

Faculty of Science, Engineering and Technology  
Higher Education Division

## **Portfolio Process and Assessment Criteria**

**COS00002/COS10009/COS60006**

### **Introduction to Programming**



# Portfolio Format and Assessment Criteria

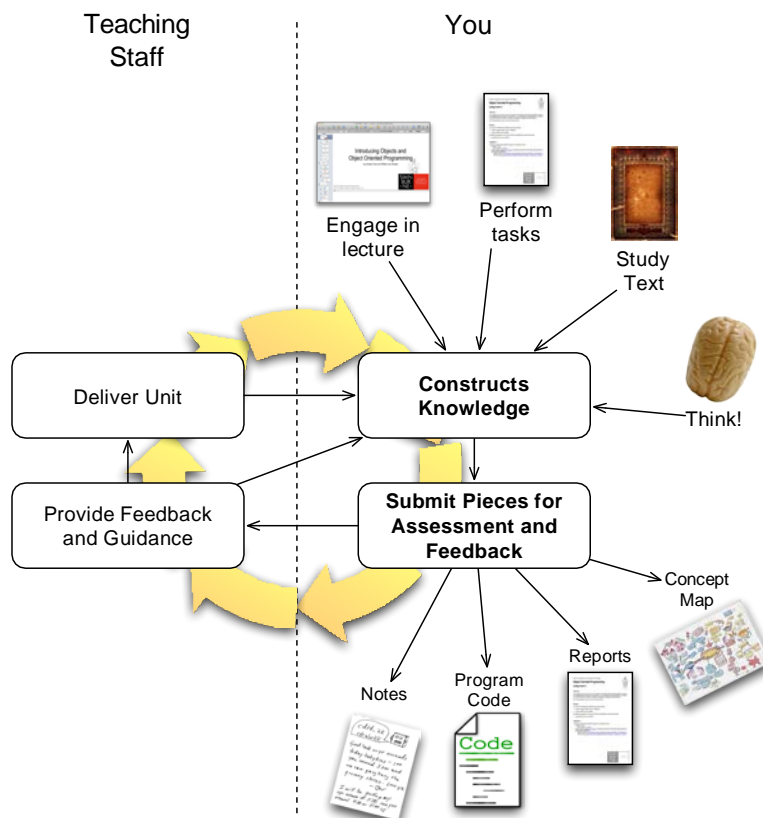
## Overview

Results in this unit are determined from a portfolio of work that you submit at the end of the unit. This is designed to help you achieve the best result possible, with lots of support to help you learn. This document outlines the portfolio assessment process, the format of the portfolio, and its assessment criteria.

## Learning and the Portfolio Assessment Process

Effective learning requires you to actively try to understand the topics being covered. The tasks that we provide you can help you develop your understanding, but do require you to think about how the tasks relate to the underlying concepts and practices. One way that we can assist you with this task is to provide you with feedback on your progress, and to answer your questions about aspects you are unsure of.

With portfolio assessment you have many opportunities to receive feedback. Each week you will have the opportunity to submit work to your tutor for feedback. They will look at your work and give you advice that you can use to improve your understanding, and the quality of the work you submit in your final portfolio.



As shown in the image above, this process is iterative. Each week we will help you learn by introducing topics, working through tasks with you, providing resources and tasks you can complete (Deliver Unit). Using these resources you can develop your understanding. In this process you will create pieces of work that demonstrate your understanding. You can submit these to us so that we can help ensure that you have understood each topic correctly. The feedback we provide should then help you develop your understanding, while also providing us with ideas we can use to improve the way the unit is delivered.

At the end of the semester you can select your best pieces of work to submit in your portfolio. Your grade is then determined from what you have submitted - which should have incorporated all of the feedback you have received throughout the teaching period.

## Portfolio Format

In this unit the portfolio you submit needs to contain the following items:

1. A **Learning Summary Report** that reflects on what you have learnt, and shows how your portfolio addresses the unit's learning outcomes and its assessment criteria.
2. A number of **pieces of work** that provide evidence that you have met all of the unit's learning outcomes. As a minimum this will include:
  - a. Your answers to the unit's tests
  - b. Work submitted for the unit's weekly tasks
  - c. A program of your own design if you are aiming for a Distinction grade (or above)
  - d. A research project if you are aiming for the top band of a High Distinction

Each of these is explained in the following sections.

### Learning Summary Report

Your *Learning Summary Report* will consist of two parts: a self-assessment and a reflection. The self-assessment indicates how your portfolio aligns with the assessment criteria. Your reflection is a personal comment on what you have learnt in this unit, and how your knowledge and skills have developed.

The reflective section of the learning summary report should,

- Elaborate on aspects that you found challenging/inspiring/interesting or different to your expectations and why?
- Include the approach that you used to solve problems and how what you have learnt in the unit helped.
- Compare and contrast new learning/information within the context of prior learning (as well as any previous assumptions or expectations – with a discussion on how these have either been reinforced or changed).
- Present areas that you have personally explored beyond the expectations of the unit, as well as indication of the areas where you plan to learn further on your own and why?
- Highlight ideas/techniques/principles that can be generalised and used in other areas or for further learning (with a brief discussion to support the claim).

Note: The reflective section should not be a direct summary of the content covered in the unit.

A template will be provided to help you format your Learning Summary Report. Please check blackboard for this template.

## Tests

You must attend a number of tests as part of this unit. Each test will be marked as either Redo, Fix and Resubmit, or Complete and be returned to you during the teaching period. You must then include your test papers in your final portfolio with any corrections and additions you wish to make. You may use the feedback you receive to improve your answers.

**It is a hurdle requirement of this unit that you must achieve the Complete grade for each of the tests, and include these in your final portfolio.** Any test marked as Redo, must be re-sat during the semester; see the unit outline for details of opportunities to re-sit this test. The grades for the final re-sit will be either Complete or Fail. Tests marked as Fix and Resubmit must be corrected and signed off by your tutor before final submission. If all issues with the Test paper are not sufficiently addressed in the final submission the test result will be changed to Fail.

Test Result	Action Needed to Pass Test
Complete	Submit your Test task or get a scan of your Test to include in your portfolio.
Fix and Resubmit	You must address some issues with your existing answers. You must correct any issues and get your test signed off as Complete before it is included in your portfolio. The test will be changed to Fail if it is not signed off as Complete before your portfolio is submitted.
Redo	You must resit the test in order to improve its result, otherwise the test is considered to have been failed.
Fail	This will only be given on the final sitting of a test where your result is not sufficient to be graded as Fix or Pass.

## Weekly Tasks

Each week there will be a number of tasks that you are required to complete. These tasks are designed to help you understand the material presented, and to give you a chance to apply the concepts studied. Your portfolio must include work from these weekly tasks that demonstrates you have successfully mastered all of the unit's learning outcomes.

Tasks are related to different grade outcomes.

	Description
<b>Tutorial/Lab Tasks</b>	Required tasks that need to be completed in tutorials/labs. Successful completion of all these is required to achieve at least a pass grade.
<b>Pass Tasks</b>	Core tasks required to demonstrate the unit's learning outcomes. All of these tasks must be completed in order to pass the unit. These tasks have significant guidance to help you achieve the required understanding.
<b>Credit Tasks</b>	Extend beyond the core material to help you better understand the concepts associated with the unit. These tasks have some guidance, but will require you to develop a deeper understanding than the Pass Tasks.
<b>Distinction Tasks</b>	Provide an opportunity for you to demonstrate that you have a good understanding of all of the topics associated with the unit. There is little guidance with these tasks in order for you to have more control over how you solve these problems.
<b>High Distinction Tasks</b>	Demonstrate a high level understanding of the material covered in the unit, allowing you to demonstrate that you can use what you have learnt to explore advanced associated concepts.

## Custom Program (for Distinction and High Distinction grades)

In order to meet the Distinction criteria your portfolio must demonstrate your ability to apply the concepts learnt to the design and development of a custom program. In collaboration with the teaching staff, you must propose a program that you will design and implement using the techniques learnt. Your submission will include the code you have developed for your program, along with a design report and screenshot(s) of your program in action.

The Design Report must capture the structure and key elements of a program. It must contain text and appropriate diagrams to communicate both the static structure and dynamic behaviour of your program. It should be written for knowledgeable developers, with a focus on clearly communicating the core aspects of the solution's structure.

High Distinction criteria for your custom program require it to have good code quality, demonstrate appropriate use of abstraction, with good code documentation, as well as having completed all the required High Distinction tasks.

Custom Project - Design Report	
<b>Distinction Requirement</b>	Your design report must include the following: <ul style="list-style-type: none"><li>▪ An overview of the program's goals</li><li>▪ A structure chart illustrating how the core aspects of the program fit together.</li><li>▪ A data dictionary that communicates the format of the records/structs in your program.</li><li>▪ A description of core program functionality and how it works.</li></ul>
<b>High Distinction Requirements</b>	Your design report must demonstrate good communication skills, and present a well thought out program design. It must clearly communicate the abstractions being created, and outline how the functionality is organised.
Custom Project - Code Quality	
<b>Distinction Requirement</b>	<p>Your program must include some form of logic that operates on the data within the program. To achieve this your program must:</p> <ul style="list-style-type: none"><li>▪ do more than just collect and display data to the user.</li><li>▪ be substantially your own design and implementation.</li></ul> <p>You must demonstrate the use of the following programming aspects:</p> <ul style="list-style-type: none"><li>▪ Data organised using arrays and records/structs.</li><li>▪ Functional decomposition with functions and procedures performing identified tasks.</li><li>▪ Parameter passing using pass by reference and pass by value.</li><li>▪ Structured programming concepts to organise function and procedure logic.</li></ul> <p>Your code must meet good programming practices:</p> <ul style="list-style-type: none"><li>▪ Artefacts should be named appropriately.</li><li>▪ Code should include comments to document its structure.</li><li>▪ Indentation must help document program structure.</li><li>▪ No use of goto and no global variables.</li></ul>
<b>High Distinction Requirement</b>	<p>Must meet standards associated with a High Distinction Task.</p> <p>Code must demonstrate ability to select appropriate artefacts, design useful abstractions, and suitably organise an advanced level of functionality.</p> <p>Code will be extensively commented, with comments providing meaningful insights into the code being documented.</p>

In order to achieve a High Distinction grade your portfolio must demonstrate that you have developed significant depth of understanding related to the unit's intended learning outcomes. This can be achieved in many ways, as outlined by the related HD project task.

When applying for a High Distinction grade that includes this project, it is your responsibility to ensure that the evidence you include clearly outlines how this task demonstrates significant depth of understanding. There should be no doubt that you have achieved the unit learning outcomes to a very high standard.

## Assessment Criteria by Grade

### Pass Criteria

<b>Required Pieces</b>	<ul style="list-style-type: none"> <li>▪ Learning Summary Report</li> <li>▪ All Pass Tasks are marked as Complete</li> <li>▪ Tests are all marked as Complete</li> <li>▪ Portfolio includes work demonstrating coverage of all learning outcomes</li> </ul>
<b>Beyond Borderline (50P)</b>	<ul style="list-style-type: none"> <li>▪ Evidence of achieving outcomes at higher than minimum level. Eg: All tutorial tasks completed. (see the Marking Rubric Summary table)</li> </ul>
<b>Submission</b>	<ul style="list-style-type: none"> <li>▪ Task submissions.</li> <li>▪ Due by first week of exam period — see unit outline for date.</li> </ul>

### Credit Criteria

<b>Required Pieces</b>	<ul style="list-style-type: none"> <li>▪ Learning Summary Report</li> <li>▪ All Pass Tasks are marked as Complete</li> <li>▪ All Credit Tasks are marked as Complete</li> <li>▪ Tests are all marked as Complete</li> <li>▪ Portfolio includes work demonstrating good coverage of all learning outcomes</li> </ul>
<b>Beyond Borderline (60C)</b>	<ul style="list-style-type: none"> <li>▪ Evidence of achieving outcomes at higher than minimum level. Eg: Task submissions graded as higher than the minimum “Pass” level for the task. (see the Marking Rubric Summary table).</li> </ul>
<b>Submission</b>	<ul style="list-style-type: none"> <li>▪ Task submissions.</li> <li>▪ Due by first week of exam period — see unit outline for date.</li> </ul>

### Distinction Criteria

<b>Required Pieces</b>	<ul style="list-style-type: none"> <li>▪ Learning Summary Report</li> <li>▪ All Pass, Credit Tasks are marked as Complete</li> <li>▪ All Distinction Tasks are marked as Complete</li> <li>▪ Portfolio includes work demonstrating good coverage of all learning outcomes</li> <li>▪ Custom Program — meeting distinction standards</li> <li>▪ Design Report — meeting distinction standards</li> </ul>
<b>Beyond Borderline (70D)</b>	<ul style="list-style-type: none"> <li>▪ Evidence of achieving outcomes at higher than minimum level. Eg: Task submissions graded as higher than the minimum “Pass” level for the task. (see the Marking Rubric Summary table)</li> </ul>
<b>Submission</b>	<ul style="list-style-type: none"> <li>▪ Task submissions.</li> <li>▪ Due prior to portfolio interview — see unit outline for date.</li> </ul>

## High Distinction Criteria

<b>Required Pieces</b>	<ul style="list-style-type: none"><li>▪ Learning Summary Report</li><li>▪ All Distinction, Pass and Credit Tasks are marked as Complete</li><li>▪ All High Distinction Tasks are marked as Complete</li><li>▪ Portfolio includes work demonstrating good coverage of all learning outcomes.</li><li>▪ Custom Program — meeting high distinction standards</li><li>▪ Design Report — meeting high distinction standards</li><li>▪ High Distinction Project (necessary for a grade of 90 or higher)</li></ul>
<b>Beyond Borderline (80HD)</b>	<ul style="list-style-type: none"><li>▪ Evidence of achieving outcomes at higher than minimum level. Eg: Task submissions graded as higher than the minimum “Pass” level for the task. (see the Marking Rubric Summary table)</li></ul>
<b>Submission</b>	<ul style="list-style-type: none"><li>▪ Task submissions.</li><li>▪ Due prior to portfolio interview — see unit outline for</li></ul>

## Assessment Process

The teaching staff will assess portfolios using the process shown in the following figure. The process includes the following steps:

1. Initially your portfolio will be compared with the grade criteria. Your work will then be assigned a grade from Fail through to High Distinction based on the criteria it meets. The self-assessment from your Learning Summary Report will be used to guide this process.
2. Your portfolio will be assumed to be “average”, and the teaching staff will look for evidence that you should be awarded a higher or lower result within the grade. The staff will use your Learning Summary Report and the pieces you include to determine which result you will be awarded.
3. All portfolios that receive a result of 97 will be re-examined by the unit panel to determine if any deserve to be awarded a result of 100.

