

(Module Name) Virology

Postgraduate(Higher Diploma)

2023-2024

College	Erbil Technical health Colloge	
Department	Medical Laboratory Techniques	
Module Name	Virology	
Module Code	Higher Diploma	
Semester	2	
Credit	3	
Module type	Basic	
Weekly hours	3	
Weekly hours (Theory)	(3)hr Class	(60)hr Workload
Weekly hours (Practical)	(Nil)hr Class	(Nil)hr Workload
Lecturer (Theory)	Dr.Sheylan Salah Abdullah	
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Lecturer (Practical)	Nil	
Email	Nil	

Course Book

Higher Diploma

(Virology)

Course objective:

To provide the knowledge needed for academic and professional career about the diversity of viral structure, genetics, morphology, life cycle, the methods of viral research. To provide the information about the viral groups and groups of extrachromosomal genetic elements whose research has provided important insights for the development of Life Science, Medicine, society and economy; to motivate self- dependent work with the scientific literature.

Student's obligation:

- **Attendance:** Students should make every effort to maintain good attendance in their classes. Illnesses and emergencies do occur, so it may not be possible to show up every time. Nevertheless, students should do their best to consistently attend their lectures and get there before class begins. Missing school can lower attendance grades and result in missed quizzes or assignments.
- **Participation:** Each student should participate in the classroom. Discussing relevant subjects at appropriate times can spark new conversations and produce valuable debates. If instructors ask students to share thoughts with their respective groups, each student should contribute to the assignment.
- **Questions:** Asking questions about unclear material is an important part of the classroom experience. It is not uncommon for students to have similar difficulties, so speaking up will help everyone understand the discussed information. Teachers can also benefit from a student's questions. By finding out what subjects are hard to understand, instructors can adjust their lectures to clear up confusing topics.
- **Quizzes:** All students are encouraged to take the weekly tests since they are a valuable resource in your study, and since they will help you to prepare for the major exams given during the semester.
- **Ringling cell phones:** will not be tolerated during lecture and practical sessions; Cell phones must be in silent mode. Observance of order is expected of every student during lecture and practicals, including timeliness, observance of silence while a lecture is in progress.

Forms of teaching

lecture halls with data show equipment for lecture presentations, white board, overhead projector, posters

1. Lectures using the data show in presentation
2. Participation and interacting in class room
3. Discussion
4. white board, posters...etc.

Assessment scheme

Suggested assessment methods and teaching strategies are:

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)

- Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
 1. Accommodation (Lecture rooms, laboratories, etc.)
 2. Class room with the capacity of 20 seats
 3. Laboratory with the capacity of 20 seats
- Computing resources (AV, data show, Smart Board, software, etc.)

Data show

- Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)
- Providing Lab. with chemicals, glassware's, growth media and equipment's
- Providing Lab with all safety facilities

Specific learning outcome:

After finishing the course: Student Learning Outcomes: in this course is to prepare students for professional careers that employ the principles of medical virology. This will be accomplished through the mastery of the following specific objectives:

- the peculiarities of the Biology and the Life Cycle of the viruses, which make them different from the other objects in Biology;
- the main groups of viruses, specific features of their structure, characterization of typical representatives;
- the structure of viroid's, prions, plasmids, transposons, characteristic features of the typical representatives;
- the defense mechanisms of the organism preventing intrusion of the alien genetic elements;
- Discover how other disciplines contributed to the study of virus's diseases;
- Recognize the etiology of different viruses;
- Learn the fundamental basis for diagnosing viral infections;
- Differentiate the different pathologies of the viruses;
- Identify environmental and host factors that promote viral infections;
- Comprehend the various treatment regimens for the viruses;
- Appreciate the role of virus in human affairs;
- Recognize the importance of proper public dissemination of information; and
- Understand the contributions of virus to current concepts in infectious diseases

Topics	Week
<u>1st Semester / Part1</u>	
Nature of Human Viruses Viral Classification	1
Viral Replication and Bacteriophages	2
Viral Genetics	3
Viral Pathogenesis Host Defenses to Viruses Immunotherapy, Antivirals, and Interferon	4

Diagnostic Virology DNA Viruses RNA Viruses	5	
Slow Viruses and Prions Oncogenic Viruses	6	
Midterm Exam	7	
1st Semester / Part2 System-based and situational viral infections	8	
Eye Infections Ear Infections	9	
Upper Respiratory Tract (Mouth and Roat) Infections Lower Respiratory Tract Infections Gastrointestinal Infections	10	
Liver Infection	11	
Urinary Tract Infections (UTIs) Cardiovascular Infections	12	
Nervous System Infections Skin, Mucosal, and Soft Tissue Infections	13	
Childhood Infections Congenital and Neonatal Infections	14	
Final Exam		

کۆی نمره	نافیکردنه وهی کۆنای سیمسنه ر (Final exam)	نافیکردنه وهی میدتیرم (Midterm exam)	نه یجامی کویز (Quiz)	نوسینی رابۆرتی زانستی	پیشکەشکردنی سیمینار به شیوهی (پرزنتەیشن)	ECTS Credit	پنوهی هه لسه نگاردن
نمره ۱۰*	نمره ۵*	نمره ۲*	نمره ۵	نمره ۱۵	نمره ۱۰		نمره