



#### M. Sc. Infectious Diseases and One Health

Module V of VII

# **Biosafety and Biosecurity**

Organization: Universitat Autònoma de Barcelona

**Teaching unit coordinator:** Dr. Joaquim Segalés

## Teaching staff:

Dr. Xavier Abad, Dr. Jürgen Mertsching

## **Teaching unit outline**

In this module, students will be introduced to the concept of biosafety and biosecurity and will know the hazard criteria and the categorisation of most important disease agents. The risk assessment and the management and handling of human people and animals under biocontainment will be discussed. The characteristic and specifications of different biosafety laboratory levels will be presented. Students will be trained to work in the highest levels of biosafety laboratories and animal housing facilities (BSL3 and BSL4).

#### Topics

Hazard Criteria and Categorisation of Microbes

BSL3 and BSL4 Lab Technical specifications

Risk assessment procedures and Biosecurity

Experimental procedures with animals under biocontainment

Practices: how to move in and out of BSL3 lab, handling of virus, cell cultures and spore forming bacteria in BSL3, handling positive pressure masks.

ECTS	Lectures	Practical work	Personal work
3	20 hours	20 hours	35 hours

## **Assessment method:**

- 50 % Lab performance
- 50% Risk assessment report