# Project Assessment

**Assessment event 1 of 3**

## Criteria

### Unit code, name and release number

MSL974019 - Perform chemical tests and procedures (1)

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

MSL40118 - Certificate IV in Laboratory Techniques (1)

MSL50118 - Diploma of Laboratory Technology (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: 07/06/2019

Date modified: 19/11/2019

For queries, please contact:

Innovative Manufacturing, Robotics and Science SkillsPoint

Hamilton Campus

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RTO Provider Number 90003 | CRICOS Provider Code: 00591E

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 knowledge and performance as would be required to interpret test requirements, prepare samples, conduct pre-use and calibration checks on equipment and perform routine chemical tests. |
| **Assessment Event number** | 2 of 3 |
| **Instructions for this assessment** | This is a research/assignment based assessment and will be assessing you on your knowledge and performance of the unit.  This assessment is in four parts, including the assessment checklist:   1. Research report 2. Assignment 3. Assessment checklist 4. Assessment feedback   In the Skills Assessment for this unit you will perform three tests. In Part 1 of **this assessment** you will be researching those same three tasks.  Part 2 is an assignment based on tests and procedures within a laboratory. You are required to answer all questions in the spaces provided  Part 3 is an Assessment checklist the Assessor will use to make his judgement. You should use this checklist to identify the evidence required.  Part 4 is the Assessment feedback and should be completed by you and the Assessor after the completion (submission) of the task. |
| **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 achieve a satisfactory result for this assessment all questions must be answered correctly and the required documentation provided to your assessor by the due date. |
| **What do I need to provide?** | The completed Project task by the due date. |
| **What the assessor will provide?** | The Assessment task including the three tests to be researched and all methods and procedures required for the test. |
| **Due date and time allowed** | The entire project is due for submission three weeks prior to Skills Assessment |
| **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 if you have satisfactorily completed this assessment event. Use these instructions as a guide to ensure you demonstrate the required knowledge.

In this task you will research the three tests that you will later perform in the Skills Assessment for this unit. Your Assessor will advise you of the three tests. You should only be assessed on tests that you have also been trained in. Use the table below to indicate whether or not you have received training in the tests that you will be assessed in. If you have not been trained notify your assessor/trainer.

The task is research that specifically relates to three tests that you complete in the laboratory. Your Assessor will advise you of the tests researched will also be the tests observed in the Skills assessment.

The assessor will allocate the three tests to you. You should record these tests in the table below. Your research is to be based on these three tests.

|  |
| --- |
| Allocated test |
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## Part 1: Research Reports

To complete this part of the assessment, you will be required to research three allocated tests providing responses to the individual sections within the report templates below.

**Brief:**

The unit of competency requires you to safely perform at least three different tests and you will be observed completing these tests within the Skills Assessments.

This research will prepare you for your Skills Assessment.

Complete a Report Template for each of the tests. Where a particular item is not applicable to your test you should indicate “Not Applicable” in your report.

You will need to access the standard operating procedures for equipment/instruments used, the method for the chemical test, relevant SDS and risk assessments. These will be available in your laboratory.

**Report Template**

Your test report should include the following for each test:

1. The test investigated
2. The purpose of the test
3. The principles and concepts related to the identified test
4. Sample preparation required for the test, if applicable
5. Documentation required for pre-analysis and final results (this could be as a form placed with the Appendix)
6. Standard preparation (if required) and calibration or equipment/instrument
7. The basic operational components of any testing equipment/instruments needed
8. Hazard identification and controls required for the test.
9. Common causes of analytical errors and how these can be minimised for the test
10. Laboratory requirements for the cleaning up of spills for the test.
11. An Appendix that includes the actual Method for the 3 tests and also a risk assessment you have prepared for each of the tests (Note: these do not form part of your word count)

Your submission for each test should be no more than 1500 words and cover the points 1-11 noted above.

| Test 1 |
| --- |
| 1. The test investigated: |
| 1. The purpose of the test: |
| 1. Principles and concepts related to the test |
| 1. Sample preparation required for the test |
| 1. Documentation required (note if added to Appendix) for pre-analysis and final results. |
| 1. Standard preparation and instrument/equipment calibration (if required). |
| 1. Basic operational components |
| 1. Hazard identification and controls for the test: |
| 1. Causes of analytical errors and minimisation of errors |
| 1. Requirements for spill clean-up |
| 1. Appendix (what documents are included in the submission), |

| Test 2 |
| --- |
| 1. The test investigated: |
| 1. The purpose of the test: |
| 1. Principles and concepts related to the test |
| 1. Sample preparation required for the test |
| 1. Documentation required (note if added to Appendix) for pre-analysis and final results. |
| 1. Standard preparation and instrument/equipment calibration (if required). |
| 1. Basic operational components |
| 1. Hazard identification and controls for the test: |
| 1. Causes of analytical errors and minimisation of errors |
| 1. Requirements for spill clean-up |
| 1. Appendix (what documents are included in the submission), |

| Test 3 |
| --- |
| 1. The test investigated: |
| 1. The purpose of the test: |
| 1. Principles and concepts related to the test |
| 1. Sample preparation required for the test |
| 1. Documentation required (note if added to Appendix) for pre-analysis and final results. |
| 1. Standard preparation and instrument/equipment calibration (if required). |
| 1. Basic operational components |
| 1. Hazard identification and controls for the test: |
| 1. Causes of analytical errors and minimisation of errors |
| 1. Requirements for spill clean-up |
| 1. Appendix (what documents are included in the submission), |

## Part 2: Assignment

To complete this part of the assessment, you will be required to provide answers to the questions as they relate to your Laboratory.

**All your responses to the following should relate to your laboratory, actual or simulated and routine tasks you complete.** Your responses should be a maximum of 250 words for each question or part of a question).

1. What is the procedure for determining what testing is required and the actual test method to be followed?
2. Choose one test method you are familiar with and identify the hazards associated with each of the following:
3. test chosen:
4. the actual sample:
5. sample preparation:
6. test method:
7. reagents:
8. equipment:
9. How are the risks for the hazards identified above controlled?
10. How are daily tasks scheduled in your laboratory?
11. How would a change of testing schedule be managed in the laboratory?
12. How are samples logged for analysis in your laboratory?

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| --- |
|  |

1. What information is required to be logged?

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|  |

1. What would you do if the sample provided does not meet the expected specification?

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1. For one test you conduct in the laboratory indicate the:

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| --- |
| 1. test 2. Sample preparation required 3. Standards required (if any) 4. Reagents required (if any) 5. Procedures to ensure sample integrity and traceability is maintained. |

1. Where do you find the operating instructions for any instruments required for testing?

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|  |

1. What checks would be made on reagents to confirm they are appropriate for use?

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| --- |
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1. What safety pre-checks are required before commencing laboratory tasks?

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1. What are the laboratory procedures to be followed if the equipment is found to be faulty?

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1. Why is it important to ensure test instruments/equipment are operated according to specified procedures?

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|  |

1. What is the purpose of each of the following in relation to testing in your laboratory?

|  |
| --- |
| 1. training on the method and the instrumentation involved   \   1. running standards or quality control samples 2. recording data immediately 3. completing workplace logs accurately 4. hazard identification and control. |

1. For the tests you complete how do you identify atypical test data or that the value is consistent with expectations?

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|  |

1. What are the laboratory procedures when atypical or abnormal data is found?

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|  |

1. List some of the reasons that could result in atypical data or results

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| --- |
|  |

1. Which of the following is the typical way of presenting data in your laboratory:

* Numbers only
* Bar or pie charts
* Tables
* Calibration graphs
* Run charts
* Control charts
* Other?

|  |
| --- |
|  |

1. Why are the trends that data show, an important diagnostic tool in the laboratory

|  |
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|  |

1. What is the typical PPE required in your laboratory? Are there particular tests that require additional PPE?

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1. Who is responsible for the maintenance of PPE in your laboratory?

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|  |

1. Why is it important that wastes are minimised during any laboratory procedure?

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1. Are hazardous wastes generated in your laboratory? How are they controlled? What are the requirements for collection and disposal of hazardous wastes?

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1. What are the environmental impacts of the analysis you do in the laboratory?

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| --- |
|  |

1. For your routine laboratory work indicate how equipment/instruments and reagents are cared for and stored, noting the following:
2. Cleaning and maintenance required
3. Storage conditions
4. Use by date of reagents (if applicable)
5. Reporting of unsafe equipment, hazards and incidents

|  |
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1. How is information managed in your laboratory?

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|  |

1. Why is confidentiality of results important for a laboratory?

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1. Why does the laboratory need to ensure all sample information is traceable?

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## Part 3: Assessment Checklist

The following checklist will be used by your assessor to mark your performance against the assessment criteria of your submitted research, Part 1. Use this checklist to understand what skills and/or knowledge you need to demonstrate in your submission. All the criteria described in the Assessment Checklist must be met.

| PART |  |  |  |  |  |  |  | Assessor Comments |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Test | 1. | | 2. | | 3. | | *Date of Submission:* |
|  |  | S | US | S | US | S | US |  |
| 1 | Part A research report: |  |  |  |  |  |  | *Assessors are to record their observations in sufficient detail to demonstrate their judgement of the students performance against the criteria* |
| 1.1 | identifies the three tests in the table provided in the Specific Task Instructions |  |  |  |  |  |  |  |
| 1.2 | discusses sample preparation required for the test |  |  |  |  |  |  |  |
| 1.3 | indicates documentation required for pre-analysis and final results (this could be as a form placed with the Appendix) |  |  |  |  |  |  |  |
| 1.4 | highlights standard preparation (if required) and calibration of equipment/instrument |  |  |  |  |  |  |  |
| 1.5 | discusses the basic operational components of any testing equipment/instruments needed |  |  |  |  |  |  |  |
| 1.6 | Identifies hazard identification for the chemical test |  |  |  |  |  |  |  |
| 1.7 | identifies common causes of analytical errors and how these can be identified and minimised |  |  |  |  |  |  |  |
| 1.8 | discusses workplace requirements for the cleaning up of spills for each test |  |  |  |  |  |  |  |
| 1.9 | provides an Appendix with additional information as identified in the report including the Supervisor report indicating that the tests were satisfactorily completed to industry standard and the dates of completion. |  |  |  |  |  |  |  |
| **2** | Part 2 Assignment: all questions answered correctly |  | | | | | |  |

## 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.***