

Name of the module: Virology 2nd year Medicine

Number of module - 471-8-2007

BGU Credits: 3.5

ECTS credits

Academic year: 2nd year medicine

Semester: Second semester

Hours of instruction: Monday and
Wednesday 10am – 12pm

Lectures 50 hours

Laboratory 24 hours

Location of instruction: Lectures will
take place in the Deichmann Building
for Health Professions.

Specific classroom numbers are
indicated in the schedule.

Language of instruction: Lectures will
be given in Hebrew and English.

Cycle: B.Med.Sc

Position: Obligatory module intended
for 2nd year medical students, as part
of their pre-clinical teaching.

Field of Education: Virology.

Responsible department: Department
of Virology Ben Gurion University of
the Negev.

General prerequisites:

Acceptance for second year in
Medical School.

Course Description and Goals

The course will include introductory lectures on a series of subjects that cut across the entire field of virology and viral pathogenesis, followed by discussions of major groups of viruses that cause human diseases. Herein, selected viruses and virus groups will be discussed in more detail as models for viruses that cause for latent infections (Herpes Viruses), chronic infections (Hepatitis viruses B,C,D), slow infections (HIV), oncogenesis (RNA and DNA tumor viruses), and epidemics (Influenza epidemiology; emerging viruses).

Course Description:

Aims of the module: The goal of the Virology module is to introduce and teach basic molecular and clinical principles in Virology.

Objectives of the module: Objectives are to enable students to obtain basic principals in Virology and receive molecular and clinical knowledge on important selected viruses.

Learning outcomes of the module: On successful completion of the course, the student should be able to:

1. Classify virus groups according to their structure, genome and replication strategy.
2. Specify the main principles in viral life cycle and replication strategies of DNA and RNA viruses.
3. Demonstrate knowledge in the molecular mechanisms that lead to viral oncogenesis by DNA and RNA viruses.
4. Learn the life cycle, pathogenesis and modes of infection of selected viruses.
5. Demonstrate familiarity with the interplay between the host innate and adaptive immune response and the virus. Host-viral interactions will be also introduced.
6. Study principals of vaccination and antiviral protocols against selected viruses.
7. Understanding the clinical laboratory and molecular diagnostic protocols that are used in the clinic.

Attendance regulation: Attendance to the oral lectures is not obligatory. Participation in the clinical discussions and labs is obligatory.

Teaching arrangement and method of instruction: Instruction in the module is based on frontal oral lectures, clinical discussions, and laboratory sessions.

Lecturer: Dr. Ran Taube

Contact details:

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Module evaluation: at the end of the semester the students will evaluate the module, in order to draw conclusions, and for the university's internal needs

Confirmation: 2012 (academic year)

Last update: 11/2015

Assessment:

Students will be assessed in the module by passing an exam with a score of 65 or higher. The final exam will be **80%** of the final mark.

The laboratory session will be **20%**.

Work and assignments: There will be three laboratory sessions that will take place in the end of the course. The class will be divided into two groups and each group will be divided into sub-groups of about 10 students to which an instructor will take responsibility.

Lab assessment: In the beginning of each lab session, a short quiz will be held. This will examine the knowledge of the student in the lab procedures of that day. In addition, in every meeting several students will be chosen to present the lab and its goals to the whole group. This will verify that students are familiar with the lab protocols.

A student who will fail in two out of three quizzes will have to repeat the lab sessions the following year.

Required reading: Students are expected to read the lectures as presented as ppt presentations.

Additional literature:

- Virology – Fields *et. al*
- Retroviruses – Coffin *et. al*.

*All learning material will be available to the students on the module's website (high-learn)/ library/ electronic documents available to BGU students

