

Unit 53: Following Aseptic Procedures in the Laboratory Environment

Level:	2
Unit type:	Optional (Life Sciences)
Credit value:	9
Guided learning hours:	51

Unit summary

This unit aims to give learners the knowledge and understanding they need to be able to follow aseptic procedures in the laboratory environment.

Unit assessment requirements

There are no specific assessment requirements for this unit. Please refer to the assessment strategy in *Annexe B*.

Additional information

AC1.3:

- body suit
- face mask
- gloves
- respirator
- air supply
- other (please specify).

AC1.6:

- use appropriate clothing/personal protective equipment (PPE) (such as suits, gowns, coats, hoods, hats, caps, helmets, other headwear, boots, overshoes, other forms of footwear, safety goggles, visors, gloves)
- comply with hazard protection (such as breathing apparatus, gloves, apron/smock, other forms of PPE or clothing required)
- deal appropriately with damaged or dirty clothing/PPE (such as reporting damage, replacement, safe removal and cleaning or disposal, subjected to acid/hazardous substance spills, damaged/dirty labelling)
- store specified clothing/PPE correctly when not in use
- ensure the proper cleaning/laundrying/maintenance of clothing/PPE
- dispose of single-use clothing and equipment in the correct location

- report any hazards or breaches of protocol.

AC1.8

- health/disease screening
- biochemical processing
- biotechnology processing
- drug development
- agro-biotech research
- other (please specify).

AC1.13 examples of appropriate methods

- verbal
- written or typed report
- specific workplace documentation
- computer-based record
- electronic mail.

AC2.1 e.g., Good Laboratory Practice (GLP) and/or Good Clinical Practice (GCP)/Good Manufacturing Practice (GMP).

AC2.13 such as heat, radiation, chemicals, static electricity, high voltages, trapping points on equipment.

AC2.25 such as body lotions, make-up, jewellery, contact lenses, footwear, own clothing.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to follow aseptic procedures in the laboratory environment	1.1	Ensure that work is carried out in accordance with standard operating procedures			
		1.2	Dress in the appropriate personal protection equipment (PPE) required for the clean room or clean work area environment, in accordance with the correct procedure			
		1.3	Use three types of personal protective equipment for clean room working			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		1.4 Prior to entering clean room, carry out all of the following: <ul style="list-style-type: none"> • use the correct issue of job instructions and specifications • follow risk assessment procedures and COSHH regulations • ensure that they are appropriately dressed and uncontaminated before entering the area • carry out their activities in line with organisational procedures • store accurate records of their activities, in accordance with appropriate procedures 			
		1.5 Carry out visual quality checks on their personal protection equipment prior to entering the working environment			
		1.6 Satisfy all of the company clean room/clean work area requirements			
		1.7 Follow the correct procedures for entering and exiting the clean room or clean work area			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		1.8 Use personal protective equipment in a selected, clean room environment			
		1.9 Follow aseptic techniques in the laboratory			
		1.10 Identify and follow protocol methods and procedures that satisfy all of the following: <ul style="list-style-type: none"> • the safety of people • containment/integrity of the specimen/product • containment/integrity of the clean room/work area • appropriate industry standards and protocols 			
		1.11 Remove personal protection equipment on completion of clean room or clean work area activities, and dispose/store in line with the with the correct procedure			
		1.12 Communicate the required information about the work done, to authorised people, in accordance with departmental and organisational procedures			
		1.13 Record details of the work activity, and communicate the details to the appropriate people, using an appropriate method			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to follow aseptic procedures in the laboratory environment	2.1	Explain the health and safety requirements of the area in which they are carrying out the laboratory activities			
		2.2	Describe the implications of not taking account of legislation, regulations, standards and guidelines when conducting laboratory activities			
		2.3	Describe the principles of relevant operating procedures applied in the workplace			
		2.4	Explain the importance of wearing protective clothing, gloves and eye protection when handling materials (such as biochemical substances, biological pathogens and/or antigens), and the equipment used to contain and process them			
		2.5	Describe the manufactured materials and batch process tracking and records system			
		2.6	Describe the types of handling and sorting system, and the procedures used for materials undergoing processing in the laboratory facilities			
		2.7	Explain the importance of correct identification, and any unique organisational or laboratory numbers			
		2.8	Describe the organisational requirements for maintaining the security of the workplace			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		2.9 Describe the lines of communication and responsibilities in their department, and their links with the rest of the organisation			
		2.10 Describe the limits of own authority and to whom they should report if they have problems that they cannot resolve			
		2.11 Describe the specific safety precautions to be taken when working in a clean room or clean work area environment			
		2.12 Describe the correct fitting and use of clothing and personal protective equipment that must be worn in a clean room or clean work area (such as for body, hands, eyes, ears, feet, mouth and face)			
		2.13 Describe the hazards associated with working in a clean room or clean work area, with equipment			
		2.14 Explain how to put on clean room clothing and footwear correctly			
		2.15 Describe the procedures for entering and exiting the clean room or clean work area, and the authority needed to do so			
		2.16 Describe the classification of the relevant clean room or clean work area, and how this impacts upon them			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		2.17 Describe the industry standards/classifications for clean rooms and clean work areas			
		2.18 Describe the company requirements for clothing and personal protective equipment, and the reasons why such clothing and equipment must be used			
		2.19 Describe the procedures and methods for maintaining issued clothing and personal protective equipment			
		2.20 Explain how to apply procedures for dealing with damaged or dirty clothing and personal protective equipment			
		2.21 Explain how to store clothing and personal protective equipment correctly			
		2.22 Describe the laundering/cleaning/maintenance procedures relating to the issued clothing and personal protective equipment			
		2.23 Describe the aseptic techniques that are applied and used in the workplace			
		2.24 Explain how to dispose correctly of single-use personal protective equipment			
		2.25 Describe the policy and procedures relating to personal items			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)