

Course: Molecular Biology 1

credits: 3

Course code BOVH20RMOLBIO1
Name Molecular Biology 1
Study year 2022-2023
ECTS credits 3
Language English
Coordinator J.A. Komduur

Modes of delivery Lecture
Tutorial

Assessments Molecular Biology 1 - Computer, organised by STAD examinations

Learning outcomes

The student can describe in detail:

- How CrispR-Cas functions in virus defence and how it can be used in mutagenesis
- How RNAi functions and how it is used in gene silencing techniques
- Some *E. coli* strains and plasmids, and how they are used in modern molecular biologic laboratories
- How organisms can genetically be modified
- Some second and third generation sequencing techniques
- How DNA is modified and multiplied and can suggest ways to improve the reaction
- How DNA can be quantified using qPCR
- How epigenetic regulation functions
- Some ways of how gene expression and the function of proteins can be determined.

Content

Molecular biology 1 will give the student an overview of modern methods and techniques that are used in molecular biological laboratories.

Literature: the teachers will supply URL's of articles that are necessary.

Included in programme(s)

Major Biology and Medical Research

School(s)

Institute for Life Science & Technology