This learning and assessment plan outlines how this unit or cluster of units will be delivered and assessed. The schedule of learning topics, assessments and the due date for assessments is included.

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| Qualification national code and title: | **ICT50220 Diploma of Information Technology (Advanced Programming)** |
| Delivery Period: | **Semester 2, 2024** |
| Cluster Name (if applicable) | **Data Analysis and Clustering** |

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| National ID | Name of unit |
| ICTDAT501 | Gather, analysis and verify data from different source inputs |
| BSBDAT501 | Analyse data |
| ICTDAT503 | Use unsupervised learning for clustering |
| **You can access the full unit/s of competency here** (insert web address to unit of competency at [**www.training.gov.au**](http://www.training.gov.au) or equivalent link if available) | |
| Delivery Location/s (Campus/Room/Online): | Northbridge Campus, |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Student Learning Resources, text, equipment (Required/Optional) | | | | |
| Student to supply: **Storage device (USB or hard drive).** | | | | |
| College to supply: **Worksheets, Internet resources, Excel, Power BI and Python software.** | | | | |
| **Lecturer Name:** | **Phone:** | **Email:** | **Contact times** | **Campus / Room** |
| Maryam Shahabi | N/A | [Maryam.shahabilotfabadi@nmtafe.wa.edu.au](mailto:Maryam.shahabilotfabadi@nmtafe.wa.gov.au) | During class time or via email | Aberdeen Street Campus, Perth |
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Assessment Summary

| Assessment | Title and brief description | Due Date |
| --- | --- | --- |
| Assessment 1 | Optimizing price / presentation | Friday of Week 5 |
| Assessment 2 | Power BI / presentation | Friday of Week 10 |
| Assessment 3 | Anagram and Palindromes | Friday of Week 15 |
| Assessment 4 | Analysis Weather Data | Friday of Week 15 |
| Assessment 5 | Analysis Baby Names | Friday of Week 15 |
| Assessment 6 | Unsupervised learning and clustering | Friday of Week 18 |
| Assessment 7 | Part A: Knowledge based questions: Data Analysis using Excel  Part B: Knowledge based questions: Data Analysis using Python  Part C: Knowledge based questions: Clustering | Part A: Week 5 (in class)  Part B: Week 18 (in class)  Part C: Week 18 (in class) |

**You will receive more detailed instructions on each assessment from your lecturer.**

The regular learning requirements to develop the skills and knowledge for this unit are outlined below.

Please refer to your timetable for session times.

**Please note:** This plan is to be used as a guide and may be adapted to meet the needs of students.

You will be notified of changes as they occur.

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| Your training will include **structured in and out of class activities\*** to be completed for this unit. | |
| *\*Out of class activities* may include(🗹): | |
| lectures or tutorials, online tasks and forums  assessments (when integrated with learning)  workplace experience  prescribed reading and research | workshop activities  projects, assignments  prescribed follow-up activities  other (please specify) |

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| **Sessions**  **(Hours)** | | **Element**  **number** | **Topic** | **Learning**  **Resources\*** | **Structured out of class activities\*** | |
| **Session** | **Hrs** |  |  |  | **Activity** | **Hrs** |
| 1 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Introduction -  Data Analysis using Excel / Normalisation | Blackboard | Review class work and complete any unfinished exercises | 4 |
| 2 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Data Analysis using Excel / Normalisation | Blackboard | Review class work and complete any unfinished exercises | 4 |
| 3 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Data Analysis using Excel / Normalisation | Blackboard | Work on Assessment 1 | 4 |
| 4 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Work on Assessment 1 | Blackboard | Work on Assessment 1 | 4 |
| 5 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Assessment 7 Part A: Knowledge based questions - Data Analysis using Excel  Present Assessment 1  **Assessment 1 Due** | Blackboard | Work on Assessment 1 | 4 |
| 6 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Data Analysis using Power BI desktop | Blackboard | Review class work and complete any unfinished exercises | 4 |
| 7 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Data Analysis using Power BI desktop | Blackboard | Review class work and complete any unfinished exercises | 4 |
| 8 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Data Analysis using Power BI desktop | Blackboard | Work on Assessment 2 | 4 |
| 9 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Work on Assessment 2 | Blackboard | Work on Assessment 2 | 4 |
| 10 | 6 | ICTDAT501 (All)  BSBDAT501 (All) | Present Assessment 2  **Assessment 2 Due** | Blackboard | Review class work and complete any unfinished exercises | 4 |
| 11 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Data Analysis using Python | Blackboard  w3schools.com | Wok on Assessment 3 | 4 |
| 12 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Data Analysis using Python | Blackboard  w3schools.com | Wok on Assessment 3 | 4 |
| 13 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Data Analysis using Python | Blackboard  w3schools.com | Wok on Assessment 4 | 4 |
| 14 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Work on Assessment 3, 4 and 5 | Blackboard  w3schools.com | Work on Assessment 5 | 4 |
| 15 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Unsupervised learning and clustering  **Assessment 3, 4 and 5 Due** | Blackboard | Review class work and complete any unfinished exercises | 4 |
| 16 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Unsupervised learning and clustering | Blackboard | Work on Assessment 6 | 4 |
| 17 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Work on Assessment 6 | Blackboard | Work on Assessment 6 | 4 |
| 18 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Assessment 7 Part B: Knowledge based questions - Data Analysis using Python  Assessment 7 Part C: Knowledge based questions – Clustering  **Assessment 6 Due** | Blackboard | Complete any unfinished work | 4 |
| 19 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Resubmissions ifrequired. | Blackboard | Complete any unfinished work | 4 |
| 20 | 6 | ICTDAT501 (All)  BSBDAT501 (All)  ICTDAT503(All) | Last week of classes; Finalise Grades. | Blackboard | Complete any unfinished work | 4 |
| **Total Hours** | **120** |  | |  | **Total hours out of class activities** | **80** |
| **Total amount of training for this unit:** (sum of Session Hours + Out of Class Hours) | | | | | **200** | |

\*Learning Resources - to enable learners to meet the requirements of this unit of competency or cluster.

**Recognition of Prior Learning (RPL) / Credit**

You may be eligible for Recognition of Prior Learning (RPL) / Credit towards your studies If you have relevant existing skills, knowledge, or formal qualifications. Please discuss available options with your lecturer.

**Reasonable Adjustment**

We recognise that every student has different learning styles and needs. Please let your lecturer know if there is anything that may have an effect on your learning so they may be able to adjust your plan.

**Results and Appeals**

Students may lodge an appeal against an academic result. Appeals must be lodged within four weeks from notification of the assessment result. Please see details under Academic Appeals on the NMT website.

**Absences**

If you are unable to attend any class or assessment session you must inform your lecturer as soon as possible.

If you miss an assessment due to illness, please provide your lecturer with a medical certificate in order to negotiate an alternate time for the assessment.

**Plagiarism**

Plagiarism is using another person's ideas and words without clearly acknowledging the source of the information. It is not acceptable to submit an assessment that is based on another person's work and claim it as your own. If you submit an assessment that is significantly or recognizably the same or similar in content as submitted by another student (current or past) you may have to submit another assessment.

**Assessment Resit/Resubmission**

You shall be permitted to have at least two attempts to demonstrate competency against a unit of competency or cluster of units of competency.

To qualify for re-assessment:

* you must have made a reasonable attempt to complete the assessment satisfactorily

AND

* you must have submitted the original assessment by the due date

OR

* you must have attended and participated in the original assessment event

In the case of a re-assessment opportunity, your lecturer will give you a due date for your second attempt. Should you not achieve a Satisfactory result on the second attempt, you will need to re-enrol (R) in the unit.

Be aware, in certain situations there are limited reassessment options (such as one-off Performances and Exhibitions).