Module title
Virology for biochemistry students

Abbreviation
03-4S1VIR-BC-152-m01

Module coordinator
holder of the Chair of Virology

Module offered by
Faculty of Medicine

ECTS
5

Method of grading
numerical grade

Only after succ. compl. of module(s)
--

Duration
1 semester

Module level
undergraduate

Other prerequisites
--

Contents
Introduction to virology; the infectious cycle; virus structure and assembly; adsorption and entry; genomes and genetics; RNA-viruses: mRNA-synthesis and RNA-genome replication; retroviruses: reverse transcription and integration; DNA-viruses: transcription and genome replication. Foundations of cell biology. Introduction to the scientific method and scientific approach; principles of antiviral therapy and vaccination; introduction to clinical virology; HIV and AIDS. Safe work in a BSL-2 laboratory; cell culture; virus production, titre test; virus sequencing, phylogenetic analysis of viral quasispecies.

Intended learning outcomes
Fundamental knowledge of molecular virology, the structure and replication of viruses and virus-host interactions; principles of antiviral vaccines and chemotherapeutics; principal techniques in cell and molecular biology for virological research.

Courses
(V1) + (S1) + (P3)

Method of assessment
a) written examination (approx. 45 to 90 minutes) or b) log (10 to 20 pages) or c) oral examination of one candidate each (20 to 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 15 to 20 minutes per candidate) or e) presentation (20 to 30 minutes) or f) practical examination (on average approx. 2 hours; time to complete will vary according to subject area but will not exceed a maximum of 4 hours)

Assessment offered: Once a year, summer semester

Language of assessment: German and/or English

Allocation of places
Biochemie (Biochemistry), Bachelor's: 18 places. Selection process Biochemie (Biochemistry), Bachelor's (180 ECTS credits): Should the number of applications exceed the number of available places, places will be allocated according to the following quotas: Quota 1 (two thirds of places): current average grade of successfully completed modules; among applicants with the same average grade, places will be allocated by lot. Quota 2 (one third of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. A waiting list will be maintained and places re-allocated as they become available.

Additional information
--

Referred to in LPO I (examination regulations for teaching-degree programmes)
--

Module appears in
Bachelor’ degree (1 major) Biochemistry (2015)
Bachelor’ degree (1 major) Biochemistry (2017)