Detaljni izvedbeni plan

Akademska godina: 2024/2025	**Semestar:** Zimski semestar
Studiji: Komunikologija (R) (izborni) Povijest (R) (izborni) Psihologija (R) (izborni) Sestrinstvo (R) (izborni) Sociologija (R) (izborni) Sestrinstvo (I) (izborni)	**Godina studija:** 1

I. OSNOVNI PODACI O KOLEGIJU

Naziv kolegija: Introduction to Statistics

Status kolegija: Obvezni	**ECTS bodovi:** 6

Ukupno opterećenje kolegija

Vrsta nastave	**Ukupno sati**
Predavanje	30
Auditorna vježba	30

Mjesto i vrijeme održavanja nastave: HKS – prema objavljenom rasporedu

II. NASTAVNO OSOBLJE

Nositelj kolegija

Ime i prezime: Šikić Luka

Akademski stupanj/naziv:

Kontakt e-mail: luka.sikic@unicath.hr	**Telefon:**

Suradnici na kolegiju

III. DETALJNI PODACI O KOLEGIJU

Opis kolegija	This course introduces the fundamental statistics principles, focusing on developing research questions, hypothesis formation, research design, and data analysis. Students will gain practical experience using statistical software and learn the proper application of statistical tests. Moreover, the course highlights the importance of effectively communicating research results to various audiences, giving students the skills to present their findings. Students must pass two-semester and final oral exams to complete the course successfully.
Obveze studenata	Moore, D. S., Notz, W. I., & Flinger, M. A. (2018). The Basic Practice of Statistics. New York: W. H. Freeman and Company. Triola, M. F. (2017). Elementary Statistics. Boston: Pearson. De Veaux, R. D., Velleman, P. F., & Bock, D. E. (2016). Intro Stats. Boston: Pearson. Diez, D. M., Barr, C. D., & Çetinkaya-Rundel, M. (2014). OpenIntro Statistics. CreateSpace Independent Publishing Platform. Peck, R., Olsen, C., & Devore, J. L. (2011). Introduction to Statistics and Data Analysis. Boston: Cengage Learning. Johnson, R. A., & Kuby, P. (2016). Just the Essentials of Elementary Statistics. Boston: Cengage Learning. Agresti, A., & Franklin, C. (2013). Statistics: The Art and Science of Learning from Data. Boston: Pearson.

Literatura

Obvezna	1. Demonstrate a solid understanding of fundamental statistical concepts, including probability theory, descriptive statistics, hypothesis testing, and basic inferential techniques. 2. Formulate research questions and generate testable hypotheses relevant to real-world problems in social science research. 3. Design and execute simple experiments, collect data, and apply appropriate statistical techniques to analyze and interpret the results. 4. Develop proficiency in using statistical software for data management, visualization, and analysis, as well as interpreting the output generated by the software. 5. Critically evaluate and assess the validity of statistical analyses and conclusions in scientific research papers and reports. 6. Collaborate effectively in group tasks and discussions, contributing to the collective understanding of statistical concepts and their applications. 7. Demonstrate a solid statistical foundation, paving the way for further studies in more advanced statistical techniques and methodologies.
Dopunska	Navarro, D. J. (2019). Learning Statistics with R: A tutorial for psychology students and other beginners. Adelaide, Australia: University of Adelaide Press. Available online: https://learningstatisticswithr.com/ Peck, R., Olsen, C., & Devore, J. L. (2011). Introduction to Statistics and Data Analysis. Boston: Cengage Learning. Weiss, N. A. (2015). Introductory Statistics. Boston: Pearson

Način ispitivanja i ocjenjivanja

	The final course grade is based on 100 points earned through the student's continuous involvement in-class activities:
	Fair (2) – 50 to 64 points
	Good (3) – 65 to 79 points
	Very good (4) – 80 to 89 points
	Excellent (5) – 90 to 100 points
Način polaganja ispita	Earning credits:
	Class activities contribute to 70% of the grade:
	Exam 1 – maximum 35 points
	Exam 2 – maximum 35 points
	The final (oral) exam contributes to 30% of the grade:
	Final exam – maximum of 30 points

Detaljan prikaz ocjenjivanja unutar Europskoga sustava za prijenos bodova	VRSTA AKTIVNOSTI	ECTS bodovi - koeficijent opterećenja studenata	UDIO OCJENE (%)
	Pohađanje nastave	1.5	0
	Kolokvij-međuispit	1.575	35
	Kolokvij-međuispit	1.575	35
	Ukupno tijekom nastave	4.65	70
	Završni ispit	1.35	30
	UKUPNO BODOVA (nastava+zav.ispit)	6	100

IV. TJEDNI PLAN NASTAVE

Predavanja

#	Tema
1	Introduction to the course.
2	Introduction to the R programming language.
3	Descriptive statistics.
4	Graphs and visualization.
5	Basics of probability theory.
6	Estimating population parameters.
7	Testing statistical hypotheses.
8	Midterm exam.
9	Categorical data analysis.
10	Comparing means.
11	Linear regression.

12	ANOVA.
13	Factorial ANOVA.
14	Multivariate statistical models.
15	Final exam.