# Assessment Mapping (for streamlined units from new Training Packages)

*This document is used to demonstrate content validity of the assessment tool*

Table 1 Main details

| Details | Unique description |
| --- | --- |
| **Unit Code, name and release number** | MSL973016 - Perform aseptic techniques (1) |
| **Skills Team** |  |
| **Region/Campus** |  |
| **SkillsPoint (owned by)** | Innovative Manufacturing Robotics and Science |

*NOTES:*

* *Event columns can be added or deleted as required*
* *Rows for elements and performance criteria, etc. can be added or deleted as required*
* *Each component of the unit must be mapped to at least* ***one assessment criteria*** *or* ***question*** *in one or more assessment events*
* *Do NOT delete the section labelled Foundation Skills. If the Foundation skills ARE EXPLICIT in the performance criteria, they do not need to be listed. However, if the Foundation skills ARE NOT incorporated in the performance criteria they must be listed and mapped.*
* *Dimensions of Competency must be considered when selecting assessment types to ensure that the range of tasks you have chosen cover the following:*
  + *Task Skills*
  + *Task Management Skills*
  + *Contingency Planning Skills*
  + *Job Role Environment Skills*

## Unit component mapping to assessment event/s

Table 2 Unit component mapping to assessment event/s

| Element number | Element name | Performance criteria number | Performance criteria description | Learning resources | Knowledge assessment 1  1 of 3 | Knowledge assessment 2  2 of 3 | Practical  3 of 3 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Prepare for aseptic sampling or transfer | 1.1 | Check the sampling procedure conforms with the required sampling plan |  |  |  | Observation item 3 |
|  |  | 1.2 | Use specified personal protective equipment (PPE) |  |  |  | Observation item 1 |
|  |  | 1.3 | Prepare the work area for safe and effective sample transfer |  |  |  | Observation item 6 |
|  |  | 1.4 | Select equipment and materials specified by the procedure |  |  |  | Observation item 7 |
|  |  | 1.5 | Organise equipment to minimise contamination during manipulations |  |  |  | Observation item 8 |
|  |  | 1.6 | Label containers for clear identification |  |  |  | Observation item 4 |
|  |  | 1.7 | Record details in relevant log or database |  |  |  | Observation item 2 |
|  |  | 1.8 | Macroscopically assess media and/or reagents to confirm sterility before use |  |  |  | Observation item 9 |
| 2 | Transfer materials aseptically | 2.1 | Protect the integrity of the sample source |  |  |  | Observation item 10 |
|  |  | 2.2 | Sterilise inoculating loops and/or pipette where used to prevent contamination |  |  |  | Observation item 12 |
|  |  | 2.3 | Perform transfer while minimising opportunities for contamination and cross-infection |  |  |  | Observation item 10 |
|  |  | 2.4 | Protect the integrity of the sample source and destination after transfer, and before sealing the transport or culture vessel |  | P1: Q1 |  | Observation item 11 |
|  |  | 2.5 | Re-sterilise inoculating loops, minimising the generation of aerosols as required |  |  |  | Observation item 13 |
|  |  | 2.6 | Perform quality control checks to confirm aseptic transfer was successful |  | P2: Q1 |  | Observation item 18 |
|  |  | 2.7 | Label transport or culture vessels for clear identification |  |  |  | Observation item 4 |
| 3 | Maintain work area and equipment to prevent cross-infection and contamination | 3.1 | Place disposable and reusable items into relevant receptacles |  |  |  | Observation item 14 |
|  |  | 3.2 | Clean and disinfect work area and equipment after use |  |  |  | Observation item 15 |
|  |  | 3.3 | Transport disposable and reusable contaminated materials to relevant areas for disinfection, sterilisation and cleaning or disposal |  | P1: Q4 |  | Observation item 14 |
|  |  | 3.4 | Follow personal hygiene procedures |  |  |  | Observation item 5 and 16 |

## Foundation skills NOT explicit in the performance criteria

Table 3 Foundation skills NOT explicit in the performance criteria

| Foundation skills | Description | Learning resources | Knowledge assessment 1  1 of 3 | Knowledge assessment 2  2 of 3 | Practical  3 of 3 |
| --- | --- | --- | --- | --- | --- |
| Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. | | | | | |

## Performance evidence

Table 4 Performance evidence

| Performance evidence | Description | Learning resources | Knowledge assessment 1  1 of 3 | Knowledge assessment 2  2 of 3 | Practical  3 of 3 |
| --- | --- | --- | --- | --- | --- |
|  | There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and: |  |  |  |  |
| PE1 | Safely and effectively performed aseptic techniques when performing at least 3 different types of sample transfers from the following list: |  |  |  | Part A tasks 1, 2 and 3 and Part B |
| PE1.1 | * body fluids (or simulated body fluids) |  |  |  | Observation item 17 for task 2 |
| PE1.2 | * sterile liquid culture media |  |  |  |  |
| PE1.3 | * water |  |  |  |  |
| PE1.4 | * soil |  |  |  |  |
| PE1.5 | * sterile pharmaceuticals |  |  |  |  |
| PE1.6 | * yeasts and moulds |  |  |  | Observation item 17 for task 3 |
| PE1.7 | * milk and yoghurt |  |  |  |  |
| PE1.8 | * swabs and smears |  |  |  |  |
| PE1.9 | * propagation tissue |  |  |  |  |
| PE1.10 | * plant material |  |  |  |  |
| PE1.11 | * fermented foods |  |  |  |  |
| PE1.12 | * fermented beverages |  |  |  |  |
| PE1.13 | * bacterial cultures. |  |  |  | Observation item 17 for task 1 |

## Knowledge evidence

Table 5 Knowledge evidence

| Knowledge evidence | Description | Learning resources | Knowledge assessment 1  1 of 3 | Knowledge assessment 2  2 of 3 | Practical  3 of 3 |
| --- | --- | --- | --- | --- | --- |
|  | There must be evidence the candidate has knowledge of: |  |  |  |  |
| KE1 | Growth requirements of microorganisms including bacteria and fungi in terms of their laboratory culture |  | P2: Q6, Q7, Q8  P3: Q7, Q8  P4: Q1 |  |  |
| KE2 | Relationship between sterile practices, hygiene procedures and the ability to obtain growth free of contamination |  | P1: Q1, Q6  P2: Q1  P3: Q1, Q2, Q3, Q4 |  |  |
| KE3 | Relationship between sterile practices and accurate test results |  | P2: Q1  P3: Q1, Q4 |  |  |
| KE4 | Importance of pure culture techniques and aseptic transfer to the successful microbiological investigation and correct interpretation of laboratory results |  | P1: Q2, Q5, Q7  P2: Q2, Q3 |  |  |
| KE5 | Cleaning and sanitising requirements of equipment and work area, and effects of physical and chemical agents on microbial growth and death |  | P1: Q3, Q8  P2: Q4, Q5  P3: Q4, Q5 |  |  |
| KE6 | Sterilisation techniques: |  | P3: Q5 | P1: Q1  P3: Q2 |  |
| KE6.1 | * flaming |  |  | P2: Q2, Q3  P3: Q1 |  |
| KE6.2 | * high temperature, boiling and autoclaving |  |  | P1: Q2  P2: Q1 |  |
| KE6.3 | * membrane filtration |  |  | P1: Q3, Q4 |  |
| KE6.4 | * radiation, gas and/or chemical treatments |  |  | P1: Q5  P4: Q1 |  |
| KE7 | Disinfection and sterilisation procedures used in the collection, processing and safe disposal of samples and materials |  | P1: Q4  P3: Q6  P4: Q3 |  |  |
| KE8 | Principles of infection control related to work health and safety (WHS), and sampling and transfer of materials in microbiological investigations including how to minimise the generation of aerosols when flaming |  | P1: Q9  P4: Q4 |  |  |
| KE9 | Relevant hazards and how to deal with the risks presented: |  | P4: Q2 |  |  |
| KE9.1 | * injuries from sharps, burners, molten agar |  | P4: Q2 |  |  |
| KE9.2 | * ultraviolet (UV) light sources |  | P4: Q2 |  |  |
| KE9.3 | * exposure to hazardous substances and/or infectious agents |  | P4: Q2 |  |  |
| KE10 | Awareness of environmental sustainability issues as they relate to the work task |  |  | P2: Q5  P3: Q4 |  |
| KE11 | Legal, ethical and WHS requirements specific to the work task. |  |  | P1: Q6  P2: Q4  P3: Q3  P4: Q2 |  |

## Assessment conditions

Table 6 Assessment conditions

| Assessment conditions | Description |
| --- | --- |
|  | Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:   * use of suitable facilities, equipment and resources, including:   + a standard laboratory   + test samples   + appropriate equipment, including:     - transfer equipment, such as inoculating loops, pipettes (quantitative and qualitative), flasks, tubes and spatulas     - Sterilisation equipment such as bunsen burners, bench incinerators, autoclave and/or pressure cooker     - Storage equipment such as incubators, water baths, refrigerators, freezers, anaerobic jars as required     - laminar flow units or biohazard cabinets as required     - swabs   + appropriate materials, including:     - solid and/or liquid media     - disinfecting and sterilising agents     - consumables     - receptacles for safe disposal of wastes and for processing of reusable materials     - bar coding material and labels * workplace schedules, procedures and standard methods, SDS and documented safe work practices.   Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors. |