University of Lincoln Assessment Framework
Assessment Briefing Template 2021-2022

Module Code & Title: CMP9140M Research Project

Contribution to Final Module Mark: 100%

Description of Assessment Task and Purpose:

The precise nature of the artefact you produce in your project will be negotiated between you and your supervisor. This document identifies the key areas of your submission that are very likely to be consistent for all projects, but some small variances to the requirements may be appropriate for some project reports.

The emphasis for this assignment is on working independently, with the support of a supervisor, to achieve your project aim and objectives.

The submission for this assessment takes three forms:

- An ethical approval submission – using the LEAS online system
- Your written project report – electronic submission.
- A poster presentation and viva – electronic submission.

All elements must be completed in order for a module mark to be returned. All students therefore MUST attend the poster presentation and viva session in order for the final mark for the project to be recorded. The following sections detail the minimum requirements for these three submissions, and these should be read in conjunction with the Criterion Reference Grid that accompanies this document.

Please see the **Criterion Reference Grid** for details of how your submission will be graded.

Learning Outcomes Assessed:

LO1 - Design, plan and develop a non-trivial piece of software that represents a particular area of research interest;

LO2 - Evaluate any contemporary legal, ethical, social, and professional issues relevant to that specific area of interest;

LO3 - Present a cogent rationale for a particular methodological approach or approaches to the work;

LO4 - Critically appraise, evaluate and apply appropriate research methods, tools and techniques to create an appropriately structured report.

Knowledge & Skills Assessed: *See guidance notes for further information*

Subject Specific Knowledge, Skills and Understanding: Literature searching, Referencing, Numeracy, Health and Safety, Project Planning, Techniques and Skills Subject-specific knowledge.

Professional Graduate Skills: independence and personal responsibility, adaptability, verbal communication, written communication, creativity, critical thinking, IT skills, self-reflection and life-long learning, problem solving,

effective time management, working under pressure to meet deadlines, presentation skills.

Emotional Intelligence: self-awareness, self-management, awareness of others, managing and supporting others, motivation, resilience, self-confidence.

Career-focused Skills: Communication skills, presentation skills.

Assessment Submission Instructions: *See guidance notes for further information*

Word Count: For a dissertation of this magnitude, a rough rule of thumb for word count is 15,000 – 25,000 words. Remember, this a guide to help you understand roughly the amount of work expected. You won't be marked down specifically for going over 25,000 or under 15,000 words. However, if your report is significantly above or below those marks, you may have done something wrong – e.g. left something out, or included things that should, perhaps, be in an appendix (or even several appendices). Please go to the library and read through some recent project reports in order to ensure that you have included all relevant sections and to see how appendices have been used.

This assignment must be presented according to the Lincoln School of Computer Science guidelines for the presentation of assessed written work.

Students should ensure that they have a clear understanding of the grading principles for this component, as detailed in the accompanying Criterion Reference Grid. If students are unsure about any aspect of this assessment component, they should seek the advice of their supervisor (in the first instance) or, if the supervisor is unclear, that of a member of the delivery team.
The deadline for submission of this work is included in the School Submission dates on Blackboard.

An electronic submission of both the written report and your poster are required for this assignment.

DO NOT include this briefing document with your submission.

Date for Return of Feedback:

- Please see the School Submission dates on Blackboard

Format for Assessment:

The submission for this assessment takes three forms:

1. An ethical approval submission – using the LEAS online system.
2. Your written project report – electronic submission.
3. A poster presentation and viva – electronic submission.

Feedback Format:

1. Verbal feedback after the presentation
2. Written feedback on the Blackboard submission

Additional Information for Completion of Assessment:

Ethical Approval

All research work conducted in the School of Computer Science must be formally approved on ethical grounds. In order to achieve this, you will be required to submit appropriate ethical approval form(s) in support of your project. The precise detail of your ethical approval submission should be negotiated with your project supervisor.

You must get the ethics approval for your project by using the LEAS online system (https://ethicsapply.lincoln.ac.uk/ActivityForm/Index).

There is a helpful video tutorial here: Navigating LEAS: https://lncn.ac/leasguide

There is a shortened process for those who don't involve any human participants, called the Project Registration Form (PRF), which does not have any fundamental ethical issues. The Project Registration Form is located within the online ethics application system (LEAS). So, you must create a LEAS application. However, if you intend to use any human involvement in their project will need to complete the full application.

The Research Methods module has Assessment Item 1 as Ethics Submission. Your tutors in the Research Methods module will guide you to the LEAS online system during the Research Methods module, if your ethical application is for your project in the Research Project module then your ethical application will count for both modules: Research Method and Research Project modules. Otherwise, you must complete your ethical application for your project during the first week of the Research Project module.

Written Project Report

This section explains the recommended structure for your MSc project report, along with a summary of what each section should contain. Remember that all projects are different. You should therefore seek the guidance of your project supervisor. They may recommend that you use a slightly different report structure that is specific to your project. However, the guidance given below will still be useful to you.

1 Abstract

An abstract presents a brief summary of the project in its entirety and is used to help the reader quickly ascertain the project's purpose, context and outcome. The purpose of the abstract is to enable readers to have a view of what the report is about without having to read the entire document. The abstract is usually written when the project report has been completed and goes at the beginning of the document. See academic papers for examples of what this should look like but note that abstracts are typically no longer than half a page of A4.

2 Introduction

2.1 Rationale/ benefits

2.2 This explains why you have chosen to do this particular piece of research. You should explain the benefits of what you have chosen to do. 2.2 Aim, objectives and hypothesis. What is the aim of your project? How does that aim break down into a number of objectives? What is your research hypothesis?

2.3 Background

This sub-section explains the background to your research.

2.4 Report Structure

The final part of your introduction sets the scene for the rest of your report. This is where you outline the structure of the rest of your document.

3 Literature Review

The literature review is an essential requirement of any academic project. A comprehensive review of the literature will provide background to the project and support the way that you have chosen to tackle your project. This section establishes what you intend to do and shows the reader that what you have done is the result of academic study, rather than an unfounded whim. The literature review is where you contextualise your work with respect to existing published literature.

4 Methodology

This section will cover a number of sub-sections – where appropriate. Not all projects will require every section – discuss this with your supervisor. Your supervisor will recommend the most appropriate structure for this section of your report. The key thing is that you demonstrate critical awareness of all of the processes that you have employed in your work.

4.1 Project Management

Some awareness of project management should be demonstrated in all projects. This section should outline the nature of your project and the specific characteristics that need to be considered in determining what project management methodology you should use. You should identify the specific demands of your project in terms of project management and support your rationale for the selection of a methodology with appropriate, recent academic references.

4.2 Software Development

There should be a methodological analysis of software development approaches used. The determining factors for selection will, amongst other things, be the particular characteristics of the software to be developed and the computer environment requirements. It is important to note that what is NOT required here is a pedestrian account of popular software/ IS development methodologies or a simplistic review of their strengths and weaknesses. You should work from the

specific requirements of your project and explain how these might determine approaches for software /IS methodologies. Where relevant, you should give serious thought to the proper design of research and requirements capture approaches. This may include surveys, questionnaires and interviews. You should identify the specific demands of your project in terms of software development and support your rationale for the selection of a methodology with appropriate, recent academic references. DO NOT produce a simple discussion of software development, or explain how typical methodologies work – (spiral, waterfall, etc.) – your first and second markers will already know this.

4.3 Toolsets and Machine Environments

Toolsets refer to both software development and to project management, so the coverage should address both. This section will outline the tools for software development and project management process; it will make appropriate comparisons between tools available and argue for the most appropriate selection based on metrics, possibly a matrix diagram and other criteria. The report will discuss possible machine environments under which the artefact might be required to operate and through analysis, comparison of features and possible user requirements a determination of the chosen environment (s) will be made. You should identify the specific demands of your project in terms of software development and support your rationale for the selection of a methodology with appropriate, recent academic references. DO NOT justify the grounds for using specific toolsets and environments simply because you know them well or have developed skills already. This project gives you the opportunity to challenge yourself.

4.4 Datasets / knowledgebase and statistical analysis

4.4.1 Participant recruitment

4.4.2 Evidence that ethical procedures have been followed. Include informed consent documentation (if appropriate).

4.4.3 Were quantitative or qualitative research methods more appropriate? Why? Should the form of your data be nominal, ordinal, interval or ratio? How do you intend representing your results? – This will have an impact on your study design.

4.4.4 If you are doing an experimental analysis: What are your independent and dependent variables? Is a between-groups or within-groups approach most appropriate? Do you need to statistically analyse your results? Consult your supervisor when drawing up this section.

4.4.5 What are the statistical measurements that you will use to evaluate your results?

4.5 Research Methods

You should include a section that investigates the types of research methods necessary to validly answer the research question(s) that your project addresses. You should cite relevant sources to justify your choices.

5 Design and Development

This section of the report will vary significantly in both structure and content; depending on the type of project you are undertaking. However, it must be noted that if your project contains significant software development work, this should be presented in the structure expected of a formal development report. If your project involves an experimental evaluation – especially if that evaluation involved human participants – you should write this work up in the format expected of a scientific research report. Some projects will include both software development and

experimental evaluation with human participants. In this case, you are expected to discuss both procedures with sufficient detail.

5.1 Requirements

5.2 Design

5.3 Implementation

A detailed description of the procedure that each study participant experienced. Include every detail that would be needed in order to replicate your work.

6 Experiments and Evaluation

Your artefact is the key deliverable in the project, so there must be an evaluation carried out to determine how effective and efficient your "solution" is at addressing the problem identified. Appropriate metrics should be considered for this evaluation along with an appropriate audience(s). Changes or amendments that may be required to the original delivered artefact should be discussed here, pointing out how and why these changes might have been affected if time or opportunity presented itself.

6.1 Results of experiment – present in the format of a scientific report.

6.2 Analysis of results. Consider the results of your work with respect to both your own specific hypotheses and wider context identified in your literature review.

7 Discussions and Reflective Analysis

Finally, the report should conclude with a critical reflection on the process of completing the project. How did things go? What might have been done differently, given 20:20 hindsight? What went well and why? What went badly, why was that and how were any problems addressed? What more could have been done, had time and circumstances not been constraints? Consideration of the theory versus the practice in terms of methodological process requires discussion. This is the only section of your report that can, justifiably, be written in the first person.

8 Conclusion

This section is where you report your findings, along with the answer(s) to any research question(s) you may have posed in your introduction. The conclusion should be understandable not only by the person who writes it, but also by the person who just wants to have the general picture of the work and its results. It is very important to base your conclusions upon issues that have been raised in your introduction, and then investigated in your methodology and evaluation. In the introduction, the author of the work presents the main ideas that are to be examined, developed and discussed in the project. In the conclusion, therefore, the necessary responses to the questions or problems or requirements listed in the introduction are shown and discussed. Therefore, the structure of the conclusion in a project is governed by the structure of introduction.

9 References and Appendices

The report will conclude with a List of References, in accordance with the University of Lincoln Harvard Referencing Guide. Use RefWorks to help you with in-text citations and with the List of References. You should also check that the output given by RefWorks is in accordance with the Harvard Referencing Handbook, which is available as a pdf on Blackboard and as a hard copy booklet in the library. Any Appendices will appear after the List of References.

10 Acknowledgements

When you look at examples of recent projects in the library, you will notice that many of them have a brief section labelled 'Acknowledgements' at the beginning. This gives students a place to acknowledge, by name, anyone who has helped them complete their project. Don't try to emulate an Oscar winner's speech here – it should be a short paragraph. You may, however, want to thank family and friends who have helped you. It is also traditional (and shows good manners) to thank your supervisor and any other staff members who have helped you with your project.

Poster Presentation and Viva

After your written report is submitted each student will be required to attend a viva meeting with both their first marker (the Project Supervisor) and the second marker for the project (details of who that is will be provided nearer to the presentation date on the Blackboard). At that presentation you must ensure that you have on display a digital version of your Project Poster. The poster should articulate the key aims and objectives and summary achievements of your project.

The viva will be a discussion between yourself and your two markers, and will give you an opportunity to answer any questions your markers might have about your project, either in terms of methodology, application development or overall management of your project, and will be used by our markers to clear up any gaps in your written report, or if appropriate, for them to gain confidence with regard to the veracity of the processes used in your project development.

There are two useful online materials for making a good academic poster
How to make an academic poster in MS PowerPoint:
https://www.youtube.com/watch?v=_WnhoIbfcoM.

Scientific Poster Design: https://live-hsp-3.pantheon.berkeley.edu/wp-content/uploads/2020/10/ScientificPosters.pdf

Failure to attend for the viva will result in no mark being returned for your project.

The time frame for conducting your viva will be the week following your submission week; more details will be published through Blackboard later in the academic year.

Assessment Support Information:

A support MS Teams session will be organised in the week commencing on 04/7/2022.

Important Information on Dishonesty & Plagiarism:

University of Lincoln Regulations defines plagiarism as 'the passing off another person's thoughts, ideas, writings or images as one's own...Examples of plagiarism include the unacknowledged use of another person's material whether in original or summary form. Plagiarism also includes the copying of another student's work'.

Plagiarism is a severe offence treated by the University as a form of academic dishonesty. Students are directed to the University Regulations for details of the procedures and penalties involved.

For further information, see www.plagiarism.org

Self-Plagiarism: it is described under the **Misleading Material section** of the Academic Offences regulations. Part A of the University General Regulations section 1.2 (ii) – Page Number 3; it is academic offence to "….re-submission in whole or in part, without proper acknowledgement, of any work by the student for which credit has already been claimed as part of the same or another award".