

# POSLOVNA INTELIGENCA ZA UPRAVO

## UČNI NAČRT PREDMETA/COURSE SYLLABUS

<b>Predmet:</b>	Poslovna inteligenca za upravo
<b>Course title:</b>	Business Intelligence in Administration
<b>Članica nosilka/UL</b>	UL FU
<b>Member:</b>	

Študijski programi in stopnja	Študijska smer	Letnik	Semestri	Izbirnost
Management v upravi, druga stopnja, magistrski	Upravna informatika (smer)	2. letnik	Celoletni	izbirni

<b>Univerzitetna koda predmeta/University course code:</b>	0069399
<b>Koda učne enote na članici/UL Member course code:</b>	1001

Predavanja /Lectures	Seminar /Seminar	Vaje /Tutorials	Klinične vaje /Clinical tutorials	Druge oblike študija /Other forms of study	Samostojno delo /Individual student work	ECTS
21	11			118	60	7

**Nosilec predmeta/Lecturer:**

**Vrsta predmeta/Course type:**

**Jeziki/Languages:**

Predavanja/Lectures:	Angleščina, Slovenščina
Vaje/Tutorial:	Angleščina, Slovenščina

<b>Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:</b>	<b>Prerequisites:</b>
Ni.	No Prerequisites.

### Vsebina:

### Content (Syllabus outline):

<ol style="list-style-type: none"><li>1. Uvod v poslovno inteligenco</li><li>2. Podatkovna skladišča</li><li>3. Analiza podatkov s pristopi OLAP</li><li>4. Uravnoteženi sistem kazalnikov</li><li>5. Podpora odločanja</li><li>6. Večparameterski modeli odločanja</li><li>7. Podatkovno rudarjenje in odkrivanje znanja iz podatkov</li><li>8. Eksplorativna analiza podatkov z metodami podatkovnega rudarjenja</li><li>9. Praktična uporaba poslovne inteligenca v upravi</li></ol>	<ol style="list-style-type: none"><li>1. Introduction to business intelligence</li><li>2. Data warehouses</li><li>3. Data analysis with OLAP approaches</li><li>4. Balanced scoreboards</li><li>5. Decision support</li><li>6. Multiparameter decision models</li><li>7. Data mining and knowledge discovery from data</li><li>8. Exploratory data analysis with data mining methods</li><li>9. Application of business intelligence in administration</li></ol>
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### Temeljna literatura in viri/Readings:

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- Turban, E., Aronson, J.E., Liang, T., Sharda, R.: "Decision Support and Business Intelligence", Pearson Prentice Hall, 2007
- Vitt E., Luckevic M., Misner S.: "Business Intelligence", Microsoft Press, 2002
- Benson, R. Bugnitz T., Walton, W.: "From Business Strategy to IT Action", John Wiley & Sons, 2004
- McNurlin B., Sprague R.: "Information Systems Management in Practice", Pearson Prentice Hall, 2004

#### Cilji in kompetence:

Cilji – študent:

- razume koncepte in pristope poslovne inteligence
- oceni in preveri uporabnost konceptov in pristopov poslovne inteligence za reševanje konkretnih problemov v upravi
- analizira in primerja uporabnost različnih pristopov poslovne inteligence v danem upravnem ali management kontekstu

Kompetence:

- sposobnost razvoja in uporabe baz podatkov ter podatkovne arhitekture v organizacijah
- sposobnost obvladovanja različnih metod in tehnik razvoja in vzpostavljanja informacijskih sistemov
- sposobnost prilagoditi orodja poslovnice inteligence specifičnim upravnim in management kontekstom
- sposobnost odkrivanja praktičnih problemov s področij upravnice vede in managementa

#### Objectives and competences:

Objectives – student:

- understands concepts of and approaches to business intelligence
- estimates, checks, and evaluates the usability (applicability) of business intelligence for solving practical problems in administration
- analyzes and compares applicability of different approaches to business intelligence in a given administration or management context

Competences:

- ability to develop and use data bases and data architectures in organizations
- ability to apply and manage different methods and techniques for establishing information systems
- ability to adapt and apply business intelligent tools in a given public administration context
- ability to discover and formulate practical business intelligence problems in the domains of administrative sciences and management

#### Predvideni študijski rezultati:

Študent bo pridobil:

- razumevanje konceptov in pristopov poslovne inteligence ter razumevanje njihove vloge v upravnih sistemih in organizacijah
- sposobnost načrtovanja novih rešitev baziranih na pristopih in programski opremi za poslovno inteligenco
- sposobnost analize in primerjave primerov uporabe upravljanja z znanjem

#### Intended learning outcomes:

Student will be able to:

- understand concepts of and approaches to business intelligence and understand their role in the management systems and organizations
- design new solutions to practical problems based on approaches to and software tools for business intelligence
- analyze and compare examples and show-cases of business intelligence applications

#### Metode poučevanja in učenja:

- Predavanja
- Seminarji
- Analysis and comparison of show-cases
- Individualne konsultacije
- Seminarska naloga in predstavitev

#### Learning and teaching methods:

- Lectures
- Seminars
- Analysis and comparison of show-cases
- Individual work and tutorship
- Seminar work and presentation

#### Načini ocenjevanja:

#### Delež/Weight Assessment:

Ustni izpit	30,00 %	Oral exam
Seminarska naloga: priprava in predstavitev	70,00 %	Seminar work: preparation and presentation

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

- ZHANG, Rui, HRISTOVSKI, Dimitar, SCHUTTE, Dalton, KASTRIN, Andrej, FISZMAN, Marcelo, KILICOGU, Halil. Drug repurposing for COVID-19 via knowledge graph completion. *Journal of biomedical informatics*, ISSN 1532-0480. 2021, vol. 115, str. 1-15, ilustr. doi: 10.1016/j.jbi.2021.103696.
- KASTRIN, Andrej, HRISTOVSKI, Dimitar. Scientometric analysis and knowledge mapping of literature-based discovery (1986-2020). *Scientometrics*, ISSN 0138-9130, 2021, vol. 126, str. 1415-1451. doi: 10.1007/s11192-020-03811-z.
- KASTRIN, Andrej, HRISTOVSKI, Dimitar. Disentangling the evolution of MEDLINE bibliographic database : a complex network perspective. *Journal of biomedical informatics*, ISSN 1532-0464. 2019, vol. 89, str. 101-113, ilustr. doi: 10.1016/j.jbi.2018.11.014.
- HRISTOVSKI, Dimitar, KASTRIN, Andrej, DINEVSKI, Dejan, BURGUN, Anita, ŽIBERNA, Lovro, RINDFLESCH, Thomas C. Using literature-based discovery to explain adverse drug effects. *Journal of medical systems*, ISSN 1573-689X, Aug. 2016, vol. 40, iss. 8, 1-5 str. doi: 10.1007/s10916-016-0544-z.
- KASTRIN, Andrej, RINDFLESCH, Thomas C., HRISTOVSKI, Dimitar. Link prediction on a network of co-occurring MeSH terms : towards literature-based discovery. *Methods of information in medicine*, ISSN 0026-1270, AUG. 2016, vol. 55, iss. 4, str. 340-346, doi: 10.3414/ME15-01-0108.
- HRISTOVSKI, Dimitar, DINEVSKI, Dejan, KASTRIN, Andrej, RINDFLESCH, Thomas C. Biomedical question answering using semantic relations. *BMC bioinformatics*, ISSN 1471-2105, 2015, vol. 16, no. 6, 14 str., doi: 10.1186/s12859-014-0365-3.