

Microbial Omics

Course Workload		Assessment form (examination/ graded test/ ungraded test)
ECTS	Hours	
3	108	Exam

The course allows to acquire basic skills in the systems biological analysis of microbial communities and develop an understanding of the methods for studying these data.

Course structure:

1. Metagenomics

- 1.1. Metagenomic assembly
- 1.2. Shotgun metagenomics
- 1.3. Genome-resolved metagenomics
- 1.4. Amplicon metagenomics

2. Phylogenomics

- 2.1. Phylogenomics
- 2.2. Phylogenomics and pangenomics
- 2.3. Phylogenetics

3. Pangenomics

- 3.1. Pangenomics
- 3.2. Horizontal gene transfer
- 3.3. Metapangenomics

4. Bacterial population genetics

- 4.1. Bacterial populations
- 4.2. Single-cell genomics