

Faculty of Medicine in Rijeka

Curriculum 2023/2024

For course

Life- Threatening Plants and Animals of our Region

Study program:	Medical Studies in English (R) (elective) University integrated undergraduate and graduate study
Department:	Department of Medical Biology and Genetics
Course coordinator:	prof. dr. sc. Starčević Čizmarević Nada, dipl. ing.
Year of study:	3
ECTS:	1.5
Incentive ECTS:	0 (0.00%)
Foreign language:	Possibility of teaching in a foreign language

Course information:

The aim of the elective course is to familiarise students with the biological features of our region, with special attention to poisonous and life-threatening plants and animals. Students are expected to learn about the characteristics of the Primorsko-Goran region, its natural features and potential hazards in the plant and animal world. In this way, natural resources can be better used, but the knowledge acquired will also be useful to future medical practitioners for prevention as well as therapy of patients who have come into contact with potentially poisonous plants and animals.

During the lectures and the design of the seminar activities, the natural features of Primorje-Gorski Kotar County will be discussed in joint discussions, with a special focus on sea and land, as well as flora and fauna. Snakes, insects, fish and other marine animals with toxic effects will be shown. Toxic plants and especially potentially toxic fungi found in our area will be given special attention. By elaborating on the possible mutagenic effects in nature and how to survive in nature, we conclude with the knowledge of the beauty but also the potential dangers that lurk in our region.

List of assigned reading:

Compulsory literature includes lecture and seminar presentations available to students via Merlin.

List of optional reading:

Supplementary literature consists of publications and websites available to students on Merlin.

Curriculum:

Lectures list (with titles and explanation):

Plan; literature; introduction

significance, plan, literature

The natural features and biodiversity of PG county

to list the features of the PGŽ; define biodiversity

Natural/toxic organic compounds of plant origin

to list groups of toxic organic compounds in plants; to define the properties of the mentioned groups and their impact on the human body

Poisonous plants and mushrooms; Venomous animals

define the terms poisonous/toxic organisms; list the poisonous plants, mushrooms and animals of our region; describe the basic mechanisms of their action

Mutagenicity and Genotoxicity

define the terms mutagenicity and genotoxicity; describe the mechanisms of action and detection of mutagenic/genotoxic compounds; list examples

Natural History Museum Rijeka; exhibitions

familiarization with the activities of institutions in the system of education and nature protection; list and identify dangerous/poisonous plants and animals in our region

Invasive alien species

define invasive alien species; list the most significant invasive species of our region and describe their harmful/toxic effects in the environment and on humans

Poisonous plants

List the poisonous plants of our region; describe the mechanisms of their action and ways to prevent and treat poisoning

Poisonous mushrooms

List the poisonous mushrooms of our region; describe the mechanisms of their action and ways to prevent and treat poisoning

Toxins from fish and other marine organisms

List the poisonous marine organisms of our region; describe the mechanisms of their action and ways to prevent and treat

Poisonous and venomous insects

List the poisonous insects and spiders of our region; describe the mechanisms of their action and ways to prevent and treat poisoning

Venomous snakes

List the poisonous snakes of our region; describe the mechanisms of their action and ways to prevent and treat poisoning

The final lecture and JGL Pharmacy Museum

significance of toxic species and synthesis of knowledge about toxic action and treatment principles. Croatian and world history of pharmacy.

Seminars list (with titles and explanation):

Natural History Museum Rijeka; botanical garden

recognition and description of native plants of our region

Hallucinogenic effects of plants

define and describe hallucinogenic action; describe examples of the effects of hallucinogenic plants

Poisonous species - clinical management

Describe the clinical approach to a patient with symptoms of poisoning; recognize examples from practice

Student obligations:

Attendance and active participation in all forms of teaching.

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

Preparation and presentation of the seminar paper.

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

A guided tour of the Natural History Museum in Rijeka and JGL Pharmacy Museum were organised as part of the course.

COURSE HOURS 2023/2024

Life- Threatening Plants and Animals of our Region

Lectures (Place and time or group)	Seminars (Place and time or group)
07.11.2023	
Plan; literature; introduction: • ONLINE (16:45 - 19:45) ^[317] ◦ L-TPaAooR The natural features and biodiversity of PG county: • ONLINE (16:45 - 19:45) ^[317] ◦ L-TPaAooR Natural/toxic organic compounds of plant origin: • ONLINE (16:45 - 19:45) ^[317] ◦ L-TPaAooR	
prof. dr. sc. Starčević Čizmarević Nada, dipl. ing. ^[317]	
08.11.2023	
Poisonous plants and mushrooms; Venomous animals: • Department of Medical Biology and Genetics - Library (15:00 - 17:00) ^[317] ◦ L-TPaAooR	
prof. dr. sc. Starčević Čizmarević Nada, dipl. ing. ^[317]	
09.11.2023	
	Poisonous species - clinical management: • ONLINE (16:30 - 18:00) ^[353] ◦ L-TPaAooR
Šuper-Petrinjac Erika, dr. med. ^[353]	
10.11.2023	
Mutagenicity and Genotoxicity: • ONLINE (16:30 - 19:30) ^[317] ◦ L-TPaAooR Invasive alien species: • ONLINE (16:30 - 19:30) ^[317] ◦ L-TPaAooR	
prof. dr. sc. Starčević Čizmarević Nada, dipl. ing. ^[317]	
14.11.2023	
Toxins from fish and other marine organisms: • ONLINE (17:45 - 20:00) ^[317] ◦ L-TPaAooR Poisonous and venomous insects: • ONLINE (17:45 - 20:00) ^[317] ◦ L-TPaAooR Venomous snakes: • ONLINE (17:45 - 20:00) ^[317] ◦ L-TPaAooR	
prof. dr. sc. Starčević Čizmarević Nada, dipl. ing. ^[317]	

16.11.2023	
Poisonous plants: • ONLINE (17:00 - 19:15) ^[317] ◦ L-TPaAooR Poisonous mushrooms: • ONLINE (17:00 - 19:15) ^[317] ◦ L-TPaAooR	Hallucinogenic effects of plants: • ONLINE (19:15 - 20:00) ^[317] ◦ L-TPaAooR
prof. dr. sc. Starčević Čizmarević Nada, dipl. ing. ^[317]	
17.11.2023	
Natural History Museum Rijeka; exhibitions: • Department of Medical Biology and Genetics - Library (09:30 - 11:00) ^[317] ◦ L-TPaAooR The final lecture and JGL Pharmacy Museum: • Department of Medical Biology and Genetics - Library (14:15 - 16:30) ^[317] ◦ L-TPaAooR	Natural History Museum Rijeka; botanical garden: • Department of Medical Biology and Genetics - Library (08:45 - 09:30) ^[317] ◦ L-TPaAooR
prof. dr. sc. Starčević Čizmarević Nada, dipl. ing. ^[317]	

List of lectures, seminars and practicals:

LECTURES (TOPIC)	Number of hours	Location
Plan; literature; introduction	1	ONLINE
The natural features and biodiversity of PG county	2	ONLINE
Natural/toxic organic compounds of plant origin	1	ONLINE
Poisonous plants and mushrooms; Venomous animals	2	Department of Medical Biology and Genetics - Library
Mutagenicity and Genotoxicity	2	ONLINE
Natural History Museum Rijeka; exhibitions	2	Department of Medical Biology and Genetics - Library
Invasive alien species	2	ONLINE
Poisonous plants	2	ONLINE
Poisonous mushrooms	1	ONLINE
Toxins from fish and other marine organisms	1	ONLINE
Poisonous and venomous insects	1	ONLINE
Venomous snakes	1	ONLINE
The final lecture and JGL Pharmacy Museum	3	Department of Medical Biology and Genetics - Library

SEMINARS (TOPIC)	Number of hours	Location
Natural History Museum Rijeka; botanical garden	1	Department of Medical Biology and Genetics - Library
Hallucinogenic effects of plants	1	ONLINE
Poisonous species - clinical management	2	ONLINE

EXAM DATES (final exam):
