

[Medicinski fakultet u Rijeci]

## Curriculum 2024/2025

[Za kolegij]

# Toxicology

Study programme: **Medical Studies in English (R)** (elective)  
[Sveučilišni integrirani prijediplomski i diplomski studij]  
Department: **[Zavod za temeljnu i kliničku farmakologiju s toksikologijom]**  
Course coordinator: **prof. dr. sc. Mršić-Pelčić Jasenka, dr. med.**

Year of study: **4**  
ECTS: **1.5**  
Incentive ECTS: **0 (0.00%)**  
Foreign language: **Possibility of teaching in a foreign language**

## Course information:

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.

## List of assigned reading:

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

## List of optional reading:

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.

## Curriculum:

### Seminars list (with titles and explanation):

#### **S1. Toxicology of drugs; Plant poisons; Animal poisons; Doping**

To discuss the toxicology of drugs; plant poisoning; animal poisoning; doping

#### **S2. Hormone doping; Statin toxicity; Mushroom poisoning; Nanotoxicity**

To analyze problems linked to hormone doping; statin toxicity; mushroom poisoning and nanotoxicity

#### **S3. Toxicity of cosmetics products; Disposal of waste drugs; The most common household poisonings; Additives and contaminants in food**

To analyze and discuss toxicity of cosmetics products; disposal of waste drugs; the most common household poisonings and additives and contaminants in food

#### **S4. Treatment of anaphylactic shock; Phthalates - toxicity; Vaccines-adverse effects**

To discuss procedures and the treatment of anaphylactic shock; to analyze the role of phthalates in human toxicity; to discuss adverse effects of vaccines

#### **S5. Selected paper preparation and analysis**

To present and analyze topics from the selected paper preparations

## Student obligations:

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

## Exam (exam taking, description of the written/oral/practical part of the exam, point distribution, grading criteria):

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

## Other notes (related to the course) important for students:

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## COURSE HOURS 2024/2025

Toxicology

<b>Seminars</b> (Place and time or group)
<b>02.12.2024</b>
S1. Toxicology of drugs; Plant poisons; Animal poisons; Doping: • [ONLINE] (16:00 - 20:00) <sup>[172]</sup> ◦ Tox
prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>
<b>03.12.2024</b>
S2. Hormone doping; Statin toxicity; Mushroom poisoning; Nanotoxicity: • [ONLINE] (16:00 - 20:00) <sup>[172]</sup> ◦ Tox
prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>
<b>04.12.2024</b>
S3. Toxicity of cosmetics products; Disposal of waste drugs; The most common household poisonings; Additives and contaminants in food: • [ONLINE] (16:00 - 20:00) <sup>[172]</sup> ◦ Tox
prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>
<b>06.12.2024</b>
S4. Treatment of anaphylactic shock; Phthalates - toxicity; Vaccines-adverse effects: • [ONLINE] (16:00 - 20:00) <sup>[172]</sup> ◦ Tox
prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>
<b>09.12.2024</b>
S5. Selected paper preparation and analysis: • [ONLINE] (16:00 - 20:00) <sup>[172]</sup> ◦ Tox
prof. dr. sc. Mršić-Pelčić Jasenka, dr. med. <sup>[172]</sup>

## List of lectures, seminars and practicals:

<b>SEMINARS (TOPIC)</b>	<b>Number of hours</b>	<b>Location</b>
S1. Toxicology of drugs; Plant poisons; Animal poisons; Doping	5	[ONLINE]
S2. Hormone doping; Statin toxicity; Mushroom poisoning; Nanotoxicity	5	[ONLINE]
S3. Toxicity of cosmetics products; Disposal of waste drugs; The most common household poisonings; Additives and contaminants in food	5	[ONLINE]
S4. Treatment of anaphylactic shock; Phthalates - toxicity; Vaccines-adverse effects	5	[ONLINE]
S5. Selected paper preparation and analysis	5	[ONLINE]

**EXAM DATES (final exam):**

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