

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Ime predmeta: NAČRTOVANJE IN IZVAJANJE TRANSPORTNIH AKTIVNOSTI
Course title: PLANNING AND PERFORMING TRANSPORT ACTIVITIES

| Študijski program in stopnja Study programme and cycle | Študijska smer Study option | Letnik Year of study | Semester Semester |
|--|--------------------------------|-------------------------|----------------------|
| GOSPODARSKA IN TEHNIŠKA LOGISTIKA 1. stopnja | | 2. | 3. |
| PROFESSIONAL HIGHER EDUCATION STUDY PROGRAMME ECONOMIC AND TECHNICAL LOGISTICS 1 st degree | | 2. | 3. |

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

OBVEZNI
COMPULSORY

Univerzitetna koda predmeta / University course code:

VS

| Predavanja Lectures | Seminar Seminar | Vaje Tutorial | | | Klinične vaje Clinical training | Druge oblike študija Other forms of study | Samost. delo Individual work | ECTS |
|------------------------|--------------------|------------------|----------|---------|---------------------------------------|--|------------------------------------|------|
| 21 e-P 24 a-P | | AV 18 | EV 21 | LV 6 | | | 90 | 6 |

**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):

1. Transportna mreža.
2. Načrtovanje transportnih aktivnosti in potrebnih virov ter izbire modalitet
3. Načrtovanje in vzdrževanje voznega parka.
4. Informacijski tok v transportu in IT podpora
5. Časovni vidik transporta in transportnih aktivnosti, načrt dela in izrabe virov.
6. Izbira transportnih poti in urniki, ter sledenje in izsledovanje
7. Reorganizacija (distribucijskega) omrežja.
8. Konsolidacija tovora v navezavi s transportom.

Content (syllabus outline):

1. Transport network.
2. Planning transport aktivnosti, the needed resources and choosing a modality.
3. Fleet design and maintenance of rolling stock.
4. Information flow in transport and IT support.
5. Timing of transport and transportation activities, work planning and resource utilization.
6. Choice of transport routes and schedules, tracking and tracing.
7. Reorganization of the (distribution) network.
8. Cargo consolidation in connection with transport.

Temeljni literatura in viri / Reading materials:

Cvahte Ojsteršek, T., Topolšek, D., Načrtovanje in izvajanje transportnih aktivnosti, e-gradivo (v pripravi)

Meyer, M. D. (2016). Transportation Planning Handbook: Institute of Transportation Engineers. John Wiley & Sons.

Vinay., J. (2014). Transportation Planning: Principles, Practices and Policies. PH1.

Janić, M. (2017). Transport systems modelling, planning, and evaluation. CRC Press.

Cilji in kompetence:

Cilji predmeta so:

- opredeliti transportno mrežo in njene elemente
- predstaviti postopke načrtovanja transportnih aktivnosti in vseh potrebnih virov
- teoretično opredeliti in praktično podkrepiti značilnosti in postopke načrtovanja in vzdrževanja voznega parka
- predstaviti informacijski tok in IT v načrtovanju in izvajanju transportnih aktivnosti
- opredeliti časovni vidik načrtovanja in izbiro poti ter načrtovanje urnikov
- teoretično predstaviti in praktično prikazati sisteme sledenja in izsledovanja
- teoretično predstaviti in praktično določiti reorganizacijo poti
- teoretično razložiti možne omejitve dostave v zadnjem kilometru

Kompetence, ki jih pridobijo študenti:

- poznajo koncepte transportnih mrež,
- razumejo in načrtujejo vse transportne aktivnosti ,
- razumejo pomen izbire virov in načinov njihove uporabe za uspešnost transporta,
- poznajo sodobne rešitve, ki se uporabljajo v načrtovanju transporta,
- uporabijo in izdelajo urnike dela in dostav,
- uporabijo in izdelajo načrte poti,
- umestijo transport v distribucijska omrežja,
- poznajo specifične, ki jih zahtevajo mestna okolja.

Objectives and competences:

The objectives of the course are to:

- define a transport network and its elements,
- present procedures of planning transport activities and needed resources,
- theoretically define and practically show characteristics and procedures of planning and maintaining the vehicle park and rolling stock,
- present the flow of information and IT use in planning and performing transport activities,
- define the time aspect of transport planning, route selection and scheduling,
- theoretically present and practically show systems of tracking and tracing,
- theoretically present and practically show route management,
- theoretically explain potential issues in last kilometre deliveries.

Competences acquired by students:

- understand the concepts of transport networks,
- know how to plan all transport activities ,
- understand the importance of selecting resources and how to use them for transport success,
- know the modern solutions used in transport planning,
- know how to make work and delivery schedules,
- know how to make itineraries,
- know how to place transport in distribution networks,
- know the specifics required by urban environments.

Predvideni študijski rezultati:

Znanje in razumevanje:

Študent bo ob zaključku predmeta zmožen:

- načrtovanja transportnih operacij v transportnem omrežju,
- načrtovanja in upravljanja podpornih procesov, kot so izbira modalitete in upravljanje virov,

Intended learning outcomes:

Knowledge and understanding:

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

- plan transport operations in the transport network,

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| <ul style="list-style-type: none"> • uporabe sodobnih tehnologij in IT podpore na področju načrtovanja transporta, • reševanja specifičnih problemov dostave. <p>Prenesljive/ključne spretnosti in drugi atributi:</p> <ul style="list-style-type: none"> • študenti se usposobijo za uporabo teoretičnega znanja v praktičnih primerih. |
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| <ul style="list-style-type: none"> • support processes such as modality selection and resource management, • use modern technologies and IT support in the field of transport planning, • solve specific delivery problems. <p>Transferable/Key Skills and other attributes:</p> <ul style="list-style-type: none"> • the ability to apply theoretical knowledge to professional practice. |
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Metode poučevanja in učenja:

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| <p>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).</p> <p>Vaje: pri vajah študent utrdi teoretično znanje in spozna aplikativne možnosti. Del vaj se izvaja na klasični način v predavalnici, del v 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).</p> |
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Learning and teaching methods:

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| <p>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).</p> <p>Tutorials: Students enhance their theoretical knowledge and are able to apply it. Part of the seminar is in a classroom and part in a 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).</p> |
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| Načini ocenjevanja: | Delež (v %) / Share (in %) | Assessment methods: |
|---|---|---|
| <p>Opravljenosti obveznosti e-predavanj in e-vaj so pogoj za pristop k izpitu.</p> <ul style="list-style-type: none"> • Pisni izpit. • Ocena e-predavanj. • Ocena laboratorijskih vaj. • Ocena e-vaj. | <p>70%</p> <p>5 %</p> <p>10 %</p> <p>15 %</p> | <p>Completion of e-lectures and e-tutorials is a prerequisite for entering the exam</p> <ul style="list-style-type: none"> • Written examination. • Grade from e-lectures. • Grade from laboratory tutorials. • Grade from e-tutorials. |

Reference nosilca / Course coordinator's references:

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| <p>TOPOLŠEK, Darja, ČIŽIUNIENE, 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.</p> <p>STERNAD, Marjan, CVAHTE OJSTERŠEK, Tina, TOPOLŠEK, Darja, JUSTINEK, Gorazd. The influence of logistics barriers on lead times and service levels in Slovenia. International journal of logistics systems and management, ISSN 1742-7975. [Online ed.], 2016, vol. 23, no 4.</p> <p>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.</p> <p>TOPOLŠEK, Darja, HERBAJ, Elvis Alojzij, STERNAD, Marjan. The accuracy analysis of measurement tools for traffic accident investigation. Journal of transportation technologies, ISSN 2160-0473, Jan. 2014, vol. 4, no. 1.</p> |
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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.