

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet:	Informacijski sistemi
Course title:	Information Systems

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Uporabne družbene študije UN	/	2.,3.	4.,6.
Advanced Social Studies BA	/	2.,3.	4.,6.

Vrsta predmeta / Course type Izbirni/Optional

Univerzitetna koda predmeta / University course code: IS

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
20	0	40	0	0	120	6

Nosilec predmeta / Lecturer: Izr. prof. dr./ Ph.D., Associate Professor Nadja Damij

Jeziki / Languages:	Predavanja / Lectures:	Slovensko / Slovenian, Angleško / English
	Vaje / Tutorial:	Slovensko / Slovenian, Angleško / English

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

Študent/študentka mora pred pristopom k izpitu pripraviti in zagovarjati empirično seminarsko nalogo.

Prerequisites:

Before entering the exam, student must prepare and defend empirical seminar report.

Vsebina:

1. UVOD:
 - namen in vsebina predmeta,
 - načini ocenjevanja,
 - študijska literatura.
2. OSNOVNI POJMI:
 - definicija informacijskega sistema (IS),
 - poslovni sistemi (procesi in podatki)
 - poslovne aplikacije.
3. INFORMACIJSKI SISTEM:
 - disciplinarni vidik,

Content (Syllabus outline):

1. INTRODUCTION:
 - purpose and content of the course,
 - forms of assessment,
 - main readings.
2. BASIC CONCEPTS:
 - definition of information system (IS),
 - business systems (processes and data),
 - business applications.
3. INFORMATION SYSTEM:
 - disciplinary aspect,

<ul style="list-style-type: none"> • namen in cilj IS, • klasifikacija IS, • razvoj IS, • metodologije pri razvoju IS. <p>4. STRUKTURA INFORMACIJSKEGA SISTEMA:</p> <ul style="list-style-type: none"> • vpliv informacijske tehnologije na evolucijo IS, • strojna oprema, • komunikacijska oprema, • programska oprema (sistemska, aplikativna). <p>5. INFORMACIJSKI SISTEMI V ORGANIZACIJAH:</p> <ul style="list-style-type: none"> • vloga IS v organizacijah, • organiziranje in upravljanje podatkov v organizacijah, • poslovne aplikacije. <p>6. TEMELJNA STRUKTURA INFORMACIJSKEGA SISTEMA V ORGANIZACIJI (TRANSAKCIJSKI NIVO):</p> <ul style="list-style-type: none"> • nabavni IS, • proizvodni IS, • prodajni IS, • računovodski IS, • kadrovski IS. <p>7. METODE IN TEHNIKE RAZVOJA INFORMACIJSKEGA SISTEMA:</p> <ul style="list-style-type: none"> • življenjski cikel informacijskega sistema (planiranje, analiza, oblikovanje, razvoj, uvajanje, vzdrževanje), • orodja za tehnološko podporo pri razvoju IS, • CASE orodja za razvoj in delovanje IS, • potrebna znanja za načrtovanje in razvijanje IS, • zagotavljanje kakovosti razvoja IS, • prilagajanje IS značilnostim in potrebam organizacije. <p>8. PRENOVA POSLOVANJA IN CELOVITE PROGRAMSKE REŠITVE:</p> <ul style="list-style-type: none"> • sistemi <i>Enterprise Resource Planning</i> (ERP). <p>9. IZMENJAVA PODATKOV IN KOMUNIKACIJE:</p> <ul style="list-style-type: none"> • integracija IS organizacije z IS okolja, 	<ul style="list-style-type: none"> • purpose and aim of IS, • IS classification, • IS development, • IS development methodology. <p>4. STRUCTURE OF INFORMATION SYSTEM:</p> <ul style="list-style-type: none"> • impact of information technology on IS evolution, • hardware, • communication tools, • software (system, applicative). <p>5. INFORMATION SYSTEMS IN ORGANIZATIONS:</p> <ul style="list-style-type: none"> • role of IS in organizations, • organization of data and data management in organizations, • business applications. <p>6. FUNDAMENTAL STRUCTURE OF INFORMATION SYSTEM IN ORGANIZATION (TRANSACTIONAL LEVEL):</p> <ul style="list-style-type: none"> • cost IS, • manufacturing IS, • sales IS, • accounting IS, • human resource IS. <p>7. METHODS AND TECHNIQUES FOR INFORMATION SYSTEM DEVELOPMENT:</p> <ul style="list-style-type: none"> • information system lifecycle (planning, analysing, shaping, developing, introducing, maintaining), • tools for technological support in developing IS, • CASE tools for IS development and function, • necessary skills for planning and developing IS, • quality assurance in developing IS, • adaptation of IS to organization's characteristics and needs. <p>8. BUSINESS RENOVATION AND COMPREHENSIVE SOFTWARE SOLUTIONS:</p> <ul style="list-style-type: none"> • <i>Enterprise Resource Planning</i> (ERP) systems. <p>9. DATA TRANSFER AND COMMUNICATIONS:</p>
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- komunikacijski kanali izmenjave podatkov (računalniške mreže, internet, ekstranet, mrežne storitve, aplikacije e-poslovanja).

10. GLOBALNI, DRUŽBENI, ETIČNI IN PRAVNI VIDIKI INFORMACIJSKEGA SISTEMA.

- integration of organizational IS with IS of its environment,
- communication channels for data transfer (computer networks, Internet, Extranet, network services, e-commerce applications).

10. GLOBAL, SOCIAL, ETHIC AND LEGAL ASPECTS OF INFORMATION SYSTEM.

Temeljni literatura in viri / Readings:

- BEYNON-DAVIES, P. (2002): *Information Systems, An introduction to Informatics in Organizations*. Palgrave.
- AVISON, D. in G. FITZGERALD (2003): *Information systems development, methodologies, techniques and tools*. London: McGraw-Hill.
- KOVAČIČ, A. in M. VINTAR (1994): *Načrtovanje in gradnja IS*. Ljubljana: DZS.
- Dodatna literatura s strani nosilca / additional literature proposed by lecturer.

Cilji in kompetence:

SPLOŠNE KOMPETENCE:

- razvoj kritične in samokritične presoje
- sposobnost fleksibilne uporabe znanja v praksi
- sposobnost divergentnega mišljenja, kritičnega presojanja, ustvarjalnosti in premagovanja problemov

PREDMETNO SPECIFIČNE KOMPETENCE

- poznavanje in razumevanje utemeljitev in zgodovine razvoja temeljnih družboslovnih disciplin (stroke), in sicer s področja družboslovne informatike
- sposobnost povezovanja koherentno obvladanega temeljnega znanja, pridobljenega pri obveznih predmetih, ter njegova uporaba v praksi
- sposobnost uporabe informacijsko-komunikacijske tehnologije in sistemov na področju družbenih ved
- sposobnost interdisciplinarnega pristopa, ki se kaže kot razumevanje splošne strukture družbenih ved ter povezanosti med njenimi posameznimi disciplinami in poddisciplinami

Objectives and competences:

GENERAL COMPETENCES:

- development of critical and self-critical judgement
- The ability of the flexible use of knowledge in practice
- the ability of divergent thinking, critical judgement, creativity and overcoming problems

COURSE SPECIFIC COMPETENCES

- knowing and understanding the foundations and history of the development of the basic social science disciplines (professions), i.e. social science informatics
- the ability to connect coherently collected knowledge attained from the mandatory courses and its application in practice
- ability to use information and communications technologies and systems in the field of social sciences
- the ability for an interdisciplinary approach demonstrated as understanding of the general structure of social sciences and their connections to its particular disciplines and sub-disciplines

- razvoj veščin in spretnosti pri uporabi znanja na področju družbenih ved s pomočjo reševanja teoretičnih ali empiričnih problemov.

- the development of skills and abilities to apply knowledge in the field of social sciences by solving theoretical and empirical problems.

Predvideni študijski rezultati:

Znanje in razumevanje:

- poznavanje temeljnih definicij in pojmov na področju informacijskih sistemov,
- razumevanje povezanosti informacijskega in poslovnega sistema,
- poznavanje in razumevanje namenov in ciljev informacijskega sistema organizacije,
- zmožnost identifikacije prispevka informacijskega sistema k dodani vrednosti organizacije,
- poznavanje in razumevanje strukture informacijskega sistema organizacije,
- poznavanje in razumevanje življenjskega cikla poslovnega informacijskega sistema,
- poznavanje, razumevanje in uporaba različnih metod in tehnik za razvijanje poslovnega informacijskega sistema,
- zmožnost za sodelovanje pri razvoju informacijskega sistema organizacije.

Intended learning outcomes:

Knowledge and understanding:

- knowledge of fundamental definitions and concepts in the field of information systems,
- understanding the connection between information and business systems,
- knowledge and understanding of purposes and aims of information system in organization,
- ability to identify the contribution of information system to added value of organization,
- knowledge and understanding of information system structure in organization,
- knowledge and understanding of business information system lifecycle,
- knowledge, understanding and application of different methods and techniques for business information system development,
- ability to collaborate in development of information system in organization.

Metode poučevanja in učenja:

- Predavanja z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov),
- Vaje (delo na osebni računalniku, prenos teorije v prakso),
- Konzultacije (diskusija, dodatna razlaga, obravnava specifičnih vprašanj).

Learning and teaching methods:

- Lectures with active participation of students (explanation, discussion, questions, examples, problem solving),
- Tutorial (work on personal computers, transferring the theory to practice),
- Consultation (discussion, additional explanation, dealing with specific issues).

Načini ocenjevanja:Delež (v %) /
Weight (in %)**Assessment:**

<ul style="list-style-type: none"> • Pisni/ustni izpit • Empirična seminarska naloga s poročili seminarskega dela in vaj ter predstavitev naloge 	<p>50%</p> <p>50%</p>	<ul style="list-style-type: none"> • Written/oral examination • Empirical seminar report with reports of seminar work and tutorials, and presentation of tasks
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Reference nosilca / Lecturer's references:

- DAMIJ, Nadja. An effective process modelling technique. V: CORDEIRO, José António Moinhos (ur.), FILIPE, Joaquim (ur.). *ICEIS 2009 : Proceedings of the 11th International Conference on Enterprise Information Systems, Milan, Italy May 6-10, 2009. Volume ISAS*. [Setúbal]: INSTICC, cop. 2009, str. [298]-303.
- DAMIJ, Nadja, DAMIJ, Talib, GRAD, Janez, JELENC, Franc. A methodology for business process improvement and IS development. *Information and software technology*, ISSN 0950-5849. [Print ed.], 2008, vol. 50, str. 1127-1141.
- DAMIJ, Nadja. How does the Eficus solution optimize an organization. *WSEAS transactions on information science and applications*, ISSN 1790-0832, Dec. 2006, vol. 3, iss. 12, str. 2511-2517.
- BORAS, Damir (urednik), DAMIJ, Nadja (gostujoči urednik). *Recent advances in information science : proceedings of the 7th European Computing Conference (EEC '13)*, Dubrovnik, Croatia, June 25-27, 2013, (Recent Advances in Computer Engineering Series, 13). [s. l.]: WSEAS Press, cop. 2013. 430 str.
- AGREŽ, Jernej, BAČA, Miroslav, DAMIJ, Nadja. A principled approach to the optimization solution of the biometric system. V: *6th International Conference on Information Technologies and Information Society [also] ITIS 2014*, Šmarješke Toplice, 5-7 Novembar 2014. LEVNAJIĆ, Zoran (ur.), MILEVA-BOSHKOSKA, Biljana (ur.). *Proceedings*. Novo mesto: Faculty of Information Studies, 2014, str. 97-103.