

ECM3401 – Individual Literature Review and Project

Assessment Specification

2023-24

Introduction

This document contains all of the information about assessment for ECM3401. The module comprises **two assessments**, which are described herein.

Important Dates

You must submit your work to ELE2 by **12pm** on the dates shown below:

Literature review & project specification	22nd November 2023
Final project & code	1st May 2024
Video uploaded to OneDrive	1st May 2024

Table 1: Submission deadlines.

Please ensure that you **read and understand this entire document** – if you have questions, please ask your project supervisor in the first instance, or email the module leader (Dr David Walker, D.J.Walker2@exeter.ac.uk).

Part 1: Literature review & project specification

You must produce an 8-page report covering the preliminary research you have done to prepare yourself for undertaking the project, together with an initial specification for the project itself.

“Research” here means reading, analysing, and comparing existing material that is relevant to your project topic, and providing a reasoned summary of your findings. The kinds of material you consult will depend on the nature of your topic. Typically your project will involve both an external subject area and various computational methods or resources that you will apply to that area (e.g., if you are devising a system for handwriting recognition, you will need to research into how humans read and write as well as the computational pattern-recognition or image-processing tools you will be using). The sources you use may include books, journals, web pages, and existing software. All of these will need to be referenced in a correct and consistent style, with the references collected together in bibliography at the end of the document.

The project aims, objectives and deliverables should be defined explicitly. You should provide clear criteria for evaluating the final product and results, i.e., what will count as a successful outcome to your project.

Your submission must comprise three parts, as follows:

1. A separate **title page** containing the title, your name, a 100-200 word abstract, and a signed declaration stating: *I certify that all material in this dissertation which is not my own work has been identified.*
2. The **body**, which must be no more than 8 sides of A4 and presented in font size 11 point with margins of 2cm (single column, and single space between lines).
3. The **bibliography**, also in a font not less than 11pt; it is expected that this section will take up at least half a side of A4, and is not likely to exceed three sides.

You must submit your work to ELE2 by the submission time stated on the first page of this document.

Please see overleaf for marking criteria.

	0-24	25-39	40-59	60-69	70-79	80-100
Motivation and background context (40%)	Severe weaknesses in both the motivation for non experts (i.e., it fails to motivate and explain the work at all) and in the related work discussions for experts (e.g., it misses well-known and important works).	Lacks structure and clarity, compared to a work in the previous category. Still, there is some motivation and related work discussion.	Contains a motivation for non-experts that might have some minor inconsistencies but, in general, is still understandable. Similarly, the related work discussion for experts contains most of the important works, maybe not well-structured or the critical analysis is not done thoroughly.	Some weaknesses but, overall, still conveys a clear motivation for non-experts and the discussion of related work for experts covers all important aspects along with the critical analysis.	Only have minor weaknesses, for example, missing a related work that is not crucial could be tolerated.	The project is well motivated for non-experts in such a way that they understand the importance of the project and also get a good understanding of the problem that will be solved. Discussion of the background context for experts is clearly structured and includes all important relevant works and techniques along with a comprehensive critical analysis.
Project aims and objectives (30%)	The project neither defines project aims nor an evaluation strategy.	The project defines aims and/or an evaluation strategy with major weaknesses.	Report lacking somewhat coherent evaluation strategy can at most be in this category. Overall, the report will have some aims defined and at least will sketch discussion how the success of the project can be evaluated.	The report defines a goal but only contains an evaluation strategy that has serious gaps.	The report has a well-defined aim and some objectives together with discussion how the project results can be evaluated.	The report has a clearly defined project aim that is broken down into objectives/requirements with clearly defined success criteria and a well-thought-out evaluation strategy and experimental design.
Project management (10%)	No or a very rudimentary project plan is given, no or very limited discussion of project risks.	Some coarse-grained project plan is included in the proposal at least some risks (as appropriate for the topic) are discussed.	A basic project plan is presented and the most important risks and legal/ethical aspects are covered (or there is a basic justification that there are none).	A solid project plan that covers the core aspects of the proposal and also discusses all important risks and legal/ethical aspects (or provides at least a solid justification why there are none).	Only very minor weaknesses compared to an outstanding proposal. For example, some minor risks might not be covered or the justification why there are none might have minor areas for improvement.	A conclusive project management plan with well-defined tasks or deliverables with due dates and success criteria defined. All relevant project risks and ethical/legal issues are discussed (or there is a convincing justification why there are none) and mitigation strategies are proposed.
Style and presentation (20%)	The basic layout and structure has not been followed.	The given style guide is not followed in at least one aspect.	The layout and style guides is mostly adhered to but might have minor issues in several aspects (e.g., an incomplete bibliography, dangling references, overlong lines).	A good report with minor issues in one or two areas, e.g., it might have incomplete bibliographic references or might have some inconsistent spelling. It should not contain any major issues. Reports that are exceeding the page range can at most achieve a mark in this range.	Only have minor weaknesses w.r.t. following the layout and editorial guidelines, including a complete and flawless bibliography. The writing style is concise and clear and the use of the English language and grammar is clear (i.e., not or very few sentences that are hard to read). Overall, the style and presentation should be of such a quality that it could be published in a good workshop.	Strictly follows the layout and editorial guidelines, including a complete and flawless bibliography. The writing style is concise and clear and there are no (or very minor) spelling and grammar mistakes. Overall, the style and presentation should be of such a quality that it could be published in a good conference or journal.

Table 2: Literature review & project specification – marking criteria

The report will lose 5 for each page by which the length of the document (excluding title page and references) exceeds 8 pages.

Part 2: Final project & code

The lecture slides about final report preparation and also the submission guidance are available in the ‘Lectures’ tile.

A 20-page document describing the design, implementation, testing and evaluation of your project, together with suggestions for further possible improvements and a final critical assessment against your original goals. Additional reference material, if needed, may be included in an appendix (additional to the 20 page allowance), on the understanding that this material is **not** assessed.

The final report should comprise (**please check the provided template tile on ELE page**):

- The **title page**, as described above for the literature review, except that the abstract may be up to 250 words in length.
- A **table of contents**, immediately following the title page.
- The **body** of the report, which must not exceed 20 sides of A4 in font size 11 point and with margins of 2cm. Please use single column, single line spacing. Tables and figures could have smaller font - 9 point.
- The **bibliography**, as described above for the literature review.
- **Appendices (optional)**. These may be used to present, for example, experimental data, UML diagrams, data-flow diagrams, user manuals, or screenshots, which you wish to include for the sake of completeness. Note, however, that the report itself must be self-contained; the appendices do not contribute to the assessment. Your main results and the evidence for them must be included in the body of the report.

You must submit your work to ELE2 by the submission time stated on the first page of this document.

Please see overleaf for marking criteria.

	0-24	25-39	40-59	60-69	70-79	80-100
Project specification, motivation and aims (10%)	The report has severe weaknesses in motivation and/or aims (e.g., it fails to motivate and explain the work at all, or does not articulate any aims/objectives).	Lacks structure and clarity, compared to a work in the previous category. Still, there is some motivation and some aims are identified.	Contains motivation and aims that have weaknesses but are, in general, still understandable. The purpose of the project and a some aims are reasonably clear.	Several weaknesses but, overall, still conveys a clear motivation and aims for the project.	Only minor weaknesses. For example, the motivation might be weak, or the aims might be vaguely defined. Overall, the content of these sections of the report should be of a quality that they could be published at a good workshop.	The project is motivated such that the reader understands its importance and the approach that will be taken. The aims, objectives and scope of the project should be clear, as well as how success should be judged. Overall, the motivation, context and aims should be written at a level of quality such that they could be published in a good conference or journal.
Design, methods and implementation (25%)	The report presents neither the project design choices - including its methods or implementations - nor the success criteria.	The report contains very few details in multiple elements (e.g., key project design choices, its methods/ implementations, the resources utilised in the project (data, models, frameworks, tools), justification for the design/ development choices and success measures).	The report describes with some level of details the most important aspects of the project design, methods and implementation with relevant justification for the choices. The resources are reasonably described. Some aspects of the success criteria were presented.	The report provides a reasonable amount of detail to all the important aspects of the project such as experimental design, methods and implementation details with relevant justification for the choices, including the success criteria. The resources utilised in the project are properly described.	The report provides a good level of details to all important aspects of the project such as experimental design, methods and implementation. All design choices are properly justified and backed up by supporting evidences. All the success criteria are described and justified. The resources utilised in the project are also very well described.	The report describes in a lot of detail all the important aspects of the project such as experimental design, methods and implementation. Details around the design, methods and implementation should be enough for a scientist in the area to accurately reproduce the presented work. All design choices are properly justified and backed up by supporting evidences. All the success criteria are described and justified. The resources utilised in the project are also very well described.
Project results, evaluation and testing (25%)	No results/outputs, or very rudimentary results/outputs, with major weaknesses and omissions. No analysis or very limited analysis.	Some experimental results are included in the report and very simple analysis is presented, but there are multiple weaknesses or missing elements.	Results/outputs are presented with some basic analysis. There are few contextual/ comparative metrics, e.g. only simple baseline methods, or a lack of appropriate statistics. Outputs are mediocre and do not fully address the aims and objectives. Experimental results are shown by using a few tables, figures and charts, but are poorly constructed.	A report in this range presents an adequate amount of results with appropriate analysis, but is not comprehensive and its quality does not reach the highest standards. It should contain appropriate figures and tables, with suitable context (e.g. error bars). Outputs are of good quality, but do not show any novel results or originality.	Complete results with appropriate and sufficient analysis. Results are presented with some context for their interpretation, which can justify the projects conclusions. Outcomes are reasonably convincing and may show originality.	Comprehensive results/outcomes with full and appropriate analysis and supporting evidence/evaluation/ testing. Results are presented with appropriate context (e.g. comparison experiments, baselines, error bounds, user studies), which clearly and fully justify the technical advantages of the selected solutions. Outcomes are convincing and comprehensive representing an excellent piece of work that shows an identifiable problem solving strategy and originality.
Project discussion and conclusion (15%)	The reports lacks any discussions nor reflections or they are incoherent and contain major flaws.	The report might contain a brief discussion but it contains significant flaws.	There discussion is mostly coherent with critical reflection. The discussion misses aspects of the work but the overall message is present without major flaws/inconsistencies.	A good project report will have a compelling discussion of the results including convincing critical reflection on the work. The reflection will include all major aspects of the project.	A very good project report report will have a mostly coherent discussion of the results including a critical reflection on the work. It only contains minor flaws or missing pieces that do not cast any doubts on the quality of the presented results.	An outstanding report will have a coherent discussion of the results including a critical reflection and potential future directions. This report does not contain any flaws and is as strong as one would expect from a publication in a good conference or journal.
Style and Presentation (10%)	A project report in this marking range makes little attempt to follow the basic layout or style guidelines, omits several sections or has no recognisable structure, or has multiple other major weaknesses.	A project report in this range will violate the given style guides severely in at least one aspect (e.g., using the layout guidelines, missing out an important section, having a major structural issue).	Mostly follows the layout and style guides but might have medium or severe issues in several aspects (e.g., an incomplete bibliography, poor writing, bad structure, inaccurate figures/tables).	Well written and presented, but has some weaknesses that prevent it meeting the quality required for a very good project report in one or two areas. These might include incomplete bibliographic references, inconsistent spelling/grammar, or some poorly presented figures/tables. The structure is clear and appropriate. Project reports that exceed the page range can not achieve a mark beyond this range.	A very good report with only minor weaknesses compared to the definition for the previous range. Some minor errors in following the layout and editorial guidelines, or in the bibliography. Writing style is mostly concise and clear but there may be occasional mistakes in the use of the English language and grammar that do not affect the meaning. There may be occasional weaknesses in minor aspects of figures and tables. The structure is clear and appropriate. Style and presentation are of a quality that it could be published in a good workshop.	Layout and editorial guidelines are strictly followed, including a complete and accurate bibliography. The structure of the report follows a clear narrative flow and contains all appropriate sections with no unnecessary content. All figures, tables and other items are very well presented. The writing style is concise and clear and there are no (or very minor) spelling and grammar mistakes. Overall, the style and presentation should be of such a quality that it could be published in a good conference or journal.

Table 3: Final project & code – marking criteria

The report will lose 5 for each page by which the length of the document (excluding title page and references) exceeds 20 pages.
Please see overleaf for detail about the demonstration and code.

Demonstration and code

Purpose: The purpose of this demo is to test the ability of the student to communicate their work in an alternative format and to demonstrate the work they have produced.

Format:

- All presentations should be made as a pre-recorded video.
- The video should be stored on the University One Drive.
- Each presentation should last no more than 20 minutes.
- Each presentation should contain a Demo section of the code.
- The slides should be converted in PDF format.
- The last page of the slides should contain the link to the presentation video on One Drive (Please check that the link works).
- The last page of the slides should also contain the link to your code on One Drive (Please check that the link works).

Submission:

- Slides (with links to available to both video file and your code on OneDrive) must be submitted to ELE2 by the date shown on the first page of this document.
- Video file and code must be uploaded on OneDrive by the date shown on the first page of this document.

Presentation content: The presentation should clearly explain the main aims, methods and outcomes of your project. Within this general guidance, you have freedom to choose the material you include.

Suggested aspects that you might cover include:

- Background & content
- Aims & objectives
- Dataset, software platforms, or other significant technical background
- Experiment design, software development approach, algorithms, or other technical methods
- Results
- Discussion, future directions and conclusions
- Demo of your code

The demonstration should communicate the main findings or features of the project and show the outputs. Content may vary depending on the nature of the project. For software projects, it may show the software in operation and aspects of the code. For research projects, it may focus more on the scientific findings and show aspects of the analysis process. You can use any video recording software but you may find 'Record Your Screen In Powerpoint' useful.

Please see overleaf for information on how the Demonstration and Code component is assessed.

The Demonstration and Code component comprises 15% of the final report mark. The assessment will consider the following aspects:

- **Background & aims:** To what extent were the project background, context, aims and objectives clearly explained and coherent.
- **Technical aspects:** To what extent were the technical aspects of the project (e.g., data, methods, software specifications, experiments and testing) explained clearly, concisely, and correctly, with an appropriate level of detail for the audience.
- **Results & interpretation:** To what extent were results communicated effectively, with appropriate graphs, tables or other visualisations? Were results interpreted correctly and linked back to the wider context of the project aims?
- **Presentation style & structure:** To what extent was the presentation engaging and easy to understand? Were the visual aids (e.g. slides) attractive and informative, with a suitable level of detail? Did the presentation follow a clear structure that was appropriate to the content? Did the speaker keep to time, without speaking too fast or too slow?
- **Code demo:** Does the demo provide a good overview of the main features and outcomes of the code/project?