

UČNI NAČRT PREDMETA / COURSE SYLLABUS

Predmet: Spletni in mobilni informacijski sistemi
Course title: Web and Mobile Information Systems

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Informatika v sodobni družbi, visokošolski strokovni in univerzitetni študijski program prve stopnje	-	Drugi ali tretji	Četrta ali šesta
Informatics in Contemporary Society, first cycle Professional Study Programme and Academic Study programme	-	Second or third	Fourth or sixth

Vrsta predmeta / Course type

Izbirni / Elective

Univerzitetna koda predmeta / University course code:

1-ISD-VS,UN-IP-SMIS-2019-05-13

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work	ECTS
30	-	45	-	-	105	6

Nosilec predmeta / Lecturer:

Jeziki /

Languages:

Predavanja / Slovenski, angleški / Slovene, English

Lectures:

Vaje / Tutorial: Slovenski, angleški / Slovene, English

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

Pogoj za vključitev v delo je vpis v 2. oz. 3. letnik študija in opravljen izpit iz predmeta Informacijski sistemi.

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

Prerequisites:

Condition for participation is enrollment into 2nd or 3rd year of study and passed exam from Information Systems.

Prior to the exam, the student has to prepare and defend seminar work.

Vsebina:

- *Uvod*: opis predmeta ter splošnih informacijskih sistemov.
- *Spletni informacijski sistemi*: opredelitev spletnih informacijskih sistemov, predstavitev najpogostejših arhitektur IS, prednosti in slabosti ter primeri dobre prakse.
- *Mobilni informacijski sistemi*: predstavitev razlik v načrtovanju mobilnih in spletnih informacijskih sistemov, načrtovanje prožnih, razširljivih in vseprisotnih informacijskih sistemov.
- *Računalništvo v oblaku*: opredelitev porazdeljenega računalništva v obliki oblaka, analiza rešitev in storitev na področju, pregled tehnologij, načini komunikacije ter souporabe informacij.
- *Mobilni odjemalci*: predstavitev zmogljivosti mobilnih odjemalcev, analiza njihovih omejitev, načini komunikacije.

Content (Syllabus outline):

- *Introduction*: description of the course and general information systems.
- *Web information systems*: definition of web information systems, presentation of most common IS architectures, advantages and disadvantages, as well as examples of good practice.
- *Mobile information systems*: presentation of differences in planning mobile and web information systems, planning flexible, extendable and ubiquitous information systems.
- *Computer science in a cloud*: definition of computer science aspects divided in a form of a cloud, solutions and services analysis in the relative field, technologies overview, manners of communication and co-use of information.
- *Mobile customers*: presentation of mobile customer capacities, analysis of their limitations, ways of communication.

Temeljni literatura in viri / Readings:

- John Horton (2018). *Android Programming for Beginners: Build in-depth, full-featured Android 9 Pie apps starting from zero programming experience*, 2nd Edition Paperback.
- Erl, Thomas; Mahmood, Zaigham; Puttini, Ricardo (2017). *Cloud computing : concepts, technology & architecture*. 2nd ed., Noida : Dorling Kindersley : Pearson India Education.
- Rainer, Rex Kelly (2016). *Introduction to information systems : supporting and transforming business* / R. Kelly Rainer Jr., Brad Prince. 7th ed., Hoboken : John Wiley & Sons.
- Leigh, Williamson et al. (2016). *Enterprise class mobile application development : a complete lifecycle approach for producing mobile apps* / - New York etc. : IBM : Pearson, cop.
- Stair, Ralph M.; Reynolds, George W. (2018). *Principles of information systems*, 13th ed., Boston (MA) : Cengage Learning.
- Kranz, Maciej (2017). *Building the internet of things : implement new business models, disrupt competitors, and transform your industry*. Hoboken (New Jersey) : Wiley, cop.
- Kim, Gene (2016). *The DevOps handbook : how to create world-class agility, reliability, & security in technology organizations*. 1st ed., Portland : IT Revolution Press.

Cilji in kompetence:

Učna enota prispeva k razvoju naslednjih splošnih in predmetno-specifičnih kompetenc:

- obvladanje raziskovalnih metod, postopkov in procesov
- razvoj (samo)kritične presoje

Objectives and competences:

The instructional unit contributes to the development of the following general and subject-specific competences:

- competence in research methods, procedures and processes
- development of (self)critical

- sposobnost fleksibilne in aplikativne uporabe teoretičnega znanja
- organizacijske in vodstvene spretnosti za organiziranje aktivnega in samostojnega dela
- poznavanje in razumevanje širokega nabora aplikacij informacijsko komunikacijske tehnologije v sodobni družbi
- prizadevanje za kakovost strokovnega dela skozi avtonomnost, (samo)kritičnost, (samo)refleksivnost in (samo)evalviranje v strokovnem delu
- razumevanje in uporaba teoretičnih osnov analitičnega in svetovalnega dela (prenos znanja do uporabnika)
- razumevanje informatizacije z implementacijo celovitih informacijskih rešitev in e-poslovanja v praksi
- razumevanje in uporaba metod kritične analize in razvoja teorij ter njihova uporaba v reševanju konkretnih družbenih in delovnih problemov

- judgement
- ability to flexibly apply knowledge in practice
 - managerial and leadership skills for organizing active and autonomous work
 - knowledge and understanding of a wide range of applications of information communication technology in the modern society
 - striving to achieve quality of professional work through autonomy, (self) criticism, (self) reflexivity and (self) evaluation in professional work
 - understanding and use of theoretical bases of analytical and counselling work (transfer of knowledge to user)
 - understanding of informatisation with the implementation of comprehensive information and e-business solutions in practice
 - understanding and use of the methods of critical analysis and development of theories, as well as their use in the solving of actual social and work problems

Predvideni študijski rezultati:

Znanje in razumevanje:

Študentka/študent:

- pozna in razume osnove informacijskih sistemov
- pozna in razume razlike med načrtovanjem ter razvojem spletnih in mobilnih informacijskih sistemov
- demonstrira zmožnost identifikacije potrebnih komponent
- prikaže razumevanje ter kritično ocenjevanje tehnologij za vzpostavitev ciljnega informacijskega sistema

Intended learning outcomes:

Knowledge and understanding:

The student:

- know and understand information system basics
- know and understand the differences between planning and development of web and mobile information systems
- demonstrate the ability to identify necessary components
- demonstrate understanding and the ability to critically assess technologies necessary for establishing a target information system

Metode poučevanja in učenja:

- *predavanja*, na katerih se študentje spoznajo s teoretičnim ozadjem spletnih in mobilnih informacijskih sistemov,

Learning and teaching methods:

- *lectures* during which students are familiarized with theoretical backgrounds of web and mobile

primeri dobre prakse ter reševanjem problemov. Pričakuje se aktivna participacija študentov v obliki dialoga

- *laboratorijske vaje* so namenjene krepitvi praktičnih izkušenj na področju načrtovanja, razvoja in vzdrževanja informacijskih sistemov

information systems, examples of good practice and problem solving. Active student participation in the form of a dialogue is expected

- *laboratory practice* is intended for strengthening practical experience related to planning, development and maintenance of information systems

Delež (v %) /

Weight (in %)

Načini ocenjevanja:

Assessment:

Način (pisni izpit, ustno izpraševanje, naloge, projekt):	Delež (v %) / Weight (in %)	Type (examination, oral, coursework, project):
<ul style="list-style-type: none"> • pisni/ustni • seminarska naloga 	50	<ul style="list-style-type: none"> • written/oral exam • student project
	50	