

KVANTITATIVNE METODE

UČNI NAČRT PREDMETA/COURSE SYLLABUS

Predmet:	KVANTITATIVNE METODE
Course title:	QUANTITATIVE METHODS
Članica nosilka/UL Member:	UL FU

Študijski programi in stopnja	Študijska smer	Letnik	Semestri	Izbirnost
Upravljanje javnega sektorja, prva stopnja, univerzitetni	Ni členitve (študijski program)	2. letnik	1. semester	obvezni

Univerzitetna koda predmeta/University course code:	0044817
Koda učne enote na članici/UL Member course code:	0784

Predavanja /Lectures	Seminar /Seminar	Vaje /Tutorials	Klinične vaje /Clinical tutorials	Druge oblike študija /Other forms of study	Samostojno delo /Individual student work	ECTS
45		30		15	90	6

Nosilec predmeta/Lecturer:	Jože Benčina
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Vrsta predmeta/Course type:	Obvezni/Core
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Jeziki/Languages:	Predavanja/Lectures:	Angleščina, Slovenščina
	Vaje/Tutorial:	Angleščina, Slovenščina

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

Vsebina:	Content (Syllabus outline):
1. Priprava in analiza podatkov v SPSS 2. Od raziskovalnih vprašanj do hipotez 3. Preizkušanje hipotez 4. Regresijsko modeliranje 5. Faktorska analiza 6. Primerjalno ugotavljanje učinkovitosti in uspešnosti 7. Kazalniki kot osnova oblikovanja ciljev in merjenja uspešnosti 8. Obrestno obrestni račun in rentno varčevanje 9. Ekonomska evalvacija investicijskih projektov 10. Optimizacija delovanja v javnem sektorju 11. Matrični račun in linearno programiranje 12. Metoda ovijanja podatkov	1. Preparation and analysis of data with SPSS 2. From research question to hypotheses 3. Hypotheses testing 4. Regression modelling 5. Factor analysis 6. Benchmarking analysis for efficiency and effectiveness 7. Indicators as the ground for goals setting and performance measurement 8. Financial calculus 9. Economic evaluation of investment projects 10. Optimisation in public sector 11. Matrix calculus and linear program in administration 12. Data envelopment analysis

Temeljna literatura in viri/Readings:

1. Navarro, D. J., & Foxcroft, D. R. (2018). *Learning statistics with jamovi: A tutorial for psychology students and other beginners*. pp. 513 (poglavja I - V, 464 strani). <https://doi.org/10.24384/HGC3-7P15>
2. Huguenin, J.-M. (2012). *Data Envelopment Analysis (DEA): A pedagogical guide for decision makers in the public sector* (Vol. 276). Institut de hautes études en administration publique. pp. 81
https://serval.unil.ch/notice/serval:BIB_0FC432348A97
3. European Commission (Ed.). (2015). *Guide to cost-benefit analysis of investment projects: Economic appraisal tool for cohesion policy 2014-2020*. European Union. pp. 298 (poglavji I. in II., 76 strani).

Cilji in kompetence:

Študenti:

- prečistijo, uredijo in pretvorijo podatke za kvantitativno analizo z uporabo programa Jamovi,
- prepoznajo vzorce v kompleksnih podatkovnih nizih z uporabo faktorske analize,
- oblikujejo regresijske modele za razumevanje razmerij med spremenljivkami,
- razvijejo in uporabijo kazalnike za ocenjevanje projektov in programov javnih naložb,
- ocenijo učinkovitost javnih organizacij, vključno s primerjavo z najboljšimi praksami.

Predmetno specifične kompetence:

Študenti so usposobljeni za:

- analizo podatkov javnega sektorja s pomočjo kvantitativnih metod,
- oceno utemeljenosti pridobljenih rezultatov in primernosti uporabljenih metod,
- razvoj na podatkih utemeljenih rešitev za javno upravljanje,
- kritično obravnavo in vsebinsko interpretiranje obravnavanih pojavov v luči realnih življenjskih situacij.

Objectives and competences:

Students:

- Clean, organize, and transform data for quantitative analysis using Jamovi.
- Identify underlying patterns in complex data sets using factor analysis.
- Builds regression models to understand relationships between variables.
- Develop and utilize indicators to assess public investment projects and programs.
- Assess the efficiency of public organisations including benchmarking against best practices.

Subject-specific competences:

Students are qualified:

- To apply quantitative methods to analyse public sector data.
- To judge reasonableness of the gained results and suitability of the used methods.
- To develop data-driven solutions for public management.
- To discuss critically the phenomena in consideration and interpret them in the light of the real life situations.

Predvideni študijski rezultati:

Študentje:

- oblikujejo modele in prilagajajo njihove parametre skladno s spreminjanjem opazovanih procesov,
- uporabijo kvantitativne metode za ocenjevanje učinkovitosti uspešnosti javnih organizacij in skupnosti,
- ocenijo učinek in alokacijo virov javnih iniciativ,
- pretvorijo kvantitativna. dejstva v uporabne ugotovitve za javno politiko in upravljanje.

Intended learning outcomes:

Students will:

- Form quantitative models and trace model parameters according to the changes in the observed process.
- Apply quantitative methods for assessment of performance of public organisations or communities.
- Measure the impact and resource allocation of public initiatives.
- Translate quantitative evidence into actionable insights for public policy and management.

Metode poučevanja in učenja:

1. predavanja
2. vaje
3. seminarsko delo
4. e-učenje

Learning and teaching methods:

1. lectures
2. practical work
3. coursework
4. e-learning

Načini ocenjevanja:**Delež/Weight****Assessment:**

- | | | |
|--|---------|---|
| 1. Aktivno sodelovanje (predavanja, e-učenje, forum ...) | 30,00 % | 1. Active participation (lectures, e-learning, forum ...) |
|--|---------|---|

2.	Pisni ali ustni izpit	70,00 %	2.	Written or oral exam
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Ocenjevalna lestvica:

5 - 10, pri čemer velja, da je pozitivna ocena od 6 - 10

Grading system:

5 - 10, a student passes the exam if he is graded from 6 to 10

Reference nosilca/Lecturer's references:

1. Devjak, T., Žmauc, I. J., & Benčina, J. (2021). The relationship between the factors and conditions of the autonomy of preschool teachers and fostering the autonomy of preschool children in kindergarten. *Center for Educational Policy Studies Journal*, 11(1), 67–90. Scopus. <https://doi.org/10.26529/cepsj.712>
2. Klun, M., & Benčina, J. (2021). PREDICTORS, DETERMINANT GROUPS, AND PARTICIPATORY BUDGETING. *Slovak Journal of Political Sciences*, 21(2), 186–208. Scopus. <https://doi.org/10.34135/sjps.210204>
3. Lamovsek, N., Klun, M., Skitek, M., & Bencina, J. (2019). Defining the optimal size of medical laboratories at the primary level of health care with data envelopment analysis: Defining the efficiency of medical laboratories. *Acta Informatica Medica*, 27(4), 224–228. Scopus. <https://doi.org/10.5455/aim.2019.27.224-228>
4. Stanojević, A., & Benčina, J. (2019). The Construction of an Integrated and Transparent Index of Wellbeing. *Social Indicators Research*, 143(3), 995–1015. Scopus. <https://doi.org/10.1007/s11205-018-2016-y>