

NAME OF THE COURSE		Virology					
Code	PMB725	Year of study		1			
Course teacher	Elma Vuko, PhD, associate Professor	Credits (ECTS)		3			
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	Understanding molecular-biological characteristics of viruses and subviral pathogens, their taxonomic position and the impact on living organisms. Raising the level of virology knowledge with a special emphasis on current topics in virology with the aim of critical thinking.						
Course enrolment requirements and entry competences required for the course	None						
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<ul style="list-style-type: none"> • Critically analyze the theory of viral development • Understand virus adaptation and manipulation of host's gene expression • Understand strategies for replication of viral genomes. • Interpret molecular mechanisms in host defense against pathogens • Analyze reprogramme of host cellular signalling pathways and viruses as etiologic factors of human cancer • Critically analyze the benefit of vaccination against unwanted consequences • Understand characteristics and importance of subviral pathogens 						
Course content broken down in detail by weekly class schedule (syllabus)	<ol style="list-style-type: none"> 1. Importance of viruses. Origins and evolution of viruses. 2. Virus structure. Cell entry strategies of viruses. 3. The infectious cycle. 4. Structure and complexity of viral genomes. Virus replication strategies. 5. The role of viruses in human carcinogenesis 6. Viral vaccines. Antiviral drugs. 7. Subviral pathogens: viroids, satellites, prions. 						
Format of instruction	<input checked="" type="checkbox"/> lectures <input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input type="checkbox"/> partial e-learning <input type="checkbox"/> field work			<input checked="" type="checkbox"/> independent assignments <input type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)			
Student responsibilities	Active participation in classes and assignments.						
Screening student work (<i>name the proportion of ECTS credits for each activity so that the total number of</i>	Class attendance		Research		Practical training		
	Experimental work		Report		(Other)		
	Essay		Seminar essay	1	(Other)		

<i>ECTS credits is equal to the ECTS value of the course)</i>	Tests		Oral exam	1	(Other)	
	Written exam	1	Project		(Other)	
Grading and evaluating student work in class and at the final exam	Active participation of students in the classroom is scored as follows: inadequate (1) student does not participate actively in the classes; a sufficient (2) student actively 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 seminar work is rated 1 - 5 according to the evaluation of professor and other students. A written exam is deemed to be passed if the student achieves at least 60% of the total number of points. Scoring: <60% of students did not satisfy; 60-69% sufficient (2); 70-79% good (3); 80-89% very good (4); 90-100% excellent (5). The final grade is the average grade of attendance in the classroom, seminar and written exam.					
Required literature (available in the library and via other media)	Title				Number of copies in the library	Availability via other media
	Presečki V, Mlinarić-Galinović G, Punda-Polić V, Lukić A. (2002) Virologija. Medicinska naklada, Zagreb					
	Carter JB, Saunders VA (2013) Virology: Principles and Applications, 2nd ed. Wiley, UK.					
Optional literature (at the time of submission of study programme proposal)	-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 -Various course books, original scientific articles and reviews, data available on web-sights					
Quality assurance methods that ensure the acquisition of exit competences	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.					
Other (as the proposer wishes to add)						