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 |
| Delivery Period: | 2024 Semester 2 |
| Cluster Name (if applicable) | Advanced Programming |

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| National ID | Name of unit |
| ICTPRG535 | Build advanced user interfaces |
| ICTPRG547 | Apply advanced programming skills in another language |
| **You can access the full unit/s of competency here** <https://training.gov.au/Training/Details/ICTPRG535>, <https://training.gov.au/Training/Details/ICTPRG547> | |
| Delivery Location/s (Campus/Room/Online): | **Tuesdays 11:30-15:30, Northbridge Campus, 30 Aberdeen St., L4-06** |

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| Student Learning Resources, text, equipment (Required/Optional) | | | | |
| **Student to supply:**  USB Thumb drive  GitHub Account | | | | |
| **College to supply:**  PC with software: Python, PyCharm, Office 365  Access to internet | | | | |
| **Lecturer Name:** | **Phone:** | **Email:** | **Contact times** | **Campus / Room** |
| Rafael Avigad |  | rafael.avigad@nmtafe.wa.edu.au | By appt. | Northbridge |
| Tanmay Singha |  | tanmay.singha@nmtafe.wa.edu.au | By appt. | Northbridge |

**Assessment Summary (max. 3 attempts per assessment)**

| Assessment | Title and brief description | Due Date |
| --- | --- | --- |
| Assessment 1 | Portfolio Assessment: parts 1 – 5 (POR) | Various |
| Assessment 2 | Project Assessment: Customisable GUI | Week 18 |
| Assessment 3 | Knowledge-Based Assessment (KBA) | Week 18 |

**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 | 5 | 1.1, 3.1 | Introduction to Data Structures | Blackboard Session 1 |  |  |
| 2 | 5 | 1.2 | Dynamic Data Structures: Linked Lists and Double-Linked Lists | Blackboard Session 2 |  |  |
| 3 | 5 |  | **Work on Portfolio Assessment 1** |  |  |  |
| 4 | 5 | 1.3 | Hashing: Hash tables and Password Hashing. | Blackboard Session 4 |  |  |
| 5 | 5 |  | **Work on Portfolio Assessment 2.** Portfolio Assessment 1 due. |  |  |  |
| 6 | 5 | 3 | Coding standards, documenting, debugging, testing, and version control | Blackboard Session 6 |  |  |
| 7 | 5 | 1.4, 1.5 | Sorting and searching. Portfolio Assessment 2 due. | Blackboard Session 7 |  |  |
| 8 | 5 |  | **Work on Portfolio Assessment 3** |  |  |  |
| 9 | 5 | 1.2 | Dynamic Data Structures: Binary Trees | Blackboard Session 9 |  |  |
| 10 | 5 |  | **Work on Portfolio Assessment 4.** Portfolio Assessment 3 due. |  |  |  |
| *Term break – There are no classes this week!* | | | | | | |
| 11 | 5 | 2.1 | Inter-process communication (IPC) with Python.  **Work on Portfolio Assessment 5.** | Blackboard Session 11 |  |  |
| 12 | 5 | 2.2 | Handling OS signals with Python. Portfolio Assessment 4 due. | Blackboard Session 12 |  |  |
| 13 | 5 | 1, 2, 3, 2.3, 2.4 | Defining and creating user experiences. Portfolio Assessment 5 due. | Blackboard Session 13 |  |  |
| 14 | 5 | 4 | Defining wireframes based on existing code  **Work on Project Assessment.** | Blackboard Session 14 |  |  |
| 15 | 5 |  | Client-side programming and web design: HTML, CSS, and Javascript.  **Work on Project Assessment and KBA.** | Blackboard Session 15 |  |  |
| 16 | 5 |  | **Work on Project Assessment and KBA.** |  |  |  |
| 17 | 5 |  | **Work on Project Assessment and KBA.** |  |  |  |
| 18 | 5 |  | All Assessments Due. |  |  |  |
| 19 | 5 |  | Resubmissions (if needed) due. |  |  |  |
| 20 | 5 |  | No classes in week 20. |  |  |  |
| **Total Hours** | **100** |  | |  | **Total hours out of class activities** |  |
| **Total amount of training for this unit:** 100 | | | | |  | |

\*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.

In certain situations, a re-assessment is not possible; please refer to your assessment instructions.