

**UČNI NAČRT PREDMETA / COURSE SYLLABUS**

<b>Ime predmeta:</b>	RAČUNALNIŠTVO V LOGISTIKI
<b>Course title:</b>	COMPUTER SCIENCE IN LOGISTICS

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

<b>Vrsta predmeta (obvezni ali izbirni) / Course type (compulsory or elective)</b>	OBVEZNI
	COMPULSORY

<b>Univerzitetna koda predmeta / University course code:</b>	UN
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Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Clinical training	Druge oblike študija Other forms of study	Samost. delo Individual work	ECTS
12 a-P 10 e-P		14 e-V 24 a-V			120	6

<b>Nosilec predmeta / Course coordinator:</b>	ROMAN GUMZEJ
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<b>Jeziki /Languages:</b>	<b>Predavanja / Lectures:</b>	SLOVENSKI/SLOVENE
	<b>Vaje / Tutorial:</b>	SLOVENSKI/SLOVENE

<b>Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:</b>	<b>Prerequisites for enrolling in the course or for performing study obligations:</b>
Ni pogojev.	None.

<b>Vsebina (kratek pregled učnega načrta):</b>	<b>Content (syllabus outline):</b>
<ol style="list-style-type: none"> <li>Logistični informacijski sistemi (LIS): vloga, naloge, struktura, komponente in integracija glede na strukturo in nivoje odločanja v podjetju.</li> <li>Avtomatizirana obdelava podatkov v logistiki: zbiranje, hramba, obdelava in posredovanje logističnih podatkov.</li> <li>Komponente računalniških LIS: računalniška strojna, komunikacijska, programska, podatkovna, organizacijska oprema in osebje.</li> <li>Računalniško podprto inženirstvo LIS: planiranje virov, operacij in aktivnosti (delo s preglednicami, osnove programiranja).</li> </ol>	<ol style="list-style-type: none"> <li>Logistics information systems (LIS): role, tasks, structure, components and integration considering the structure and levels of decision making in a company.</li> <li>Automated data processing in logistics: collection, storage, processing and dissemination of logistic data.</li> <li>Computer-based LIS components: computer hardware, network, software, dataware, orgware and liveware.</li> <li>Computer-aided LIS engineering: resource, operation and activity planning.</li> </ol>

<b>Temeljni literatura in viri / Reading materials:</b>
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Grant, D., Lambert, D., Stock, J., & Ellram, L. (2006). Fundamentals of Logistics Management. McGraw-Hill, Berkshire, UK, european edition.

Gumzej, R. (2022). Računalništvo in informatika v logistiki, Celje: Fakulteta za logistiko.

Rainer, R; K. & Turban, E. (2008). Introduction to Information Systems: Supporting and Transforming Business. John Wiley and Sons, 2nd edition.

Kerzner, H. (2003). Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 8th Ed., Wiley. ISBN 0-471-22577-0.

White, R. (2006). How Computers Work. QuE.

**Cilji in kompetence:**

Cilji predmeta so:

- planiranje LIS in ciljna uporaba IT za avtomatizirano obdelavo podatkov v logistiki.

Kompetence, ki jih študenti osvojijo:

- poznavanje konceptov LIS s pridruženimi nivoji odločanja v podjetju,
- razumevanje osnovnih konceptov IT,
- računalniško podprto načrtovanje LIS.

**Objectives and competences:**

Course objectives are:

- LIS planning and targeted use of IT for automated data processing in logistics.

Competences acquired by students:

- knowing the LIS concepts with associated levels of enterprise decision making,
- understanding of IT basic concepts,
- computer aided LIS design.

**Predvideni študijski rezultati:**

Študent bo po zaključku predmeta zmožen:

- aplicirati osnovno terminologijo računalništva v logistiki,
- planirati operacije in aktivnosti v podjetju na osnovi logističnih podatkov,
- izbrati ustrezno računalniško opremo za logistične aplikacije,
- napredne uporabe OAS in CAD programske opreme.

**Intended learning outcomes:**

Upon completion of the course a student will be capable of:

- applying fundamental computer science terms in logistics,
- planning enterprise operations and activities based on logistic data,
- selecting appropriate computing resources for logistics applications,
- advanced use of OAS and CAD software.

**Metode poučevanja in učenja:**

Predavanja: pri predavanjih študenti spoznajo teoretične osnove predmeta. Predavanja potekajo v živo v predavalnici pa tudi v obliki e-predavanj na videokonferenčni način ter preko namenskih e-učilnic v e-učnem okolju.

Vaje: pri vajah študenti utrdijo teoretično znanje in se ga naučijo uporabiti. Vaje potekajo v živo v predavalnici pa tudi v obliki e-vaj na videokonferenčni način ter preko namenskih e-učilnic v e-učnem okolju.

**Learning and teaching methods:**

Lectures: during lectures students are familiarised with the theoretical foundations of the course. Lectures take place live in the classroom as well as in the form of e-lectures via videoconferencing and dedicated e-classrooms in the e-learning environment.

Tutorials: during tutorials students consolidate their theoretical knowledge and learn to apply it. The tutorials are held live in the classroom as well as in the form of e-tutorials via videoconferencing and dedicated e-classrooms in the e-learning environment.

**Načini ocenjevanja:**

Delež (v %) /

Share (in %)

**Assessment methods:**

Način (pisni izpit, ustno izpraševanje, naloge, projekt): <ul style="list-style-type: none"> <li>• raziskovalna naloga</li> <li>• pisni izpit</li> </ul>	50% 50%	Method (written or oral exam, coursework, project): <ul style="list-style-type: none"> <li>• research project</li> <li>• written exam</li> </ul>
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**Reference nosilca / Course coordinator's references:**

1. ŠINKO, Simona, GUMZEJ, Roman. Towards smart traffic planning by traffic simulation on microscopic level. International journal of applied logistics. [Online]. 2021, vol. 11, iss. 1, str. 1-17, ilustr. ISSN 1947-9581. <https://www.igi-global.com/article/towards-smart-traffic-planning-by-traffic-simulation-on-microscopic-level/269705>, DOI: 10.4018/IJAL.2021010101.
2. KMETEC, Anja, MLAKER KAČ, Sonja, GUMZEJ, Roman. How to estimate strategic partnerships on the basis of quality criteria in logistics systems. International journal of applied logistics. [Online]. 2021, vol. 11, iss. 1, str. 52-65, tabele. ISSN 1947-9581. <https://www.igi-global.com/article/how-to-estimate-strategic-partnerships-on-the-basis-of-quality-criteria-in-logistics-systems/269708>, DOI: 10.4018/IJAL.2021010104.
3. POLETAN JUGOVIĆ, Tanja, ČIŠIĆ, Dragan, GUMZEJ, Roman. Supply chain service quality improvement by e-marketplace automation. Promet. [Print ed.]. 2019, vol. 31, no. 2, str. 185-194, ilustr. ISSN 0353-5320. <https://doi.org/10.7307/ptt.v31i2.3042>, DOI: 10.7307/ptt.v31i2.3042. [COBISS.SI-ID 512990269], [JCR, SNIP, Scopus do 29. 11. 2020: št. citatov (TC): 1, čistih citatov (CI): 1, čistih citatov na avtorja (CIAu): 0,33]
4. GUMZEJ, Roman. Safety and security beyond industry 4.0. International journal of applied logistics. [Online]. 2022, vol. 12, iss. 1, str. 1-10, ilustr. ISSN 1947-9581. <https://www.igi-global.com/article/safety-and-security-beyond-industry-40/287556>, DOI: 10.4018/IJAL.287556.
5. GUMZEJ, Roman. Intelligent logistics systems for smart cities and communities. Cham, cop. 2021. XVII, 204 str., ilustr. Lecture notes in intelligent transportation and infrastructre. ISBN 978-3-030-81202-7, ISBN 978-3-030-81203-4. ISSN 2523-3440, ISSN 2523-3459. <https://doi.org/10.1007/978-3-030-81203-4>, DOI: 10.1007/978-3-030-81203-4.