# Skills assessment 3

**Assessment event 4 of 5**

## Criteria

### Unit code, name and release number

MSL973019 - Perform microscopic examination (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: 03/10/2019

Date modified: 11/11/2019

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 operate a light microscope within a microbiology laboratory. |
| **Assessment Event number** | 4 of 5 |
| **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 5 parts:   1. Gram stain 2. Cheek cell slide 3. Onion cell slide 4. Observation Checklist 5. 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?** | Pens, appropriate clothing – long pants and sleeves, closed shoes and long hair tied back.  Personal protective equipment (PPE) – safety glasses and lab coat |
| **Due date/time allowed/venue** | TBA / 3 hours / microbiology laboratory |
| **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.

Your task today is to complete:

* A gram stain
* A cheek cell slide
* An onion cell slide
* An observation of the microscopic features of the organisms/cells on your slides
* Kohler illumination using two different magnifications for each slide

## Part 1: Gram stain

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 A: Gram stain slides and view under Köhler illumination**

Your task is to successfully make three gram stain slides and view them under Köhler illumination.

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

* Standard operating procedure *M405: Specimen preparation and mounting*
* Standard operating procedure *M403: Compound light microscopy*
* Form *F406: Organelle and organism ID worksheet*
* The materials, reagents and equipment required to complete this task

**Step 1: Read and review**

* 1. Read sections 7.4 and 7.5 of *M405: Specimen preparation and mounting*
  2. Read sections 7.4 and 7.6 of *M403: Compound light microscopy*
  3. Read all of *F406: Organelle and organism ID worksheet*
  4. Put on the correct PPE

**Step 2: Complete task**

YOU MUST MAKE TRIPLICATE SLIDES

* 1. Follow *M405: Specimen preparation and mounting*, section 7.4 and heat fix the smear on each slide
  2. Now complete section 7.5 of *M405: Specimen preparation and mounting*, and gram stain each slide
  3. Your slide is now ready for viewing
  4. Swap to *M403: Compound light microscopy* and follow section 7.4 to achieve Köhler illumination at 10x – choose your best slide out of the three

**STOP!** Your assessor needs to observe your Köhler illumination before you proceed further.

* 1. Use *F406: Organelle and organism ID worksheet* to identify the characteristics of the organism.
  2. Follow *M403: Compound light microscopy* section 7.6 to achieve Köhler illumination at 100x

**STOP!** Your assessor needs to observe your Köhler illumination before you proceed further.

## Part 2: Cheek cell slide

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 A: View cell slides under Köhler illumination**

Your task is to successfully make three cheek cell slides and view them under Köhler illumination.

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

* Standard operating procedure *M405: Specimen preparation and mounting*
* Standard operating procedure *M403: Compound light microscopy*
* Form *F406: Organelle and organism ID worksheet*
* The materials, reagents and equipment required to complete this task

**Step 1: Review**

* 1. Read section 7.6 of *M405: Specimen preparation and mounting*
  2. Read sections 7.4 and 7.5 of *M403: Compound light microscopy*

**Step 2: Complete task**

YOU MUST MAKE TRIPLICATE SLIDES

* 1. Follow all steps in section 7.6 of *M405: Specimen preparation and mounting*
  2. Open *M403: Compound light microscopy* and follow section 7.4 achieve Köhler illumination at 10x – choose your best slide out of the three

**STOP!** Your assessor needs to observe your Köhler illumination before you proceed further.

* 1. Follow *M403: Compound light microscopy* section 7.5 to achieve Köhler illumination at 40x

**STOP!** Your assessor needs to observe your Köhler illumination before you proceed further.

* 1. Use *F406: Organelle and organism ID worksheet* to identify the characteristics of the cell.

## Part 3: Onion cell slide

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 A: View onion slide cells under Köhler illumination**

Your task is to successfully make three onion cell slides and view them under Köhler illumination.

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

* Standard operating procedure *M405: Specimen preparation and mounting*
* Standard operating procedure *M403: Compound light microscopy*
* Form *F406: Organelle and organism ID worksheet*
* The materials, reagents and equipment required to complete this task

**Step 1: Review**

* 1. Read section 7.7 of *M405: Specimen preparation and mounting*
  2. Read sections 7.4, 7.5 and 7.6 of *M403: Compound light microscopy*

**Step 2: Complete task**

YOU MUST MAKE TRIPLICATE SLIDES

* 1. Follow all steps in section 7.7 of *M405: Specimen preparation and mounting*
  2. Open *M403: Compound light microscopy* and follow sections 7.4 and 7.5 achieve Köhler illumination at 40x – choose your best slide out of the three

**STOP!** Your assessor needs to observe your Köhler illumination before you proceed further.

* 1. Follow *M403: Compound light microscopy* section 7.6 to achieve Köhler illumination at 100x

**STOP!** Your assessor needs to observe your Köhler illumination before you proceed further.

* 1. Use *F406: Organelle and organism ID worksheet* to identify the characteristics of the cell.
  2. Follow section 7.8 of *M405: Specimen preparation and mounting* to decontaminate your workstation

## Place all rubbish into correct bins and biohazard bags, and recyclables into steriliser bucketsPart 4: 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 practical. 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 2 Observation Checklist

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item # | Observation | S | U/S | Assessor Comments  (Describe the student’s ability in demonstrating the required skills and knowledge) |
| 1 | Student is wearing the correct PPE |  |  |  |
| 2 | A heat fixed smear and gram stain has been completed on triplicate slides |  |  |  |
| 3 | Wet mount – cheek cell |  |  |  |
| 4 | Wet mount – onion cell |  |  |  |
| 5 | **Köhler illumination**  The following must be observed by the assessor:  Gram stain – 10x and 100x  Cheek cell – 10x and 40x  Onion cell – 40x and 100x |  |  |  |
| 6 | **Organelle and organism ID worksheet:**  Gram stain  Cheek cell  Onion cell |  |  |  |
| 7 | **Housekeeping** |  |  |  |

## Part 5: 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.***