

UČNI NAČRT PREDMETA / SUBJECT SPECIFICATION	
Predmet:	OSNOVE RAČUNALNIŠTVA V LOGISTIKI
Subject Title:	FUNDEMENTALS OF COMPUTER SCIENCE IN LOGISTICS

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
GOSPODARSKA IN TEHNIŠKA LOGISTIKA 1.stopnja		1.	1.
PROFESSIONAL HIGHER EDUCATION STUDY PROGRAMME ECONOMIC AND TECHNICAL LOGISTICS 1. degree			

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	vaje Tutorial	Klinične vaje Laboratory work	Druge oblike študija Field work	Samost. delo Individ. work	ECTS
12 e-P 10 a-P		12 e-V 11 a-V			75	4

Nosilec predmeta / Lecturer:

Jeziki / Predavanja / Lecture:   
 Languages: Vaje / Tutorial:

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

Prerequisites:

Vsebina:

1. Zgradba in delovanje računalnika: strojna oprema, periferne naprave, računalniška omrežja, programska oprema, programski jeziki, operacijski sistemi, procesi in opravila.

2. Podatek – informacija – znanje: Shannonova teorija informacij, definicija bita, oblike podatkov (števila, črke, slike in zvok), avtomatizirana obdelava podatkov, shranjevanje podatkov – podatkovne datoteke, podatkovne baze, podatkovna skladišča.

3. "Poslovni proces : Informacijski sistem":  
 - organizacijski vidik podjetja,  
 - nivoji odločanja v podjetju,  
 - komponente logističnega informacijskega sistema,  
 - pretok podatkov v logistični oskrbovalni verigi.

4. Računalniško podprto vodenje projektov:  
 - življenjski cikel projekta,  
 - parametri projekta,  
 - dodeljevanje nalog in resursov,

Content (Syllabus outline):

1. Computing system architecture and function: computer hardware, peripheral devices, computer networks, software, programming languages, operating systems, processes and tasks.

2. Data-Information-Knowledge: Shannon's information theory, bit-definition, data format (numbers, characters, pictures and sound), automated data processing, data storage – data files, data bases, data warehouses.

3. "Business process : Information system":  
 - organizational view of a company,  
 - levels of decision making in a company,  
 - logistic information system components,  
 - data flow in a logistics supply chain.

4. Computer-aided project management:  
 - lifecycle of a project,  
 - project parameters,  
 - assignment of tasks and resources,  
 - Gantt and PERT diagrams,

- Ganttovi in PERT diagrami,  
- metoda kritične poti (CPM).

- critical path method (CPM).

Temeljni literatura in viri / Textbooks:

Gumzej, R. (2013). Računalništvo in informatika v logistiki, Celje: Fakulteta za logistiko. ISBN 978-961-6562-86-7.  
Gumzej, R. (2013). Računalništvo in informatika v logistiki, Celje: Fakulteta za logistiko. ISBN 978-961-6562-87-4.  
Barker R. (1990), CASE Method. Tasks and Deliverables. Wokingham, England: Addison-Wesley.  
Rainer, R. K. & Turban, E. (2008). Introduction to Information Systems: Supporting and Transforming Business. John Wiley and Sons, 2nd edition.  
White, R. (2006). How Computers Work. QuE.  
Project Management Institute (2003). A Guide To The Project Management Body Of Knowledge, 3rd ed., Project Management Institute. ISBN 1-930699-45-X.  
Kerzner, H. (2003). Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 8th Ed., Wiley. ISBN 0-471-22577-0.  
Keene, S. (1994). Comparing hardware and software reliability. Reliability Review, 14(4), 5–7, 21.  
Maslow, A. (1943). A theory of human motivation. Psychological Review, 50(4), 370–96.  
Shannon, C. & Weaver, W. (1963). A Mathematical Theory of Communication. University of Illinois Press, Champaign, IL, USA.  
Šuhel, P., Mertik, M. & Tovšak, P. (2009). Informacijska tehnologija - projektno vodenje, Ljubljana, Ormož, Mislinja. ISBN 978-961-245-767-9  
White, R. (2006). How Computers Work. QuE.

Cilji:

Študenti bodo:

- spoznali osnove sodobnih informacijskih tehnologij: temeljne principe delovanja sodobnih računalnikov in računalniških omrežij,  
- spoznali temeljne koncepte računalniško podprtih logističnih informacijskih sistemov,  
- spoznali osnove računalniško podprtega načrtovanja in vodenja projektov.

Objectives:

Students will:

- get to know the fundamentals of contemporary information technologies: fundamental paradigms of contemporary computer (networks) operation,  
- get to know the key concepts of computer aided logistic information systems,  
- gain basic knowledge in the field of computer-aided project planning.

Predvideni študijski rezultati:

Znanje in razumevanje:

- študenti razumejo osnovne koncepte in zgradbo računalniško podprtih informacijskih sistemov - zlasti logističnih.

Prenesljive/ključne spretnosti in drugi atributi:

- študenti so sposobni sodelovanja pri uvajanju računalniško podprtih logističnih informacijskih sistemov ter sodelovanja v projektih s podporo informacijske tehnologije.

Intended learning outcome:

Knowledge and Understanding:

- students develop a grasp on the key concepts and structure of computerised information systems – especially logistic.

Transferable/Key Skills and other attributes:

- students are able to cooperate in the introduction of computerised logistic information systems as well as cooperation in ICT-supported projects.

Metode poučevanja in učenja:

Learning and teaching methods:

Predavanja: pri predavanjih študent spozna teoretično osnovo 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, del pa v obliki e-predavanj (e-vaje se lahko izvajajo na videokonferenčni način ali s pomočjo posebej v ta namen didaktično pripravljenih e-gradiv v virtualnem elektronskem učnem okolju).

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 while the rest is in the form of e-learning (e-seminars 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 %) / Weight (in %)	Assessment:
domače naloge,	25 %	seminar work, project, written exam.
seminarska naloga,	25 %	
pisni izpit.	50 %	

#### Reference nosilca / Lecturer's references

Gumzej, R. (2013). Računalništvo in informatika v logistiki, Celje: Fakulteta za logistiko. ISBN 978-961-6562-86-7.  
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