

## Faculty of Medicine in Rijeka

### Curriculum 2025/2026

For course

## Oxidative Stress and Antioxidants

Study program:	<b>Medical Studies in English (R)</b> (elective)
	University integrated undergraduate and graduate study
Department:	<b>Department of Medical Chemistry, Biochemistry and Clinical Chemistry</b>
Course coordinator:	<b>prof. dr. sc. Domitrović Robert, univ. mag. med. biochem.</b>
Year of study:	<b>2</b>
ECTS:	<b>1.5</b>
Incentive ECTS:	<b>0 (0.00%)</b>
Foreign language:	<b>Possibility of teaching in a foreign language</b>

## **Course information:**

Free radicals as extremely reactive chemical species represent a potential danger to all cells and contribute to the development of cardiovascular, neurodegenerative and inflammatory diseases, tumors, diabetes and other pathological conditions. However, at the same time, free radicals and other reactive oxygen and nitrogen species (ROS, "reactive oxygen species", RNS, "reactive nitrogen species"), by participating in phagocytosis and oxygenation, have a significant positive effect on metabolism. Within the framework of the course, the modes of action and effects of free radicals and ROS and RNS molecules in oxidative stress and the pathogenesis of various diseases will be discussed. In addition, students will be able to explain how the organism is protected from their harmful effects.

## **List of assigned reading:**

1. Selected scientific papers.

## **List of optional reading:**

1. Internet databases.

## **Curriculum:**

## **Student obligations:**

Attendance and active participation of students in classes. The student must, in agreement with the course leader, prepare a seminar paper and make a PowerPoint presentation from a specific area related to oxidative stress. Students present their PowerPoint presentations in front of the leader and other colleagues. Every student is obliged to submit his seminar paper and PowerPoint presentation in electronic form.

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

Student evaluation is carried out according to the valid Rulebook on studies of the University of Rijeka and according to the Rulebook on student evaluation at the Faculty of Medicine in Rijeka.

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

## **COURSE HOURS 2025/2026**

Oxidative Stress and Antioxidants

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## **List of lectures, seminars and practicals:**

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## **EXAM DATES (final exam):**