	UČNI NAČRT PREDMETA/COURSE SYLLABUS
Predmet	**Analiza in modeliranje poslovnih procesov**
Course title	**Business Process Modelling and Analysis**

Študijski program in stopnja Study programme and level	**Študijska smer Study field**	**Letnik Academic year**	**Semester Semester**
Poslovna informatika / 1. stopnja	Računalništvo in informatika	2./3. letnik	4./5.
Business Informatics / 1st Cycle	Computer and Information Science	2nd/3rd year	4th/5th

Vrsta predmeta/Course type	izbirni / elective
Univerzitetna koda predmeta/University course code	I_RI_IP_UN6

Predavanja Lectures	**Seminar Seminar**	**Sem. vaje Tutorial**	**Lab. vaje Laboratory work**	**Teren. vaje Field work**	**Samost. delo Individ. work**	**ECTS**
30			30		90	6

Nosilec predmeta/Lecturer:	doc. dr. Sebastian Lahajnar

Jeziki/ Languages:	**Predavanja/Lectures:**	slovenski/Slovenian
	Vaje/Tutorial:	slovenski/Slovenian

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisites:**
• Vpis v drugi ali tretji letnik študijskega programa. • Študent mora pred izpitom pripraviti in predstaviti seminarsko nalogo.	• The prerequisite for inclusion is enrolment in the second or third year of study. • Students have to successfully prepare and present a seminar paper before the examination.

Vsebina:	**Content (Syllabus outline):**
• *Uvod*: Zgodovina sprememb poslovnih procesov, opredelitev osnovnih konceptov, pomembnost prenove pred informatizacijo, prožilci za uvajanje menedžmenta poslovnih procesov, strategija organizacije in procesna	• *Introduction*: The history of business process changes, definition of basic concepts, importance of renovation before informatization, triggers for the introduction of business process management, organization strategy and process architecture, project

arhitektura, upravljanje projektov, ključni dejavniki uspeha, metodološki pristopi. • *Raven organizacije*: Strategija, vrednostne verige in konkurenčna prednost, Porterjev model tekmovalnih sil, Porterjeva teorija konkurenčne prednosti, uravnoteženi sistem kazalnikov, strategija pozicioniranja organizacije, • *Procesna arhitektura*: Horizontalni pristop k analizi organizacije, opredelitev vrednostnih verig, izgradnja procesne arhitekture, temeljni, podporni in upravljavski procesi, razvoj arhitekture z uporabo ogrodij, določitev skrbnikov procesov, meril in virov • *Upravljanje poslovnih procesov*: Matrični menedžment, ogrodja za upravljanje procesov, cilji, merila in ključni performančni indikatorji, merjenje performans, prilagoditev organizacijske strukture. • *Raven poslovnih procesov*: Analiza obstoječih procesov, izdelava poslovnih primerov, inoviranje, tehnike modeliranja (EPC, IDEF, diagrami aktivnosti jezika UML, BPMN). • *Analiza aktivnosti*: Analiza performans ljudi, avtomatiziranih in delno avtomatiziranih aktivnosti, vloge in opisi del, upravljanje dela strokovnjakov, simulacije, spremljanje stroškov po aktivnostih. • *Raven izvedbe:* Programska orodja za analizo in načrtovanje poslovnih procesov, Suite za menedžment poslovnih, preoblikovanje z uporabo sistemov ERP, jeziki in standardi za izvajaje poslovnih procesov, referenčna arhitektura sistema, jezik BPEL.	management, key success factors, methodological approaches. • *Level of organization*: Strategy, value chains and competitive advantage, Porter model of competitive forces, Porter's theory of competitive advantage, balanced scorecard, positioning strategy. • *Process architecture*: Horizontal approach to organizational analysis, definition of value chains, building process architecture, core, support and management processes, process architecture development using frameworks, determination of process managers, criteria and resources • *Business process management*: Matrix management, frameworks for process management, objectives, measures and key performance indicators, performance measurement, adjustment of the organizational structure. • *Business process level*: Analysis of existing processes, business case studies, process innovation, modelling techniques (EPC, IDEF, UML Activities diagram, BPMN). • *Activity analysis*: People performance analysis, automated and partly automated activities, roles and job descriptions, management of experts, simulations, activity based costing. • *Performance level*: Software tools for business process analysis and design, Business process management suites, ERP, languages and standards for business process implementation, reference architecture, BPEL language.

Temeljna literatura in viri/Readings:

Temeljna literatura/Basic literature

- Lahajnar, S. (2009). *Modeliranje in analiza poslovnih procesov*. Fakulteta za komercialne in poslovne vede.

Priporočljiva literatura/Recommended literature

- Harmon, P. (2019). *Business Process Change, Fourth Edition: A Business Process Management Guide for Managers and Process Professionals*. Morgan Kaufmann.
- Jeston, J., Nelis, J. (2018). *Business process management: practical guidelines to successful implementations, Fourtf edition*. Routledge.

Cilji in kompetence:	**Objectives and competences:**
Učna enota prispeva predvsem k razvoju naslednjih splošnih in specifičnih kompetenc: • poznavanje in razumevanje procesov v tehniško-tehnološkem ter poslovnem okolju in sposobnost za njihovo analizo, sintezo in predvidevanje rešitev ter njihovih posledic, • sposobnost definiranja, razumevanja in ustvarjalnega reševanja strokovnih izzivov na področjih računalništva in informatike, • usposobljenost za pridobivanje novih in poglabljanje pridobljenih strokovnih znanj računalništva in informatike, • usposobljenost za analizo in načrtovanje sistemov, • zmožnost opisati dano situacijo s pravilno uporabo matematičnih in računalniških simbolov ter zapisov, • poznavanje načinov predstavitve, zapisa in modeliranja informacij, • usposobljenost za timsko in projektno delo, • poznavanje zmožnosti in omejitev informacijskih tehnologij.	*The learning unit mainly contributes to the development of the following general and specific competences:* • knowledge and understanding of processes in the technical-technological and business environment, as well as the ability for their analysis, synthesis and prediction of the solutions and their consequences, • the ability to define, understand and creatively solve professional challenges in the fields of computer science and informatics, • the ability to acquire new and deepen the acquired professional knowledge of computer science and informatics, • being qualified to analyze and design systems, • the ability to describe the given situation with a proper use of mathematical and computer symbols and records, • knowing the ways of presenting, recording and modeling information, • being qualified for teamwork and project work, • knowing the capabilities and limitations of information technologies.

Predvideni študijski rezultati:	**Intended learning outcomes:**
Študent/študentka: • pozna pomen spreminjanja in upravljanja poslovnih procesov,	***Students:*** • know the importance of changing and managing business processes,

• pozna in uporablja različne možne pristope za izboljšavo, preoblikovanje in avtomatizacijo poslovnih procesov, • razume pomen strategije organizacije in uporablja tehnike za razvoj strategije in opis organizacije na višji ravni, • pozna horizontalni pristop k analizi organizacije in principe procesne arhitekture, • pozna in uporablja tehnike za modeliranje poslovnih procesov, • pozna in uporablja tehnike za analizo aktivnosti, • izvaja simulacije z uporabo simulacijskih orodij, • uporablja programska orodja za analizo in modeliranje poslovnih procesov, suite za menedžment poslovnih procesov, • pozna pristop prenove poslovnih procesov z sistemi ERP, • pozna osnovne koncepte jezika za izvajanje poslovnih procesov BPEL, • je usposobljen za celovito analizo in modeliranje organizacije.	• know and use various approaches for improving, transforming and automating business processes, • understand the importance of the organization's strategy and use techniques for strategy development and organization description at a higher level, • know the horizontal approach to organization analysis and the principles of process architecture, • know and use techniques for business process modelling, • know and use techniques for analyzing activities, • perform simulations using simulation tools, • use software tools for business processes analysis and modelling, use business process management suites, • know how to improve business process with ERP systems, • understand the basic concepts of the BPEL language, • are qualified for a comprehensive analysis and modelling of the organization.

Metode poučevanja in učenja:	**Learning and teaching methods:**
• *predavanja* z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov), • *laboratorijske vaje:* refleksija izkušenj, praktično reševanje več tipičnih problemov na računalniku, predstavitev in zagovor programskih rešitev, diskusija, sporočanje povratne informacije.	• *lectures* with active student participation (explanation, discussion, questions, examples, problem solving), • *laboratory work:* reflection on experience, practical solving of several typical problems on a computer, presentation and defence of programming solutions, discussion, feedback.

Načini ocenjevanja:	Delež (v %) Weight (in %)	**Assessment:**
Načini: • izpit • izdelava, predstavitev in zagovor seminarske naloge Ocenjevalna lestvica: ECTS.	 60 % 40 %	Types: • exam • preparation, presentation and defence of the seminar paper Grading scheme: ECTS.