Module: Analytical Methods for Infectious Diseases and One Health

Module coordinator: Helen Brown

Module outline

This module introduces the students to statistical and bioinformatics techniques that can be used for the analysis of modern real world data. The module will be taught by active researchers in the area, covering statistical methods, mathematical modelling, phylogenetics and epidemiology. Students will learn how to work with various types of data and make meaningful conclusions from analytical approaches. All topics will involve extensive hands-on experience and guided practice with biologically relevant datasets, and students will gain experience of using a variety of software packages.

Topics

Statistical methods for the biosciences
Mathematical modelling
Phylogenetics and phylodynamics
Epidemiology

Learning : 5 ECTS

Lectures: 25h
Practical exercises: 25h
Independent work: 50h

Assessment

30% Presentations
70% Written assignment