Cardiff Metropolitan University | Prifysgol Metropolitan Caerdydd

School of Technologies

# Assessment Brief

| Module Code | Module Title |
|---|---|
| CSE6035 | Development Project |
| **Academic Year** | **Semester** |
| 2024-2025 | 3 |

**Module Leader email**

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## Content

# Assessment Details

| Assessment title | Abr. | Weighting |
|---|---|---|
| Final Product / Thesis | WRIT1 | 80% |

Pass marks are 40% for undergraduate work and 50% for postgraduate work unless stated otherwise.

**Task/assessment brief:**

**Tasks:**

**Introduction**

The Development Project has been designed to provide you with an opportunity to choose and work on a project that reflects your own interests in the context of the aims and outcomes of your study programme. Learners must conduct research to find a solution for existing problems in a business, society or in any other domain and design and develop software solution to address that gap. Software solutions should result in something of your own making which shows your knowledge and capabilities in the best light.

**This should be an innovative unique project.**

**Assignment Evaluation**

- Final Product / thesis

**Project Milestone and Deliverables**

The project unfolds in a series of overlapping stages. Each stage involves several distinct tasks each of which is intended to produce some outcome or results. Some of these results will need to be in place before other tasks can begin whilst other tasks may be able to run concurrently. To make good use of your time it is important to plan your project so that there are always some tasks to be doing if you ever need to wait for the outcome from some other tasks.

To help you to make progress with your project, there are some milestones which are deadlines by when the outcome of a particular task or stage must be finished. To help your supervisor to assess the quality of your work, you will be required to submit the results of the identified tasks for marking and feedback. Such submissions are called deliverables. The milestones and deliverables are specified as follows:

| Milestone | Deliverables |
|---|---|
| Project Registration | Project title |
| Project Proposal Submission and Presentation | Project proposal, Research Ethics Approval Application, Proposal presentation |
| Project Proposal Feedback | Feedback |
| Project Progress (documentation, presentation, working demonstration) – 1 | Literature review, Project planning, SRS |
| Project Progress (documentation, presentation, working demonstration) – 2 | Design specification and a prototype |
| Final Project / Thesis submission | Thesis document |
| Final demonstration / Viva | Slides and software system |

**Basic Guideline for Project**

**Stage 1: Project Planning**

Project Planning has the following tasks:

(i) **Topic identification**. You need to decide what kind of area you would like to do your work in. This will allow the coordinator to find a staff member suitable for supervising you.

(ii) **Preparation for supervision**. You must arrange and attend an initial meeting with your supervisor. He or she will want to know your draft project title and see a brief written description of what work you have in mind. First impressions are important.

(iii) **Subject area study**. Once you have settled your topic area you need to begin researching in more depth. Find books in the library and other sources on the Internet. Keep a note of the references. Write up a description giving your views of the area and, where you can, outline *what* problem that you are planning to solve or *which* issues that you are planning to investigate.

(iv) **Methodological considerations**. Next you should consider *how* you will tackle your project work. What are its aims and objectives? If you are gathering information, what methods will you use to collect it? What methods will you use to analyse it? Answering these questions will lead to your *research design*. If you are developing software, what development methodology will you use? What tools do you need? Answering these questions will break your project down into its constituent tasks. You may need to take into consideration the ethical requirements of the Engineering and Information Sciences School Research Committee and the professional requirements of the British Computer Society to ensure that your project complies. Result: Detailed project description.

**(v)** **Planning**. Once you know what you want to do and how you plan to do it, the next step is to calculate how you can manage to do it in the time available to you. This can be done by making a timeline showing all the necessary tasks and estimating how long each one will take. In that way it will be possible to predict when certain deliverables will be created. The most important one will be your project report, which must be completed by the 12-week deadline. Finally, you will have to think about any special resources you might need for your

project. This can include access to hardware or software or even to particular people – for example the directors or managers of a business.

(vi) **Writing the Proposal**. The final task of the Planning stage consists of putting together all the components you have prepared in the early tasks to form your Project Proposal. You can select the proposal temple, with your' supervisor.

**Stage 2 Project Execution**

Project Execution has the following tasks:

(i) **The Literature Survey**. Here the task is to locate and digest relevant and current literature relating to your topic. By reading and understanding what other researchers have been doing, you learn more about your subject and it puts into perspective the work that you are planning to do.

(ii) **The main project work.** At last, you are ready to start doing the work that you have planned. If your planning has been good, you will just be following the development methodology or the research design which you chose during the planning stage and if you are lucky (and you are working hard enough) you will be able to stick to the schedule. One by one, the deliverables you have identified will emerge. It is important to keep in touch with your supervisor, discussing your ideas and strategies and seeking guidance and advice where you need it. Try to arrange regular meetings with your supervisor and keep a record of your encounters, reporting on what was discussed and noting what is promised for the next session.

(iii) **Software Product Development**. If you are developing the software, you have to use appropriate system architecture and relevant design Patten. You can use any programming language and any database software. You must follow the proper coding standards and testing methods.

## Stage 3: Writing the report.

There is little point in undertaking the labour of your project unless you can convey its results to others. This module presents the results in two ways – the Report and the Viva\Demonstration. When writing the report

(i) **Planning the report**. A good report is like a story – it should tell the reader how you went from the initial stages to choosing your topic and problem, through all the decisions you made about what to do and how to do it, and all the work you did in learning more about your subject, up to the point where you achieved your results. Then the report should go beyond that and give your views about your results – how accurate or reliable they are and how valid they are; and, of the project as a whole – did you achieve what you set out to do? A good story does not happen without careful planning about what information to include, in what level of detail, and in which order. Consideration must also be given to the form of presentation – the style and layout of the writing, labeling of diagrams, and handling of references

(ii) **Writing up the chapters**. Remember that the project stages can overlap somewhat, and this task is an example of where that can happen. If you can do a certain amount of the writing up as you are completing the work, it gives you a better chance of sharing your output with your supervisor and benefiting from that additional feedback. Writing up in this way is also a good way of using up 'dead' time that can occur while you are waiting for the outcome of other tasks.

(iii) **Conclusion and Abstract**. These are two special parts of the report. The Abstract is a summary of the whole report that appears at the very beginning and is the first thing read by the reader (first impressions are important). The conclusion is the last chapter and is usually the last thing read by the reader. It is therefore worth giving special attention to the structure and scope and even the language used in these sections

**Stage 4: Demonstration/VIVA**

(i) **Prepare a presntaion** targating, background about the general area of your work; state the problem you were trying to solve, give the requirements of the product and mention your development methods. Discuss your findings and mention any improvements possible in future work.

*(ii)* **When demonstrating,** Make sure it is running beforehand and that you have a clear idea of what you want it to do. Foucs more towards the more important features and make sure proper data is added before hand.

(iii) **Rehearse** the presentation and demonstration for a proper flow and optimal time management.

| **Word count (or equivalent):** | 6400 |
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This a reflection of the effort required for the assessment. Word counts will normally include source code, any text, tables, calculations, figures, subtitles and citations. Reference lists and contents of appendices are excluded from the word count. Contents of appendices are not usually considered when determining your final assessment grade.

**Academic or technical terms explained:**

**Understand** -
Involves grasping the meaning of information, ideas, or concepts. It goes beyond simply memorizing facts and requires interpreting, explaining, and summarizing the information in your own words.
**Design** –
Creating something new, whether it's a plan, a process, a product, or a solution to a problem. It requires using your understanding to generate something original and functional.
**Develop** –
Creating: This refers to taking an existing design and building upon it, refining it, or bringing it to life. This involves a high degree of originality and innovation.
Applying: This signifies using existing knowledge or skills to create something new, but not necessarily something completely original. It involves adapting and implementing existing concepts in a new context.
**Evaluate** –
This involves making judgments about the value, worth, or effectiveness of something. It requires analyzing information, identifying strengths and weaknesses, and comparing it to established criteria or standards.

# Submission Details

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| **Submission Deadline:** | This will be provided on the Moodle submission point. | **Estimated Feedback Return Date** | This will normally be 20 working days after initial submission. |
| **Submission Time:** | By 2.00pm on the deadline day. | | |
| **Moodle/Turnitin:** | Any assessments submitted after the deadline will not be marked and will be recorded as a non-attempt unless you have had an extension request agreed or have approved mitigating circumstances. See the School Moodle pages for more information on extensions and mitigating circumstances. | | |

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|---|---|
| **File Format:** | The assessment must be submitted as a pdf document (save the document as a pdf in your software) and submit through the Turnitin submission point in Moodle.<br><br>**Your assessment should be titled with your:**<br><br>**student ID number, module code and assessment ID, e.g. st12345678 CSE6035 WRIT1** |
| **Feedback** | Feedback for the assessment will be provided electronically via Moodle. Feedback will be provided with comments on your strengths and the areas which you can improve. View the guidance on how to access your feedback.<br><br>All marks are provisional and are subject to quality assurance processes and confirmation at the programme Examination Board. |

# Assessment Criteria

### Learning outcomes assessed

- Design and develop a project based on a software or hardware artefact.
- Specify the nature of the problem being investigated and research the appropriate tools to address the research problem.
- Conduct a literature review within the context of the problem.
- Evaluate the developed artefact within the given context of the literature review and identify areas for further work.

### Other skills/attributes developed

This includes elements of the Cardiff Met EDGE (Ethical, Digital, Global and Entrepreneurial skills) and other attributes developed in students through the completion of the module and assessment. These will also be highlighted in the module guidance, which should be read by all students completing the module. Assessments are not just a way of auditing student knowledge. They are a process which provides additional learning and development through the preparation for and completion of the assessment.

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| ETHICAL | Understanding the importance of protecting user data, and ensuring user information is collected responsibly, secured with robust practices, and utilized with informed consent. Furthermore, a keen understanding of intellectual property safeguards against plagiarism and fosters ethical code reuse through proper attribution. Finally, accessibility becomes a moral imperative, demanding software that caters to a diverse range of users, promoting inclusivity by adhering to established accessibility guidelines. |
| DIGITAL | Staying up-to-date on emerging trends ensures their skillset remains relevant, while an understanding of the broader societal implications of technology fosters responsible development practices. |
| GLOBAL | Localization and internationalization techniques enable software to adapt seamlessly to diverse languages and cultural contexts. Cultural sensitivity guides the design process, ensuring the software avoids biases and promotes inclusivity for a global audience. |
| ENTREPRENEURIAL | Identifying opportunities to create new businesses or to enhance the existing process using software application development. |

## Marking/Assessment Criteria WRT1

| Category | 0-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-100 |
|---|---|---|---|---|---|---|
| Achievement of Objectives (25%) | Project objectives are unclear or not achieved. | Some objectives are partially achieved. Functionality is limited. | Most objectives are achieved with some limitations. | All objectives are achieved. Functionality meets basic requirements. | All objectives are achieved with some exceeding expectations. Functionality demonstrates clear value. | All objectives are achieved, exceeding expectations. Functionality is innovative and addresses a wider range of user needs. |
| Use of Literature (15%) | Limited or irrelevant literature is used. | Relevant literature is used but not critically analyzed. | Relevant literature is used and somewhat critically analyzed. | Relevant literature is used extensively and critically analyzed. Citations are accurate and consistent. | Relevant literature is used extensively, critically analyzed, and demonstrates a deep understanding of the field. Citations are exceptional. | Relevant literature is used extensively, critically analyzed, and demonstrates an exceptional understanding of the field. Citations are insightful and demonstrate independent research. |
| Methodology (20%) | Inappropriate or poorly defined methodology is used. | A basic methodology is used but lacks justification or explanation. | A relevant methodology is used with some justification. | A well-defined and relevant methodology is used with clear justification. | A well-defined and relevant methodology is used with clear justification and demonstrates a strong understanding of its application. | A well-defined and relevant methodology is used with clear justification, demonstrating an exceptional understanding of its application and potential limitations. |
| Analysis and Discussion/ Solution Design and Implementation (30%) | Analysis is weak or absent. Solutions are poorly designed and implemented. | Analysis is somewhat present but lacks depth. Solutions have some functionality but are poorly implemented. | Analysis is present but limited. Solutions partially address the problem and may have implementation issues. | Analysis is thorough and demonstrates a clear understanding of the problem. Solutions address the problem effectively and are mostly well implemented. | Analysis is exceptional, demonstrating critical thinking and a deep understanding of the problem. Solutions are innovative, well-designed, and implemented effectively. | Analysis is exceptional, demonstrating critical thinking, a deep understanding of the problem, and consideration of alternative approaches. Solutions are highly innovative, well-designed, and implemented exceptionally well. |
| Report Structure and Use of Academic Writing (10%) | Report lacks structure and clarity. Academic writing is poor with frequent errors. | Report structure is somewhat organized but lacks clarity. Academic writing has some errors. | Report structure is organized but may have minor inconsistencies. Academic writing has some minor errors. | Report structure is clear and well-organized. Academic writing is mostly free of errors. | Report structure is exceptional, clear, and professional. Academic writing is free of errors and demonstrates strong communication skills. | Report structure is exceptional, clear, concise, and professional. Academic writing is free of errors and demonstrates exceptional communication skills. |

# Further Information

### Supervision

**Each student will be assigned a research supervisor.** Regular meetings are crucial for project success. Students are required to attend a minimum of five meetings with their assigned supervisor to discuss research progress, address challenges, and receive guidance. **Detailed logs of these meetings, signed by the supervisor, must be included as an appendix to the final report.** The supervisor's signature on the final thesis and assessments signifies their approval. **Projects without supervisor approval will not be considered for marking.**

### Who can answer questions about my assessment?

Questions about the assessment should be directed to the staff member who has set the task/assessment brief. This will usually be the Module Leader. They will be happy to answer any queries you have.

Staff members can often provide feedback on an assignment plan but cannot review any drafts of your work prior to submission. The only exception to this rule is for Dissertation Supervisors to provide feedback on a draft of your dissertation.

### Referencing and independent learning

Please ensure you reference a range of credible sources, with due attention to the academic literature in the area. The time spent on research and reading from good quality sources will be reflected in the quality of your submitted work.

Remember that what you get out of university depends on what you put in. Your teaching sessions typically represent between 10% and 30% of the time you are expected to study for your degree. A 20-credit module represents 200 hours of study time. The rest of your time should be taken up by self-directed study.

Unless stated otherwise you must use the **HARVARD** referencing system. Further guidance on referencing can be found in the Study Smart area on Moodle and at www.citethemrightonline.com (use your university login details to access the site). Correct referencing is an easy way to improve your marks and essential in achieving higher grades on most assessments.

### Technical submission problems

It is strongly advised that you submit your work at least 24 hours before the deadline to allow time to resolve any last minute problems you might have. If you are having issues with IT or Turnitin you should contact the IT Helpdesk on (+44) 2920 417000. You may require evidence of the Helpdesk call if you are trying to demonstrate that a fault with Moodle or Turnitin was the cause of a late submission.

### Extensions and mitigating circumstances

Short extensions on assessment deadlines can be requested in specific circumstances. If you are encountering particular hardship which has been affecting your studies, then you may be able to apply for mitigating circumstances. This can give the teachers on your programme more scope to adapt the assessment requirements to support your needs. Extensions and mitigating circumstances policies and procedures are regularly updated. You should refer to your degree programme or school Moodle pages for information on extensions and mitigating circumstances.

### Unfair academic practice

Cardiff Met takes issues of unfair practice **extremely seriously.** The University has procedures and penalties for dealing with unfair academic practice. These are explained in full in the University's Unfair Practice regulations and procedures under Volume 1, Section 8 of the Academic Handbook. The Module Leader reserves the right to interview students regarding any aspect of their work submitted for assessment.

Types of Unfair Practice, include:

**Plagiarism,** which can be defined as using without acknowledgement another person's words or ideas and submitting them for assessment as though it were one's own work, for instance by copying, translating from one language to another or unacknowledged paraphrasing. Further examples include:

- Use of any quotation(s) from the published or unpublished work of other persons, whether published in textbooks, articles, the Web, or in any other format, where quotations have not been clearly identified as such by being placed in quotation marks and acknowledged.
- Use of another person's words or ideas that have been slightly changed or paraphrased to make it look different from the original.
- Summarising another person's ideas, judgments, diagrams, figures, or computer programmes without reference to that person in the text and the source in a bibliography/reference list.
- Use of assessment writing services, essay banks and/or any other similar agencies (NB. Students are commonly being blackmailed after using essay mills).
- Use of unacknowledged material downloaded from the Internet.
- Re-use of one's own material except as authorised by your degree programme.

**Collusion**, which can be defined as when work that that has been undertaken with others is submitted and passed off as solely the work of one person. Modules will clearly identify where joint preparation and joint submission are permitted, in all other cases they are not.

**Fabrication of data**, making false claims to have carried out experiments, observations, interviews or other forms of data collection and analysis, or acting dishonestly in any other way.

### How is my work graded?

Assessment grading is subject to thorough quality control processes. You can view a summary of these processes on the Assessment Explained Infographic.

Grading of work at each level of Cardiff Met degree courses is benchmarked against a set of general requirements set out in Volume 1, Section 4.3 of our Academic Handbook. A simplified version of these Grade Band Descriptors (GBDs) with short videos explaining some of the academic terminology used can be accessed via the Facilitation of Learning resource page.

We would strongly recommend looking at the Study Smart area of Moodle to find out more about assessments and key academic skills which can have a significant impact on your grades. Always check your work thoroughly before submission.

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