

SISTEMI ZA PODPORO ODLOČANJU V UPRAVI

UČNI NAČRT PREDMETA/COURSE SYLLABUS

Predmet:	SISTEMI ZA PODPORO ODLOČANJU V UPRAVI
Course title:	DECISION SUPPORT SYSTEMS IN ADMINISTRATION
Članica nosilka/UL	UL FU
Member:	

Študijski programi in stopnja	Študijska smer	Letnik	Semestri	Izbirnost
Uprava - Upravljanje javnega sektorja, druga stopnja, magistrski	Javna uprava (smer)	2. letnik	1. semester, 2. semester	izbirni

Univerzitetna koda predmeta/University course code:	0061370
Koda učne enote na članici/UL Member course code:	2031

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			88	60	6

Nosilec predmeta/Lecturer: Dimitar Hristovski

Vrsta predmeta/Course type: IZBIRNI/ELECTIVE

Jeziki/Languages:

Predavanja/Lectures:	Angleščina, Slovenščina
Vaje/Tutorial:	

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

Ni pogojev.	No prerequisites
-------------	------------------

Vsebina:	Content (Syllabus outline):
1. Uvod: odločitvena teorija, odločanje in proces odločanja	1. Introduction: decision theory, decision making and decision making process
2. Podpora odločanja	2. Decision support
3. Odločitveni modeli	3. Decision models
4. Metode in tehnike modeliranja; poudarek na večparameterskih modelih	4. Modeling methods and techniques with focus on multi-attribute decision models
5. Programska oprema za modeliranje in podporo odločanja	5. Software for building decision models and decision support
6. Primeri odločitvenih modelov in njihove uporabe v upravi	6. Examples of decision support models and their practical use

Temeljna literatura in viri/Readings:

1. Clemen, RT and Reilly, T (2014) *Making Hard Decisions: An Introduction to Decision Analysis*. Third Edition. Duxbury, USA: South-Western Cengage Learning.
2. French, S. (1988) *Decision Theory: An Introduction to the Mathematics of Rationality*. London, UK: Ellis Horwood.
3. Turban, E, Sharda, R, Delen, D (2011) *Decision Support and Business Intelligence*. US, Boston: Pearson.

Cilji in kompetence:

<p>Cilji – študent zna:</p> <ul style="list-style-type: none"> • analizirati procese odločanja v upravi in odkrivati njihove specifične značilnosti • uporabiti metode, tehnike in sisteme za podporo zahtevnih odločitvenih procesov in gradnjo ustreznih modelov • oceniti, preveriti, ovrednotiti in primerjati uporabnost in ustreznost metod, tehnik in sistemov za podporo odločanju v upravi • analizirati in primerjati rezultate uporabe odločitvenih modelov v podanem upravnem kontekstu <p>Kompetence:</p> <ul style="list-style-type: none"> • zmožnost identificiranja priložnosti za uporabo teorije odločanja in podpore odločanju na področju uprave • zmožnost analize realnih odločitvenih problemov v upravi in razvoja ustreznih odločitvenih modelov • zmožnost uporabe odločitvenih modelov za sprejemanje in analizo odločitev ter analizo različnih scenarijev
--

Objectives and competences:

<p>Objectives – student knows how to:</p> <ul style="list-style-type: none"> • analyze decisions processes in public administration and discover their specific properties • use methods, techniques and systems for support of complex decision processes and building decision models • estimate, check, evaluate and compare the utility and suitability of methods, techniques and systems for decision support in public administration • analyze and compare the results of using decision models in a given/specific public administration context <p>Competences:</p> <ul style="list-style-type: none"> • the ability to identify opportunities for using decision theory and decision support in the public administration domain • the ability to analyze real-word decision problems in public administration and design of the appropriate decision models • the ability to use decision models for making and analysis of decisions as well as analysis of different scenarios

Predvideni študijski rezultati:

<p>Študent:</p> <ul style="list-style-type: none"> • pozna, razume in lahko uporablja metode za analizo odločitvenih problemov in procesov v upravi • pozna, razume in lahko uporablja ustrezne metod in tehnik za gradnjo večparameterskih odločitvenih modelov • pozna in lahko uporablja programsko opremo za formalizacijo in uporabo odločitvenih modelov • pozna, razume in lahko uporablja analize kaj-če, analize občutljivosti in selektivne razlage za analizo odločitev dobljenih z odločitvenim modelom

Intended learning outcomes:

<p>Student:</p> <ul style="list-style-type: none"> • knows, understands and is able to use methods for analysis of decision problems and processes in public administration • knows, understands and is able to use appropriate methods and techniques for building multi-criteria decision models • knows and is able to use software for formalization and use of decision models • knows, understands and is able to use what-if analysis, sensitivity analysis and option evaluation for analysis of decisions obtained with a decision model

Metode poučevanja in učenja:

<ol style="list-style-type: none"> 1. priprava na predavanja 2. predavanje 3. priprava na seminar 4. seminar 5. konzultacije 6. seminarska naloga

Learning and teaching methods:

<ol style="list-style-type: none"> 1. preparations for lectures 2. lecture 3. preparations for seminars 4. seminars 5. study consultation 6. seminar paper
--

Načini ocenjevanja:

1.	Seminarska naloga
2.	Pisni in/ali ustni izpit

Delež/Weight

70,00 %
30,00 %

Assessment:

1.	Seminar work and presentation
2.	Written and/or Oral exam

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, RINDFLESCHE, 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, RINDFLESCHE, 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, RINDFLESCHE, 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.
- VREČAR, Irena, HRISTOVSKI, Dimitar, PETERLIN, Borut. Telegenetics : an update on availability and use of telemedicine in clinical genetics service. *Journal of medical systems*, ISSN 1573-689X, Feb. 2017, vol. 41, iss. 2, 1-4 str. doi: 10.1007/s10916-016-0666-3.