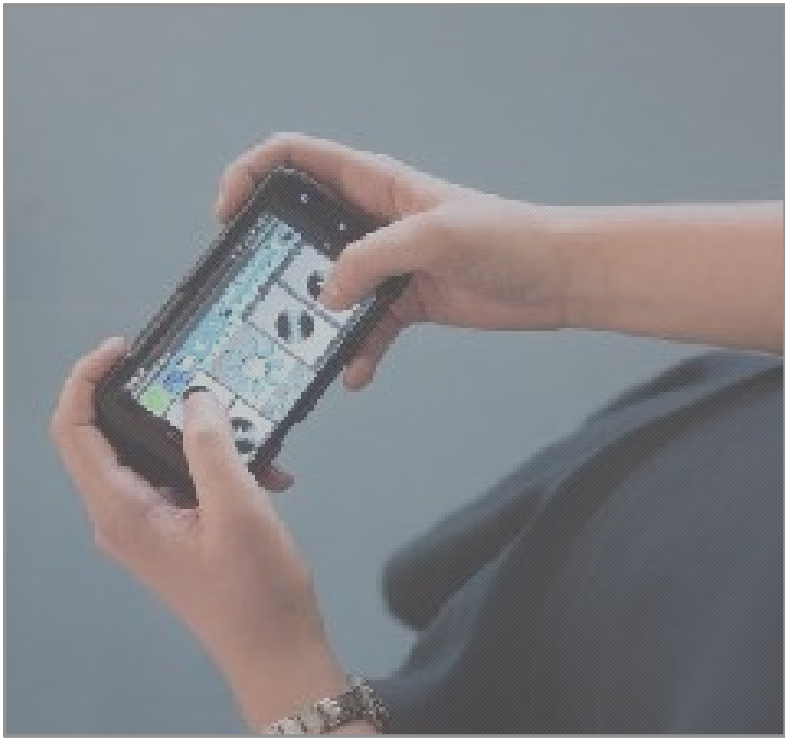
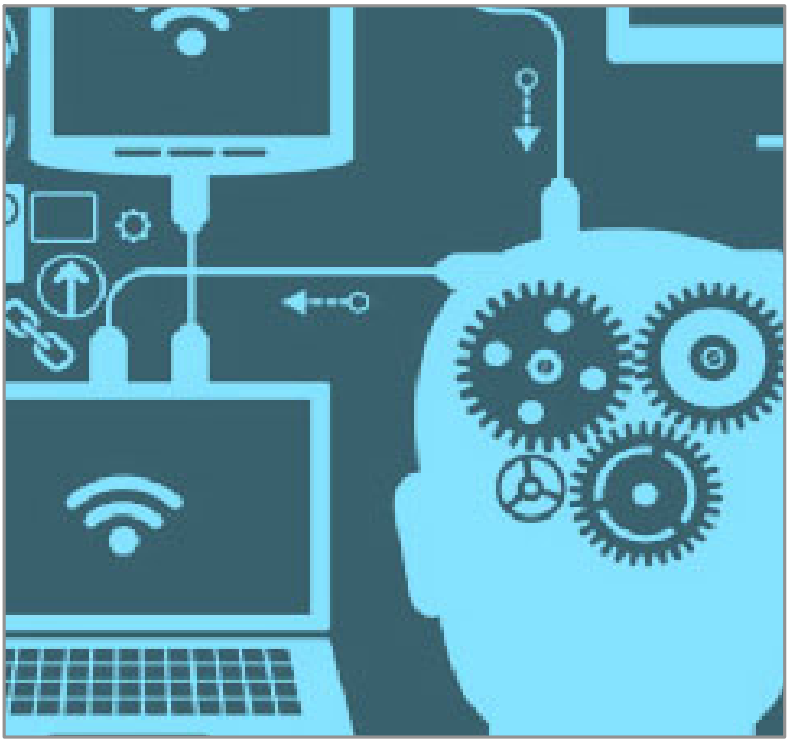
# Computer Science and Digital Technologies





# MSc Dissertation

2023/24

CN7000

## Module Study Guide

Module Title: MSc Dissertation
Module Code: CN7000
Term **3**
Academic Year 2023/24

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Pioneering Futures Since 1898

Dr. Saeed Sharif

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# 1. Document Summary

This document contains an introduction to and overview of the research dissertation module for Computer Science and Informatics master programmes within the School of Architecture, Computing and Engineering. It describes the purpose and operation of the module. As such, all students undertaking CN7000 must read this guide and familiarise themselves with its content.

# 2. Entry Requirement

This module is worth **60 credits** and it is core to the following programmes:

- Master of Science in Computer Science,
- Master of Science in Computer Science with Industrial Placement.
- Master of Science in Data Science,
- Master of Science in Information Security and Digital Forensics.
- Master of Science in Information Security and Digital Forensics With Industrial Placement.
- Master of Science in Artificial Intelligence.
- Master of Science in Artificial Intelligence (With Industrial Placement).
- Master of Science in Blockchain and Financial Technologies.
- Master of Science in Blockchain and Financial Technologies With Industrial Placement.
- Master of Science in Cloud Computing.
- Master of Science in Cloud Computing With Industrial Placement.
- Master of Science in Big Data Technologies.
- Master of Science in Computer and Information Communication Technology.

**In order to be admitted to CN7000, a student must have obtained 90 master level credits prior to the beginning of the module.**

This requirement is binding. No student with less than 90 credits will be allowed to proceed forward in CN7000.

# 3. Module/Dissertation Duration

The CN7000 module runs during every term of the academic year. That is, the module has cohorts starting in Semester A (Term 1), Semester B (Term 2) and Semester C (Term 3). For full-time students, the module is taken over a **single** semester. For part-time students, the module is taken over **two consecutive** semesters, starting with the one in which they register for the module. Note, the duration which you are allowed to study the module will dictate your **final dissertation submission deadline**. Refer to Table 1 for a matrix illustration of

the deadline.

Missing the submission deadline may adversely affect your grade, award and funding/fees.

If you have any doubts about the deadline applicable to you, please consult– HUB, departmental admin, project supervisor, personal tutor, programme leader and module leader as required. Please ensure that your module registration reflects your mode of study correctly. That is, students studying the module on a full-time basis should be registered as either SEMA, SEMB or SEMC, whereas, a student studying the module on a part-time basis should be registered as either SEMFA, SEMFB or SEMFC (or SEMFC1). Please check your module registration on UEL Direct to ensure that you are correctly registered.

Table 1: Dissertation Deadline Matrix

| Mode of Study | Start of Registration (Semester) | Dissertation Submission Deadline (Semester) |
|---|---|---|
| Full-time | Semester A | End of Semester A* |
| Full-time | Semester B | End of Semester B* |
| Full-time | Semester C | End of Semester C* |
| Part-time | Semester A | End of Semester B* |
| Part-time | Semester B | End of Semester C* |
| Part-time | Semester C | End of Semester A* |

**Please refer to Moodle site and study guide for exact deadlines.*

## 4. Learning Outcomes

The aim of this module is to enable you to undertake a sizeable piece of individual academic work in an area of your own interest relevant to, and to demonstrate technical skills acquired in, your programme of study.

This postgraduate work will include an advanced level of research, analysis, design, implementation and critical evaluation of your solution.

You must cover the following topics in practice by applying them to your chosen research project:

- Identification of a suitable research topic,
- Research methods,
- Literature surveys, searches and reviews,
- Plagiarism and referencing,
- Effectively engaging with academic research both on a theoretical and practical point of view,
- Academic writing and presentation skills,
- The development and documentation, to a master level standard, of a large, non-trivial and genuine research project aligned with your Master of Science programme.

At the end of this module, you will be able to:

**Knowledge**

1. Demonstrate an advanced knowledge of one chosen and highly specific area within the scope of your Master of Science programme and to communicate this knowledge through both a written report (dissertation) and an oral assessment,
2. Demonstrate the knowledge of research methods appropriate for a master level course and to communicate this knowledge through both a written report (dissertation) and an oral assessment,

**Thinking skills**

3. Use analytic skills in assessing the work of others in order to assimilate these results iteratively into an integrated framework of understanding,

**Subject-based practical skills**

4. Write a substantial report (dissertation) containing a practical element representing at least 25% of the overall contribution but not exceeding 50% of the work,

**Skills for life and work (general skills)**

5. Plan the production of an extended piece of work with a fixed delivery date,
6. Manage and deliver the production of an extended piece of work according to the submitted plan, whilst liaising with a supervisor.

All these six learning outcomes (LO) will be assessed through your dissertation and presentation.

## 5. Differences with Undergraduate Projects

This module occurs at a master level and is worth 60 credits. Master programmes aim at providing students with advanced skills, reasoning methodologies and analytical strategies.

Therefore, the expectations in term of work commitment far exceed those required at an undergraduate level. In particular, it is expected from the students to produce an advanced research effort on both the theoretical aspect and the practical aspect of the project. In particular, they must choose a key genuine research problem worthy of a master level investigative work, provide a much deeper analysis and much more efficient solution than what could be asked at an undergraduate level.

At a master level, the emphasis is on excellence on all aspects of the project (choice of the problem, theoretical analysis, practical design and implementation, critical analysis, dissertation writing).

## 6. Teaching Process and Support Material

The module will be delivered through a combination of research methods classes and individual supervision sessions and will be supported by a comprehensive set of self-study materials.

Lectures will be used to introduce both the theoretical and practical aspects of the course. They will not necessarily be of a traditional didactic nature and you may be required to participate in a variety of tasks during them.

The majority of your time on this module will be spent in private study. You are expected to use this private study time to read widely, beyond the essential reading, and prepare for your supervisory tutorials as requested by the teaching staff.

The Moodle website will play a fundamental role in the delivery of this module. This site will contain a variety of information and resources including teaching and learning materials (study guide, lecture slides), assessment information (Turnitin submission links) and

administrative forms that you may need for your research work. **As such, you must check the content of Moodle regularly.** If you have any issues with accessing the site, please contact the Module leader as soon as possible to rectify access issues.

The Moodle site for this term is located at:

https://moodle.uel.ac.uk/course/view.php?id=42707

Every student will be allocated a supervisor at an early stage of the module (see Section 10). The supervisor will support the student for the duration of the research project during the term. **There will be no extra supervision for those who need to resit.**

Communication to you will exclusively be made via emails. **Therefore, it is your responsibility to check your mailbox on a very regular basis.**

Should you experience problems with getting access to your Moodle account and/or your UEL mailbox, then you should enquiry IT Services. **It is not the job of the module leader or of your supervisor to address such concerns.**

The module activities are initially planned as follows:

| **Indicative Teaching and Learning, Time** | **Activity** |
|---|---|
| **Student/Tutor Contact Time** | Research method classes (14 hours)<br>Supervisory tutorial (10 hours)<br>Preparation for oral examination (2 hours) |
| **Student Learning Time** | Management and planning of the dissertation (82 hours)<br>Theoretical analysis and practical implementation (492 hours) |
| **Total Hours** | 600 hours |

You are also encouraged to use the following resources throughout the module:

**Recommended Reading**

Dawson, C. W. (2009) Projects in Computing and Information Systems: A Students Guide, 2nd edn. Harlow, Essex: Pearson Education.

Glasman-Deal, H. (2009) Science Research Writing for Non-Native Speakers of English. Imperial College Press.

Levin, P. (2008) Excellent dissertation. Open University Press. Lock, D. (2007) Project Management. Gower. Reason, P. and Bradbury-Huang, H. (eds) (2007) The SAGE Handbook of Action Research: Par- ticipative Inquiry and Practice. Sage.

Rugg, G. and Petre, M (2007) A Gentle Guide To Research Methods. Open University Press. Saunders, M. N.K., Lewis, P. and Thornhill, A., (2002) Research Methods for Business Students. Prentice Hall.

Sharp, H. K. and Peters, J. A. (2002) The Management of a Student Research Project. Gower Publishing Limited.

Walliman, N. S. R. (2000) Your Research Project: A Step-by-step Guide for the First-time Researcher. Sage Publications Ltd.

# 7. Teaching Team

There will be two academics involved in this module:

- **Dr. Saeed Sharif (Module Leader)**

  **Email**: s.sharif@uel.ac.uk

  **Tel**: 020 8823 7707

  **Room**: EB.1.93

- **Dr. Mark Unwin**

  **Email**: m.unwin@uel.ac.uk

# 8. Role of the Module Leader

The module leader is only here to administer and coordinate the module. That is, he is here to ensure that the teaching delivery and the assessment procedure are implemented according to the UEL module specifications document.

In particular, it is NOT the duty of the module leader to interfere with supervision or marking. In addition, the module leader:

- does NOT decide about extenuation, special consideration or appeals,
- is NOT here to solve your IT problems (e.g., loss of login ID/password, impossibility to connect to UEL account or to Moodle, software issues and so on),
- is NOT here to check your financial status, your programme registration status, your attendance status or your existing credits.

Such queries should be directed at the relevant UEL services.

Finally, the module leader is not in charge of registering you to this module. Registration is automatic as soon as you have 90 master level credits (see Section 2.). If you are still not registered despite the correct amount of credits, then you should visit the HUB and ask them to register you. **This does not require any intervention from either the module leader or the programme leader**.

# 9. Research Requirements

This module is a one-term learning experience with an emphasis on advanced research and implementation. As the purpose of master studies is to have the students become experts in their area, you are requested to choose your own research topic as the basis of your project. Of course, this topic can be modified later on based on the feedback and suggestions of your supervisor. There are a number of parameters to be taken into account when choosing a research topic:

- Your dissertation must contain both a theoretical and a practical component. In other words, you must research your chosen topic, identify a problem and then develop a solution to that problem. The research and identification phases must be carried out in the earlier part of the project to allow sufficient time to implement your solution, get feedback on this implementation and synthesize your overall work (i.e. write the dissertation report at a master level standard).
- Your project must be consistent with the aims and learning outcomes of the particular Master of Science that you are studying. For instance, if you are a Software Engineering student then your research project must exhibit a strong software engineering component!
- Your project must involve study at an advanced level (i.e. topics/issues appropriate to master level studies). Projects that involve little more than the application of undergraduate skills are not appropriate since master programmes aim at providing students with advanced skills, reasoning methodologies and analytical strategies.
- Your project must have a strong element of originality. For example, surveys, taxonomies and case studies are NOT acceptable to be a project on their own. Furthermore, you should not be repeating the work of others or trying to solve a problem which has been solved before unless you are going about it in a new or novel way. In the latter case, a significant part of your work will have to argue about this novelty.
- You must critically evaluate both product and process (i.e. the solutions that you have produced and the methods), tools and techniques that you have used to produce them.
- Your project must be feasible in terms of time, resources and the skills at your disposal. Nevertheless it should still be challenging and provide opportunities for advancing your knowledge and expanding your skills set. You must have access to the facilities you will need to undertake your project. It is pointless attempting something which requires resources which neither you nor the University is in a position to provide. Your supervisor will be able to advise you regarding the availability of University resources.
- If your project involves the development of a system, application or software artifact for a client then that client must
    1. give his/her written consent to the project (see 27.4 for the agreement form),
    2. guarantee to provide you with access to the necessary resources including his/her time,
    3. provide some form of evaluation of your work which can be documented in your final report.

    **Note that it is not appropriate for you to fulfil the role of both client and developer**. For more information regarding client-based projects, please see Section 20.
- If some of your research activities are to involve human participants (for instance, and not limited to, questionnaires, interviews, observations) then YOU must fill the appropriate forms and get research ethics approval PRIOR TO performing such activity.

To conclude, whatever topic you choose as the basis of your research project, it should be something that interests you. Even if this is more a suggestion than a requirement, you will find it very difficult to maintain your enthusiasm to produce a dissertation at a master level standard if you choose a topic that does not particularly inspire you.

# 10. Research Method Classes

The research methods lectures are designed to give our students an understanding of what is required of them in terms of output, planning and managing their work, literature review, critical analysis and reflection, conclusions, referencing, plagiarism, presenting their work and the viva voce.

## 10.1 Research Methods and Dissertation Writing Skills

This activity is done with the support from the English Language centre. The postgraduate students prepare a research proposal during the research methods workshop. This proposal sets out in detail the work that will be carried out for the dissertation. The dissertation proposal must also set out the problem and the methodology to be adopted and be a feasible project to carry out in the time available. The proposal will be developed in liaison with the project supervisor, who will certify the dissertations worthiness of a Master of Science programme.

You must submit your dissertation proposal (via Turnitin) by **24** of June 2024 at Midday (12:00). All proposals should be submitted via the Moodle website for the CN7000 module in either .doc, .docx or .pdf format. Proposals submitted by other means will not be accepted. An electronic copy of the dissertation proposal should be submitted through Moodle. Please ensure that you consult your supervisor regarding the proposal when writing up and submitting your proposal.

Section 27.3 contains a copy of the dissertation proposal template.

## 10.2 Research Methods Workshops

The Research Methods (RM) Workshops will be conducted during the dissertation semester and will cover the following suggested topics:

RM1 Introduction to the research project including the nature of the scientific research process,

RM2 Identification of research topics in science, identifying the aim and objectives for your specific research,

RM3 How to identify research questions and goals in science,

RM4 Introduction to the research methods relevant to science, choice of appropriate methods,

RM5 Literature review and critical analysis,

RM6 Research contributions: specification, design, implementation and evaluation,

RM7 Design of questionnaires, case studies, empirical studies, qualitative methods, quantitative methods including statistical methods,

RM8 Writing up.

# 11. Supervisor Allocation

Every student will be allocated a supervisor at an early stage of the module. The supervisor will support the student for the duration of the research project during the term. There will be no extra supervision for those who need to resit.

The purpose of supervision is to provide students with academic expertise based on their undertaken research project. The supervisor, however, is not here to do the research/implementation work instead of the student. His/her role is about guidance throughout the different steps of the student project.

Before supervisor allocation can take place, you must work out your own draft of proposal for your dissertation. Once this is done, you should contact an appropriate member of staff (from Computer Science and Informatics) based on his/her research interests and your project objectives. Before you do so, check out the webpages of Computer Science and Informatics staff members from https://www.uel.ac.uk/about/our-schools/school-architecture-computing-engineering. You should also check the Moodle site to check which staff member is available for supervision during this specific term.

I do stress that you have to contact staff members at the very early stage of the module. As said before, this master level module requires a large amount of commitment from you. As such, you need guidance and clear directions as early as possible. Furthermore, our staff members have few slots available for supervision. As such, you must not wait to get the supervisor you believe is the most appropriate for your project since staff members take students one a first arrived-first served basis.

**If you wait for too long before contacting anyone (or if you do not contact anybody whatsoever), then you will be brute force-assigned to somebody. That is, you will be paired with a staff member who still has some slots available for supervision.** In most cases, this leads to a weak matching in term of research interests and in a very limited amount of expertise that this default supervisor can give you. The resulting projects are often of poor quality with a non-negligible number of them turning into failure to the module.

**To find a supervisor, as for any other part of your research project, you have to be proactive.**

Even if the dissertation proposal does not count towards the final mark of CN7000, doing it on time is a good indicator of your progress.

- To us, it means that you have an idea about the problem that you want to work on, about its research environment and about the type of solution that you want to propose.
- To you, it proves that you already have an insight about the milestones to reach and a grasp of the key subtasks to perform (even if, at this stage, there are still many things to clarify).

**I highly encourage you to start thinking about your dissertation and discussing ideas with potential supervisors as early as possible, possibly even before the start of the term in which you are taking this module.**

# 12. Project Planning

To make the most effective use of your time, you need to draw up a project plan for yourselves. This should detail which activities you are going to undertake, when you are going to start them and when you expect to complete them. This plan should take into account factors such as the workload for the other modules that you are studying and the various deadlines for the different tasks you need to undertake to complete your project. This plan must also consider the extra knowledge and skills that you need to acquire in order to reach a good outcome for your project. Your supervisor will help you establish the milestones but it is up to you to make sure that you keep on track.

## 12.1 Finding the Project Activities

The tasks identified in your project plan should be consistent with the objectives of your research proposal.

The idea is to break down the different objectives and develop your activity list until it reaches a level of detail at which it is possible to allocate start dates and durations and to identify dependencies between tasks.

However, it is a bad idea to break down activities into too many levels if they will not start for some considerable time.

## 12.2 Timeline

Once you have broken down the activities required for your project as suggested in Section 12.1, you need to evaluate how much time everyone of them is going to take and which new skill(s) or knowledge you have to acquire to achieve your project objectives (and how you are going to acquire them).

This listing of sub-objectives and skills forms a key tool for achieving a successful project as it helps you keep track of the time already spent, the remaining tasks ahead and the overall progression of the project. Thus, it is important to keep your this information up-to-date throughout the duration of your research project and to be ready to adapt your timeline based on you advancements.

You must produce a simple Gantt chart representing this timeline as part of your dissertation proposal and, an updated version, in your dissertation.

# 13. Maximizing the Use of your Time with your Supervisor

**Your research project is your sole responsibility!**

Your supervisor's role is to provide you with academic guidance but NOT to do your project for you. Your supervisor is not obliged to chase you if you fail to keep appointments with him/her and there is a strong correlation between attendance at and participation in supervision and a student's final mark.

Keep in mind that your research project should be something that you should be able to use in your future job applications to strongly support you by demonstrating your abilities in managing a real-life project with accuracy at a high level. As such, it is in your best interest to build the most consistent and interesting project possible both on the theoretical side and on the industrial point of view. As a consequence, the academic expertise of your supervisor is critical and you should make the most of this opportunity.

Your time with your supervisor is limited and supervision only occur during term time (e.g., resit does not entitle to any additional supervision). It is very important therefore that you make the most of this time. To make the most effective use of your supervisor's time, you need to have a firm idea of what you wish to achieve during supervision. You should also come to an agreement with your supervisor, as to how you could best benefit from his/her academic advice and you should mutually agree the time and date of meetings in advance.

## 14. Additional Support for Project Students

The Moodle site for the module will contain a variety of information and resources including project documentation and forms, teaching and learning materials, and important news regarding the operation of this module. You are urged to visit the site on a regular basis to ensure that you keep abreast of important events and

- to use the discussion forums to share problems and discuss issues with fellow students.
- to provide details of/links to useful information that you have found whilst studying and which would be helpful to other students.

## 15. Referencing your Work

At the end of the module, you are asked to submit a significant piece of written work (dissertation). To do so, you will need to undertake a review of literature as initial part of your research investigations. You are encouraged to use the electronic services available in both UEL and the libraries of the relevant professional bodies such as the British Computer Society (a body which you can join as a student member). Bear in mind however that, in all cases, it is essential that the sources of information that you use be properly referenced. Doing so avoids accusations of plagiarism and enables other people to build upon the work that you have done.

The University requires all its students to use the Harvard system for referencing their work. Details of the Harvard system can be found online. Plenty of materials are available on the Moodle site of the module.

There is also an on-line plagiarism prevention tutorial known as PLATO, available online

To access this tutorial, you will need to log in using your normal UEL network username and password.

To help you organize your references, you should keep a record of the sources of information that you use. These records could be kept in an ordinary database, spreadsheet or possibly on index cards (see Table 2 below). The indexing and subsequent easy transfer to your reference list can then be done by sorting the records (or cards) into an appropriate order. If you prefer, you can use EndNote, a specialist tool designed to help researchers search online bibliographic databases and organize their references. Details of EndNote can be found at https://endnote.com/wp-content/uploads/m/pdf/en-online-qrc.pdf. There are other referencing tools/software which also enable you manage you bibliography, connect to Microsoft Word to insert citations and produce the correctly formatted list of bibliographical references. A good example is Mendley: https://www.mendeley.com/.

Table 2: Recording your Sources of Information

| | | |
|---|---|---|
| Authors name and Initial: | Date of Publication: | |
| Title: | | |
| Item Type (Book/Article/Other): | | |
| Page Numbers: | | |
| Journal Name: | Vol: | Issue No: |
| Place of Publication: | | |
| Publishers: | | |
| Summary: | | |

Direct quotes could be given in quotation marks and, according to Cottrell (1999, p122), used sparingly - and only if the words are really worth quoting. They should be indented if they are longer than 40 words or are a complete subsection of someone else's work. However, this copy-paste approach to quoting a text is weak. Instead, in an international standard, one must rephrase using his/her own words what is relevant to the point being made. The purpose of this approach is to make sure that the person quoting text is able to extract the proper source of thinking (i.e. to identify the underlying idea or fact) and synthesize it. This is in order to get rid of research papers and reports which are pure copy-paste documents without any trace of synthesis or analysis from his/her author. As such, you are extremely encouraged to do the same with your report.

Good referencing is key to proper academic integrity. Cottrell (1999, p122) also says that, reference must be acknowledged whenever you draw on a source of information:

- As your inspiration,
- As the source of a particular theory, argument or viewpoint,
- For specific information, such as statistics, examples, or case studies,
- For direct quotations,
- For texts which you paraphrase rather than quote.

To help you improve your referencing skills, you should make use of the Turnitin service. This service can be accessed via the links on the home pages of the Moodle site for the module.

# 16. Writing the Dissertation

It is a good idea to let your supervisor have a copy of each section (or chapter) of your dissertation as they are completed rather than waiting until you think you have completed the report in its entirety. By doing this, you can take account of your supervisor's comments at an early stage. This should also mean that when you submit the drafts of the final versions of your report to your supervisor, changes should be limited to minor amendments and not major rewrites.

The final version of your written work must be submitted to Turnitin. However, you should not wait until the end of the module to do so. If there are problems at that stage then you will not have time to remedy them. Ideally, you should submit your work to Turnitin after each chapter or section has been written. Adopting such an approach will help you to develop good habits more quickly.

## 16.1 The Contents of your Dissertation

It must include the following sections:

- Title page showing the title, student number, programme, year and semester of submission,
- Contents page(s),
- Acknowledgements (if you wish to acknowledge people that have helped you),
- Abstract,
- Body of the dissertation,
- List of references,
- Appendices (including implementation code).

Observe the following guidelines when writing your dissertation:

- **Your dissertation must be word-processed**. In particular, hand written submissions will NOT be accepted. You are also encouraged to use LaTeXtypesetting, which is best for producing high quality, well-formatted scientific publications. Overleaf (www.overleaf.com) is an online LaTeX editor.
- Pages must be numbered but you will find paragraph numbers easier for cross referencing.
- Appendices should only contain supporting documentation which is relevant to the report in which they are included. Their size should be kept to a minimum.
- Material must be accurate and presented in a structured manner.
- The information contained within your dissertation should be presented in such a way as to allow both staff and students in the future to read, understand and learn from you.
- The word limit should be adhered to (see Section 21.). Indeed, this limit is set to force you to synthesize your thoughts. This ability is very important in industry as you must

convey to your colleagues and managers the key ideas about your work in a clear and concise way. However, I point out that massively moving content from the body of your report to appendices is not a substitute for writing concisely.

- The code of your implementation must be submitted as appendices. It does NOT count towards the word limit.

Your marks will suffer if your dissertation:

- is longwinded, tortuous, ill structured or otherwise difficult to read;
- does not make clear the sources you are using or uses them uncritically (criticism may not necessarily be adverse);
- is full of generalizations without supporting evidence or argument;
- fails to draw useful general conclusions from a body of detailed information;
- lacks perception, logic, coherence or balance.
- does not respect the word limit by more than 10% (either longer or shorter).

## 16.2 Dissertation Layout

Use any Word template and consult your supervisor for the most suitable one. Fill the first page of the dissertation with the project title, your student name, your student number, the module number and your supervisors name. Use the same fonts (including size) as in the chosen Word template. Fill the header appropriately with your name (first name followed by family name) and your student number.

## 16.3 Numbers and Headings

A well established method is as follows:

- Each section of your reports should have a title. These sections will be numbered 1, 2, 3 and so on.
- Side headings may be used to subdivide sections. Within each section, subsections may be numbered .1, .2, .3 and so on.
- Lists may be labeled (a), (b), (c) and so on, and within that, by (i), (ii), (iii) and so on. These are not necessary unless you wish to refer to selected items in the lists.
- If desired, sections can be grouped, without affecting the numbering, into parts, labeled Part I, Part II, Part III and so on.
- Appendices may be treated the same way with a number prefixed by 'A'. Thus 'A2.5' would be Paragraph 5 of Appendix 2.

## 16.4 Figures and Tables

Position them for easy reference when reading the text. Diagrams drawn too large, consisting of mostly blank paper are no help to the reader, so keep them neat with a reasonable information density. Tables and graphs should indicate axes and scales clearly and should be accompanied by a note on the source of the data or a reference, if the table/graph has been taken directly from the source.

Numbering can be simply Fig.1, Fig.2, Fig.3 (Smith, 2008, p99) etc., Table 1, Table 2, Table 3 (adapted from Jones, 2006, p67) and so on, each with a brief title.

## 16.5 Privacy and Confidentiality

Please bear in mind that your written work becomes part of the School's research material. It may therefore be made available to other students or staff.

If your report contains sensitive information which should not be made public then you should inform the module leader, in writing or via email, by the date of the deadline for the submission of the report which contains the sensitive information.

Personal information about individuals should never be included within your reports without the permission of the individuals concerned. Even with that permission, the true identity of the individuals concerned should not be revealed unless absolutely necessary. Names of individuals can be replaced by letters e.g. observation of Ms. X took place at the company HQ at 14.00 on 23 October 2010, based on the feedback from Mr. Y ...

## 16.6 Checklist

Here is a summary of the main points that you need to take into account when writing your report. You can also find this checklist on the Moodle site of the course.

**Overall**

- The report is of appropriate size.
- It is in line with the aims and objectives agreed with the supervisor.
- It details the literature material, the research strategy and the practical aspect of the student's work.
- It is cohesive, coherent, and professional.
- The Turnitin receipt shows that the report is genuine.

**Context Analysis**

- Appropriate research and literature review took place and are documented (References section and in-text citations).
- The References section of the report uses the Harvard style.
- Evaluation of the context is done to prepare the solution design.

**Solution Design**

- The product is implemented according to its design to a master level standard in a methodical and professional manner.

**Critical Review**

- Critical evaluation (positive and negative aspects) of the implementation against its specification and test results.
- Statement of success (containing limitations of the solution).
- Critical evaluation of theories, methodologies and tools used throughout the project.
- Appropriateness of research undertaken and critical impact (positive and negative aspects) for theory/industry.

**Conclusions**

- Overall summary of the project (subject area, problem considered, proposed solution, implementation results, outcome and limitations, overall relevance of the project for theory/industry).
- Future research directions relevant to this topic based on the outcome of the project.

## 17. Presentation

You are required to prepare a 15-minute presentation to illustrate your research work both on the theory part and on the practical side. It is up to you to choose how to distribute those 15 minutes between the slides summarizing your research work and the actual demonstration of your practical implementation.

At the end of your 15 minutes, you will be asked questions about your overall work. This is a unique opportunity for the assessors of your work to be able to interact with you. As such, they will question you to clarify points they did not clearly understand when reading your report and/or attending your presentation. You should see this as a chance for you to clarify those points and value your work.

It is good practice to rehearse with a peer to make sure that you fit in this time slot.

**This presentation will take place at the end of the term**. It will be organized by your supervisor who will set up the time for the presentation and inform the second assessor about it. It is your responsibility to make sure that you have the proper resources for your presentation (laptop, USB key, slides, any other relevant material). Should you require some specific equipment, you must let your supervisor know sufficient time in advance so that it can be booked.

Here is a checklist of the key items to take into account when preparing your presentation material. You can also find this checklist on the Moodle site of the course.

**Slides**

- The first slide contains the project title, the students name and ID, the students programme and course number as well as the supervisors name.

- They contain key information describing the research problem and objectives.
- The slides contain brief details of key aspects of literature review (key papers).
- They contain key information describing how the practical component was conducted.
- They highlight any problems encountered.
- They highlight key findings of dissertation.
- They contain appropriate acknowledgements and references.
- The design of the slides exhibits professional quality.

**Demonstration**

- The implementation works.
- It matches the project aims and objectives as described in the dissertation and in the slides.
- It is of professional quality in term of design.
- It is of professional quality in term of use by the student.

## 18. Submitting the Dissertation

In order for your work to be marked, you must submit your dissertation via the Turnitin link located on the Moodle site. There is no hardcopy submission whatsoever.

**The deadline for submitting the dissertation is the 09th of September 2024 at Midday (12:00). Work not submitted to Turnitin by the deadline date will receive an automatic mark of 0% unless extenuating circumstances have been sought AND granted (see more information on this matter in Section 22.).**

## 19. Conducting Ethical Research

As a student at UEL, you should ensure that your research is conducted in accordance with the University's Code of Good Practice in Research. Detailed documentation regarding research integrity and ethics can be found at: https://uelac.sharepoint.com/sites/GraduateSchool/SitePages/Researc.aspx. A copy of the latest Guidance document is available on the share point link indicated above and the module Moodle site.

Undergraduate students and taught postgraduate students will apply to the College Research Ethics Committee. Applications for Research Ethics Approval (Form A or Form B) should be submitted online through the Moodle site ATI Research Ethics Committee. The form is also available on the Moodle site, please refer to the guidance and deadlines for submission instructions.

For all enquiries to the ATI Research Ethics Committee, use the email address atirec@ue.ac.uk.

# 20. Client-based Projects

Client-based projects provide you with opportunities to gain valuable experience of real working environments and successful completion of them can enhance your CV.

It is important however that you do not find yourselves in a position where your client is unable to fulfill his/her obligations to you. Such a situation may make it difficult for you to achieve your aim and objectives which, in turn, may adversely affect your mark. It is essential therefore that all students intending to undertake a client-based project obtain the written consent and commitment of their client. This commitment needs to be obtained by the end of the eighth week of teaching. This deadline will leave you sufficient time to amend your project aim and objectives if you are unable to gain the commitment of your proposed client.

Your client needs to complete a copy of the form in Appendix D (see 27.4). Once completed, a copy of this form should be given to both your supervisor and the leader of the module.

**Under NO circumstances should you proceed with a client-based project without the above consent.**

# 21. Assessment

This is a 60-credit course and its assessment is based on two elements:

- The writing of a 15,000-word dissertation (with a tolerance of ± 10% for the length of the final document),
- A presentation of the research work. This presentation will be in the form of a viva-voce where you will be required to present and defend your work. The assessors will validate your approach, methodology, results, background knowledge, presentation, evaluation etc. that is pertinent to your dissertation. **This part of the assessment is compulsory and failure to attend the viva-voce will result in your assessment attracting either an incomplete or a fail grade.**

As indicated previously, the dissertation must have two components: theory and practical implementation. There are two marking schemes: one where the practical component is worth 25% of the marks and one where it is worth 50% of the marks. Each of these schemes ensures that you have gained knowledge of all six learning outcomes presented in Section 4..

More information on how to build the dissertation and the presentation can be found in Section 16. and Section 17..

It is up to YOU to indicate which choice of marking you want at the beginning of your dissertation. Should you fail to do so, you will be assessed based on the 25% practical scheme.

## 21.1 25% Marking Scheme

If you choose to use the marking scheme where the practical component carries 25% of the marks, you will be assessed using the marking scheme provided in Appendix-A (see 27.1).

### 21.2 50% Marking Scheme

If you choose to use the marking scheme where the practical component carries 50% of the marks, you will be assessed using the marking scheme provided in Appendix-B (see 27.2).

## 22. Extenuation

As module leader, I do not participate in the extenuation procedures related to CN7000. Therefore, it is pointless for you to contact me on this matter. If you want to apply for extenuation related to this module, then you should contact the HUB for information on how the extenuation procedure works. You may also want to have a look at: https://www.uel.ac.uk/about/governance/extenuation-procedures

## 23. Formative Assessment and Feedback

In line with UEL Assessment and Feedback policy, the module is designed to incorporate continuous albeit periodical formative assessment and feedback.

The first formative assessment takes the form of the **Dissertation Proposal**. The deliverable is not graded and does not have an impact on your final grade but is there as a form of formative assessment. Upon submission of the proposal you should contact your allocated supervisor to obtain feedback regarding the proposal. The feedback will be comprehensive and will cover a range of areas including suitability of the proposed work and the proposed solutions.

Although it is entirely up to you and the supervisor to agree on a supervisory arrangement, you are entitled to obtain regular feedback on the work that you are carrying out. You should consult with your supervisor about submitting draft copies of your dissertation report chapters, your supervisor can provide ongoing formative feedback on these in order to help you meet the learning outcomes of the module. As every project is unique, it is recommended that this formative feedback process is carried out at regular intervals as best determined by the supervisor and the learner in order to meet individual needs.

You are also entitled to receive feedback related to your assessment. As your dissertation will be evaluated by two assessors, you will receive two reports. Those documents will be made available to you once the overall marking process is over and you have made an explicit request to obtain feedback.

## 24. Reassessment

If you do not pass the module at the first opportunity, you will need to resubmit an updated dissertation taking into account the recommendations of the assessors. When doing so, you

also need to provide a separate document indicating where those updates have been made (in the new dissertation) so that the assessors can evaluate your progress more easily.

Dissertation resubmission in CN7000 is similar to what is called resit for other modules. The resubmission date will be the same as the cohort submission date for the immediate following term. For example, if a student's first attempt is in Semester A and failed, his/her resit deadline will be the same as the submission deadline for Semester B students; for Semester B it will be Semester C; and for Semester C it will be Semester A.

If you are unsure about your deadline, please contact the ACE admin for exact re-submission deadline. Please note it is your responsibility to identify the correct deadline. You will also need access to the appropriate Moodle site for re-submission, please contact me to gain access. Like other resit activities, any postgraduate resubmission will be capped at 50%.

I would like to emphasize two important facts if you have to resubmit.

- **Resubmission is NOT an opportunity for you to start a brand new project**. It is only to terminate what you have started based on the comments of your assessors.
- **Resubmission does NOT entitle you to any extra supervision time**. Supervision is part of the teaching activities and thus it occurs during term time (i.e., before the first submission).

## 25. School Support

As a student within the school of ACE you have access to a wide range of support to help you succeed at UEL. Here are excerpts and contact information about the various services.

- **English for Academic Purposes (contact:** TUTORS@uel.ac.uk or a.manser@uel.ac.uk **)**

  I can help you to improve your English language and academic writing skills. I offer regular classes that focus on specific skills that are directly related to your course. For example, I can teach you how to write well-structured sentences that will enable you to express your ideas clearly and concisely. I can also offer one-to-one support sessions that are tailored to your specific learning needs. To find out how you can join a class or to book a one-to-one support session, you can send an email to .

- **Learning Achievement Assistants (contact: TUTORS@uel.ac.uk)**

  We are recent graduates who can provide advice and support on how to succeed on your course and stay on track with your studies. We are therefore here to enhance your motivation, resilience as well as raise your aspirations. We will help you improve your academic and study skills as well as provide you with support in your personal development. Our team operates through one-to-one support and small group sessions. You can book an appointment by emailing .

- **Skillzone Tutors (contact: TUTORS@uel.ac.uk)**

  We can help you to develop your academic skills in writing, maths and ICT. We run workshops on various topics such as "How to write your report", "Refresh your Algebra" and "Introduction to Microsoft Office 2013". We offer one-to-one support at our regular

drop-in sessions and you can book an appointment with a Tutor. You can find full details of what we offer, as well as a number of useful resources to help you with your academic writing and maths skills, at https://www.uel.ac.uk/your-career/career-zone.

- **Subject Librarian (contact:** n.j.balmforth@uel.ac.uk)

  I can help you find the resources you need for your studies. Tell me your assignment title/what you are interested in and I can help you find useful resources to reach assignment success. I can also help you with referencing and with other information skills like how to judge the reliability of sources. You can book an appointment with me by email at n.j.balmforth@uel.ac.uk. There is also lots of useful information on the Library and Learning Services website at https://www.uel.ac.uk/study/student-life/library.

- **Careers and Student Employability**

  The CaSE team offer impartial, friendly, professional support and guidance to help you to develop the skills to find the job and career you deserve by making the most of your best asset: you! Stephanie runs a weekly drop-in in EB.G.01A on Docklands Campus every Wednesday from 9:30 to 16:00 (please check drop-in page before setting out) and you can book a one-to-one career interview at any time via the email above. Take a look at our full range of support: https://www.uel.ac.uk/study/undergraduate/careers-employability. Lack confidence? Want to develop your employability skills? Check out our Professional Development and support.

continued on next page

## 26. Calendar Term3 2022/2023

Table 3: Term Activity

**Please always check your Online timetable and Your Tutor for up to date information**

| Teaching Date | Week No. | Activity / Deadline |
|---|---|---|
| Please | 1 | Teaching |
| Check | 2 | Teaching Library Session |
| Your | 3 | Teaching |
| Timetable For the exact date | 4 | Teaching / Final Supervisor Allocation<br>**Submission of the Dissertation Proposal (Turnitin)Deadline:**<br>**24 of June 2024 at Midday (12:00)** |
| | 5 | Teaching, Please check your timetable with your tutor |
| | 6 | Teaching |
| | 7 | Teaching |
| | 8 | Teaching |
| | 9 | Teaching |
| | 10 | Teaching |
| | 11 | Teaching |
| | 12 | **Submission of the Final Dissertation Report (Turnitin)**<br>**Deadline: 09th of September 2024 at Midday (12:00)** |
| | | Presentation & Viva Voce & Marking after the Submission |

# 27. Appendices

## 27.1 Appendix A - 25% Marking Scheme

| Item | % of Total | Actual Mark |
|---|---|---|
| (i) Use of existing theory | 20 | XX |
| ***Markers to type over!!*** *Variety, existence, focus, relevance and understanding shown of the references.* | | |
| | | |
| (ii) Analytic quality of the report | 25 | XX |
| ***Markers to type over!!*** *Made use references by developing something from them? How coherent, clear and sensible are the arguments and how consistent (in tone, ambition and interpretation) is the work? Appropriate representation of thinking (e.g. graphs, drawings etc).* | | |
| | | |
| (iii) Implementation/Practical aspect | 25 | XX |
| ***Markers to type over!!*** *Quality of the student's practical. Complimentary/Relevant to theory? Difficulty of task undertaken? Any particularly subtle approaches? Ability shown in writing up this practical part. Is it clear what the student (as opposed to others) has 'done'.* | | |
| | | |
| (iv) Critical evaluation/Conclusions | 15 | XX |
| ***Markers to type over!!*** *Is there a justified methodology/approach? Does what the student claims to have done both in the interpretation of theory and the practical hold up to scrutiny? Do the Conclusions match the rest of report? Do data records (e.g. diary) to aid evaluation exist and has the student commented on both the process and the product of their work?* | | |
| | | |
| (v) Presentation | 5 | X |
| ***Markers to type over!!*** *Flow, look, typos, formatting* | | |
| | | |
| (vi) Oral assessment | 10 | XX |
| ***Markers to type over!!*** *Did they respond clearly and demonstrate relevant and supportive statements of their dissertation* | | |

## 27.2 Appendix B - 50% Marking Scheme

| Item | % of Total | Actual Mark |
|---|---|---|
| (i) Use of existing theory | 15 | XX |
| ***Markers to type over!!*** *Variety, existence, focus, relevance and understanding shown of the references.* | | |
| | | |
| (ii) Analytic quality of the report | 20 | XX |
| ***Markers to type over!!*** *Made use references by developing something from them? How coherent, clear and sensible are the arguments and how consistent (in tone, ambition and interpretation) is the work? Appropriate representation of thinking (e.g. graphs, drawings etc).* | | |
| | | |
| (iii) Implementation/Practical aspect | 45 | XX |
| ***Markers to type over!!*** *Quality of the student's practical. Complimentary/Relevant to theory? Difficulty of task undertaken? Any particularly subtle approaches? Ability shown in writing up this practical part. Is it clear what the student (as opposed to others) has 'done'.* | | |
| | | |
| (iv) Critical evaluation/Conclusions | 8 | X |
| ***Markers to type over!!*** *Is there a justified methodology/approach? Does what the student claims to have done both in the interpretation of theory and the practical hold up to scrutiny? Do the Conclusions match the rest of report? Do data records (e.g. diary) to aid evaluation exist and has the student commented on both the process and the product of their work?* | | |
| | | |
| (v) Presentation | 2 | X |
| ***Markers to type over!!*** *Flow, look, typos, formatting* | | |
| | | |
| (vi) Oral assessment | 10 | XX |
| ***Markers to type over!!*** *Did they respond clearly and demonstrate relevant and supportive statements of their dissertation* | | |

## 27.3 Appendix C - Dissertation Proposal Template

**Dissertation Proposal Template (1500 words)**

Programme: MSc in Year:
Student Name: Term:
Student ID:

Title of the dissertation:

1. Project Summary (150 words maximum)

2. Research Area (a brief literature review – 650 words maximum)

3. Expected Practical Element Output (e.g. software tool, simulation, framework, etc – 300 words maximum)

4. Required Resources (e.g. specialist equipment – 200 words maximum)

5. Prerequisite Knowledge/skills Required (200 words maximum)

6. Project Plan – Gantt Chart

## 27.4 Appendix D - Client Consent Form

# Client Consent Form

**MSc Dissertation (CN7000)** **Client Consent Form**

Programme:

Year:
Semester:

Student Number:

Client Name:

Client Address:

I hereby give my consent to the above student to conduct a project on my behalf.

I guarantee that the above student will be given access to all the necessary resources by my company, my organization or by myself and that this includes my, or my representative's, time.

I, or my representative, undertake to provide a written evaluation of the above student's project upon completion of that project and within sufficient time that the evaluation can be included with the student's final project report.

Signature: Date:

Thank you for providing our student with this opportunity.