

Vilniaus Kolegija/Higher Education institution
FACULTY OF AGROTECHNOLOGIES
www.atf.viko.lt

BLENDED INTESIVE PROGRAMME
THE INVISIBLE WORLD: MICROBES IN OUR DAILY LIFE (3 ECTS)

STUDY FIELD – Medicine, Veterinary Science, Food Technology, Agricultural Sciences; LEVEL – Bachelor
Teaching language ENGLISH

April 20 – April 24, 2026

Objectives and description of the programme:

The programme aims to develop competences in understanding and applying microbiology-related knowledge in everyday contexts, emphasizing health, sustainability, and environmental awareness. Participants will explore the invisible yet essential role of microbes in our daily lives — from food production, human and animal health, to environmental ecosystems and sustainable technologies.

We will discover how microbes shape our world by supporting digestion, strengthening our immune system, and enabling fermentation processes. We will also examine their role in environmental balance, such as soil health, waste decomposition, and bioremediation. Through a combination of lectures, laboratory activities, and creative exploration, students will learn how to harness the power of microbes to promote well-being, support ecological sustainability, and critically evaluate hygiene, nutrition, and lifestyle choices in a microbe-rich world.

Expected learning/training outcomes:	Learning and teachings methods
✓ Students will gain understanding of the essential role of microbes in human, animal, and environmental health. ✓ Students will be able to recognize and explain the positive and negative impacts of microbes in daily life, including food, hygiene, and ecosystems. ✓ Students will develop skills to apply microbiological knowledge in practical contexts such as fermentation, soil and water quality improvement, and disease prevention. ✓ Students will understand the importance of microbial diversity in sustainable living and global health.	✓ Theory (lectures) ✓ Team works ✓ Laboratory work ✓ Case studies ✓ Preparing of presentations

VIRTUAL COMPONENT

07 – 17 April, 2025 Online

Time	Room	Lecture / Activity	Lecturer's name
will be clarified		<i>Microbes and Biosafety: From Basics to Practice</i>	VIKO
will be clarified		<i>Microbes in the Home Environment: Hygiene and Microbial Balance. Where do microbes live in our households? Can excessive cleanliness be harmful?</i>	VIKO
will be clarified		<i>Antimicrobial Resistance in Veterinary Medicine: A Silent Global Threat</i>	VIKO
		<i>Microbes and the Brain: The Role of the Gut–Brain Axis in Mental Health</i>	VIKO

PHYSICAL MOBILITY

20 – 24 of April, 2025

Time	Room	Lecture / Activity	Lecturer's name
Arrival 19 April			
20 APRIL – MONDAY	2	Welcome Meeting / Introduction of Participants / Group Formation	All Guests Other Members from Working Group
	1	Coffe Break	
		<i>Microbe Cultivation: What Lives on Your Hands, Phone, and Elsewhere? Sample collection, inoculation on Petri dishes (colony observation and morphology analysis – Wednesday)</i>	VIKO Dr. Akvilė Misevičienė-Ežerskytė
	Canteen, 1st Floor	Lunch	
	2	<i>Examining examples of what can grow from inoculated samples</i>	
	<i>Meeting Point near “Baltasis” Bridge</i>	<i>Tour in Vilnius Old Town</i>	tbc.

Time	Room	Lecture / Activity	Lecturer's name
21 APRIL – TUESDAY	2	<i>Homemade Ferment Starter Preparation and Monitoring Preparation of sourdough or kombucha. pH measurements, bubble count, and observation of changes in smell.</i>	VIKO Dr. Virginija Jarulė
	1	Coffe Break	
	2	<i>Group Work on Formation of Idea</i>	
	Canteen, 1 st Floor	Lunch	
	2	<i>Group Work on preparation of presentations</i>	
	Meeting Point Foyer of the Department of Veterinary Medicine	<i>Visiting National Food and Veterinary Risk Assessment Institute</i>	
22 APRIL – WEDNESDAY	2	<i>Soil Microbe Investigation. Sample collection from different environments (organic, urban, and agricultural soil). Microscopy, colour tests, moisture and pH analysis.</i>	VIKO Dr. Akvilė Misevičienė-Ežerskytė, Nijolė Ružienė
	1	Coffe Break	
	2	<i>Observation of colonies inoculated on Monday; morphology analysis.</i>	
	Canteen, 1 st Floor	Lunch	
	2	<i>Group Work on Preparation of Presentations</i>	
	Meeting Point Foyer of the Department of Veterinary Medicine	<i>Visiting UAB “DR VET” veterinary clinic</i>	
23 APRIL – THURSDAY	2	<i>Antibiotic Effectiveness Test (Disk Diffusion Method) Demonstration of bacterial resistance.</i>	VIKO Dr. Tomas Laurusevičius
	1	Coffe Break	
	2	<i>Group Work on Preparation of Presentations</i>	
	Canteen, 1 st Floor	Lunch	
	Meeting Point Foyer of the Department of Veterinary Medicine	<i>Visiting UAB “Thermo Fisher Scientific Baltics”</i>	
		<i>Conclusions and Snacks</i>	

Time	Room	Lecture / Activity	Lecturer's name
24 APRIL – FRIDAY	2	<i>Personal Microbiota Diary Participants record their lifestyle habits (diet, hygiene) and explore possible links with microbial diversity (surveys and indirect methods can be used)</i>	VIKO Dr. Ernest Kostenko
	1	Coffe Break	
	2	<i>Group Work on Formation of Idea</i>	
	Canteen, 1st Floor	Lunch	
	2	<i>Group Work on Preparation of Presentations</i>	
25 APRIL – DEPARTURE			

* The organizers remain the right to change the schedule