	UČNI NAČRT PREDMETA/COURSE SYLLABUS
Predmet	Multimedijske tehnologije
Course title	Multimedia Technologies

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Poslovna informatika 1	Poslovna informatika	2./3.	4./5.
Business Informatics 1	Business informatics	2nd/3rd	4th/5th

Vrsta predmeta/Course type izbirni/elective

Univerzitetna koda predmeta/University course code

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. Alenka Rožanec

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

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisites:**
• Pogoj za vključitev v delo je vpis v 2. ali 3. letnik študija. • Študent mora pred izpitom pripraviti in predstaviti seminarsko nalogo in projekt.	• The prerequisite for participation is enrolment in the second or third year of study. • Students have to successfully prepare and present a seminar paper and project work before the examination.

Vsebina:	**Content (Syllabus outline):**
• *Uvod*: definicija, predstavitev multimedijskih vsebin, načinov izdelave in trendov. • *Mediji in predstavitev*: tekst, zvok, slika, animacija, video. • *Informacijski prostori,* hipermediji, multimodalnost, razširjena/navidezna resničnost. • *Standardi:* Potreba po standardih, kodiranje, standardi za hranjenje in prenos vsebin, sinhronizacija, metapodatki, XML, MPEG, SMIL. • *Priprava multimedijskih gradiv in aplikacij:* orodja za izdelavo gradiv in aplikacij, ciljne platforme, načini izdelave, multimediji in omrežje,	• *Introduction*: definition, presentation of multimedia content, methods of preparation and trends. • *Media and presentation*: text, sound, picture, animation, video. • *Information spaces,* hypermedia, multimodality, extended/virtual reality. • *Standards:* Need for standards, coding, standards for storing and transmitting content, synchronisation, metadata, XML, MPEG, SMIL. • *Preparation of multimedia materials and applications:* tools for preparing materials and applications, target platforms, methods of preparation, multimedia and network, interactivity,

interaktivnost, opisni jeziki.	description languages.
• *Kriteriji pri oblikovanju gradiv*: estetski, psihološki, pomen barve, dispozicija gradiva, namembnost, avtorske pravice.	• *Criteria in designing materials*: aesthetic, psychological, importance of colour, disposition of material, use, copyright.
• *Tehnike obdelave gradiva:* osnove obdelave slike/zvoka/videa.	• *Techniques of processing materials:* basics of processing a picture/sound/video.
• *Pridobivanje informacij*: osnove pridobivanja informacij iz teksta, slik, zvoka, videa. Indeksiranje, iskanje, anotacija, segmentacija. Algoritmi, evalvacija, uporabniški vmesniki.	• *Collecting information*: basics of collecting information from text, picture, sound, video. Indexing, search, annotation, segmentation. Algorithms, evaluation, user interfaces.
• *Digitalne knjižnice:* modeli dokumentov, predstavitev in dostop, standardi.	• *Digital libraries:* models of documents, presentation and access, standards.
• *Smeri razvoja multimedijskih tehnologij.*	• *Trends in the development of multimedia technologies*.

Temeljna literatura in viri/Readings:

Chapman, N. in Chapman, J. (2003). Digital Multimedia. John Wiley & Sons; 2nd edition.
Rao, K. R. in sod. (2002). Multimedia Communication Systems: Techniques, Standards and Networks, Prentice Hall PTR; 1st edition.
Vaughan, T. (1998). Multimedia: Making it Work. Fourth Edition. Osborne McGraw Hill, Berkeley California.
Wheeler, S. G. in Wheeler, G. S. (2001). The Visual Design Primer. Prentice Hall; 1st edition.
Yates, R. B. in Ribeiro-Neto, B. (1999). Modern Information Retrieval, Addison Wesley; 1st edition.

Cilji in kompetence:	**Objectives and competences:**
Učna enota prispeva predvsem k razvoju naslednjih splošnih in specifičnih kompetenc:	*The learning unit mainly contributes to the development of the following general and specific competences:*
• znanje o načinih predstavitve, zapisa in modeliranja informacije;	• knowledge of the methods of presenting, recording and modelling information;
• interdisciplinarno povezovanje vsebin;	• interdisciplinary connections with regard to content;
• avtonomnost, (samo)kritičnost, (samo)refleksivnost, samoocenjevanje in prizadevanje za kakovost;	• autonomy, (self-)criticism, (self-) reflection, self-evaluation and efforts towards quality;
• koherentno obvladovanje temeljnega znanja, pridobljenega pri obveznih predmetih, ter sposobnost povezovanja znanja z različnih področij in njegova uporaba v praksi;	• coherent mastering of fundamental knowledge gained in obligatory courses and the ability to link the knowledge of various fields and apply it in practice;
• sposobnost pridobivanja, selekcije in ocenjevanja novih informacij in zmožnost ustrezne interpretacije v kontekstu na področju informatike;	• the ability to collect, select and evaluate new information as well as to interpret them appropriately in the context of informatics;
• osveščenost o zmožnostih in omejitvah informacijskih tehnologij;	• awareness of capabilities and limitations of information technologies.
• sodelovalno/timsko delo, sposobnost komuniciranja s strokovnjaki z različnih področij gospodarskega in družbenega življenja;	• cooperation or team work, the ability to communicate with professionals from various fields of the economy and social life;
• razvoj komunikacijskih veščin in	

spretnosti v uporabi znanja na določenem strokovnem področju.	• developing communication skills for the use of knowledge in a specific professional field;

Predvideni študijski rezultati:

Intended learning outcomes:

Znanje in razumevanje: *Študent/Študentka:* • pozna in razume pomen multimedijev v procesu komunikacije; • pozna in razume standarde zapisa in prenosa multimedijskih informacij in scenarije njihove uporabe; • je zmožen samostojno odločati o izbiri strojne in programske platforme pri razvoju novih multimedijskih aplikacij ter uporabi standardov zapisa; • je zmožen samostojno razviti multimedijska gradiva in aplikacije; • pozna timski pristop k razvoju multimedijev; • pozna estestke, psihološke in kulturološke vidike oblikovanja multimedijskih gradiv; • pozna in razume pomen digitalnih medijev za prezentacije, poučevanje in učenje; • reflektira in kritično ovrednoti različne (lastne in opazovane) rešitve; • pozna osnovno problematiko pridobivanja informacij iz multimedijskih gradiv; • aktivno in kritično spremlja in reflektira aktualno dogajanje na področju tehnologije multimedijev; • pridobljeno znanje uporablja pri procesih komuniciranja in pri vodenju poslovnih pogovorov, sestankov, prezentacij, razprav in posvetovanj.	Knowledge and understanding: *Students:* • know and understand multimedia in the process of communication; • know and understand standards of recording and transmitting multimedia information and scenarios of their application; • are capable of deciding independently on the choice of hardware and software platforms in the development of new multimedia applications, and to use the recording standards; • are capable of developing multimedia materials and applications independently; • know the teamwork approach to the development of multimedia; • know the aesthetic, psychological and culturological aspects of preparing multimedia materials; • know and understand the importance of digital media for presentations, teaching and learning; • reflect on and critically asses various (own and observed) solutions; • know the basic problems of collecting information from multimedia materials; • actively and critically monitor and reflect on actual events in the field of multimedia technology; • use the gained knowledge in the processes of communication and in holding business discussions, meetings, presentations, debates and consultations.

Metode poučevanja in učenja:

Learning and teaching methods:

• *predavanja* z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov, ekskurzija); • *seminarske in eksperimentalne vaje* (projektno delo, samostojno učenje, diskusija, opazovanje, timsko delo, študija primera, sporočanje povratne informacije); • individualne in skupinske *konzultacije* (diskusija, dodatna razlaga, obravnava specifičnih vprašanj);	• *lectures* with active participation of students (explanation, discussion, questions, examples, problem solving, excursion); • *tutorial and experimental work* (project work, independent study, discussion, observation, teamwork, case study, feedback); • individual and group *consultation* (discussion, additional explanation, addressing specific issues);

• *oblikovanje projekta in samostojni študij* (motiviranje, usmerjanje, samoopazovanje, samouravnavanje, refleksija, samoocenjevanje).		• *drawing up a project and independent study* (motivation, guidance, self-observation, self-regulation, reflection, self-evaluation).

	Delež (v %)	
Načini ocenjevanja:	Weight (in %)	**Assessment:**
Način (pisni izpit, ustno spraševanje, naloge, projekt): • pisni (ustni) izpit • seminarska naloga s predstavitvijo in zagovorom	 60 40	Types (written examination, oral examination, coursework, project): • written (oral) exam • seminar paper presentation and defence