Molecular Virology

Programme course

6 credits

Molekylär virologi

TVMB26

Valid from: 2017 Spring semester

Determined by
Board of Studies for Chemistry, Biology and Biotechnology

Date determined
2017-01-25

Main field of study
Engineering Biology

Course level
Second cycle

Advancement level
A1X

Course offered for
- Protein Science, Master's Programme
- Chemical Biology
- Engineering Biology, M Sc in Engineering
- Protein Science, Master's programme

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites
Biochemistry, Cell Biology, Microbiology and Immunology, Gene Technology and Molecular Genetics

Intended learning outcomes
The student should acquire knowledge in virology and understand the importance of viruses in human medicine as well as the use of viruses in biotechnology and cell biology. The student should be able to critically analyse scientific papers and be able to solve problems within the subject of virology

Course content
Viral replication, structure and composition. Pathogens. Vaccines. Vectors in biotechnology. Molecular evolution. Bioinformatics. Phylogenetics. Immunology. Host genetics.

Teaching and working methods
Lectures given by active researchers are supplementing the course literature. A literature task and a laboratory activity (bioinformatics) are included in the course.

Examination

LAB1	Laboratory work	1.5 credits	U, G
UPG1	Seminar	1.5 credits	U, G
TEN2	Written examination	3 credits	U, 3, 4, 5

Grades

Four-grade scale, LiU, U, 3, 4, 5

Department

Institutionen för klinisk och experimentell medicin

Director of Studies or equivalent

Kajsa Holmgren Peterson

Examiner

Johan Nordgren

Course website and other links

http://www.hu.liu.se/ike/grundutbildning/kurser-for-tekniska-hogskolan/molekylar-virologi?l=en

Education components

Preliminary scheduled hours: 44 h
Recommended self-study hours: 116 h

Course literature

Additional literature

Books

Edward K. Wagner and Martinez J. Hewlett, *Basic Virology* 2nd Ed
S. J. Flint, L. W. Enquist, V. R. Racaniello, and A. M. Skalka, *Principles of Virology: Volume I and II* 3rd edition

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.