

	UČNI NAČRT PREDMETA/COURSE SYLLABUS
Predmet	Menedžment informacijskih sistemov
Course title	Information Systems Management

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Upravljanje poslovnih in informacijskih sistemov / 2. stopnja	Upravljanje in razvoj informacijskih sistemov	1. letnik	1.
Business and Information Systems Management / 2 nd Cycle	Management and Development of Information Systems	1 st year	1 st

Vrsta predmeta/Course type

obvezni/obligatory

Univerzitetna koda predmeta/University course code

2_URIS_1_UN3

Predavanja	Seminar	Sem. vaje	Lab. vaje	Teren. vaje	Samost. delo	ECTS
Lectures	Seminar	Tutorial	Laboratory work	Field work	Individ. work	
20			10		180	7

Nosilec predmeta/Lecturer:

doc. dr. Sebastian Lahajnar

Jeziki/ Predavanja/Lectures:
Languages:

slovenski/Slovenian

Vaje/Tutorial:

slovenski/Slovenian

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

Prerequisites:

- Vpis v prvi letnik študijskega programa.
- Študent mora pred izpitom pripraviti in predstaviti ter zagovarjati projektno/raziskovalno nalogo.

- The prerequisite for inclusion is enrolment in the first year of study.
- Student has to prepare, present and defend a project/research paper before the exam.

Vsebina:

Content (Syllabus outline):

- *Pregled področij obvladovanja in upravljanja informacijskih sistemov (IS):* uskladitev poslovne in IT domene, strateško načrtovanje informatike, upravljanje virov, pridobivanje virov (notranje, zunanje izvajanje IT storitev), strateško načrtovanje in optimizacija poslovno-informacijske arhitekture, upravljanje projektnega portfelja in projektov, upravljanje IT

- *Overview of IS management and governance practices:* business-IT alignment, strategic IS/IT planning, resource management, IT sourcing (insourcing, outsourcing), strategic planning and optimization of enterprise architecture, program and project management, IT service management, digital strategy and digital transformation, risk

<p>storitev, digitalna strategija in digitalna transformacija, upravljanje tveganj pri uporabi informacij in IT, upravljanje uspešnosti informatike.</p> <ul style="list-style-type: none"> • <i>Pregled ogrodij, najboljših praks in standardov za obvladovanje in management IS</i>: cilji, pomen uporabe standardiziranega ogrodja, vpetost v širši kontekst obvladovanja in managementa organizacije, obvladovanje informacij in tehnologije organizacije (COBIT), upravljanje IT storitev (ITIL), zmožnostno zrelostni model (CMM/CMMI), upravljanje informacijske varnosti (ISO 27000), model odličnosti (EFQM), uravnoteženi sistem kazalnikov (BSC) in strateška karta, upravljanje kakovosti (ISO 9000). • <i>Ekonomika informatike</i>: stroški in koristi IS/IT, naložbene odločitve v IS/IT, metode (ekonomika informatike, analiza stroškov in koristi, večparametrski odločitveni modeli), ogrodje Val IT. • <i>Ogrodje COBIT</i>: ključna področja obvladovanja informatike (usmerjanje, spremljanje, vrednotenje), ključna področja menedžmenta informatike (Načrtovanje in organiziranje; Razvoj/nabava in vpeljava; Izvajanje in podpora; Spremljanje, ocenjevanje, in vrednotenje). • <i>Procesni referenčni model ogrodja COBIT</i>: opis IT procesov in njihovih aktivnosti po domenah, kontrolni cilji po procesih, smernice za upravljanje (vhodi in izhodi, matrika odgovornosti) po procesih, zmožnostno zrelostni model po procesih. • <i>Poslovno-informacijske arhitekture</i>: arhitekturni standard ISO 42010, arhitekturne ravni (strateška, poslovna, aplikativna, tehnološka...), povezovanje ravni. • <i>Arhitekturne metode in ogrodja</i>: Zachman, TOGAF, ArchiMate. • <i>Digitalna transformacija</i>: digitalna strategija, proces digitalne transformacije, dejavniki uspešnosti, uporaba arhitekturnih ogrodij pri transformaciji, izzivi v praksi. 	<p>management of information and IT, IS/IT performance management.</p> <ul style="list-style-type: none"> • <i>Frameworks, best practices and standards for IS management and governance</i>: objectives, the importance of using a standardized framework, integration into the wider context of the organization's governance and management, enterprise information and technology governance (COBIT), IT service management (ITIL), capability maturity model (CMM/CMMI), information security management (ISO 27000), excellence model (EFQM), balanced scorecard (BSC) and strategy map, quality management (ISO 9000). • <i>IT economics</i>: IS/IT costs and benefits, IS/IT investment decisions, methods (information economics, cost benefit analysis, multi-attribute decision models), Val IT framework. • <i>COBIT framework</i>: IT governance key areas (direct, monitor, evaluate), IT management key areas (Plan and organize; Build, acquire and implement; Deliver and support; Monitoring, assessing and evaluating). • <i>COBIT framework Process Reference Model</i>: descriptions of IT governance and management processes and their activities, process control objectives, process guidelines (inputs, outputs, responsibility charts), process capability maturity models. • <i>Enterprise architectures</i>: architecture description standard ISO 42010, architecture layers (strategic, business, application, technology...), layers integration. • <i>Architecture methods and frameworks</i>: Zachman, TOGAF, ArchiMate. • <i>Digital transformation</i>: digital strategy, process of digital transformation, success factors, support of EA tools in the transformation process, practical challenges.
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Temeljna literatura in viri/Readings:

Temeljna literatura/Basic literature

- Selig, G. J. (2015). Implementing Effective IT Governance And IT Management. Van Haren Publishing.
- COBIT: www.isaca.org/cobit.
- Lankhorst, M. et al. (2017) Enterprise Architecture at Work: Modelling, Communication and Analysis, 4rd Edition, Dordrech: Springer.

Priporočljiva literatura/Recommended literature

- Krisper, M. in Rožanec, A. (2005). Obvladovanje informatike v poslovnih sistemih: pomen strategije in arhitektur. Uporabna informatika, 3(4):185-198.
- Rogers, D. L. in Rogers, D. (2016). The Digital Transformation Playbook: Rethink Your Business for the Digital Age. Columbia Business School Publishing.
- Bavec, C. et al. (2018). Slovenija na poti digitalne preobrazbe. Ljubljana : Fakulteta za računalništvo in informatiko.
- TOGAF in ArchiMate: <http://pubs.opengroup.org/>.

Cilji in kompetence:

Učna enota prispeva predvsem k razvoju naslednjih splošnih in specifičnih kompetenc:

- usposobljenost za poglobljeno razumevanje najsodobnejših področij računalništva in informatike,
- usposobljenost za raziskovalno in razvojno delo na področju računalništva in informatike, ki se veže na višja in vodilna mesta v industriji, upravljanju, znanosti in raziskavah,
- sposobnost za delo v interdisciplinarnih skupinah in okrožjih,
- usposobljenost sodelovanja, dela v skupini in dela na projektih,
- poznavanje zahtevnejših metod analize delovanja informacijskih sistemov in sposobnosti sinteze novih metod analize,
- poznavanje standardov in ogrodij menedžmenta in obvladovanja informacijskih sistemov,
- usposobljenost za razvoj digitalne strategije in obvladovanje njenega uresničevanja,
- usposobljenost za vodenje IT oddelka in projektne skupine.

Objectives and competences:

The learning unit mainly contributes to the development of the following general and specific competences:

- being qualified for in-depth understanding of the most contemporary areas of computer science and informatics,
- being qualified for research and development work in the field of computer science and informatics, connected with senior and leading positions in industry, management, science and research,
- the ability to work in interdisciplinary groups and districts,
- being qualified for cooperation, group work and work on projects,
- knowing more demanding methods of analyzing the information systems operation and the ability to synthesize the new methods of analysis,
- knowledge of standards and frameworks of management and control of information systems,
- being qualified to develop a digital strategy and to manage its implementation,
- being qualified for managing the IT department and project team.

Predvideni študijski rezultati:***Študent/študentka:***

- razume pomen uskladitve poslovne in informacijske domene za zagotavljanje dolgoročne uspešnosti in konkurenčnosti organizacije,
- razume pomen zagotavljanja kakovostnega obvladovanja in menedžmenta informatike za ustvarjanje vrednosti področja informatike za organizacijo,
- pozna ključna področja, ogrodja, standarde in najboljše prakse ter pomen njihove uporabe pri obvladovanju in menedžmentu informatike v organizaciji,
- pozna in razume metode ekonomike informatike in njihovo uporabo pri različnih IT procesih,
- pozna ključna področja obvladovanja informatike in ključna področja menedžmenta informatike v ogrodju COBIT,
- pozna vsebino procesnega referenčnega modela ogrodja COBIT ter ga zna uporabiti pri analizi in načrtovanju izboljšav IT procesov v konkretni organizaciji,
- pozna arhitekturna ogrodja in metode: Zachman, ArchiMate, TOGAF,
- razume pomen poslovno-informacijske arhitekture za upravljanje organizacije in njenega informacijskega sistema,
- pozna proces priprave digitalne strategije in proces digitalne transformacije,
- pozna dejavnike uspešnosti ter izzive digitalne transformacije v organizacijah.
- v okviru laboratorijskih vaj se študent nauči uporabljati ogrodja in orodja poslovno-informacijske arhitekture za: analizo in načrtovanje IT procesov, obvladovanje, povezovanje in optimizacijo virov organizacije, načrtovanje in obvladovanje digitalne transformacije.

Intended learning outcomes:***Students:***

- understand the importance of business IT alignment for sustaining success and competitive advantage of an enterprise,
- understand the importance of providing quality IT governance and management to create the value for the enterprise from IT,
- are familiar with key areas, frameworks, standards and best practices of IT governance and management and their importance for the governance and management of an enterprise,
- know and understand the methods of IT economics and their use in different IT processes,
- know the COBIT framework's key IT governance and IT management areas,
- know the COBIT framework's process reference model and know how to use it at analysis and planning of IT process's improvements in an enterprise,
- know the architecture frameworks and methods: Zachman, ArchiMate, TOGAF,
- understand the role of the enterprise architectures for business and IS governance,
- know the digital strategy formulation process and the process of digital transformation,
- know digital transformation success factors and challenges in transforming organisations.
- at laboratory exercises students learn how to use enterprise architecture frameworks and tools for: analysis and planning of IT processes, managing, integrating and optimizing of organization's assets, planning and governance of digital transformation.

Metode poučevanja in učenja:

- *predavanja* z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov),
- *laboratorijske vaje*: v povezavi s predmetom (reševanje praktičnih problemov, uporaba modelirnih orodij),
- *projektne/raziskovalna naloga*,
- *samostojni študij*.

Learning and teaching methods:

- *lectures* with active participation of students (explanation, discussion, questions, examples, problem solving),
- *laboratory work*: in connection with the course (solving practical problems, use of modelling tools),
- *project/research paper*,
- *independent study*.

Načini ocenjevanja:

Delež (v %)

Weight (in %)

Assessment:

Načini:	Delež (v %)	Types:
<ul style="list-style-type: none"> • izpit • izdelava, predstavitev in zagovor projektne/raziskovalne naloge <p>Ocenjevalna lestvica: ECTS.</p>	<p>60 %</p> <p>40 %</p>	<ul style="list-style-type: none"> • exam • preparation, presentation and defence of the project/research paper <p>Grading scheme: ECTS.</p>