UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	PLANIRANJE IN VODENJE LOGISTIČNEGA SISTEMA
Course title:	PLANNING AND MANAGEMENT OF LOGISTICS SYSTEMS

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
LOGISTIKA SISTEMOV 1. stopnja		3.	5.
SYSTEM LOGISTICS 1. degree		3.	5.

Vrsta predmeta / Course type	IZBIRNI
Univerzitetna koda predmeta / University course code:	

Predavanja Lectures	Seminar Seminar	vaje Tutorial	Laboratory work	Druge oblike študija Field work	Samost. delo Individ. work	ECTS
e-P 24 a-P 21		e-V 24 a-V 21		-	90	6

Nosilec predmeta / Lecturer:	IZTOK POTRČ

Jeziki / Languages:	Predavanja / Lectures:	SLOVENSKI / SLOVENE
	Vaje / Tutorial:	SLOVENSKI / SLOVENE

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	Prerequisits:
Absolvirani predmeti: ▪ Oskrbovalne verige ▪ Osnove logističnih tehnik in tehnologij	Passed examinations: ▪ Supply chains ▪ Introduction to Logistics Techniques and Technologies

Vsebina:	Content (Syllabus outline):
Predavanja: Povezava med konstruiranjem izdelkov in sistemom sestave (oblikovanje za montažo, tolerance, primeri oblikovanja). Postopki in sistematika načrtovanja montažnega sistema (postavitev problema, grobo načrtovanje, fino načrtovanje, realizacija, preskusni zagon). Osnovni principi montaže in vpliv sistema transporta (oblike postavitve montažnega sistema brez avtomatiziranega toka izdelkov, delno in popolno avtomatizirani sistemi sestave s transportnim in skladiščnim sistemom). Primeri montažnih linij in nivo delovnih postaj (ročna montaža, delno avtomatizirana in popolno avtomatizirana montažna mesta). Načrtovanje sistema sestave (določitev časa takta,	Lectures: Linking between design and assembly (design for assembly, tolerances, design cases) Procedures and systematics on design of assembly systems (determination of problem, rough planning, fine planning, realisation, start-up procedures) Basic principles of assembly and montage systems and influence of manner of transportation an material handling system (Assembly and montage systems without automatically material flow, partly- and completely automatic assembly systems with transportation and warehouse systems). Montage and assembly lines and level of technological points (manual assembly, partly an full automatic assembly points)

določitev števila delovnih mest, določitev vmesnih skladišč, določitev materialnega toka, določitev informacijskih tokov). Elementi transportnega sistema (gnani in negnani transporterji, elementi za prevzem in preusmeritev). Informacijski tokovi in nosilci informacij (Črtna koda, RFID, Pick by light/voice …). Vmesna skladišča (linijsko vm. skladišče, obtočno vm. skladišče, posebni primeri skladiščenja). Varnostne zahteve in primeri montažnih celic. <u>Seminar:</u> Seminar aplikativno dopolnjujejo vsebino predavanj s praktičnim reševanjem problemov določanja montažnih sistemov in sistemov sestave.	Design of assembly systems (determination of assembly rhythm, determination of number of working places, determination of buffers, determination of material and information flow), Elements of transportation and material handling system (powered and free conveyors, switch points, manipulation machines) Information flow and information carriers (bar-code, RFID, Pick by light, Pick by voice, …) Buffers (on transportation line buffers, circulation-tipe buffers, special cases of warehousing) Safety demands and cases of assembly cells. <u>Seminar:</u> Seminar (project) work supplement lectures with practical solutions design problems by assembly systems.

Temeljni literatura in viri / Readings:

- A. Redford, J. Chal: Design for Assembly, (Mcgraw-Hill Book Company, London 1994)
- Konold/Reger : Angewandte Montagetechnik (Vieweg Verlag 1997)
- J. Kopač, D. Noe: Strega in montaža, (FS Ljubljana, 1989)
- Pfohl : Logistiksysteme (Springer Verlag 1985)
- Potrč : Transportni sistemi (zbrano gradivo) (FS, 1999)
- Scheer A.W.: Business Process Engineering – Reference models for industrial enterprises, Springer-Verlag, Berlin, 1996
- Davis R. Business Process Modeling with Aris, Springer, London, 2001

Cilji in kompetence:	Objectives and competences:
• Projektna zasnova in modifikacija izdelka (naprave ali konstrukcije) v povezavi z montažnimi, funkcijskimi, proizvodnimi, tržnimi in ekološkimi zahtevami • Osvojitev osnovne metodike pri projektiranju montažnih sistemov • Spoznavanje načinov sestave in ekonomska upravičenost avtomatizacije sistema sestave	• Design plan and modification of product (device or construction) due to assembly, functional, technological, market and ecological requirements. • To get aware of basic methods for design of assembly and montage systems • Insight into design manners and economic authorization of automatisation by assembly systems

Predvideni študijski rezultati:	Intended learning outcomes:
<u>Znanje in razumevanje:</u> • poznavanje specialnega področja sistemov sestave, • znati izbrati ustrezno podporo materialnega toka v sistemih sestave glede zahtev po zmogljivosti. • povezovanje konceptov logističnega transportnega sistema v smislu integralnega transporta <u>Prenesljive/ključne spretnosti in drugi atributi:</u> • povezovati uporabo različnih inženirskih znanj za reševanje problemov integralnega transporta na omejenih območjih, • študenta izobraziti do nivoja, da se je sposoben soočiti s problemom reševanja novih idej	<u>Knowledge and understanding:</u> • special knowledge of all kinds of assembly systems, • knowledge of proper determination of proper support for material flow due to desirous capacity. • connection of transport-logistics systems concepts, into the integral transport <u>Transferable/Key skills and other attributes:</u> • combined use of different engineering skills for solution of integral transport in the restricted (limited) areas, • to give students skills, that they can be involved in project work – solving new concepts
Metode poučevanja in učenja:	Learning and teaching methods:

• frontalna predavanja, • domače naloge, • konzultacije, • izdelava projektne naloge – seminar.	• frontal lectures, • home-works, • consultations, • seminar (project) work.

Načini ocenjevanja:	Delež (v %) / Weight (in %)	Assessment:
<u>Način (pisni izpit, ustno izpraševanje, naloge, projekt):</u>		<u>Type (examination, oral, coursework, project):</u>
• opravljene domače in projektna naloga,	50%	• completed home-works and seminar (project) work,
• izpit (teoretično in praktično znanje).	50%	• examination (theoretical and practical knowledge).

Materialni pogoji za izvedbo predmeta:	*Material conditions for subject realization:*
• *učilnica z multi-medijskimi pripomočki.*	• *lecture room with multimedia facilities.*
Obveznosti študentov:	*Student's commitments:*
<u>Pisni izpit, ustni izpit, domače naloge, projekti:</u> • *domače naloge in projektna naloga,* • *praktični in teoretični del izpita.*	*<u>Written examination, oral examination, coursework, projects:</u>* • *home-works and seminar (project) work,* • *written practical and theoretical examination.*