



## Medicinski fakultet u Rijeci

## IZVEDBENI NASTAVNI PLAN 2025/2026

Za kolegij

## **Toxicology**

Studij: Medical Studies in English (R) (izborni)
Sveučilišni integrirani prijediplomski i diplomski studij

Katedra: Zavod za temeljnu i kliničku farmakologiju s toksikologijom

Nositelj kolegija: prof. dr. sc. Mršić-Pelčić Jasenka, dr. med.

Godina studija: 4
ECTS: 1.5
Stimulativni ECTS: 0 (0.00%)

Strani jezik: Mogućnost izvođenja na stranom jeziku

## Podaci o kolegiju:

The Toxicology course is an optional course in the fourth year of the Integrated Undergraduate and Graduate University Study in Medicine and consists of 25 hours of seminars (1.5 ECTS).

The aim of the course is to train students for active and professional involvement in the processes of monitoring, control and protection against the effects of toxic substances on the human body, as well as on other living beings, and for the prevention and treatment of poisoning; developing a critical approach to the toxicity of certain poisons and potentially toxic substances.

The content of the course is as follows:

Toxicology of drugs; Substances of addiction; Toxicology of food and drinking water: additives and contaminating substances in food and drinking water, drugs in veterinary medicine; Diagnosis and treatment of acute poisoning; Diagnosis and treatment of chronic poisoning; Manifestations of poisoning on target organs - diagnosis and therapy of poisoning: immunotoxicology; toxicology of the respiratory system, liver, kidneys, skin, eye, central nervous system, reproductive and cardiovascular systems; Urgent conditions in toxicology; Peculiarities of treatment of poisoning in children, pregnant women and the elderly; Poisonous plants and animals; Poisoning by marine organisms; Control of biological drugs.

## Popis obvezne ispitne literature:

Lu F.: Toxicology: Fundamentals, Target Organs and Risk Assesments, Taylor and Francis, 1996.

## Popis dopunske literature:

Timbrell JA: Introduction to toxicology, Taylor & Frances, 2002.

De Matteis F.: Molecular and Cellular Mechanisms of Toxicity, Crc Press Inc, 1995.

Casarett & Doulls Toxicology: Basic Science of Poisons, 6. izdanje, 2001.

## Nastavni plan:

Seminari popis (s naslovima i pojašnjenjem):

- S1. Drug-Induced Liver Injury: Mechanisms, Risk Factors, Prevention; Toxicology of Recreational Drugs: Mechanisms and Clinical Management
- S2. Toxicity of Herbal Supplements: Myth vs Scientific Evidence; Food Additives and Their Toxicological Assessment
- S3. Drug-Drug Interactions and Toxicological Consequences; Heavy Metals in Food and the Environment: Chronic Exposure and Human Health Risks
- S4. Mitochondrial Toxicity as a Mechanism of Drug-Induced Organ Damage; Foodborne Mycotoxins: Sources, Toxicity, Prevention Strategies
- S5. Toxicological Aspects of Nanomedicine and Nanoparticles; Endocrine Disruptors in Everyday Life: Sources, Mechanisms, Health Effects

## Obveze studenata:

Students are obliged to attend classes regularly and actively participate in them.

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

Written exam, final mark is formed based on the points obtained from the activities at the seminars and the written exam.

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

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## SATNICA IZVOĐENJA NASTAVE 2025/2026

Toxicology

### Seminari

(mjesto i vrijeme / grupa)

#### 10.11.2025

S1. Drug-Induced Liver Injury: Mechanisms, Risk Factors, Prevention; Toxicology of Recreational Drugs: Mechanisms and Clinical Management:

• ONLINE (16:00 - 20:00) [172]

o Tox

prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>

#### 11.11.2025

S2. Toxicity of Herbal Supplements: Myth vs Scientific Evidence; Food Additives and Their Toxicological Assessment:

• ONLINE (16:00 - 20:00) [172]

o Tox

prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. [172]

## 12.11.2025

S3. Drug-Drug Interactions and Toxicological Consequences; Heavy Metals in Food and the Environment: Chronic Exposure and Human Health Risks:

• ONLINE (16:00 - 20:00) [172]

 $\circ$  Tox

prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>

#### 13.11.2025

S4. Mitochondrial Toxicity as a Mechanism of Drug-Induced Organ Damage; Foodborne Mycotoxins: Sources, Toxicity, Prevention Strategies:

• ONLINE (16:00 - 20:00) [172]

 $\circ$  Tox

prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>

### 14.11.2025

S5. Toxicological Aspects of Nanomedicine and Nanoparticles; Endocrine Disruptors in Everyday Life: Sources, Mechanisms, Health Effects:

• ONLINE (16:00 - 20:00) [172]

Тох

prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>

## Popis predavanja, seminara i vježbi:

CEMINADI (TEMA)	Dual cati	Miasta adužavania
SEMINARI (TEMA)	Broj sati	Mjesto održavanja

		1
S1. Drug-Induced Liver Injury: Mechanisms, Risk Factors, Prevention; Toxicology of Recreational Drugs: Mechanisms and Clinical Management	5	ONLINE
S2. Toxicity of Herbal Supplements: Myth vs Scientific Evidence; Food Additives and Their Toxicological Assessment	5	ONLINE
S3. Drug-Drug Interactions and Toxicological Consequences; Heavy Metals in Food and the Environment: Chronic Exposure and Human Health Risks	5	ONLINE
S4. Mitochondrial Toxicity as a Mechanism of Drug-Induced Organ Damage; Foodborne Mycotoxins: Sources, Toxicity, Prevention Strategies	5	ONLINE
S5. Toxicological Aspects of Nanomedicine and Nanoparticles; Endocrine Disruptors in Everyday Life: Sources, Mechanisms, Health Effects	5	ONLINE

## ISPITNI TERMINI (završni ispit):