Department of Computer Science

MSc Project Guidance Document 2020-21

INM363: Individual Project

BCS Accredited Programmes in Computer Science

MSc in Business Systems Analysis and Design

MSc in Computer Games Technology

MSc Health Informatics

MSc in Human Centred Systems

MSc in Software Engineering

MSc Information Systems and Technology

MSc in Data Science

MSc Cyber Security

MSc Artificial Intelligence

Module Leaders (Project tutors)

Andrey Povyakalo <A.A.Povyakalo@city.ac.uk>

Administration:

Programmes Office <smcsepg@city.ac.uk>

Version: 5th February 2021

Revision history:

1st release for 2020-21 academic year.

TABLE OF CONTENTS

1 Purpose of this Document

This document specifies the rules and guidelines for completing INM363 – the Individual Project module - for a number of MSc programmes offered in the Department of Computer Science, as listed on the front page of this document.

The Department reserves the right to vary details of the scheme at any time. Any changes will be announced through the appropriate "forums" of the INM363 module area in Moodle.

Any suggestions for improvements to this document should (where possible) be discussed with your project supervisor initially, and then communicated to the relevant Module Leader.

2 Aims of the Project

The successful completion of an individual project is an essential part of a master's degree.

The project enables students to demonstrate that they have the knowledge, skills and organisational capabilities required to carry out a substantial piece of work (worth 600 hours of student time) that addresses a clearly specified problem using appropriate and rigorous methods.

Quoting the module specification:

> The project requires an independent piece of systematic research and/or problem solving exercise, which must satisfy the requirements of the professional body/bodies with which the course is accredited. This offers you the opportunity to identify one or more requirements, undertake a suitable systematic investigation of these, and report upon the results and implications in a professional manner.
>
> It offers you the opportunity to apply the knowledge and skills acquired in the taught part of the masters degree in a relevant context, and to acquire the confidence and skills to carry out a focused project that is relevant to your degree.
>
> The individual project is a self-directed study in which you spend time working in an area of interest with advice from a member of academic staff ["supervisor"]. Degree course-specific restrictions on your topic may apply and will be communicated to you before the start of the module.
>
> You are expected to clearly identify a problem or requirement, justifying why it is worth exploring or implementing, develop a method suitable for the work, apply this method, analyse the results and evaluate their implications. Appropriate time and effort should be allocated to each of these aspects of the dissertation, which should use a wide range of sources and take advantage of the existing body of knowledge in the area addressed by your project, the knowledge you have developed in your course, and discussions with the academic supervisor. The work must be suitably reported in an independently written dissertation that presents the information in a professional manner and fully and accurately sources all references used

It enables the university to see that, given adequate support, students are able to identify and apply appropriate knowledge, skills and techniques acquired in the taught part of the master's programme in a relevant, applied and often practical context. The individual project also gives students an opportunity to broaden intellectual abilities and to develop skills of research and evaluation, subject knowledge and their capacity for critical thinking. The individual project also enables students to show that they can develop, structure and articulate complex arguments in a clear and convincing manner.

Your individual project will enable you to develop your own ideas as you carry out an original piece of work. You should consider tailoring the project to suit the specific career you wish to follow, keeping in mind that the project is intended to develop and demonstrate your abilities in:

- technical competence in carrying out theoretical and practical work
- use of appropriate research methods to establish and interpret knowledge

- initiative and sustained effort to attain clear objectives within specified deadlines
- communication of ideas and results
- good academic practice

You will need to use appropriate and robust methods in a competent manner, demonstrate that you understand the problem area technically and theoretically, show that you can draw upon relevant theory and existing knowledge, contribute something new to the problem area, and discuss your project in light of other related theoretical and applied work.

The consequence of this is that it is not enough to do a simple systems analysis, evaluation, or design/build exercise. For example, if you carry out an application development competently, then you have not contributed new knowledge, just repeated well-known procedures. The emphasis here is on **critical evaluation**, including **justification** of the key decisions made.

Oates (2006) provides excellent guidance on research in Information Systems and Computing. It is strongly recommended that you read the first three or four chapters of her textbook before planning your project and discuss these ideas with your supervisor. This will ensure that you meet the needs listed above and in line with the aims of the module.

You should consult potential supervisors for support in defining your project and associated documentation, and will be guided by a supervisor as described here. Do, however, note that the project is a piece of independent work for which you must take responsibility: many of the aims that we list here reflect this emphasis.

The project accounts for 60 credits and so represents an average of **600 hours**' effort for the average student. This is the equivalent of 14 weeks full-time work. So, whilst this is a "small-scale" study in scientific terms, the individual project is a significant undertaking.

2.1 "Proceeding to Project"

In the second term (January to April; the detailed calendar of deadlines is published on Moodle) you choose a project topic and supervisor and produce a "project proposal", which is marked as coursework for the INM373 RMPI module, and ***separately*** as an "accept" or "refer" mark for the project module, INM363. An accepted proposal is the **first condition** for being allowed to "*proceed to project*" (and/or internship); the **second condition** is that you need to have gained credit for (that is, normally, passed) all eight modules that form the taught part of the course (see your Course Handbook for requirements to pass, and compensation regulations).

So, you will receive permission to proceed to project after the meeting of the Assessment Board that confirms that you have acquired all the credits from the other eight modules: following the Spring exams, if you pass all your modules by then.

If you do not pass some modules, your project work will be put on hold. So, if you fail any module you must tell your intended supervisor, while you plan in the expectation of successful resits. You can restart work on your project at the end of your resits: by the 1st of September. If you passed all resits, you will be allowed to proceed and submit your project at the December deadline.

Furthermore, **internships are not available** following resits.

The ONLY exception to the rule that students must have passed all modules in order to proceed to project, may occur if the Assessment Board deems that the failure to pass certain modules was due to extenuating circumstances. If this applies, students will be informed accordingly.

3 The Three Stages of the Project

The individual project module has three broad stages:

1. selection and confirmation of topic and supervisor
2. preparation, submission, and approval of project proposal
3. execution of the project, and preparation and submission of project report

Note that each stage must be followed in the above order. Students MUST first have confirmation of their topic and supervisor before they will be given advice on proposal preparation. Furthermore, students are not allowed to receive supervision or submit a project report unless their proposals have been explicitly approved by their supervisor.

Stage 1: Selection and confirmation of topic and supervisor

Students choose a supervisor and (in agreement with the supervisor) a topic, by discussion with possible supervisors and agreement with one of them, recorded by the supervisor through the online allocation tool (details are provided separately via Moodle).

If a student has problems in identifying a suitable topic or supervisor, they should consult their Personal Tutor, or the appropriate project module leader for advice. In cases of real difficulty, which should rarely occur, the Scheme Director can act as a final authority.

It may, rarely, be necessary for the module leaders at a later stage to re-allocate students to alternative supervisors, to meet unforeseen circumstances.

Stage 2: Preparation, submission and approval of proposal

Once the topic and supervisor have been confirmed, students go on to prepare a proposal outlining the critical context, objectives and plan of work with guidance from their supervisor. This is submitted through Moodle for the supervisor's approval. Please note that Moodle submission is essential, even if the supervisor has already seen a copy of the proposal.

For INM363 – Individual Project module, the proposal is either ”approved” or “referred” by the supervisor, who records their decision and gives feedback. Approval means that the supervisor believes there is the possibility of a successful project. It does not mean that the proposal is perfect; approval will normally come with advice and guidance that should be acted upon and factored in to project planning. Referral means that either the project as proposed is not feasible, or that it is unlikely to get a pass mark; or that the proposal is too vague to judge. **A student cannot progress with a project without the explicit approval of their proposal by the supervisor**.

If a project proposal is referred, the student will be asked to amend and resubmit the proposal through Moodle by the stated deadline. If the supervisor approves the resubmitted proposal, the student will proceed - carrying on according to the standard project calendar. If the resubmitted proposal is rejected (or if no re-submission is made on time), then the student cannot progress with the project in this year. They are able to re-join the project process at the next opportunity by taking the individual project module (one year later). In such cases no penalties are applied - the final module mark will not be capped.

Stage 3: Preparation and submission of project report

After the proposal is approved, the student then carries out the work that has been agreed to complete the project. As explained above under rules for “proceeding to project”, work will be suspended if the student has resits to complete. A project report (sometimes termed a *thesis* or *dissertation*) is the key deliverable. This is submitted in electronic form through Moodle. What must be submitted, as explained in section 14.4 of this document.

Extensions may be requested in line with standard policy on extensions. Students should consult their supervisor as soon as possible for guidance, if they feel that an extension may be needed. If they need such an extension, students should complete an extenuating circumstances form, and submit it to the Programmes Office. The Programmes Office can advise on this procedure if needed. An extension of more than a few weeks may mean a delay in consideration by the Board of Assessment, and a consequent delay in graduation.

For a project report that does not receive a pass mark, the Assessment Board will decide whether it may be resubmitted, after improvements, or the student has to undertake a project on a different topic for resubmission going through the process of approval of topic and proposal in the usual way, in the next academic year (see section 15). Students in this situation should consider carefully, with advice from their supervisor, whether it is wise for them to continue, or to withdraw with an award in line with the credit achieved during the taught module.

4 Online Project Documentation

Supplementary details about the Project, including a link to this document, detailed deadline dates, and a link to a document describing the Harvard Referencing Style, can all be found on Moodle under the module INM363 Individual Project for your academic year.

You should make regular reference to one of the recommended texts to inform your work:

- Dawson, C. W. (2015). *Projects in Computing and Information Systems: A Student's Guide*. Pearson Education, 318 pp.
  (*note: The Library also has copies of earlier editions, with the same general contents but less up to date regarding evolving areas like e.g. software engineering methods and research ethics.)*
- Oates, B. J. (2006). *Researching Information Systems and Computing*. London: Sage Publications Ltd, 341pp.

Both are available through the City Library both as print copies and e-Books.

5 British Computing Society (BCS) Accreditation

Those awarded MSc degrees in all of the programmes that are accredited by the British Computer Society (BCS) (listed on the front page of this document) are eligible for accreditation. This means that a pass in the degree overall will be recognised as providing part of the educational foundation for those who want status as members of the BCS. In short, those who have succeeded in achieving these requirements are eligible for exemption from some of BCS's professional examinations.

When you begin to formulate your ideas into a Project Proposal, your supervisor will help you understand the requirements for the purposes of BCS accreditation and will guide you as you work on your project.

The requirements that your project must meet in order for you to be put forward for BCS accreditation are described in the published grade Assessment Scheme for the Individual Project Module, used by markers and shown in the table below:

Project report should include:
• elucidation of the problem and the objectives of the project • an in-depth investigation of the context and literature, including alternative solutions for the problem addressed – e.g., when developing a software product, other similar products • for design or development projects, clear descriptions of the stages of the life cycle undertaken, how verification and validation were applied at these stages, the use of tools to support the development process • a critical appraisal of the project, indicating the rationale for any design/implementation decisions, lessons learnt during the course of the project, and valuation (with hindsight) of the project outcome and the process of its production (including a review of the plan and any deviations from it) • a description of any research hypothesis

Projects must give students the opportunity to demonstrate:
• a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of the specialist academic discipline • a comprehensive understanding of techniques applicable to their own research or advanced scholarship • originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline • the ability to deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate conclusions clearly to specialist and non-specialist audiences • self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level • critical self-evaluation of the process

The projects in BCS accredited courses must meet these requirements and when you submit the Project Proposal, your supervisor will check that your project has the potential to meet these

requirements. If your supervisor has any doubts as to whether your project can meet the BCS project requirements, he or she will discuss your project and the requirements with you, and help you identify changes that would enable your project to meet the BCS project requirements. If, despite a Project Proposal for a project that would satisfy the BCS requirements, the project as actually executed does not satisfy them, the project will fail.

6 Internships

Many students are keen to apply knowledge gained from their course to work on a real problem for an external organisation. Our Internship Scheme provides an opportunity for students to complete the INM363 Individual Project module by undertaking a **client-based project for an organisation**. The academic aspects of project work are the same for both internship and non- internship projects.

Students on all MSc courses in the School covered by this guidance document (listed on the front cover) can participate in the Internship Scheme. Information about how to apply for internships is available on the Postgraduate Resource Centre on Moodle and in your Course Handbook. The timetable outlined below is for general guidance only. The specific deadlines will be shown on Moodle.

Project Choice – Internship-based projects will be advertised on the Placement & Internships Resource Centre in Moodle. Internships will be visible to those students who have submitted their CV and had it approved by the Professional Liaison Unit (see Postgraduate Resource Centre on Moodle for full details).

If you want to apply for any of the internship-based projects, please do so by the advertised deadlines. We aim to ensure that arrangements between employers and students are in place by end of April. You will need to fill in specific forms, and will be assigned a Work-based Learning Advisor who will contact you and arrange a pre-internship briefing.

Project Proposal – Even if you intend to transfer to an internship, you will need to submit, by the same deadline of other students, a project proposal **that does not rely upon an internship provider**. This will serve as a back-up plan, for a project that you could do independently of the internship provider, in case your internship project cannot start, for any reason. Once you are accepted on an internship for your project, you will later write and submit a new proposal for the project agreed at that stage.

Project Submission Deadline - Students on the internship scheme must submit their project report by the same deadline as ***part-time students*** (December - see separate document on Moodle for detailed deadlines). The project scheme described in the rest of this document applies equally to internship-based projects, but in addition you should note:

The Internship Scheme is managed by the School's Professional Liaison Unit. Specific internship scheme arrangements apply that are detailed in the Guidelines for Internships, and include your signing specific commitments concerning the scheme.

7 Responsibilities of Supervisors

Managing a project is the student's responsibility, but the supervisor has an important role as an adviser.

Academic supervisors are experienced in project work and will have some expertise relevant to your project topic. Supervisors vary in terms of the time and guidance they are willing and able to provide, just as students vary in how much and what they need. Thus, in choosing your supervisor, take care that your needs are compatible in this respect, and ensure that a basic schedule is agreed at the outset.

Overall, a supervisor's responsibilities include providing advice and guidance on:

- ensuring that your project objective is clearly stated, adequately focused and demonstrably achievable, and confirming this by approving the project proposal – possibly after some suggested revisions are made following initial submission and referral;
- writing the project proposal and project report, when advice is sought in good time by you, appropriate to the time you have available before the relevant deadline(s);

- how to ensure that your project work plan is complete, appropriate to your project objective, and that it will enable you to demonstrate an understanding of the relevant topic areas;
- project scope;
- both the subject material and the research process throughout the project;
- ethics and confidentiality issues;
- possible risks and their mitigation;
- appropriate academic literature and other sources, and adequacy of literature searches.

In some cases the supervisor is effectively your client (your project develop an idea offered by them and/or is part of one of their research) and of course in that case they will take a more active role in instructing you about what is required.

The supervisor may also attend examiners' meetings and Boards of Assessment at which your work is considered.

The supervisor, however, is ***not*** expected to:

- proof-read any part of a report;
- correct poor written English;
- check through any section of a project report more than once;
- assist in the submission of a project report;
- guarantee that that a submission will pass, or be awarded any particular mark or grade;
- carry out, or provide detailed instructions on, literature searches, or provide copies of materials;
- plan the project for the student, direct their work in detail, or dictate their work pattern;
- provide detailed technical instruction on research methods or on technical issues;
- contribute data or code, unless agreed in the project proposal;
- obtain ethical or managerial clearances (though they may provide background information on the project, if asked);
- take responsibility for alerting the student to potential risks and difficulties (though they may give advice on such);
- remind the student about deadlines, reporting and submission requirements;
- detect plagiarism or other form of misconduct before submission.

Only members of academic staff (full-time or part-time) from the Department of Computer Science, and some other, selected academics from the School of Mathematics, Computers Science and Engineering may supervise individual projects. Others - e.g. visiting staff, research staff and students, staff from other parts of the University, representatives of the organisations in which the project is conducted - may advise, but not act as Academic Supervisors.

If your supervisor leaves the permanent staff of the University while your individual project is in progress, you will be reassigned to another supervisor, though the original supervisor may continue as an adviser. There will be no official co-supervision or joint supervision; one person will be the named Academic Supervisor, others will be advisers.

8 Your Responsibilities

Master's level work requires you to manage your project, with a significant degree of autonomy. You will, therefore, be responsible for:

- Keeping a record of supervisory contact, noting the main points of advice sought or given; it is good practice to send the supervisors written summaries whenever it is useful to confirm common understanding of advice, decisions or other points discussed

- Ensuring that you satisfy all requirements of the project module, including all deadlines. Failure to meet submission deadlines is likely to result in a module mark of zero. If you fail this module, you will not receive the credits for it and you may be considered for a lesser award than a master's degree.

You should also note that if you are hampered by any extenuating circumstances, you must inform the Programmes Office as soon as possible, providing supporting documentation and the appropriate extenuating circumstances forms (see section 11.3)**.**

9 Getting the Basics Right

Project Proposal: A well thought-through project proposal will set your project work in the right direction, so pay significant attention to getting this key element right, and to starting working on defining your project as soon as you can. A project proposal should state exactly what you intend to do, how you plan to do it, and what you will produce in terms of tangible outcomes. These views should be justified and informed by relevant evidence.

This will form a sound basis for discussion with potential supervisors, and others. It will also provide the basis for later review of what you did and achieved as part of the assessment process.

Supervision: Frequent consultation with your Academic Supervisor is essential. Firstly, *seeking* and *noting* advice, especially from your supervisor, can help you gain marks both by achieving *more* and by achieving it *well*. Secondly, it is important that the supervisor be aware of what you do and the way you solve problems and proceed: otherwise, at the time of marking there is the risk of doubts as to how much of the work described in your project report is actually your own contribution.

Writing up: Your project report is an essential source of evidence for assessing the quality of your work and results. So, a good report is essential for good marks. Make sure you know how to structure this effectively, write appropriately, and proofread your work. Reserve at least a quarter of your project effort for your write-up and beware that postponing write-up work can quickly become overwhelming, for which you will receive little sympathy. Cite your references correctly in-text and in the References Section, using the Harvard Referencing Style – a pointer for a guide to applying this style is available on Moodle.

Make sure that you understand what is meant by good academic conduct and that you know how to demonstrate this. The INM373 Research Methods and Professional Issues module provides some guidance here, but you should also consult the School Handbook and support provided by the University. Do not expect your Supervisor to edit or proofread your work, or check for plagiarism prior to submission, as their responsibility is only academic direction.

10 Deadlines and Extensions

10.1 Key Deadlines

The key deadlines for your project are specified in Moodle.

10.2 Project Proposal and Deferrals

The Project Proposal is an essential stage in your project. **Without an accepted Project Proposal, you cannot proceed with the project: you do not have a right to academic supervision, and further deliverables will not be accepted; you will be unable to complete the module and thus will be likely to receive a mark of zero and no credit (if you have not taken the module previously, you will be able to re-sit the module the next time it runs; if you are already taking the project as a re-sit and you fail for a second time, you will be considered for a lesser award – such as the Postgraduate Diploma).**

If your proposal is referred, you must resubmit a revised document in the ways specified by the module leaders. Failure to do so will mean that you cannot proceed with the project.

In some circumstances students may wish to defer their studies prior to completing the project. Deferrals may be negotiated **PRIOR** to the project proposal deadline, if there are sufficiently compelling circumstances. Requests must be made at the earliest opportunity by emailing the

Project Officer at the Programmes Office. You **MUST** provide strong supporting arguments and documentation.

10.3 Extensions to Submission Deadlines

Extensions are only granted where there are clear extenuating circumstances. If you need an extension, you must apply for it via the standard procedure for extenuating circumstances. You **MUST** provide solid supporting arguments and documentation, *e.g*. medical certificates. You may **NOT** assume that you will be given an extension; **deadlines are an integral part of your project work, and you must make contingency plans for any identified risks.** Extenuating circumstances must be reported at the earliest opportunity Extenuating Circumstances forms are accessible through e:Vision (https://www.city.ac.uk/student-administration/if-things-go-wrong/extenuating-circumstances) Please note that EC submissions cannot be considered without supporting evidence. **Project supervisors cannot grant extensions.**

11 Project Choice

The main issue in project choice is finding a well-defined problem that interests you and is achievable in the timescale. Choose an area and a question which interest you. You are encouraged to propose your own project topic, which may be influenced by the career you wish to pursue. You may also choose among topics offered by potential supervisors. You may wish to consult examples of good project reports (recommended by the markers and moderators) which are available via Moodle.

Finalising the project choice often involves much negotiation, proposal redrafting, re-negotiation *etc*., especially if external bodies are involved. You may need to discuss a number of project ideas with a number of potential supervisors until you have a topic that you are enthusiastic about, and a willing supervisor. **Remember: your supervisor must be a member of the Department of Computer Science full time academic staff or one of the selected academics from other parts of the School of Mathematics, Computer Science and Engineering.**

Note that each member of staff can only supervise a limited number of projects; the earlier you sort out your project choice, the more likely you are to obtain the supervisor of your choice (though it is a matter for mutual agreement). You must be prepared to work intensively to ensure that you finalise your project choice on time. You are advised to document your efforts with e-mail evidence of who you have contacted and when, together with their responses.

12 Choosing a Supervisor

See separate document about how to interact with potential supervisors and have your choice recorded.

13 Project Proposal

The project proposal is an essential part of your planning. It is a proposal of the work to be undertaken, that clearly identifies what will be done, how and why. It will form the basis of your discussions with your supervisor and the post-project reflection that is an important part of the project report. It will become Appendix A of your project report. Proposals are not accepted unless approved by your Supervisor.

The project proposal should be headed:

Appendix A: Project Proposal for MSc in <your course>

Name: ……..

E-mail address: ……

Contact Phone number:……..

Project Title: ……..

Supervisor: ……...

A successful project proposal should define a 600 hours piece of work that addresses a clearly specified problem using appropriate and rigorous methods.

To achieve this, you must:

1. identify an appropriate research question and justify this with well informed and well-argued critical context;
2. explain the purpose of the work, its objectives, the products that will be generated and the intended beneficiaries;
3. describe the methods or approaches that you will use to answer the question effectively and robustly in some detail -- you need to show that you understand what you will do in terms of any design and build or data collection and analysis;
4. critically evaluate the methods and likely results in the context of the question and the application domain showing that you have an understanding of the scope and reliability of the results that the planned work will produce -- it is important to demonstrate self-awareness here;
5. develop a risk register that identifies risks, their likelihood, potential impact and mitigation strategies;
6. plan the steps required to complete the work and the dependencies between them in detail through a graphical work plan;
7. consider the ethical, legal and professional issues that are raised by the work that you plan and describe ways in which you intend addressing these issues effectively and comprehensively;
8. ensure that the work is informed by a survey and synthesis of relevant academic literature and appropriate technical documentation where relevant to establish critical context;
9. present the proposal with a coherent narrative in a clear, consistent and professional manner that exhibits good academic conduct and includes a comprehensive reference list.

It is your responsibility to pay attention to ethical issues that may arise from your project. **All projects** require verification from the Research Ethics viewpoint. Detailed instructions are provided on Moodle. Your supervisor will advise you, if you ask, according to his or her experience, and may obtain advice from the Computer Science Research Ethics Committee for guidance about difficult questions. All project proposals must contain a completed **Research Ethics Checklist**. This is available in the Individual Project area on Moodle.

Submission Details

The single submission must consist of one PDF document. For details of page limits and format, please refer to instruction on Moodle.

The additional pages must contain:

- list of cited references with full details of the sources
- completed copy of the Ethics Checklist.

The document must be submitted through the Task 2 Submission Area in the INM373 RMPI module on Moodle. **If you did not take INM373 this year**, you must submit your project proposal through the designated submission area in the INM363 Individual Project module on Moodle.

The essential criteria used by supervisors to determine whether the proposal is adequate for the INM363 Individual Project module are that the proposal must:

- outline a valid MSc project, as discussed with the agreed supervisor;
- provide sufficient details of the problem to be solved, the methods and plan, to demonstrate this to be a viable project;
- identify any ethical issues that are raised and show that these can be resolved appropriately;

As explained in detail earlier (section 3, page 2), if your proposal is not accepted for the INM363 Individual Project module, it will be *referred*: feedback will be provided and you will need to resubmit in light of this feedback and have the proposal subsequently accepted, according to the above criteria, before you can proceed with your Individual Project.

The approved proposal and associated work plan should form the basis of your activity and ongoing discussions with your supervisor, once you have permission from the Board of Assessment to progress with the work.

14 The Project Report

Your project report is the main evidence through which your entire work on the Individual Project will be assessed. It is sometimes referred to as a *dissertation* or *thesis* because you will need to use the document to present a *view* about some selected aspect of the Information and Computing Sciences that has been derived in a systematic and rigorous manner. Choose a short and meaningful title, with respect to this viewpoint and the knowledge derived in the report.

We recommend that you write much of the report while you perform project work, well in advance of the submission deadline, while reserving some time at the end for completing and polishing the work. Also plan way before the deadline any practical details arising from Research Ethics, other confidentiality requirements, or difficulties in making your work accessible for marking. For instance, what data collected in interviews should be in non-confidential parts of your submissions (see Appendix B Intellectual Property and Confidentiality) according to what your interviewees agreed to (check your Participant Information Sheets and Consent Forms, and Research Ethics instructions on Moodle), or whether your markers will be able to see your web service in live operation via their browsers, etc.

14.1 Audience and style

The project report should be considered a public document and may be read by academics and students as well as any clients with whom you are working. It must be clearly written, complete and concise enough for someone unfamiliar with your project to understand the background and objectives, what resources you used, what work you did and what you accomplished. It must also enable the reader to find any sources you cite. The document will be assessed by members of academic staff, who will make recommendations to the Board of Assessment. They are unlikely to be directly connected with your project work.

You should assume that your reader has a good knowledge of computing and information systems but not the specific field(s) that your topic addresses. Define any specialist terms when they first appear (a separate glossary may also be appropriate). Try to avoid technical jargon.

Note: a dissertation is meant for *assessment* towards your degree. It must give the markers evidence for assessing how good an understanding of the subject matter you have, how well you used the knowledge in performing the project, the challenges that you overcame, and how well, and the effort you spent. So, although a good project may also result in a scientific article or a technical report in a client company, the dissertation needs to be more extensive than these.

Regarding style, write simply, formally and clearly; do not waste effort trying to achieve a stylish effect. Above all, take care that what you write conveys what you intend. Explanations should be precise, not verbose. Keep your sentences short. Use diagrams to aid communication, ensuring conventions of meaning are clear, including a ‘key’ where necessary. Use correct spelling and grammar with consistent use of tenses and pronouns. Dawson (2005) provides further advice.

> Dawson includes a note on writing in the third person. This means avoiding mentioning yourself by using passive sentences, *e.g.* “An experiment was designed ...” rather than “I designed an experiment …” and is appropriate for some projects. We do not require the former: it is true that impersonal style is preferred in some professional communities, and documents with many "I"s can be annoying to read; but writing clearly in an impersonal style is hard, and clarity must be your top priority. Your supervisor may be able to advise you, having seen examples of your writing.

14.2 Project Report Format

A final project report has typically 12,000-15,000 words, excluding appendices. Write more, if necessary to explain yourself, but **not at the expense of clarity**. Do not exceed 30,000 words. The title page, abstract, table of contents, reference list, glossary and appendices are not included in the word count.
Any dissertation that is too verbose will be penalised with poor marks for presentation quality, and if it goes over the 30K word limit, the marker is allowed to refuse to read the excess part, and only

mark the part read. It is easier to produce a readable report, and for a reader to appreciate what you did, if you are succinct. Details that may disrupt the flow of your presentation but may be of interest can be added in appendices; there should always be clear references to such material in the body of the text.

Electronic copies of the report must be formatted for A4 paper, text size at least 11pt in Times font, black font with white background, with 1.5 line spacing to allow easy reading. Margins should be about 2.5 cm. Slight extra spacing between lines is welcome but not mandatory. **All** pages must be numbered. Number the pages in appendix A as A1, A2, etc., and continue this convention in other appendices, B2, B3, *etc*.; this helps you refer to appendix pages while still writing the preceding pages. Begin each main section and each appendix on a fresh page.

Advice: use the features of your word processor to ensure consistent styles of headings, automatic table of contents and updating of cross references within your documents.

Title page: must contain the following information:

City, University of London MSc in <your course>

Project Report

<Year>

<Project Title>

<Your Name>

Supervised by: <Your Supervisor's Name>

<Date of Submission>

Page 1 must contain the following signed declaration:

By submitting this work, I declare that this work is entirely my own except those parts duly identified and referenced in my submission. It complies with any specified word limits and the requirements and regulations detailed in the assessment instructions and any other relevant programme and module documentation. In submitting this work I acknowledge that I have read and understood the regulations and code regarding academic misconduct, including that relating to plagiarism, as specified in the Programme Handbook. I also acknowledge that this work will be subject to a variety of checks for academic misconduct.

Signed:

Page 2 must contain an indicative Abstract of 100-200 words, and up to five keywords. This is more than an introduction to the project – it should explain what has been achieved and how.

Page 3 (4, 5, *etc*.) must contain a Table of Contents with section and page numbers. Use the 1, 1.1, 1.2, 1.2.1, 1.2.2, 1.3, *etc*. style of section numbering. Deeper section numbering is not recommended. The Table of Contents should give the page number of each section and sub-section. It is best to do this automatically, using the facilities offered by your word processor.

14.3 Project Report contents, appendices and additional material

The following outline of report chapters is presented as a guide only, and should be read in conjunction with the marking scheme (see appendix A).

Chapter 1 – Introduction and Objectives: This chapter should set the scene for the reader. It must outline the background to the problem, give your reasons for the choice of project, and

identify the project's beneficiaries. Your objectives need to be precisely stated, together with the tests that will show, at the end of the project, that they have been met (or not been met). You need also to outline your methods in broad terms, along with y work plan with sufficient detail to show how you planned to meet the objectives. Outline any major changes of goals or methods that happened during the project. Finally, outline the structure of the report, showing how it fits together.

Chapter 2 – Context: This chapter explains the current state of your topic, in practice and theory. This is the state of the world which you intend to improve, and the state of knowledge on top of which you build your advances and from which you learn knowledge to apply and constraints on your work. So, you will report and analyse what is known about a certain topic, as reported in reference literature and published scientific literature; if you are developing a product, you will need to report about comparable or competing products over which you intend to improve or from which you will obtain ideas; you may need to describe legal or societal situation within which your work takes place; etc.

It is important to demonstrate scholarship, *i.e*. the ability to read about a subject area in a range of sources, assimilate the material and then discuss it intelligently.

You should demonstrate that you understand what you have read by providing some analysis or commentary in view of the goals of your project: it is not enough simply to provide summaries of what you have read. References should be cited following the Harvard Referencing Style. **You must also explain, both in this chapter and, as appropriate, in others, how the results of the studies to which you make reference inform your project work.** To gain a passing grade, your report MUST demonstrate adequate engagement with academic literature and any other sources necessary for the work to be well informed**.**

Chapter 3 – Methods: This chapter describes in detail the methods for whatever activities were necessary for your project – e.g., data gathering, data analysis, requirements analysis, design, implementation, testing/evaluation, *etc*. Your choice of methods should be discussed and justified in view of the project objectives, and with reference to the pertinent literature. Report not only what methods you applied in generic terms, but what you actually did: sufficient information about dates and details for your reader to understand how you ran *your* project, rather than just how one *could* run any similar project.

Report in this chapter what you did, not what you produced or found as a result (which goes under Results).

Note: only use the word 'methodology' if you know what it means!

Chapter 4 – Results: This chapter presents the outputs that you produced, by applying the methods that you have selected, including e.g. analysis, design, prototyping, experimental work, evaluation, *etc.*

How you report these results will depend on the nature of the work. It may be helpful to divide them into basic data (*e.g.,* for a project that developed a software product, requirements specification, test data, *etc*.) and analysis of the data (*e.g*. statistical analyses, evaluation analyses, *etc*.). Remember that you are informing the reader of what you have produced and found and emphasising the interesting parts, so summarising at the end of each major section is useful.

It is usually very helpful for the readers to include graphics and diagrams, for instance to clarify software design or requirements, identify key trends and relationships in empirical data, etc. If you do so, be sure to refer to these figures in the text and use them as evidence to support what you are explaining or arguing; and be sure that your figures are well designed and clearly presented – do not just use default settings of the software you are using in producing them.

It is essential that you identify clearly what you accomplished or produced yourself, as opposed to what existed before you started your individual project or was provided by others. For instance, some projects build new software on top of an existing code base, add new data to an existing body of data, or are executed by a student as a member of a team. It is essential to indicate what parts of the activities and results which you report are your own work. If this is left unclear, the markers are instructed not to give credit for work that they cannot attribute to you. Ambiguity would attract penalties for poor academic practice, with delays caused by any investigation (deception would be treated as academic misconduct, of course, which may lead to expulsion).

Chapter 5 – Discussion: This chapter examines your results in comparison with your objectives, and then in the wider perspective of other theoretical and applied work relevant to your project, as covered in your review in Chapter 2. For instance, for a software product you will discuss how well it satisfies the user needs that it addresses, its performance and dependability, aspects of design, implementation or assessment that have proved good choices or that instead you would change if you were to repeat the project knowing what you now know. For novel research results or any other knowledge obtained through the project, you will discuss your confidence in the results, their validity, scope and their generalisability. What are the implications of what you have found out? Do you have any recommendations as a result?

Chapter 6 – Evaluation, Reflections, and Conclusions: This chapter should evaluate the project work as a whole. Here the original choice of objectives, the literature examined, the methods used, the planning, *etc.* are all reviewed to see what has been achieved by undertaking the project. There may be a summary of general conclusions drawn from the work done, highlighting the particular contribution of your project. You should also consider the implications of these conclusions. Discuss any proposals that you might make for further work, having discovered what you now know. It is also important to include a reflective section covering what you have learned from the project process. What would you do differently if you were to start again, knowing what you now know? **Your report MUST include adequate Evaluation, Reflections and Conclusions to gain a passing grade.**

Glossary: If required, the glossary defines specialist terms that are not likely to be known by your intended audience.

References*:* A full list of all references cited in the project report. Citations **must** follow the Harvard Referencing Style.

Appendices and additional files: Any material that would interrupt reading the report must be presented here.

All evidence that allows the markers to assess your project **must** be available to the markers, in the appendices or additional files, clearly identified for the markers. Material that must be submitted if produced in your project includes:

- interview records; questionnaires and questionnaire replies;
- for any software developed:
    - routine design documentation
    - source code, in a structured and readable format, properly commented;
    - test inputs and results; output listings; displays, *etc*.;
    - whenever feasible, what is needed for makers not only to examine the code but also build the software and/or test it, as the may consider necessary: ready-to-install software, installation guide & user guide; for web software, a URL where markers can test it
- any data collected or produced;
- wireframes and prototypes
- for any experiments or data analyses performed, details of method that were not provided in the main text, input data sets, documentation of the analyses performed on the data, processed data and outputs;
- anything else that may be important for your examiners to assess your project: evaluate complexity, challenge, work done, results and your contribution in producing all this.

Some kinds of appendix material can or should be made available online without submission: e.g. massive datasets, audio/video recordings, long source code listings. As you write up your report, your supervisor (referring if necessary to the module leaders) can answer specific doubts about what should be included and formats.

The principle behind these rules is that you **must** give your markers full access to all the information behind your dissertation. There may be special cases in which there are better ways to grant this access than large appendices. For instance, your supervisor may have advised you to store the data on City's permanent repository, https://city.figshare.com/, and you will then indicate

in your report the URL where the markers have access to the data. If you think that for some appendices you should grant access outside an online or offline submission, seek your supervisor's advice; always make sure that (1) the markers can find and examine such material easily and quickly, at any time until your degree is awarded, and (2) that there is proof that the material was produced before the submission deadline.

14.4 Project Report Submission

You must submit your report electronically via Moodle.

Make sure you submit **by your deadline** and **in the correct area**; even if the Moodle submission area allows resubmissions, **do not resubmit** after the deadline because this will be interpreted as a late submission.

14.4.1 Moodle submission

The submitted e-copy of your project report must be in a single file and in **non-password protected PDF format**[1]. Appendices may be part of the same file or separate files.

Please, remember that the project submission area **will only accept certain file formats** and **does not accept compressed files (archives)**. This is because the dissertation and its textual appendices (including all program code that you wrote yourself) need to go through an "originality check" by plagiarism detection software, which only accepts certain file formats. As a general rule, submit through this area all textual documents – dissertation and appendices – if the file size constraints allow you. **Note**: for *confidential* files (see "B.3 Submitting confidential material") a separate submission area is provided.

A separate submission area will be provided for any additional files for which the originality check is not required, e.g. scanned documents, large raw data files, etc.

Also submit among the "additional files" the original source (in Word, for instance) of any document submitted as pdf. If they were too large, submit them as part of your offline submission instead.

The project submission areas on Moodle allow submitting several files and also some text. You can use this flexibility, for instance, to submit appendices as separate files, or, if necessary, to split large files. If you upload more than one file, submit some text to ensure that markers know: (1) what the various files are and (2) whether you also submitted files in the "additional files" area.

In general, markers prefer to download just one file, or very few files. Use best judgement to help them while keeping items separate when necessary (e.g. separating out confidential appendices.

Make sure that documents submitted in electronic version are such that they **will print correctly**: on-screen reading is not suitable for every reader and for every document, so the persons marking your project may need to print your file. Of course, also make sure that your files will read well on screen.

Check that your submission is accepted by Moodle and keep the E-receipt. If you run into Moodle failures, ask the help desk (extension 8181) for help and log your problem. remember however that the most common problem is students trying to upload file formats that are not accepted. If the Moodle glitches are such that you risk being late, ensure you have a proof of having finished the material by the deadline (e.g., by Emailing your course offices a copy of the submission and a screenshot documenting the glitch).

14.4.2 Off-line submission

Due to COVID19 restrictions offline submissions can't be processed by the Programmes Office.

Ensure that all evidence about project activities is available to markers, either submitted or available online. If this is not feasible, please read carefully the last paragraph of section 14.3, and seek advice from your supervisor as needed.

You are not required to submit printed copies of the report and appendices.

[1] Double-check that the pdf file can be searched electronically for text fragments. This is necessary for the markers and for originality checks. Some pdf converters will instead produce files where this is not possible. This may delay your marking substantially.

14.4.3 Late submission

For the project, in view of its large impact on your degree, a small delay in submission does not automatically imply failure, but the following heavy penalties are applied on the marking: a reduction of 5% of the mark awarded for each day or part day that the report is late. For example, if you submit 1.5 days after the deadline, then a 10% penalty will be applied. Therefore, if the mark would be 60%, the penalty applied will be 10/100 * 60 = 6%, and the final mark 60-6 = 54%.

14.5 Assessment

After submission of the Project Report, marks are assigned according to the following criteria.

An **indicative** allocation of marks to the **various project aspects (not chapters of the report)**, as shown in your project report, is:

10%	Problem Description and Objectives	What you are trying to do…
15%	Critical Context	Why you are trying to do it and what was done before…
20%	Methods	What you did…
25%	Results	What you ended up producing …
20%	Discussion Reflection & Conclusions	What you found and now know…
10%	Presentation	How well you present all of this

Table 2: Individual Project Assessment Criteria. Note: the weights are indicative.

Marks are awarded according to an assessment scheme and a series of criteria outlined below. Grades are awarded in the following bands.

Grade	**Mark Range**
A*: Publishable	80% and above
A: Distinction	70% - 79%
B: Merit	60% - 69%
C: Credit	50% - 59%
F: Fail	Below 50%

Table 3: Grades and Mark Ranges for Individual Project Assessment

Appendix A describes the qualities required for a project report to be awarded a passing mark of 50% and the criteria for meeting BCS accreditation requirements. In addition, the following criteria are used to establish a mark range and are indicative of the characteristics of project reports in each of these bands:

Fail -- a project report will demonstrate some or all of the following characteristics:
Unclear objectives and poorly defined problem or hypothesis.
Inadequate or inappropriate research design, methodology or implementation. Inappropriate or inaccurate analysis and/or interpretation of research findings. Inappropriate or inadequate literature review.
Descriptive, uncritical narrative - reliance on hearsay. Inconsistent or unsupported conclusions.
Lack of, or insufficient, supporting evidence and citations. Reference section deficient. Major errors, omissions or inconsistencies.
Lack of logical structure or sequencing of content. Unintelligible use of language and poor spelling. Appendices inadequate to support substance of the work.
Does not follow the requirements set down in the project guidelines. Academic misconduct or poor academic conduct.
A lack of coherence in terms of argument and alignment between objectives, methods and conclusions.
Late submission.
A lack of the key characteristics listed below.

Credit -- a report must demonstrate the following characteristics (see also Appendix A)
Clear objectives and clear definition of the problem, issue, or hypothesis addressed. Adequate and appropriate research, investigation, design and methodology.
Straightforward and accurate analysis and interpretation of research findings. Identifies, uses and reviews relevant literature in an appropriate manner.
Critical and logical discussion that demonstrates a sound understanding of the topic. Clear and valid conclusions.
Necessary evidence to support the chosen line of argument.
Accurate source referencing, including a bibliography of relevant literature.
Coherent content that is consistent with the title/topic.
Appropriate presentation, structure and sequencing of context. Appropriate appendices to support the substance of the work.
Clear English with accurate spelling and only minor problems with grammar.
Good academic conduct.
Timely submission.

Merit -- a report must, in addition to satisfying the criteria for Credit, demonstrate most of the following:
Comprehensive and well-designed research undertaken in a professional manner.
Comprehensive analysis and interpretation of research results.
Comprehensive and critical review of a broad range of relevant literature.
Constructive, focused, and critical discussion that synthesises relevant literature.
Coherent structure and progression to the substance and the topics.

Distinction -- a report must, in addition to satisfying the criteria for Merit, demonstrate most of the following:
Novel or new insights into the chosen subject/topic.
Originality or sophistication of approach.
Evidence of having engaged with cutting-edge research issues around the subject/topic.
Clarity of discussion and the effective and efficient use of English.

Publishable / Impactful Research – a report must, in addition to satisfying the criteria for Distinction, demonstrate
Quality such as to be suitable for development into a research publication, or comparable quality for work non suitable for publication (e.g. confidential commercial products).

14.6 Final Mark

Markers will ensure that the marks awarded match the grades A*, A, B, C or Fail in accordance with the foregoing criteria. The marks awarded will be justified by explaining the strengths and weaknesses of the various aspects of the report in line with the criteria. All work will be marked and moderated subject to the School's policy on Marking and Moderation and will be subject to the recommendation of the Board of Assessment.

15 Results

The Assessment Board will consider the project marks and recommend a pass when the marks have satisfied the Examiners.

Where a project fails to satisfy the Examiners, the recommendation may be:

Referral – The markers agree that there are deficiencies in the project but that some limited additional work will enable the project as described in the original proposal to meet the criteria for a passing grade. The student will receive (in a separate feedback message) written comments on the deficiencies and recommendations for issues to be addressed. Limited supervision will be available over the 3 months prior to resubmission. The referred project will be re-examined by the original markers (where possible) in light of the previous comments. It will be considered by the next available Assessment Board. The new mark will be capped.

Fail/New project – The markers agree that the project does not meet the criteria for a passing grade and that a referral, as described above, will not be sufficient for the project to meet these criteria. The module is considered to have been failed and no credit is awarded. Should the candidate be eligible for a re-sit a new project is required. This will follow the full project cycle at the next available opportunity with the next cohort, in accordance with the Project Scheme. A new project proposal and new supervisory agreement might be required. The mark for a new project (a re-sit of the Individual Project module) will be capped at 50%.

Note that these decisions are a matter of academic judgement and will be made and communicated by the Board of Assessment.

16 Contacts

For advice and discussions about your own project and academic issues, you should refer to your supervisor. When needed for clarifications of general academic issues and rules, the appropriate module leader can be involved.

For discussion about general project issues, we encourage you to use the Individual Project area on Moodle.

Should you need information relating to administrative issues, submission dates and process, access to resources or fees, please communicate with the Programmes Office in the first instance.

17 References

Notes: the university library holds three editions of Dawson's book; the titles below are available both as hard copies and for on-line reading (not for downloading) from https://libraryservices.city.ac.uk

Dawson, C. W. (2009). Projects in Computing and Information Systems: A Student's Guide (2nd ed.). London: Addison Wesley, 304 pp.

Dawson, C. W. (2015). Projects in Computing and Information Systems: A Student's Guide (2nd ed.). London: Pearson, 318 pp.

Oates, B. J. (2006). Researching Information Systems and Computing. London: Sage Publications Ltd, 341 pp.

Appendix A - INM363 Individual Project Assessment Scheme

INM363 Individual Project Assessment Scheme	For a mark of 50% – a pass at M-level with credit awarded :	Mark
Problem Description and Objectives *(10%)*: *What you are trying to do…* Extent to which: • the problem is fully, clearly and realistically identified and scoped; • the project's objectives and beneficiaries are precisely defined • research questions (and associated hypotheses where relevant) are clearly stated • project outcomes are described: Outcomes may include knowledge, theory or model, in depth case studies or more tangible outcomes such as tools, techniques or products.	A clear description of the problem and its scope with precisely defined objectives, research questions and outcomes, all of which are convincingly justified.	
BCS: project must produce one or more clearly defined **tangible outcomes** and describe this and the **practical skills** demonstrated in doing so**.**	**BCS:** is the **tangible outcome** clearly described along with the **practical skills** to be used to achieve this?	Y / N
Critical Context (15%): *Why you are trying to do it…* Extent to which academic literature and other background information (e.g. competing products, in a project developing a product, reference material) have been used, analysed and effectively synthesized to inform and justify all stages of the work with a sound theoretical and practical context. Coverage, relevance and currency of the reported literature. Quality, coherence and sophistication of arguments developed from this - including extent to which literature is critiqued and comprehensive understanding of the forefront of relevant academic disciplines is demonstrated.	Relevant literature is identified, evaluated and synthesized to contextualise the project and is used to inform approaches and interpretations of results. In doing so, the work demonstrates critical awareness of current knowledge and problems in relevant disciplines and shows awareness of recent insights.	
Methods (20%): *What you did…* Extent to which selected methods: • draw upon established and appropriate means of creating knowledge in the discipline; • are justified, evaluated and appropriate; • have been applied effectively, and any problems arising having been overcome; • constitute a clear, systematic, logical and well-planned approach • are explained fully and clearly.	Methods must be appropriate for achieving outcomes in a robust manner. Their application should demonstrate self-direction and originality in tackling and solving problems systematically in a way that produces robust results.	*

BCS: where appropriate, projects must include clear and comprehensive descriptions of: • the stages of the life cycle undertaken; • how verification and validation were applied at these stages; • tools used to support the development process; • practical skills demonstrated at each stage	**BCS:** if appropriate, are these described in a clear and comprehensive manner; if not appropriate is this stated convincingly with a full rationale?	Y / N
Results (25%): What you ended up producing… Quality, originality and significance of findings and outcomes. Sophistication of analysis and robustness of outcomes. Extent to which results: • address stated research questions and outcomes; are supported by evidence; • are original and contribute to disciplinary knowledge; • are comprehensively communicated. ***Grading takes into account the difficulty and scale of the task undertaken.***	Robust results draw upon evidence to support the chosen line of argument by dealing with complex issues both systematically and creatively. These are well communicated and address project objectives through appropriate and informed application of methods and demonstrate a comprehensive understanding of the techniques applied.	
BCS: quality of the tangible outcome in terms of difficulty of problem addressed, sophistication of solution and degree of problem-solving undertaken	**BCS:** is the tangible outcome of adequate quality in terms of sophistication and degree of problem solving applied in light of the difficulty and scale of the task undertaken?	Y / N
Discussion, Reflection & Conclusions ***(20%):*** *What you found and now know…* Extent to which: • project objectives and research questions are evaluated using results; valid conclusions are derived systematically from results; • results and conclusions are discussed objectively in the context of literature and generalized to the wider field; • confidence in results and conclusions is established; • implications, quality and scope of results and conclusions are considered; • critical self-evaluation and learning are evident in a reflective critical appraisal of the outcomes, and of the process, including the plan and any deviations from it. The discussion and reflection must demonstrate critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of the relevant discipline. The reflection must include evidence of self-direction and originality in tackling and solving problems, autonomy in planning and implementing tasks and learning.	Clear and valid conclusions are informed by the results and relevant knowledge of the forefront of the discipline. Critical, logical and evaluative discussion demonstrates a sound understanding of the topic and involves a realistic assessment of the quality of the work undertaken and its significance**.** Critical appraisal of the process and the outcomes demonstrates learning.	
BCS: reflection must include the rationale for design / implementation decisions	**BCS:** reflection includes the rationale for design / implementation decisions.	Y / N

Presentation (10%): How well you present all of this… The report should be appropriate for and accessible to specialist and non-specialist audiences. Markers will be looking for: • clear and consistent structure, layout and organisation that communicates the project context, methods and outcomes effectively; • clarity of writing with appropriate scientific reporting style, grammar and spelling; the degree to which arguments are coherent and supported by evidence; appropriate use of references and citations; • the quality of presentation of empirical data, including figures and graphics; • the degree to which the abstract is indicative of contents.	Accurate and precise referencing of sources, using citations in a consistent and standard form and a bibliography of relevant literature. Coherent content that is consistent with the title/topic. Appropriate presentation, structure and sequencing of context. Appropriate appendices to support the substance of the work where necessary. Clear English, with appropriate grammar and spelling, written in an appropriate scientific reporting style.	
ALL PROGRAMMES: Does the project reflect the aims and learning outcomes that characterise the programme with which it is associated and to which it contributes credit?		Y / N

*To meet BCS accreditation needs, projects on courses that are BCS accredited must score at least 50% on the “Methods” and “Results” sections, all Y/N criteria must be satisfied and the relationship to programme must be assessed as a “YES” too.

Appendix B Intellectual Property and Confidentiality

B.1 Your Intellectual Property Rights

Ownership of Intellectual Property (IP) that might arise from a student project can be an important issue.

The University has established a policy, which you can check online. The project process implements this policy. Some relevant rules are described here.

- The initial presumption is that where a student has developed IP, **the student owns the IP**, that is, the student can for instance exploit it commercially. However, the student can also agree beforehand to share or cede the IP to someone else. This may be required, for instance, by pre-existing agreements in cases where a student is sponsored by a company or other body; is performing their project as part of a larger sponsored project; is performing it for their employer or supervisor, possibly using IP that belongs to them or the University. In the last of these cases, if the University wishes to exploit a commercial opportunity, the student will be required to assign their IP to the University.
- Regarding copyright in the project report and other submitted deliverables and results of project work, an exception to your rights as author is that the University retains the right to copy them freely for assessment of your project or other internal purposes, including submission to plagiarism-detection services (currently we use the Turnitin service). Copies of reports may be provided to other students as aids for their own projects or other parts of their studies, unless the author explicitly indicated that they contain confidential material not to be disclosed. In addition, if your project is for a client or sponsor, we may give the client copies, or show the client any material that you submit to us as part of your project.

B.2 Policy on company-confidential information

We are keen to ensure that our students can perform projects that are important for their employers or clients, and thus we are keen to ensure confidentiality of information as may be required, subject only to restrictions required for the proper running and assessment of the student projects.

It is the student's responsibility to inform us of all confidentiality needs, and in particular: to clearly and visibly mark as confidential any confidential material submitted (see also "Submitting confidential material", below); and when communicating information by other means to the supervisor or others, to inform them if the information itself is to be kept confidential.

Submitted work that is confidential, and labelled as such, will only be given to those staff members who need to see it as part of the assessment (marking) process (this includes academics, administrative staff handling the material without reading the contents, and an external examiner); it will also be destroyed as soon as allowed by our marking process and other University rules. The information provided to the University staff is specifically to allow the marking of the submitted work and for no other purpose.

B.3 Submitting confidential material

It is possible, especially in a client-based project, that your project will use information that is confidential. In other cases, you may find you have to collect information about individuals (for instance, respondents to a questionnaire; see guidance about Research Ethics on Moodle). In these cases, you have a duty to protect the confidentiality of information. This section explains how to submit this material. The basic principles are:

1. The university will honour confidentiality requirements about your project and the material you submit (see "policy" above);
2. But it is your responsibility to inform us about these requirements, in the ways that we require, and not compromise confidentiality yourself.

Rules to follow for submission of confidential information:

- If you have to submit company-confidential material, inform your Course Officer before submission;
- For any confidential document that you submit, you must mark it as "confidential" on the cover page;
- Any online submission of confidential documents should be via submission areas labelled "confidential";
- Submit confidential documents separately from non-confidential ones: in separate electronic files and/or separately stapled or bound hard-copy items.

Typical cases are:

- A project involving confidential information of a client. You need to inform the course officer about this, stating what the client's confidentiality requirements are. You will be given access to a confidential submission area, or told to submit offline; please also label your offline submission as "confidential".
- A project for which some appendices contain personal information, e.g., names of people participating in a study. The best option is to collect all personal information into a single file and/or printout to submit only offline, labelled "confidential".

Your proposal often contain addresses and other personal information about specific people. Please either remove these, if you wish to keep the proposal in the same file as your report, or you can omit the proposal (appendix A: just indicate in the list of appendices "Appendix A: in Moodle proposal submission area"), since we have it on file.

All material submitted to Moodle will be processed by the Turnitin plagiarism detection tool; but anything in the "confidential" submission areas will not be left in Turnitin's repository that is accessible to other Turnitin clients.

It is most convenient for you if any confidential material is in separate appendices rather than the main body of the report: this will make it easier for the School to handle the project report, and you will be able to show the rest of your report, for instance to a possible employer, without violating the confidentiality agreements you made.

If you have any doubts or questions, your supervisor can advise on special needs of your project, and the project tutors can advise about the general rules.

B.3 Non-Disclosure Agreements (NDAs)

Sometimes, Project Clients or Internship Providers ask for a Non-Disclosure Agreement signed by the University, in addition to any such agreement signed by you. If so, inform your supervisor and the project tutors *early on* to seek advice; and take into account the following information:

- a company will rightly expect that *you* preserve confidentiality of some information. So, you will normally have to sign some kind of NDA (or, if the company employs you, an NDA may be already part of your contract). In signing such an agreement, make sure that it still allows you to reveal enough to the University that your project can be marked fairly. To avoid misunderstandings or legal complications, ensure that these conditions are written down clearly in any papers you sign. Usually, our confidentiality policy above is sufficient to give the company any guarantees they need;
- sometimes, companies ask that the University *also* sign a NDA with them. City's central services can do this ***but*** this is an administrative burden that ***we try to avoid***: it may cause substantial **delays** for the project and impose an unnecessary load on City's staff (each NDA usually requires communication and negotiation between the legal staff at the company and at City: even if the company accepts City's standard NDA, this usually requires some extra time; NDAs prepared by companies often need to be adapted for the circumstances of a student project, and companies' legal offices are not always responsive);
- for most companies, our standard confidentiality policy gives all the guarantees that they need; so if they request a NDA, please inform them about this policy and if they need clarifications, or a letter from City, or any other special assurances, ask them to contact the Project Tutors about these special needs;
- if nonetheless the company requires a NDA, as indicated above we can initiate the process: inform us, the sooner the better, given the risk of delays. The university will provide a standard NDA form. The project client or internship provider may require changes, which will be reviewed and, if necessary, amended by the university legal advisers, until both parties are satisfied and sign.