

Exam Guidelines BIO-204

LISV II - Spring semester 2025

May 28th 08:00-10:00

The exam starts at 08:15.

Target completion time: 1h45

Seating assignment will be communicated on Moodle

OBJECTIVE

To prove that you understood the course material, know how to design an experiment, are able to interpret your result and are aware of the value of right control(s).

FORMAT

Written exam.

Format: Multiple Choice Questions (MCQ)

COURSE MATERIAL

- Overview of LISV II
- Basic theory
- Methods / experimental procedures and equipment
- Design of experiment
- Data interpretation

SPECIFIC TOPICS (Laboratory 6–11)

- DNA sequencing and analysis using Benchling / Blast
- Mammalian cell cultures, growth conditions, and transfection. Analysis of microscopy images using FIJI
- BCA protein assay & the concept of interpreting an assay / standard curve / saturation.
- SDS-polyacrylamide gel electrophoresis for protein separation + analysis
- Coomassie blue staining for protein gel analysis
- Western blotting - general principles, including antibody selection, detection
- Affinity purification of His-tagged proteins – general principle
- Amylase activity assay and Enzyme kinetics – general principle
- Experimental controls (positive and negative, where applicable)
- Literature citations (searches, format)
- Carbon footprint

IMPORTANT

- Please bring your ID. (EPFL rules: each student must have their student card or otherwise show a valid ID with photo.).
- When you arrive and leave, sign presence list and indicate time.
- Calculators, computers and laptops are forbidden.
- No scribbling pads or loose papers.
- Cell phones and other electronic equipment must be switched off.