



HRVATSKO  
KATOLICKO  
SVEUČILIŠTE  
ZAGREB  
UNIVERSITAS  
STUDIORUM  
CATHOLICA  
CROATICA  
ZAGREBIA

# Detaljni izvedbeni plan

**Akadska 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 PREDMETU

**Naziv kolegija:** Introduction to Statistics

**Status kolegija:**  
Obvezni

**ECTS bodovi:** 6.00

*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](mailto:luka.sikic@unicath.hr)

**Telefon:**

*Suradnici na kolegiju*

## III. DETALJNI PODACI O PREDMETU

<b>Opis kolegija</b>	<p>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.</p>
<b>Obveze studenata</b>	<p>Moore, D. S., Notz, W. I., &amp; Flinger, M. A. (2018). <i>The Basic Practice of Statistics</i>. New York: W. H. Freeman and Company.</p> <p>Triola, M. F. (2017). <i>Elementary Statistics</i>. Boston: Pearson.</p> <p>De Veaux, R. D., Velleman, P. F., &amp; Bock, D. E. (2016). <i>Intro Stats</i>. Boston: Pearson.</p> <p>Diez, D. M., Barr, C. D., &amp; Çetinkaya-Rundel, M. (2014). <i>OpenIntro Statistics</i>. CreateSpace Independent Publishing Platform.</p> <p>Peck, R., Olsen, C., &amp; Devore, J. L. (2011). <i>Introduction to Statistics and Data Analysis</i>. Boston: Cengage Learning.</p> <p>Johnson, R. A., &amp; Kuby, P. (2016). <i>Just the Essentials of Elementary Statistics</i>. Boston: Cengage Learning.</p> <p>Agresti, A., &amp; Franklin, C. (2013). <i>Statistics: The Art and Science of Learning from Data</i>. Boston: Pearson.</p>
<i>Literatura</i>	
<b>Obvezna</b>	<p>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.</p>
<b>Dopunska</b>	<p>Navarro, D. J. (2019). <i>Learning Statistics with R: A tutorial for psychology students and other beginners</i>. Adelaide, Australia: University of Adelaide Press. Available online: <a href="https://learningstatisticswithr.com/">https://learningstatisticswithr.com/</a></p> <p>Peck, R., Olsen, C., &amp; Devore, J. L. (2011). <i>Introduction to Statistics and Data Analysis</i>. Boston: Cengage Learning.</p> <p>Weiss, N. A. (2015). <i>Introductory Statistics</i>. Boston: Pearson</p>
<i>Način ispitivanja i ocjenjivanja</i>	

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.