

## ASSESSMENT AND INTERNAL VERIFICATION FRONT SHEET (Individual Criteria)

(Note : This version is to be used for an assignment brief issued to students via Classter)

Course Title	Bachelor of Science (Hons). In Multimedia Software Development Bachelor of Science (Hons). In Software Development Bachelor of Science (Hons). In Networking			Lecturer Name & Surname			
Unit Number & Title		ITPRJ-606-1606 IT Project					
Assignment Number, Title / Type		Assignment 1					
Date Set		7/02/2022	Deadline Date	See inside document			
Student Name			ID Number		Class / Group		

<b>Assessment Criteria</b>	<b>Maximum Mark</b>
KU1.1 Recognize different research methodologies and their use within a project	5
KU1.2 Identify areas of academic discourse within a specific subject area	5
KU1.3 Discuss the suitability of different research methodologies to different subject areas.	5
KU2.1 Explain the different research methodologies used by different authors in a subject area	5
KU2.2 Explain the distinction between different research types for a specific topic	5
KU3.1 Identify a valid number of research papers in a given subject area that are related to own project	5
KU4.1 Indicate how results may be presented in the context of own documentation	5
AA1.4 Select the correct research methodology for a specific subject area.	7
AA2.3 Implement a research structure for a given subject area	7
AA2.4 Assess collected information related to the implementation of the research process of own project	7
AA3.2 Present different research perspective in chosen subject area for a project	7
AA4.2 Organise collected data in a valid and correct way in own project.	7
SE3.3 Appraise how results are collected by the majority of researchers in own chosen subject area	10
SE3.4 Create a valid set of results based on collected data for own project	10
SE4.3 Derive conclusions from valid scientific data correctly to determine results of own project	10
<b>Total Mark</b>	<b>100</b>

## Notes to Students:

- This assignment brief has been approved and released by the Internal Verifier through Classter.
- Assessment marks and feedback by the lecturer will be available online via Classter ([Http://mcast.classter.com](http://mcast.classter.com)) following release by the Internal Verifier
- Students submitting their assignment on Moodle/Unicheck will be requested to confirm online the following statements:

### **Student's declaration prior to handing-in of assignment**

- ❖ I certify that the work submitted for this assignment is my own and that I have read and understood the respective Plagiarism Policy

### **Student's declaration on assessment special arrangements**

- ❖ I certify that adequate support was given to me during the assignment through the Institute and/or the Inclusive Education Unit.
- ❖ I declare that I refused the special support offered by the Institute.

# ICT Project Assignment

This assignment contains tasks which will give you practical skills in the preparation of your dissertation. Completing these tasks will give you practice in the skills that you will need to use to prepare the supporting documentation and presentation of your dissertation. You are therefore encouraged to perform ALL of the tasks below as part of your submission for this subject. Please note that this assignment is assessed *independently* of the dissertation and carries its own assessment, which is 100% of the marks for the ICT project module in the third year of the degree.

Your submission for this course will be a git enabled folder with a minimum of one commit per task. For each commit description, please include the location of the files and all the information required to access the files necessary for each task. The upload will be to a Turnitin enabled submission on Moodle at the end of every deadline.

It is very important that you conduct proper research by reading multiple books & papers. Every task should be well argued using citations and cross referencing between different references. It is highly recommended to use the MCAST library or other platforms. Avoid citations from videos or online blogs. Reading is going to take time, so make sure you schedule your time correctly.

Unless advised otherwise, documents submitted for this assignment should be in PDF.

## **Submission Deadlines:**

Task 1,2,3,4 - 11 March 2022

Task 5,6,7 - 12 April 2022

Task 8,9 – 16 May 2022

## Task 1

You are required to create an Interim Project Report on your dissertation, between 1000 and 1400 words (excluding references). You must write your report in relation to the research structure proposed by MCAST (dissertation handbook).

The Interim Project Report must contain the following sections:

1. Introduction -specify the core & advanced objectives of your project (up to 100 words – write in bullet points)
2. Gantt chart showing the projected and actual achieved milestones. Refer to <https://vle.mcast.edu.mt/mod/resource/view.php?id=12210>
3. Completed work – work completed since the submission of the SOI (up to 600 words – write in bullet points & with citations where necessary). Structure this section by referring to the different work packages and steps of your research pipeline as identified in the Gantt chart. (Example: research aims, literature review sections, prototype development etc.)
4. Work to be done – work that needs to be done before submitting the final dissertation document (up to 600 words– write in bullet points & with citations where necessary). Structure this section by referring to the different work packages and steps of your research pipeline as identified in the Gantt chart.
5. Conclusion (up to 100 words)

(7 marks)

### Criteria Assessed

- AA2.3 Implement a research structure for a given subject area

Poor quality work (0-1 marks)	Moderate quality work (2-4 marks)	Top quality work (5-7 marks)
Few objectives identified; Report barely refers to the suggested research structure; Gantt chart poorly planned; Work done/upcoming work sections can be written in more detail. Limited cross-referencing;	Objectives clearly identified and argued; Report refers to the suggested research structure; Gantt chart is done but could be more well-structured; Work done/upcoming work sections are well argued but with limited cross-referencing; Conclusion well-argued.	Objectives clearly identified and argued; Report makes clear reference to the suggested research structure; Detailed Gantt chart; Work done/upcoming work sections are correctly argued with cross-referencing; Conclusion well-argued. Very detailed IPR;

## Task 2

You are required to use a mind mapping tool like Xmind to create a valid concept map of either your own dissertation, or a dissertation of your choice from the past dissertations' repository.

Your concept map should follow the following rules:

1. Leaf nodes should be sources supporting a concept.
  2. No two identical leaf nodes (similar elements should be linked by relationships).
  3. All relationships should be labelled.
  4. All referenced papers should be included in the concept map.
  5. All referenced papers should be listed in a separate bibliography in correct format.
- The concept map should be uploaded in .png format in a resolution of at least 1920x1080 (ensure that the assessor can easily zoom in and read the text of the citation).

Apart from your concept map include a 150 word paragraph explaining the limitations of your concept map, and any observations you may have on the limitations of the research subjects that have been explored. These may be justified if you are referring to your own dissertation. Please note that this is an assessment of the concept map NOT your literature review.

(7 marks)

### Criteria Assessed

- AA4.2 Organise collected data in a valid and correct way in own project.

Poor quality work (0-1 marks)	Moderate quality work (2-4 marks)	Top quality work (5-7 marks)
No clear structure defined, no understanding of the difference between sub topics and relationships, few to no sources referenced	Clear structure, good understanding of topics and subtopics, some relationships missing, some sources within the papers omitted	Clear structure, good understanding of topics and subtopics, all sources included and correctly related and referenced

## Task 3

In this section, please find the following sample purpose statements (Cresswell):

1. Case study/Qualitative study The purpose of this \_\_\_\_\_ (strategy of inquiry, such as ethnography, case study, or other type) study is (was? will be?) to \_\_\_\_\_ (understand? explore? develop? discover?) the \_\_\_\_\_ (central phenomenon being studied) for \_\_\_\_\_ (the participants, such as the individual, groups, organization) at \_\_\_\_\_ (research site). At this stage in the research, the \_\_\_\_\_ (central phenomenon being studied) will be generally defined as \_\_\_\_\_ (provide a general definition).
2. Quantitative study The purpose of this \_\_\_\_\_ (experiment? survey?) study is (was? will be?) to test the theory of \_\_\_\_\_ that \_\_\_\_\_ (describes outcomes) or (compares? relates?) the \_\_\_\_\_ (independent variable) to \_\_\_\_\_ (dependent variable), controlling for \_\_\_\_\_ (control variables) for \_\_\_\_\_ (participants) at \_\_\_\_\_ (the research site). The independent variable(s) \_\_\_\_\_ will be defined as \_\_\_\_\_ (provide a definition). The dependent variable(s) will be defined as \_\_\_\_\_ (provide a definition), and the control and intervening variable(s), \_\_\_\_\_, (identify the control and intervening variables) will be defined as \_\_\_\_\_ (provide a definition).

Select three academic papers you are referencing in your literature review (or select three sources from a past dissertation of your choice) and create a purpose statement for the academic papers being referenced. You need to include 3 purpose statements for 3 different sources, and correctly cite the sources you are using. Select the correct script and try to include all the elements of the scripts. Cresswell also includes a reference to a mixed methods purpose statement, if the study of your choice is a Mixed methods study.

(15 marks)

### Criteria Assessed

- KU1.1 Recognize different research methodologies and their use within a project
- KU2.1 Explain the different research methodologies used by different authors in a subject area
- KU2.2 Explain the distinction between different research types for a specific topic

Poor quality work (0-5 marks)	Moderate quality work (6-10 marks)	Top quality work (11-15 marks)
Wrong purpose statement template chosen for a paper. The purpose statement does not match the research type. Only one purpose statement included	Three purpose statements mentioned and cited correctly. In some cases, the wrong purpose statement template was used, but the study was correctly explained.	Three purpose statements are mentioned and cited correctly based on the correct research papers and are the correct purpose statements for the research model being used.

## Task 4

For this task, you are required to write an explanation on some of the elements needed in your methodology and the reason why each section is required. You may either use your own dataset or the dataset of research that was used in a past dissertation. Aim for a wordcount of approximately 1,400 words for this section, which should contain the following three elements:

### 1) Research Design:

Justify a research design for a specific dataset. Explain why you have chosen that specific research design from the options of Quantitative, Qualitative or Mixed Methods. One example of a justification is a *deficiency in past research*. You need to at least define that justification and add another two justifications to your own research approach based on your chosen data.

### 2) Research Methods:

Justify your research method/s for your study. Provide a description & valid justification for chosen method/s and why other methods might not be applicable. Compare and make use of existing studies to justify your research method choices and exclude research methods which are not applicable to achieve your research aims.

### 3) Research Pipeline:

Using <https://draw.io>, you are required to design a research pipeline for your selected study. Make sure that your chart is labelled correctly and divided into multiple phases. Write a report discussing the design decisions behind your research pipeline.

(7 marks)

### Criteria Assessed

- AA1.4 Select the correct research methodology for a specific subject area.

Poor quality work (0-1 marks)	Moderate quality work (2-3 marks)	Top quality work (4-7 marks)
Research Design: Justifications for research do not make sense. Research Methods: Description barely done, and research method is not justified correctly. Research Pipeline does not describe every required phase with limited design decisions.	Research Design: One justification for the research being carried out mentioned and explained. Research Methods: Description done but justification could be more well argued. Research pipeline could be classified and discussed better.	Research Design: Three justifications mentioned in detail and justified logically and convincingly. Research Methods: Description and valid justification mentioned in detail and is convincingly. Comparison with existing research is done. Research Pipeline: Easy to understand every phase, does not miss any steps and description is well argued.

## Task 5

For this task, you are required to write an explanation on the Research Sample & Ethics sections. You may either use your own dataset or the dataset of research that was used in a past dissertation. Aim for a wordcount of approximately 1,200 words for this section, which should contain the following two elements:

### 1) Research Sample:

Justify the research sample chosen for your selected dataset in comparison with existing research. Make sure that you clearly discuss the following sections:

- a. Sampling Criteria – a complete set of common characteristics shared by the sample
- b. Sampling Population – the total number of individuals in the target group which a researcher is interested to study
- c. Sampling design – how a sample should be selected

### 2) Ethics:

Explain what mitigations are required to ensure ethics are correctly followed at the following stages of research:

- a. Prior to beginning the study
- b. Beginning the study
- c. Collecting data
- d. Analysing data
- e. Reporting, Sharing and Storing data

(5 Marks)

KU1.3 Discuss the suitability of different research methodologies to different subject areas.

Poor quality work (0-2 marks)	Moderate quality work (3-4 marks)	Top quality work (5 marks)
Poor justification regarding the research sample for selected dataset. Some ethical mitigations mentioned but poor understanding of the reasons for ethics provisions.	Fair justification regarding the research sample for selected dataset. Some ethical mitigations are mentioned, and their phases are tackled correctly.	Clear justification regarding the research sample for selected dataset. All three sections discussed in detail. All ethical issues and their mitigations at the different phases of the study are mentioned in detail.



## Task 6

Explain the meaning of the following terms, with at least one example based on your own observations for each:

1. Experimental protocol & design (4 marks)
2. Independent variables & Dependent variables (5 marks)
3. External validity of an experiment & Sampling types (4 marks)
4. Coding (3 marks)
5. Research triangulation (3 marks)

(Total: 19 marks)

### Criteria Assessed

- KU4.1 Indicate how results may be presented in the context of own documentation
- AA2.4 Assess collected information related to the implementation of the research process of own project
- AA3.2 Present different research perspective in chosen subject area for a project

	<b>Incorrect definitions for the term/s. No examples given.</b>	<b>Correct definitions for the term/s given, however the examples given are either the typical examples found in the actual reference of the term or the examples are not explained.</b>	<b>Correct definitions given, with examples taken from samples of the student's own research (or other research), and explained using examples given by the student himself/herself</b>
(1) Experimental protocol & design	Poor quality work (0-1 marks)	Moderate quality work (2-3 marks)	Top quality work (4 marks)
(2) Independent variables & Dependent variables	Poor quality work (0-1 marks)	Moderate quality work (2-3 marks)	Top quality work (4-5 marks)
(3) External validity of an experiment & Sampling types	Poor quality work (0-1 marks)	Moderate quality work (2-3 marks)	Top quality work (4 marks)
(4) Coding	Poor quality work (0-1 marks)	Moderate quality work (2 marks)	Top quality work (3 marks)
(5) Research triangulation	Poor quality work (0-1 marks)	Moderate quality work (2 marks)	Top quality work (3 marks)

## Task 7

Now it is time for your own opinion. Do you agree with the conclusions of the sources for which purpose statements were created in Task 3? If you agree, explain why you agree and cite elements highlighting your agreement. If you disagree, explain why you disagree and cite elements highlighting your disagreement. You need to make at least 5 points of agreement and disagreement in this section. Are any of these papers being used in your own dissertation? Discuss why you opted to include these papers in your own research.

(10 marks)

### Criteria Assessed

- KU1.2 Identify areas of academic discourse within a specific subject area
- KU3.1 Identify a valid number of research papers in a given subject area that are related to own project

Poor quality work (0-3 marks)	Moderate quality work (4-6 marks)	Top quality work (7-10 marks)
No logical conclusions drawn, no understanding of agreeing or disagreeing in an informed way with the cited sources.	Some logical agreements and disagreements shown. Minimum 3 points of agreement and disagreement	Logical agreements and disagreements well shown. Minimum 5 points of agreement and disagreement

## Task 8

Critically analyse the process of the development of this report. Write a section outlining how your understanding of your subject matter has changed in the context of the process of doing academic research.

This section needs to contain an element of self-reflection, and there is the requirement of analysis on the experience of the change in understanding of the subject that you are exploring in your dissertation or a past dissertation of your choice.

Please use the following points as guidance to answer this question:

1. What was your starting understanding of the problem area?
2. What was the initial choice of method with respect to methodology?
3. How did the methodology change based on the literature review?
4. How did the chosen methodology affect the presentation of results?
5. What are the limitations highlighted in your or other dissertations?
6. What possible areas of related study do you believe are feasible, based on the presented results?

(20 marks)

### Criteria Assessed

- SE3.3 Appraise how results are collected by the majority of researchers in own chosen subject area
- SE4.3 Derive conclusions from valid scientific data correctly to determine results of own project

Poor quality work (0-5 marks)	Moderate quality work (6-13 marks)	Top quality work (14-20 marks)
No thought given to understanding the process of the dissertation. Poor explanation of the strength of the process and how it changes the understanding of a subject.	Fair understanding of the academic process, with a good knowledge of the process involved. Examples given from own experience, illustrated by explanations from own or others literature	A clear understanding of the academic process. Explanation illustrated by examples from own or other sample dissertation, showing the way that the dissertation is structured and how the dissertation was built section by section.

## Task 9

For this task you are required to create a 7-minute video presentation, arguing why the collected data is valid. The video should focus on the process of data collection, tools for analysis, variables under study and validity aspects and is NOT a presentation of your dissertation. You are also required to discuss possible short comings in the data and how these can be mitigated.

Using OBS or other recording software, record your presentation with web-camera on. Video must be of type mp4 in good quality.

(10 marks)

### Criteria Assessed

- SE3.4 Create a valid set of results based on collected data for own project

Poor quality work (0-3 marks)	Moderate quality work (4-6 marks)	Top quality work (7-10 marks)
Limited thought given on the data collected. Poor explanation of the short comings.	Video is exactly 7 minutes; Collected data could be defended better; Fair understanding on the possible shortcomings.	Video is exactly 7 minutes; student clearly describes and defends the collected data. Possible short comings are well argued with valid solutions.