

Biosafety and biosecurity on-site support for medical laboratories

» Overview

Biosafety and biosecurity address the safe handling and containment of infectious microorganisms and hazardous biological materials in the laboratory setting. Whereas biosafety aims at protecting public health and the environment from accidental exposure to biological agents, biosecurity deals with the prevention of misuse through loss, theft, diversion, or intentional release of pathogens, toxins, and any other biological materials.

By applying biosafety and biosecurity practices to your laboratory, you protect yourself, your colleagues, the public, and the environment from potentially infectious agents and prevent biological hazards and accidents.

» Learning objectives

By the end of the course, participants will be able to:

- **Identify** relevant biosafety regulations and documentation
- **Apply** biosafety and biosecurity concepts in the laboratory setting
- **Organize** laboratory space according to its biosafety level
- **Select** appropriate equipment for the biosafety level of their laboratory
- **Manage** biosafety-related risks in their laboratory

» Course program

Module 1. Introduction to biosafety

1. Introduction to biosafety
2. Good laboratory practice and procedure
3. Laboratory premises
4. Safety level and agent classification

Module 2. Biosafety and biosecurity

5. International regulations and biosafety documentation + **workshop**
6. Pre-analytical
7. Signage + **workshop**
8. Waste management
9. PPE + **workshop**



 **Format**
Face-to-face training

 **Duration**
5 days

 **Target audience**
Biosafety managers and laboratory specialists

 **Participant number**
2 to 10

 **Prerequisites**
None

 **Languages**
English, French
Other languages upon request

 **Certification**
Completion certificate for learners having successfully completed all assignments

10. Hand washing
11. Disinfection and antiseptics
12. Laboratory cleaning
13. Biosafety cabinets practice and safe behavior + **workshop**
14. Emergencies + **workshop**

Module 3. Risk assessment and management

15. Risk management in a laboratory + **workshop**
16. Developing an action plan

» **Methodology**

The training relies on both theory interactive sessions, including photos, field examples, discussions, and quizzes, and practical workshops and simulations in a laboratory environment.

During the practical session, learners will conduct a biosafety and biosecurity laboratory risk assessment and develop an action plan for their laboratory.

» **Assessment**

Learners' performance is assessed based on the activities performed during the training. The final assignment includes the development of an action plan and taking a graded quiz.

A minimum of 70% grade is required to obtain a course completion certificate.

» **Organization**

The following needs should be considered to ensure smooth training delivery:

- Accommodations for assessors when travelling to districts: lodging, in country transportation
- Interpretation if required
- Access to lab rooms
- Classroom for workshops and interviews

