# Practical

**Assessment event 3 of 3**

## Criteria

### Unit code, name and release number

MSL973016 - Perform aseptic techniques (1)

### Qualification/Course code, name and release number

MSL50118 - Diploma of Laboratory Technology (1)

MSL40118 - Certificate IV in Laboratory Techniques (1)

MSL30118 - Certificate III in Laboratory Skills (1)

\*\*Amend the qualification box before distributing to the student. The information here should only contain the qualification the student is enrolled in\*\*

## Student details

### Student number

### Student name

## Assessment Declaration

* This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.
* No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.
* I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is my own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date

Version: *1.0*

Date created: *22/07/2019*

Date modified: *12/11/2019*

For queries, please contact:

*Innovative Manufacturing, Robotics and Science SkillsPoint*

*Hamilton Campus*

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This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your skills as would be required to competently conduct aseptic techniques in a microbiology laboratory. |
| **Assessment Event number** | 3 of 3 |
| **Instructions for this assessment** | This is a skill based assessment and will be assessing you on your ability to demonstrate skills required in the unit.  This assessment is in 4 parts:   1. Aseptic transfer 2. Assess samples 3. Observation checklist 4. Assessment feedback |
| **Submission instructions** | On completion of this assessment, you are required to upload it or hand it to your assessor for marking.  Ensure you have written your name at the bottom of each page of this assessment.  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To successfully complete this assessment the student will be available at the arranged time to complete all the assessment criteria as outlined in the assessment instructions.  All parts of the observable task must be performed to a satisfactory level as indicated in the criteria section of the Observation Checklist.  All oral questions must be answered correctly to be deemed satisfactory in this assessment task; however, Assessors may ask questions to clarify understanding. |
| **What do I need to provide?** | A pen, suitable clothing for a laboratory – long pants and sleeves, closed in shoes and long hair tied back. |
| **Due date/time allowed/venue** | 3 hour laboratory session – Part 1  *24 hours later, to allow for incubation of samples and control plates:*  1 hour laboratory session – Part 2 |
| **Assessment feedback, review or appeals** | Appeals are addressed in accordance with Every Student’s Guide to Assessment. |

## Specific task instructions

The instructions and the criteria in the tasks and activities below will be used by the assessor to determine whether the tasks and activities have been satisfactorily completed. Use these instructions and criteria to ensure you demonstrate the required skills and knowledge.

If this assessment requires you to record information, your assessor will provide you with an appropriate document/template.

This assessment task will be conducted over 2 days:

Day 1: Part 1

Day 2: Part 2 (after 24 hours of incubation)

## Part 1: Aseptic transfer

To complete this part of the assessment, you will be required to participate in a practical demonstration of how to complete a task or activity.

These practicals will be observed by your assessor, or can be digitally recorded and submitted as evidence.

Your responses will be used as part of the overall evidence requirements of the unit.

You should refer to the list of criteria in the Observation Checklist to understand what you need to demonstrate in this section of the assessment. This Checklist outlines the assessment criteria used to assess your performance.

Once completed you will need to submit this assessment and the tasks and activities you are required to complete to your assessor for marking.

**Task 1: Aseptic transfer of bacteria**

To complete this task, you will be required to transfer a bacteria sample aseptically from a broth to a plate. Your assessor will observe your technique during the transfer and will also assess the quality of the bacterial growth after incubation.

***To complete this task, you will be provided:***

* Standard operating procedure *M402: Aseptic transfer*
* A bacterial sample (*Staphylococcus aureus*) in broth media and a pathology request form
* Appropriate tools and materials to conduct the aseptic transfer

1. Log your sample in the table below:

Table 2 Sample log

| Sample ID | Sample description | Date received | Time received  (use 24 hour time) |
| --- | --- | --- | --- |
|  |  |  |  |

1. Write the name of the standard operating procedure you will be using to complete this assessment event in the box below:
2. Check the pathology request form. Is this the correct sampling procedure for the task? Write yes or no in the box below.
3. Follow the instructions for a broth to plate transfer in *M402: Aseptic transfer* supplied to complete the aseptic transfer. Hint: ensure you label your plate according to the Figure 2 in the procedure.
4. Record the results of your sterility pre-check (section 8.3 of *M402: Aseptic transfer*) here. Is the media you will use sterile based on a visual inspection?

**Task 2: Aseptic transfer of body fluid**

To complete this task, you will be required to transfer a urine specimen from a specimen jar to a broth aseptically. Your assessor will observe your technique during the transfer and will also assess the quality of the bacterial growth after incubation.

***To complete this task, you will be provided:***

* Standard operating procedure *M402: Aseptic transfer*
* A urine sample (containing *Escherichia coli*) and a pathology request form
* Appropriate tools and materials to conduct the aseptic transfer

1. Log your sample into the table below:

Table 3 Sample log

| Sample ID | Sample description | Date received | Time received  (use 24 hour time) |
| --- | --- | --- | --- |
|  |  |  |  |

1. Write the name of the standard operating procedure you will be using to complete this assessment event in the box below:
2. Check the pathology request form. Is this the correct sampling procedure for the task? Write yes or no in the box below.
3. Follow the instructions for a body fluid to broth transfer in *M402: Aseptic transfer* supplied to complete the aseptic transfer. Hint: ensure you label your broth tube according to the Figure 2 in the procedure.
4. Record the results of your sterility pre-check (section 8.3 of *M402: Aseptic transfer*) here. Is the media you will use sterile based on a visual inspection?

**Task 3: Aseptic transfer of yeast**

To complete this task, you will be required to aseptically transfer a yeast sample from one agar plate to another. Your assessor will observe your technique during the transfer and will also assess the quality of the yeast growth after incubation.

***To complete this task, you will be provided:***

* Standard operating procedure *M402: Aseptic transfer*
* A yeast sample (*Saccharomyces cerevisiae*) and a pathology request form
* Appropriate tools and materials to conduct the aseptic transfer

1. Log your sample and control into the table below:

Table 4 Sample log

| Sample ID | Sample description | Date received | Time received |
| --- | --- | --- | --- |
|  |  |  |  |

1. Write the name of the standard operating procedure you will be using to complete this assessment event in the box below:
2. Check the pathology request form. Is this the correct sampling procedure for the task? Write yes or no in the box below.
3. Follow the instructions for a plate to plate transfer in *M402: Aseptic transfer* supplied to complete the aseptic transfer. Hint: ensure you label your plate according to the Figure 2 in the procedure.
4. Record the results of your sterility pre-check (section 8.3 of *M402: Aseptic transfer*) here. Is the media you will use sterile based on a visual inspection?

## Part 2: Assess samples

To complete this part of the assessment, you will be required to participate in a practical demonstration of how to complete a task or activity.

These practicals will be observed by your assessor, or can be digitally recorded and submitted as evidence.

Your responses will be used as part of the overall evidence requirements of the unit.

You should refer to the list of criteria in the Observation Checklist to understand what you need to demonstrate in this section of the assessment. This Checklist outlines the assessment criteria used to assess your performance.

Once completed you will need to submit this assessment and the tasks and activities you are required to complete to your assessor for marking.

The final part of this assessment is to complete a quality control check on your samples and control (blank) plates and broth samples completed in parts 1, 2 and 3 of this assessment.

**Task 1: Quality control check**

For this task, you will be required to assess your plates for quality control purposes. Examine each set of plates and complete the second column of the Quality Control Log.

***To complete this task, you will be provided:***

* The samples and control plates and broth you inoculated in Part 1 of this assessment task.

1. Examine your plates and broth for growth
2. Complete the Quality Control Log
3. When you have finished examining your plates and broth and completed the Quality Control Log, have your assessor check your results

**Quality Control Log**

Table 5 QA log

| Sample | Description of growth on plate |
| --- | --- |
| *Staphylococcus aureus* |  |
| *Escheria coli* in urine |  |
| *Saccharomyces cerevisiae* |  |

## Part 3: Observation Checklist

The Observation Checklist will be used by your assessor to mark your performance in any of the previous three event types. Use this Checklist to understand what skills you need to demonstrate in the Assessment Tasks. The Checklist lists the assessment criteria used to determine whether you have successfully completed this assessment event. All the criteria must be met. Your demonstration will be used as part of the overall evidence requirements of the unit. The assessor may ask questions while the demonstration is taking place or if appropriate directly after the task/activity has been completed.

Table 6 Observation Checklist

|  |  | Task 1 | | Task 2 | | Task 3 | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Item # | Observation | S | U/S | S | U/S | S | U/S | Assessor Comments  (Describe the student’s ability in demonstrating the required skills and knowledge) |
|  | Student used the correct personal protective equipment (PPE)  PC1.2 |  |  |  |  |  |  |  |
|  | Student logged the samples correctly  PC1.7 |  |  |  |  |  |  |  |
|  | Student checked the sampling procedure matched the sampling plan/request form and completed questions at steps 2 and 3  PC1.1 |  |  |  |  |  |  |  |
|  | Student labelled containers in accordance with Figure 2 of *M402 Aseptic transfer*  PC 1.6,2.7 |  |  |  |  |  |  |  |
|  | Student cleaned/washed hands in preparation for aseptic transfer  PC3.4 |  |  |  |  |  |  |  |
|  | Student cleaned the work area in preparation for aseptic transfer  PC1.3 |  |  |  |  |  |  |  |
|  | Student collected the equipment specified in *M402 Aseptic transfer*  PC1.4 |  |  |  |  |  |  |  |
|  | Student organised equipment correctly on the bench in preparation for aseptic transfer  PC1.5 |  |  |  |  |  |  |  |
|  | Student correctly macroscopically assessed the media to confirm sterility  PC1.8 |  |  |  |  |  |  |  |
|  | Student protected the integrity of the sample source throughout transfer and minimised opportunities for cross contamination |  |  |  |  |  |  |  |
|  | Student protected the integrity of the destination media throughout transfer  PC 2.4 |  |  |  |  |  |  |  |
|  | Student used sterile inoculating loop/pipette during transfer  PC2.2 |  |  |  |  |  |  |  |
|  | When re-sterilising the inoculating loop the student minimised generation of aerosols  PC2.5 |  |  | NA | NA |  |  |  |
|  | Student transported and placed contaminated, disposable and reusable items into the correct receptacles/areas for disinfection, sterilisation, cleaning or disposal  PC 3.1, 3.3 |  |  |  |  |  |  |  |
|  | Student cleaned and disinfected the work area and equipment after use  PC3.2 |  |  |  |  |  |  |  |
|  | Student cleaned/washed hands at the conclusion of each aseptic transfer  PC3.4 |  |  |  |  |  |  |  |
| **The following observation can only be conducted after the transfer media have been incubated for 24 hours** | | | | | | | | |
|  | The student successfully completed the aseptic transfer as evidenced by the growth on the media for each task  PEs |  |  |  |  |  |  |  |
|  | The student completed Table 5 for each task and the student’s assessment of the resulting growth matches your assessment  PC2.6 |  |  |  |  |  |  |  |

## Part 4: Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the feedback.*

### Assessment outcome

Satisfactory

Unsatisfactory

### Assessor Feedback

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***