

## UČNI NAČRT PREDMETA / COURSE SYLLABUS

<b>Predmet:</b>	Multimedijski sistemi
<b>Course title:</b>	Multimedia Systems

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Mediji in novinarstvo / Media and Journalism	Program nima smeri / Program has a single course	prvi / first	prvi / first
Druga stopnja / Second Level			

**Vrsta predmeta / Course type** obvezni / mandatory

**Univerzitetna koda predmeta / University course code:** MSis / MSys

Predavanja / Lectures	Seminar / Seminar	Vaje / Tutorial	Klinične vaje / Practical exercises	Druge oblike študija / Other forms of study	Samost. delo / Individ. work	ECTS
20		20			140	6

**Nosilec predmeta / Lecturer:** doc. dr. Tadej Droljc / Assist. Prof. Tadej Droljc, Ph.D

<b>Jeziki / Languages:</b>	<b>Predavanja / Lectures:</b>	slovenski, angleški / Slovenian, English
	<b>Vaje / Tutorial:</b>	slovenski, angleški / Slovenian, English

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

Pogoj za opravljanje obveznosti je vpis v prvi letnik.

**Prerequisites:**

Enrolment in the first year of study.

**Vsebina:**

- Uvod v predmet: kaj so multimediji. Linearnost, interaktivnost, zgodovina multimedijev, možnosti medijev.
- Tehnologija multimedijev. Pomnilniški mediji. Digitalni multimediji. Digitalna predstavitev podatkov. Digitalizacija. Vzorčenje in kvantizacija. Problemi digitalizacije. Kompresija podatkov.
- Digitalni multimediji – zvok. Ustvarjanje in zajem vsebin. Problemi digitalizacije zvoka. Psihoakustika. Postprodukcija. Umetna inteligenca.

**Content (Syllabus outline):**

- Introduction to the subject: what multimedia is. Linearity, interactivity, history of multimedia, media possibilities
- The technology of multimedia. Storage media. Digital Multimedia. Digital data representation. Digitization. Sampling and quantization. Problems digitization. Data compression
- Digital multimedia - sound. Creation and capturing content. Problems digitizing sound. Psychoacoustics. Postproduction. Artificial Intelligence

- Digitalni multimediji – slika. Ustvarjanje in zajem vsebin. Problemi digitalizacije slik. Rastrska in vektorska grafika. Barvni modeli. Orodja za obdelavo slik. Umetna inteligenca.
- Digitalni multimediji – video. Zgodovina gibljive slike. Ustvarjanje in zajem vsebin. Pretočni video. Problemi digitalizacije videa. Orodja za obdelavo videa. Postprodukcija. Umetna inteligenca;
- Intermedija - odnosi med mediji.

- Digital Multimedia - illustration. Creation and capturing content. Problems digitizing images. Raster and vector graphics. Colour models. Tools for image processing. Artificial Intelligence
- Digital multimedia - video. History of moving images. Creating and capturing content. Streaming video. Digitizing video problems. Tools for video processing. Postproduction. Artificial Intelligence
- Intermedia - relationships between mediums

### Temeljni literatura in viri / Readings:

Griffey, Julia V. 2024. *Digital Media Production for Beginners*. Routledge.

Blokdyk, Gerardus. 2024. *Mastering Interactive Multimedia*. The Art of Service, 5STARCOOKS.

Planer, Rosanna. 2024. *Two Decades of Multimedia Storytelling in Digital Journalism*. Springer VS.

Karakas, Osman. 2023. *Multimedia Journalism: A Comprehensive Guide*. Independently Published.

Cook, Nicholas. 1998. *Analysing Musical Multimedia*. Oxford University Press.

### Cilji in kompetence:

- sposobnost uporabe kompleksnejših oblik znanja v praksi;
- strateška usmerjenost, tj. sposobnost anticipacije dogodkov, sposobnost ponujanja rešitev za izboljšanje stanja;
- zmožnost prepoznavanja in anticipacije družbenih trendov ter izkoriščanja priložnosti, ki se ponujajo za uspešne poklicni razvoj;
- razvoj kompleksnih veščin in spretnosti pri uporabi znanja na področju medijev in medijske produkcije s pomočjo reševanja konkretnih problemov;
- sposobnost kompleksne analize medijskih vsebin in tehnik;
- obvladovanje zahtevnih znanj in tehnik za produkcijo različnih tipov medijskih vsebin;
- sposobnost medijskega komuniciranja v različnih kulturnih okoljih;
- organizacijske in vodstvene spretnosti za usmerjanje dela v medijski produkciji.

### Objectives and competences:

- The ability to use complex forms of knowledge in practice
- Strategic orientation, i.e. the ability to anticipate events, the ability to provide solutions to remedy the situation
- The ability to identify and anticipate social trends and take advantage of the opportunities offered for successful professional development
- Development of complex skills and abilities in the application of knowledge in the field of media and media production through solving concrete problems
- The ability of performing a complex analysis of media content and techniques
- Mastering intricate knowledge and techniques for the production of various types of media content
- The ability of media communication in different cultural environments
- Organizational and managerial skills for directing work in media production

**Predvideni študijski rezultati:**

Študent/ka bo sposoben/na:

- učinkovito aplicirati principe multimedijskega načrtovanja, vključno z estetskim in tehničnim vidikom;
- sodelovati pri pripravi različnih multimedijskih elementov za tvorjenje in prototipiranje interaktivnega multimedijskega izdelka;
- razumeti vloge in obveznosti članov tima za multimedije.

**Intended learning outcomes:**

Students will:

- Apply effectively the principles of multimedia design, including aesthetic and technical aspects
- Participate in the preparation of various multimedia elements for forming and prototyping interactive multimedia product
- Understand the roles and responsibilities of multimedia team members

**Metode poučevanja in učenja:**

- predavanja z aktivno udeležbo študentov (razlaga, diskusija, vprašanja, primeri, reševanje problemov);
- individualne in skupinske konzultacije (diskusija, dodatna razlaga, obravnava specifičnih vprašanj);
- laboratorijske vaje;
- uporaba spletne učilnice oziroma drugih sodobnih IKT orodij.

**Learning and teaching methods:**

- Lectures with the active participation of students (explanation, discussions, questions, examples, problem solving)
- Individual and group consultations (discussion, additional explanation, addressing specific questions)
- Laboratory work on practical product (multimedia presentation)
- Use of online classroom or other contemporary ICT tools

**Načini ocenjevanja:**

Načini:

- Pisni/ustni izpit
- Laboratorijsko delo in multimedijski izdelek

Ocenjevalna lestvica – skladno s Pravilnikom o preverjanju in ocenjevanju znanja.

Delež (v %) /  
Weight (in %)60%  
40%**Assessment:**

Types:

- Written / oral exam
- Laboratory work and multimedia product presentation

Grading scale – in accordance with the Faculty's Rules on Assessment and Evaluation of Knowledge.

**Reference nosilca / Lecturer's references:**

Mednarodno priznani avdiovizualni umetnik, ki je nastopal ali razstavljal na festivalih in v galerijah po vsem svetu, kot so Mutek, Sonar, Ars Electronica, otvoritvena slovesnost Evropske prestolnice kulture Novi Sad, L.E.V., Node, Pariška bienala Nemo, Brighton Digital Festival, Semibreve, Sonica Glasgow, Lunchmeat, Wesa, Deep Space Shanghai, Inter BEE Tokyo, IBC Amsterdam, Marché du film - Festival de Cannes itd. Ustvarjal je tudi korporativna umetniška dela za podjetja, kot sta Adidas in Lek. / Internationally recognised audiovisual artist. Performed or exhibited at festivals and galleries around the world such as Mutek, Sonar, Ars Electronica, European Capital of Culture Novi sad Opening Ceremony, L.E.V., Node, Paris Biennale Nemo, Brighton Digital Festival, Semibreve, Sonica Glasgow, Lunchmeat, Wesa, Deep Space Shanghai, Inter BEE Tokyo, IBC Amsterdam, Marché du film - Festival de Cannes etc. Corporate artworks for companies like Addidas, Lek, etc.

*Nagrade:* Nagrada Edigma Semibreve, Vice Chancellorjeva nagrada za izjemno magistrsko delo na Centru za raziskovanje nove glasbe, Dennis Smalleyjeva štipendija za elektroakustično glasbo, uvrstitev v ožji izbor za nagrado Lumen v kategoriji gibljive slike, Lumen Prize študentska nagrada. / *Awards:* Edigma Semibreve award, Vice Chancellor's Award for an outstanding thesis at the Centre for Research in New Music, Dennis Smalley scholarship in electroacoustic music, shortlisted for the Lumen Prize in category moving image, Lumen Prize Student Award

*Prejšnje delo:* Univerza v Huddersfieldu (računalniška kompozicija, produkcija glasbe na računalniku), individualno mentorstvo na Rhythmic Music Conservatory Copenhagen, avdio inženir na Pop TV, glasbeni novinar na Radiu Študent ter delavnice, predavanja in mojstrski tečaji na institucijah, kot so The Royal Northern College of Music, ZKM (Center za umetnost in medije), KMH (Kraljeva glasbena akademija Stockholm), Gnracion Braga in LPM Rim. / *Past work:* University of Huddersfield (Computer Composition, Desktop Music Production), Individual Tutoring at the Rhythmic Music Conservatory Copenhagen, audio engineer at Pop TV, Musical Journalist at Radio Student, workshops, lectures or masterclasses at The Royal Northern College of Music, ZKM (Center for Art and Media), KMH (The Royal Academy of Music Stockholm), Generation Braga, LPM Rome etc.