



# Medicinski fakultet u Rijeci

# IZVEDBENI NASTAVNI PLAN 2024/2025

Za kolegij

# **Introduction to Scientific Research**

Studij: Medical Studies in English (R)

Sveučilišni integrirani prijediplomski i diplomski studij

Katedra: Katedra za društvene i humanističke znanosti u medicini

Nositelj kolegija: doc. dr. sc. Pupovac Vanja, prof.

Godina studija: 2 ECTS: 1.00

Stimulativni ECTS: 0.00 (0.00%)

Strani jezik: Mogućnost izvođenja na stranom jeziku

## Podaci o kolegiju:

The course "Introduction to Scientific Research" is mandatory for the 2nd year of the Integrated Undergraduate and Graduate University Study of Medicine in English program, encompassing 6 hours of lectures and 14 hours of seminars and enabling the acquisition of one (1) ECTS credit.

After taking the course, students will be able to critically interpret medical research and independently assess the credibility of scientific information.

## Popis obvezne ispitne literature:

- 1. Presentations (PPT);
- 2. Hulley SB Cummings SR, Browner W S Grady DG, Newman TB, ed., Designing Clinical Research. 4th ed., Philadelphia, USA: Lippincott Williams & Wilkins, A Wolters Kluwer Business; 2013.
- 3. Matko Marušić, ed., Principles of Research in Medicine, 2nd ed., Zagreb: Medicinska naklada, 2015.

## Popis dopunske literature:

Evans I, Thornton H, Chalmers I and Glasziou P. Testing Treatments, 2nd Edition; London: Pinter and Martin. 2011. Available from: http://www.testingtreatments.org/

## Nastavni plan:

## Predavanja popis (s naslovima i pojašnjenjem):

#### **Introductory lecture**

Definition of basic characteristics of medical research

#### Type of variables and data

distinguish types of variables, data and methods of measurement

#### Population and sample

Understanding the importance of a representative sample in scientific research.

## Types of research design

distinguish basic types of medical research

#### **Basics of scientific research ethics**

Understand the basic types of dishonesty and bias

#### **Basics of research integrity**

Understand the concept of scientific research ethics and describe ethical doubts in the implementation process and data collection, and understand and explain the importance of adhering to ethical principles in scientific research work. Recognize the forms of plagiarism, discuss prevention methods, and analyze the consequences of fraud in science.

#### Seminari popis (s naslovima i pojašnjenjem):

## Basic concepts of medical research

recognize the basic components of the research using examples

## Types of variables

recognize different types of variables and methods of measurement

## Population and sample

define the basic characteristics of the sample and recognize sampling errors and biases

## Research designs

distinguish research designs in medical research

## Analysis of scientific paper 1

critically interpret parts of a scientific paper

#### Analysis of scientific paper 2

critically interpret parts of scientific paper

## Design of a research plan

create a research plan on a given topic

#### Obveze studenata:

Regular class attendance (excused absence of 30% from each form of class is allowed (1 out of 6 lectures; 4 out of 14 seminars).

The student will complete the course if he collects 50% of the points that he can collect in the following way:

Four online quizzes (4x7% = 28%),

Critical analysis of scientific paper 1 (max 28%),

Critical analysis of scientific paper 2 (max 22%),

Design of a research plan (max 20%).

# Ispit (način polaganja ispita, opis pisanog/usmenog/praktičnog dijela ispita, način bodovanja, kriterij ocjenjivanja):

## Ostale napomene (vezane uz kolegij) važne za studente:

Absence from classes up to 30% (1 lecture and 4 seminars) assumes a justified reason and cannot be compensated (the exception is a discharge letter from hospital treatment). An absence of more than 30%, regardless of the reasons, entails reenrollment during the following academic year.

It is impossible to "reject" a positive grade obtained on the final exam, but only act per Article 46 of the Regulations on Studies of the University of Rijeka (a student dissatisfied with the grade submits a written appeal to the dean within 24 hours).

# SATNICA IZVOĐENJA NASTAVE 2024/2025

Introduction to Scientific Research

| Predavanja<br>(mjesto i vrijeme / grupa)   | Seminari<br>(mjesto i vrijeme / grupa)   |
|--|--|
| 03.03.2025   | 1. 200 - 200 |
| Introductory lecture:  • ONLINE (13:00 - 15:00) [420]  • ITSR  Type of variables and data: |  |
| • ONLINE (13:00 - 15:00) [420]<br>• ITSR   |  |
| doc. dr. sc. Pupovac Vanja, prof. <sup>[420]</sup>   |  |
| 05.03.2025   |  |
|  | Basic concepts of medical research:  • ONLINE (14:00 - 16:00) [420]  • ITSR  Types of variables:  • ONLINE (14:00 - 16:00) [420]  • ITSR   |
| doc. dr. sc. Pupovac Vanja, prof. <sup>[420]</sup>   |  |
| 10.03.2025   |  |
|  | Population and sample:  • ONLINE (13:00 - 14:00) [420]  ○ ITSR  • ONLINE (14:00 - 15:00) [420]  ○ ITSR   |
| doc. dr. sc. Pupovac Vanja, prof. <sup>[420]</sup>   |  |
| 13.03.2025   |  |
|  | Analysis of scientific paper 1: • P15 - VIJEĆNICA (10:00 - 13:00) [420] • Intro S1   |
| doc. dr. sc. Pupovac Vanja, prof. <sup>[420]</sup>   |  |
| 14.03.2025   |  |
|  | Analysis of scientific paper 1: • P15 - VIJEĆNICA (10:00 - 13:00) [2739] • Intro S2  |
| Depope Ana <sup>[2739]</sup>   | 1  |
| 17.03.2025   |  |
| Types of research design:  • ONLINE (13:00 - 14:00) [420]  • ITSR                          | Research designs: • ONLINE (14:00 - 15:00) [420] • ITSR  |
| doc. dr. sc. Pupovac Vanja, prof. <sup>[420]</sup>   | ·  |
| 19.03.2025   |  |

|  | Analysis of scientific paper 2:   |  |
|--|---|--|
|  | • P08 (09:00 - 11:00) [420]  • Intro S2                                   |  |
|  | 5 IIICO 32  |  |
| doc. dr. sc. Pupovac Vanja, prof. <sup>[420]</sup>                       |   |  |
| 20.03.2025   |   |  |
|  | Analysis of scientific paper 2:  • P04 (09:00 - 11:00) [2739]  • Intro S1 |  |
| Depope Ana <sup>[2739]</sup>   |   |  |
| 24.03.2025   |   |  |
| Basics of scientific research ethics: • P08 (13:00 - 15:00) [142] • ITSR |   |  |
| Basics of research integrity: • P08 (13:00 - 15:00) [142] • ITSR         |   |  |
| prof. dr. sc. Muzur Amir, dr. med. <sup>[142]</sup>                      |   |  |
| 27.03.2025   |   |  |
|  | Design of a research plan: • P08 (09:00 - 13:00) [2739] • Intro S2        |  |
| Depope Ana <sup>[2739]</sup>   |   |  |
| 28.03.2025   |   |  |
|  | Design of a research plan: • P08 (09:00 - 13:00) [420] • Intro S1         |  |
| doc. dr. sc. Pupovac Vanja, prof. <sup>[420]</sup>                       | I   |  |

# Popis predavanja, seminara i vježbi:

| PREDAVANJA (TEMA)                    | Broj sati | Mjesto održavanja |
|--------------------------------------|-----------|-------------------|
| Introductory lecture                 | 1         | ONLINE            |
| Type of variables and data           | 1         | ONLINE            |
| Population and sample                | 1         |                   |
| Types of research design             | 1         | ONLINE            |
| Basics of scientific research ethics | 1         | P08               |
| Basics of research integrity         | 1         | P08               |

| SEMINARI (TEMA)                    | Broj sati | Mjesto održavanja |
|------------------------------------|-----------|-------------------|
| Basic concepts of medical research | 1         | ONLINE            |
| Types of variables                 | 1         | ONLINE            |
| Population and sample              | 1         | ONLINE            |
| Research designs                   | 1         | ONLINE            |
| Analysis of scientific paper 1     | 3         | P15 - VIJEĆNICA   |

| Analysis of scientific paper 2 | 2 | P04<br>P08 |
|--------------------------------|---|------------|
| Design of a research plan      | 5 | P08        |

## ISPITNI TERMINI (završni ispit):

| 1 | 11.0 | 06.2025. |
|---|------|----------|
| 2 | 08.0 | 07.2025. |
| 3 | 15.0 | 09.2025. |