

American University of Beirut
Faculty of Health Sciences
MEDICAL LABORATORY SCIENCES PROGRAM (MLSP)

General and Diagnostic Virology
MLSP 208 (2 credits)
Fall Semester AY/ 2019-2020

Course	Dr. Sami Ramia
Instructors :	Van Dyck Hall , Rm. 325; extension 4698 Office Hours: by appointment E-mail: sramia@aub.edu.lb
	Dr. Nada M. Melhem Van Dyck Hall Rm 317 ; extension 4699 Office Hours : by appointment E-mail: melhemn@aub.edu.lb
Time:	M,W:1:00 p.m.- 2:00 p.m.
Place:	Van Dyck Rm 203

Course Description, Objectives and Outcomes:

MLSP 208 is a 2-credit course offered to MLSP undergraduate students. This course introduces students to the major virus families and the respective representative viruses of clinical importance. During the course, students will be introduced to the epidemiology, pathogenesis, modes of transmission, laboratory identification and recent prevention and control measures of pathogenic viruses.

The main learning outcome at the end of this course is to understand the classification and pathogenesis of viruses of clinical importance.

Course Competencies

Upon completion of this course, students should be able to:

1. Understand the classification of viruses into different families
2. Identify the major viruses in each family and their mode of transmission, epidemiology and pathogenesis
3. Identify the differences between the life cycles of DNA- and RNA- viruses
4. Demonstrate basic knowledge related to laboratory identification of viruses, viral vaccines and the recent advances of antiviral treatment

Course Material and Text Book:

Clinical Virology: (4th Edition by DD Richman, RJ Whitley and FG. Hayden)

The above book is recommended to students and is kept for students as a reference book at the Saab Medical Library (SML). The course material will include lecture handouts. The lecture handouts will be posted on Moodle by Monday morning so that you may print a copy if you wish to do so. If the handouts are not posted on Moodle by Monday noon, we will be responsible for bringing in hard copies to class.

Course Evaluation:

Class attendance and Participation	5%	
Exam I (Week of October 17)	40%	Competency 1-4
Exam II (Week of December 12)	55%	Competency 1-4

Course Requirements:

1. **Attendance:** You are urged to attend all classes. In case of absence, you will be responsible to the material missed and for any announcements made. Students who miss more than one-fifth of class sessions are subject to withdrawing from the course with a W-grad (check AUB catalogue).
2. **Exams:** You are urged to take exams on the assigned time. Make up exams will be given only in case of emergencies or major illness (authorized medical report is required). The final exam will follow AUB scheduling.
3. **Cheating and Plagiarism:** Cheating and plagiarism will not be tolerated. Review the Student Code of Conduct in your handbook and familiarize yourself with definitions and penalties. If you're in doubt about what constitutes plagiarism, ask your instructor because it is your responsibility to know. The American University of Beirut has a strict anti-cheating policy. Penalties include failing marks on the assignment in question, suspension or expulsion from University and a permanent mention of the disciplinary action in the student's records.
4. **Students with Disabilities:** AUB strives to make learning experiences accessible for all. If you anticipate or experience academic barriers due to a disability (including learning difficulties, mental health, chronic or temporary medical conditions), please inform me immediately so that we can privately discuss options. In order to ensure that you receive the support you need and to facilitate a smooth accommodation process, you are encouraged to register with the Accessible Education Office (AEO): accessibility@aub.edu.lb; +961-1-350000, x3246; West Hall, 314'.
5. **Non-Discrimination – Title IX – AUB:** AUB is committed to facilitating a campus free of all forms of discrimination including sex/gender-based harassment prohibited by Title IX. The University's non-discrimination policy applies to, and protects, all students, faculty, and staff. If you think you have experienced discrimination or harassment, including sexual misconduct, we encourage you to tell someone promptly. If you speak to a faculty or staff member about an issue such as harassment, sexual violence, or discrimination, the information will be kept as private as possible, however, faculty and designated staff are required to bring it to the attention of the University's Title IX Coordinator. Faculty can refer you to fully confidential resources, and you can find information and contacts at www.aub.edu.lb/titleix. To report an incident, contact the University's Title IX Coordinator Trudi Hodges at 01-350000 ext. 2514, or titleix@aub.edu.lb. An anonymous report may be submitted online via EthicsPoint at www.aub.ethicspoint.com.

Course Schedule:

Month	Day	Topic	Speaker	
September	Monday 2	Introduction	Drs. Ramia and Melhem	
	Wednesday 4	Structure and classification of viruses	Dr. Ramia	
	Monday 9	Virus replication and pathogenesis	Dr. Ramia	
	Wednesday 11	Laboratory diagnosis of viral infections	Dr. Ramia	
	Monday 16	Antiviral agents and vaccines I	Dr. Ramia	
	Wednesday 18	Antiviral agents and vaccines II	Dr. Ramia	
	DNA Viruses			
	Monday 23	Herpesviridae I	Dr. Ramia	
	Wednesday 25	Herpesviridae II	Dr. Ramia	
	Monday 30	Hepadnaviridae I	Dr. Ramia	
October	Wednesday 2	Hepadnaviridae II	Dr. Ramia	
	Monday 7	Parvoviridae	Dr. Ramia	
	Wednesday 9	Adenoviridae	Dr. Ramia	
	Monday 14	Papillomaviridae	Dr. Ramia	
	Wednesday 16	Unclassified viruses (HDV, HEV) and Introduction to Prions	Dr. Ramia	
	21 - 28	EXAM I (TBD)		
	RNA Viruses			
	Monday 21	Introduction to RNA viruses ; Reoviridae (Rotavirus)	Dr. Melhem	
	Wednesday 23	Caliciviridae (Norovirus); Astroviridae	Dr. Melhem	
	Monday 28	Picornaviridae (Poliovirus); introduction to Coxsachieviruses and other enteroviruses	Dr. Melhem	
Wednesday 30	Paramyxoviridae (Measles, Mumps, Nipah)	Dr. Melhem		
November	Monday 4	Orthomyxoviridae (Influenza)	Dr. Melhem	
	Wednesday 6	Retroviridae (HIV)	Dr. Melhem	
	Monday 11	Retroviridae (continued): HIV and others	Dr. Melhem	
	Wednesday 13	Coronaviridae: SARS	Dr. Melhem	
	Monday 18	Coronaviridae: MERS-CoV	Dr. Melhem	
	Wednesday 20	Rhabdoviridae: Rabies Togaviridae : Rubella	Dr. Melhem	
	Monday 25	Filoviridae : Ebola	Dr. Melhem	
	Wednesday 27	Flaviviridae: West Nile Virus and Dengue	Dr. Melhem	
December	Monday 2	Flaviviridae (Continued): Zika virus	Dr. Melhem	
	Wednesday 4	Other viruses of Clinical Importance	Dr. Melhem	
December	9-14	EXAM II (TBD)		