NAME OF THE COURSE	Virology						
Code	PMB539	Year of study	3				
Course teacher	PhD Elma Vuko, Assistant Professor	Credits (ECTS)	2				
Associate teachers		Type of instruction (number of hours)	L	S	E	F	
			15	15			
Status of the course	Elective	Percentage of application of e-learning					

COURSE DESCRIPTION

Course objectives	This course covers molecular-biological characteristics of viruses and subviral pathogens, their taxonomic position and the impact on living organisms.
Course enrolment requirements and entry competences required for the course	Passed exam in Cell Biology
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	1. Critically analyze theories dealing with the origin of the virus 2. Describe adaptation and evolution of the viruses 3. Understand the replication strategies of viral genomes and mechanisms in host defense against pathogens 4. Critically compare the benefits of vaccination versus side effects 5. Understand the occurrence and significance of subviral pathogens
Course content broken down in detail by weekly class schedule (syllabus)	Lectures: 1. Introduction to virology. Origin and evolution of the viruses. Viruses and their importance. (3) 2. Virus structure. (3) 3. The infectious cycle. Structure and replicationof viral genomes. (4) 4. Viral vaccines. Antiviral drugs. (2) 5. Subviral pathogens: viroids, satellites, prions.(3) The seminars (15 hours) will cover current topics related to the content of the course.

Format of instruction	☒ lectures ☒ seminars and workshops ☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Class attendance (70%). Seminar attedance (100%).	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	1	Research		Practical training	
	Experimental work		Report		(Other)	
	Essay		Seminar essay	1	(Other)	
	Tests		Oral exam		(Other)	
	Written exam		Project		(Other)	

Grading and evaluating student	Active participation of students on classes is scored as follows: inadequate (1) student does not participate actively in the classes; a sufficient (2) student actively

<table>
<tr><td>work in class and at the final exam</td><td colspan="3">participates in teaching only after the question is asked, a good (3) student occasionally actively participates in the lessons but hardly makes independent conclusions; very good (4) student often actively participates in teaching and often makes independent conclusions; an excellent (5) student almost always actively participates in teaching, critically reflects and independently brings conclusions. The final grade is the average grade for participation in classes and grade for seminar work.</td></tr>
<tr><td rowspan="4">Required literature (available in the library and via other media)</td><td>Title</td><td>Number of copies in the library</td><td>Availability via other media</td></tr>
<tr><td>Presečki V, Mlinarić-Galinović G, Punda-Polić V, Lukić A. (2002) Virologija. Medicinska naklada, Zagreb</td><td></td><td></td></tr>
<tr><td>Carter JB, Saunders VA (2013) Virology: Principles and Applications, 2nd ed. Wiley, UK.</td><td></td><td></td></tr>
<tr><td>Relevant scientific articles</td><td></td><td></td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td colspan="3">Flint J, Vincent R, Racaniello VR, Rall GF, Skalka AM , Enquist LW (2015) Principles of Virology (Volume I Molecular Biology). ASM Press, NW, Washington, DC, USA

Flint J, Vincent R, Racaniello VR, Rall GF, Skalka AM , Enquist LW (2015) Principles of Virology (Volume II Pathogenesis and Control). ASM Press, NW, Washington, DC, USA</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td colspan="3">At the end of the semester, the evaluation of subject and teacher will be conducted through an anonymous student survey. Results will be used to monitor the quality of the course and achievement of the learning outcomes.</td></tr>
<tr><td>Other (as the proposer wishes to add)</td><td colspan="3"></td></tr>
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