

	UČNI NAČRT PREDMETA/COURSE SYLLABUS
Predmet	Multimedija
Course title	Multimedia

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

Vrsta predmeta/Course type obvezni/obligatory

Univerzitetna koda predmeta/University course code I_RI_2_UNI

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Laboratory work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
30			45		75	6

Nosilec predmeta/Lecturer: dr. Borut Čampelj, pred.

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

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

<ul style="list-style-type: none"> • Vpis v drugi letnik študijskega programa. • Študent mora pred izpitom pripraviti in predstaviti seminarsko nalogo. 	<ul style="list-style-type: none"> • The prerequisite for inclusion is enrolment in the second year of study. • Students have to successfully prepare and present a seminar paper before the examination.
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Vsebina: **Content (Syllabus outline):**

<ul style="list-style-type: none"> • <i>Uvod:</i> definicija, predstavitev multimedijskih gradnikov, načinov izdelave in trendov. • <i>Koristnost uporabe multimedije v različnih okoljih:</i> v podjetjih, pri izobraževanju, doma, na javnih mestih (npr. muzeji, galerije), navidezna resničnost. • <i>Prednosti in slabosti multimedije, elementi učinkovitosti in uspešnosti.</i> 	<ul style="list-style-type: none"> • <i>Introduction:</i> definition, presentation of multimedia elements, methods of preparation and trends. • <i>The usefulness of using multimedia in different environments:</i> in companies, in education, at home, in public places (e.g. museums, galleries), virtual reality.
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<ul style="list-style-type: none"> • <i>Dimenzije multimedijske predstavitev:</i> perspektiva, natančnost, modalnost, specifičnost, kompleksnost. • <i>Pregled multimedijskih gradnikov in njihovih značilnosti:</i> tekst, zvok, slika, animacija, video. • <i>Standardi in protokoli:</i> potreba po standardih, standardni formati za shranjevanje in prenos multimedijskih gradnikov, kodiranje, kompresijski algoritmi, protokoli (RTP, RSVP, QoS). • <i>Zakonodajni vidik:</i> javno dostopne multimedijske vsebine, licenciranje, avtorske pravice. • <i>Sestava multimedijske projektne skupine in njihove kompetence:</i> projektni vodja, grafični oblikovalec, načrtovalec uporabniškega vmesnika, pisec scenarijev, zvočni, glasbeni in video producent, multimedijski, spletni ali mobilni programer. • <i>Obvladovanje faz multimedijskega projekta:</i> planiranje projekta, načrtovanje in izdelava multimedijskega izdelka, testiranje in dostava končnemu uporabniku. • <i>Priprava multimedijskih projektov:</i> orodja za izdelavo gradiv in aplikacij, ciljne platforme, multimedija na internetu, interaktivnost, programski jeziki. • <i>Kriteriji pri oblikovanju multimedijskih izdelkov:</i> estetski, psihološki, pomen barve, dispozicija gradiva, namembnost. • <i>Tehnike in orodja za zajem in obdelavo posameznih multimedijskih izdelkov:</i> urejanje in oblikovanje različnih pisav, urejevalniki hiperteksta, slik, zvoka, videa, orodja za računalniško animacijo. • <i>Smeri razvoja multimedijskih tehnologij.</i> 	<ul style="list-style-type: none"> • <i>Advantages and disadvantages of multimedia, elements of its efficiency and effectiveness.</i> • <i>Dimensions of multimedia presentation:</i> perspective, accuracy, modality, specificity, complexity. • <i>Overview of multimedia widgets and their features:</i> text, sound, images, animation, video. • <i>Standards and protocols:</i> the need for standards, standards for storing and transmitting multimedia elements, coding, compression algorithms, protocols (RTP, RSVP, QoS). • <i>Legislative aspect:</i> publicly accessible multimedia content, licensing, copyright. • <i>Composition of multimedia project group and their skills:</i> project manager, graphic designer, user interface designer, script writer, sound, music and video producer, multimedia, web or mobile programmer. • <i>Managing the stages of a multimedia project:</i> project planning, designing and producing, testing and delivering to the end user. • <i>Preparation of multimedia projects:</i> tools for the development of multimedia materials and applications, target platforms, multimedia on the internet, interactivity, programming languages. • <i>Criteria in designing multimedia material:</i> aesthetic, psychological, the importance of colour, disposition of material, intended use. • <i>Techniques and tools for capturing and processing different multimedia elements:</i> font editing and design, hypertext editing, image, sound and video capturing and editing, computer animation tools. • <i>Trends in the development of multimedia technologies.</i>
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Temeljna literatura in viri/Readings:

Temeljna literatura/Basic literature

- Vaughan, T. (2014). *Multimedia: Making it Work*. McGraw-Hill Education.
- Chapman, N. in Chapman, J. (2009): *Digital Multimedia*, Chichester: Wiley & Sons.

Priporočljiva literatura/Recommended literature

- Krašna, M. (2010). Multimedija v izobraževanju, Nova Gorica : Educa, Melior.
- Friedland, G. in Ramesh, J. (2014). Multimedia Computing, Cambridge University Press.

Cilji in kompetence:

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

- usposobljenost za poglobljeno razumevanje računalništva in informatike,
- usposobljenost za permanentno spremljanje in presojo dogajanj na področju računalništva in informatike,
- usposobljenost za pridobivanje novih in poglobljanje pridobljenih strokovnih znanj računalništva in informatike,
- usposobljenost za timsko in projektno delo,
- razvijanje poklicne identitete, profesionalne odgovornosti in etičnosti,
- usposobljenost za analizo in načrtovanje sistemov,
- poznavanje zmožnosti in omejitev informacijskih tehnologij,
- razumevanje in sposobnost umeščanja računalniških in informacijskih znanj na različna področja tehnike in druga strokovno relevantna področja (ekonomija, poslovanje, organizacijske vede itd.).

Objectives and competences:

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

- competence for in-depth understanding of computer science and informatics,
- being qualified for continuous monitoring and assessment of events in the field of computer science and informatics,
- the ability to acquire new and deepen the acquired professional knowledge of computer science and informatics,
- being qualified for team work and project work,
- developing occupational identity, professional responsibility and ethics,
- being qualified to analyze and design systems,
- knowing the capabilities and limitations of information technologies,
- understanding and the ability to place computer and information knowledge into various fields of technics and other professionally relevant fields (economics, business, organizational sciences, etc.).

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

- pozna pojem multimedije,
- pozna možnosti in koristnost uporabe multimedije v različnih okoljih,
- pozna prednosti in slabosti multimedije, dejavnike za njeno učinkovitost in dejavnike uspešnosti,
- pozna značilnosti in različne formate zapisa teksta, zvoka, grafike, videa in animacij,
- pozna regulativo s področja zaščite avtorskih pravic multimedijskih vsebin (risb, fotografij, filmov itd.) ter vrste licenc za njihovo uporabo,

Intended learning outcomes:**Students:**

- know the concept of multimedia,
- know the possibilities and usefulness of using multimedia in different environments,
- know the advantages and disadvantages of multimedia, factors for its efficiency and effectiveness,
- knows the characteristics and various formats of text, sound, images, video and animation,
- are familiar with the regulations in the field of copyright protection of multimedia content (drawings,

<ul style="list-style-type: none"> • pozna značilnosti multimedijskih projektov in se usposobi za njihovo načrtovanje in izvedbo, • pozna različne tehnike za zajem in obdelavo posameznih multimedijskih vsebin, • pozna različne profile ter potrebna znanja za sestavo projektne skupine multimedijskega projekta, • v okviru laboratorijskih vaj se usposobi za: zajem, obdelavo in predstavitev fotografij, zajem in montažo zvoka, snemanje in urejanje videa, združevanje različnih gradnikov v celovito multimedijsko predstavitev (npr. predstavitevni video), pripravo interaktivne predstavitve (npr. spletna stran, kviz, multimedijska prezentacija) ter izdelavo enostavne računalniške animacije. 	<p>photographs, films, etc.) and types of licenses for their use,</p> <ul style="list-style-type: none"> • know the characteristics of multimedia projects and are trained in their design and implementation, • know various techniques for capturing and processing different multimedia content, • know various profiles and necessary skills for the composition of the project group of the multimedia project, • in the scope of laboratory exercises, students are trained for: capturing, processing and presentation of photographs, capturing and assembling sound, recording and editing video, combining various components into a comprehensive multimedia presentation (e.g. video presentation), preparation of interactive presentations (e.g. website, multimedia presentation) and the creation of a simple computer animation.
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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 programskih orodij),
- *seminarska 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 programming tools),
- *seminar paper*,
- *independent study*.

Načini ocenjevanja:

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