. (2017). Freight Transport and Distribution: Concepts and Optimisation Models. Boca Raton: CRC Press, Taylor & Francis Group.
- Rushton, A., Baker, P., Croucher, P. (2014) The Handbook of Logistics and Distribution Management: Understanding the Supply Chain. KoganPage, London.
- Ross, D. F. (2015). Distribution Planning and Control: Managing in the Era of Supply Chain Management. New York: Springer New York Heidelberg Dordrecht London.
- Waters, D. (2003). Global Logistics and Distribution Planning: Strategies for Management. KoganPage, London.

### Cilji in kompetence:

- Cilji predmeta so:
- predstaviti distribucijski sistem in distribucijsko mrežo v oskrbovalni verigi,
  - teoretično opredeliti strategije distribucije,
  - teoretično predstaviti pomen in praktično predstaviti realno okolje transportnega trga,
  - teoretično definirati in praktično prikazati potek načrtovanja distribucijskega sistema,
  - podati značilnosti voznega parka,
  - teoretično predstaviti in praktično izračunati oblikovanje cen transporta in stroškovno učinkovitost,
  - teoretično podati možnosti spremljanja uspešnosti in učinkovitosti distribucijskega sistema,
  - podati sisteme usmerjanja vozil in jih praktično preizkusiti z aplikacijami.

#### Kompetence, ki jih pridobijo študenti:

- razumejo in identificirajo priložnosti za izboljšanje učinkovitosti distribucijskega sistema in zmanjšanje stroškov,
- uporabijo znanje za določitev potreb po opremi in orodjih ter kadrih,
- uporabijo znanje za načrtovanje distribucijskega sistema in znotraj njega transportnih procesov in virov glede na zahteve oskrbovalne verige,
- pridobijo sposobnost iskanja partnerjev,
- analizirajo in napovedujejo uspešnosti distribucije,
- razumejo razvoj načrta ukrepanja v izrednih razmerah,

### Objectives and competences:

- The objectives of the course are to:
- define the distribution system and distribution network in the supply chain,
  - theoretically define distribution strategies,
  - theoretically define and practically present the meaning of the real environment on transport market,
  - theoretically define and practically present distribution system planning,
  - present fleet management
  - theoretically present and practically calculate transport pricing and cost efficiency,
  - theoretically define possibilities for monitoring the efficiency and effectiveness of the distribution system,
  - define vehicle guidance systems and practically test them with applications.

#### Competences acquired by students:

- understand and identify opportunities to improve the efficiency of the distribution system and reduce costs,
- apply knowledge to determine the need for equipment and tools and personnel,
- apply knowledge to determine to design the distribution system and its transportation processes and resources according to the requirements of the supply chain,
- acquire the ability to find partners,
- analyze and predict distribution performance,
- understand the development of an emergency plan,

- osvojijo identifikacijo in implementacijo sodobnih rešitev v distribucijski sistem,
- uporabijo znanje za iskanje in izbiro ponudnikov ter organizacija transporta,
- uporabijo vzorčnih programskih orodij za distribucijo in analizo rezultatov.

- apply knowledge to determine implement identification and implementation of modern solutions in the distribution system,
- use the knowledge to find and select providers and organize transport,
- apply the use of software tools for distribution and analysis of results.

#### **Predvideni študijski rezultati:**

Znanje in razumevanje:  
Študent bo ob zaključku predmeta zmožen:

- razumeti pomen distribucije v sistemu oskrbovalne verige,
- razumeti pomen transporta v distribuciji,
- reševanja, načrtovanja, spremljaja in optimiziranja distribucijskih procesov,
- zagotavljati resurse za distribucijske operacije.

Prenesljive/ključne spretnosti in drugi atributi:

- študenti se usposobijo za uporabo teoretičnega znanja v praktičnih primerih.

#### **Intended learning outcomes:**

Knowledge and understanding:  
After completion of the course, the student will be able to:

- understand the importance of distribution in the supply chain system,
- understand the importance of transport in distribution,
- solving, planning, monitoring and optimization of distribution processes,
- of the importance of provide resources for distribution operations.

Transferable/Key Skills and other attributes:

- the ability to apply theoretical knowledge to professional practice.

#### **Metode poučevanja in učenja:**

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 in laboratoriju, 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).

#### **Learning and teaching methods:**

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).

Tutorials: Students enhance their theoretical knowledge and are able to apply it. Part of the seminar is in a classroom and in the laboratory 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).

<b>Načini ocenjevanja:</b>	Delež (v %) / Share (in %)	<b>Assessment methods:</b>
<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>• Pisni izpit.</li> </ul>	70%	<ul style="list-style-type: none"> <li>• Written examination.</li> </ul>
<ul style="list-style-type: none"> <li>• Ocena e-predavanj.</li> </ul>	5 %	<ul style="list-style-type: none"> <li>• Grade from e-lectures.</li> </ul>
<ul style="list-style-type: none"> <li>• Ocena laboratorijskih vaj.</li> </ul>	10 %	<ul style="list-style-type: none"> <li>• Grade from laboratory tutorials.</li> </ul>
<ul style="list-style-type: none"> <li>• Ocena e-vaj.</li> </ul>	15 %	<ul style="list-style-type: none"> <li>• Grade from e-tutorials.</li> </ul>

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

- TOPOLŠEK, Darja, ČIŽUNIENE, Kristina, CVAHTE OJSTERŠEK, Tina. Defining transport logistics : a literature review and practitioner opinion based approach. *Transport*, ISSN 1648-4142. [Print ed.], 2018, vol. 33, iss. 5, str. 1196-1203, ilustr. <https://doi.org/10.3846/transport.2018.6965>, doi: [doi.org/10.3846/transport.2018.6965](https://doi.org/10.3846/transport.2018.6965). [COBISS.SI-ID 512964157].
- TOPOLŠEK, Darja, AREH, Igor, CVAHTE OJSTERŠEK, Tina. Examination of driver detection of roadside traffic signs and advertisements using eye tracking. *Transportation research. Part F, Traffic psychology and behaviour*, ISSN 1369-8478. [Print ed.], Nov. 2016, vol. 43, str. 212-224, ilustr. <http://dx.doi.org/10.1016/j.trf.2016.10.002>, doi: 10.1016/j.trf.2016.10.002. [COBISS.SI-ID 3228394].
- CVAHTE OJSTERŠEK, Tina, TOPOLŠEK, Darja, STERNAD, Marjan. The impact of clustering on transport companies. *Production Engineering Archives*, ISSN 2353-5156, 2015, vol. 7, no. 2, str. 25-28. <http://www.qpij.pl/production-engineering-archives>. [COBISS.SI-ID 512675389].
- TOPOLŠEK, Darja, HRIBAR, Suzana, STERNAD, Marjan. Road traffic safety in conjunction with in-vehicle ITS. *Transport problems : international scientific journal*, ISSN 1896-0596. [Printed ed.], 2014, vol. 9, iss. 2, str. 49-60. [http://transportproblems.polsl.pl/pl/Archiwum/2014/zeszyt2/2014t9z2\\_07.pdf](http://transportproblems.polsl.pl/pl/Archiwum/2014/zeszyt2/2014t9z2_07.pdf). [COBISS.SI-ID 512566589].
- TOPOLŠEK, Darja, CVAHTE OJSTERŠEK, Tina. *Transportna logistika: e-gradivo*. Celje: Fakulteta za logistiko, 2016. 268 str., grafi. [COBISS.SI-ID 512938045].