Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

**APPENDIX GA34**

# INTERNAL ASSESSMENT APPROVAL FORM (INCLUDING COLLABORATIVE PROVISION)

This form is used to ensure that assessment specifications have been through an internal review process prior to external examination/approval and release to students. It should be completed for each assessment for a particular module. The assessment tasks, criteria and marking scheme should accompany this form.

| | | | | |
|---|---|---|---|---|
| **PARTNER** (and taught location if relevant): | Coleg Sir Gar | | | |
| **EXTERNAL EXAMINER NAME:** | Dr Arfan Ghani | | | |
| **ASSESSMENT AUTHOR :** | Robert Davies | | | |
| **MODULE TITLE:** | Major Project | | | |
| **MODULE CODE:** | PSDE6019 | **MODULE LEVEL:** | 6 | |
| **COMPONENT NO.** (e.g. 1 of 2): | 3 of 4 | **COMPONENT WEIGHTING** (e.g. 50% of the module): | 50% | |
| **ASSESSMENT PERIOD** | ☐ Semester 1 | ☐ Semester 1 *Re-sit* | ✓Semester 2 | ☐ Semester 2 *Re-sit* | *Other, please state* |
| **TYPE OF ASSESSMENT:** | ✓Coursework | ☐ Examination | ☐ Practical | | |
| **LANGUAGE OF ASSESSMENT:** | English | **TRANSLATION REQUIRED (Y/N):** | N | | |
| **FOR EXAMINATIONS ONLY. SPECIFY BELOW ANY ADDITIONAL MATERIAL(S) TO BE USED IN THE EXAMINATION** | | | | |
| *This box will expand as you type* | | | | |

| | **INTERNAL MODERATOR PLEASE TICK TO INDICATE THAT THE ASSESSMENT INCLUDES:** | *Please ✓* YES | NO | **Comments** |
|---|---|---|---|---|
| 1 | Tasks that are specified clearly, accurately and comprehensibly, with appropriate use of language and neat presentation | ✓ | | |
| 2 | Tasks which enable the module learning outcomes to be demonstrated (as per the module syllabus) | ✓ | | |
| 3 | Tasks which conform to the assessment described in the module syllabus | ✓ | | |
| 4 | Tasks which are written at the appropriate level of the Framework for Higher Education Qualifications (see http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf?sfvrsn=170af781_14). | ✓ | | |
| 5 | Clear criteria for assessment and guidance about how marking/grading will be applied | ✓ | | |
| 6 | Guidance about expected evidence for submission, e.g. essay or report, word count, bibliography and references | ✓ | | |
| 7 | Reference to good academic conduct, for example referencing, plagiarism and Turnitin | ✓ | | |
| 8 | **Actions to complete**<br>*This box will expand as you type* | | | |

| SIGNATURE OF APPROVAL: | SIGNATURE | DATE |
|---|---|---|
| **INTERNAL MODERATOR:** I confirm that this version of the assessment specification is ready to be sent to the Partnership Team Leader | | 16/11/2018 |

**ONLY TO BE COMPLETED IF THE ASSESSMENT IS LINKED TO A COLLABORATIVE PARTNER**

| | PARTNERSHIP TEAM LEADER PLEASE TICK TO INDICATE THAT THE ASSESSMENT INCLUDES: | *Please ✓* YES | NO | Comments |
|---|---|---|---|---|
| 1 | Tasks that are specified clearly, accurately and comprehensibly, with appropriate use of language and neat presentation | | | |
| 2 | Tasks which enable the module learning outcomes to be demonstrated (as per the module syllabus) | | | |
| 3 | Tasks which conform to the assessment described in the module syllabus | | | |
| 4 | Tasks which are written at the appropriate level of the Framework for Higher Education Qualifications (see http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf?sfvrsn=170af781_14). | | | |
| 5 | Clear criteria for assessment and guidance about how marking/grading will be applied | | | |
| 6 | Guidance about expected evidence for submission, e.g. essay or report, word count, bibliography and references | | | |
| 7 | Reference to good academic conduct, for example referencing, plagiarism and Turnitin | | | |
| 8 | **Actions to complete**<br><br>*This box will expand as you type* | | | |

| SIGNATURE OF APPROVAL: | SIGNATURE | DATE |
|---|---|---|
| **PTL:** I confirm that this version of the assessment specification is ready to be sent to the External Examiner | | |

**UWTSD PROVISION: please submit the completed document to the appropriate Programme Director.**

**COLLABORATIVE PROVISION: please submit the completed document (or make available electronically) to the Partnership Team Leader. This must be in accord with specific arrangements for sharing electronic documents (e.g. via SharePoint or similar).**

The assessment tasks, criteria and marking scheme should accompany this form

**THIS DOCUMENT IS ALSO AVAILABLE IN WELSH**

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**APPENDIX GA36c**

# LEVEL 6 ASSESSMENT SPECIFICATION

| | | | |
|---|---|---|---|
| **Student name:** | | **Student ID number:** | |
| **Programme:** | BSc (Hons) Electrical and Electronic Engineering | | |
| **Module:** | Major Project | | |
| **Module code:** | PSDE6019 | **Contribution to Overall Module Assessment (%):** | 50% |
| **Lecturer:** | Robert Davies, Michael Hall | **Internal Verifier:** | Robert Jenkins |
| **Assignment Title:** | 2 - Project Design, Implementation and Evaluation | **Word count (or equivalent):** | 6000 |
| **Submission deadline:** | 29th April 2019 | **Return date of provisional marks & written feedback:** | 24th May 2019 |
| **Submission method:** | All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.)<br>**Alternative submission method (if applicable):**<br>**Late submission of the assessment will result in a late penalty mark.** Penalties for late submission: Up to one week late, maximum mark of 40%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates. | | |
| **Academic honesty / referencing:** | Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment. | | |

| **Module Learning Outcomes (from module syllabus)** |
|---|
| 2. Apply analysis, design, implementation and testing techniques in order to execute a complex major project and achieve the outcomes within time and budgetary constraints, with consideration given to maintenance, reliability, appropriate codes of practice and industry standards using relevant materials, tools and equipment following workshop and laboratory practice.<br>3. Write and defend comprehensive technical reports on the planning and implementation phases of a major project. |

# TASK DESCRIPTION

## Aims and Objectives

The overall aim of the assignment is to provide you with a systematic understanding of project design and quality management techniques and the opportunity to apply them in the implementation stages of a complex individual project with consideration given to the wider engineering context, working within a range of constraints. Upon the successful completion of this assignment, you will have shown your ability to:

- Apply analysis, design, implementation and testing techniques in order to execute a complex major project and achieve the outcomes within time and budgetary constraints, with consideration given to maintenance, reliability, appropriate codes of practice and industry standards using relevant materials, tools and equipment following workshop and laboratory practice.
- Write and defend a technical report on the planning phase of a major project.

All work must be submitted through Turnit-in. You must use the Harvard method of citing and listing of credible sources.

## Assignment Tasks

### Task 1 – Project Log Book Continuation and Completion

You must continue producing log entries and updates to the index sheet. The assignment will enable you to complete the expected hours of the project which total around 400 hours. Each log entry must contain a description of what has been done during the previous week together with supporting information and plans/targets for the coming week. This is a good place to include technical literature related to the project design that will be used in the report. Be sure to note the source of the information. Each entry must record the time taken and the overall accumulated time. This information will also be briefly summarised in the index sheet at the front. Each week, your academic tutor will discuss your log entry which will also need to be signed first by your industrial supervisor and then by your academic supervisor. A well-kept log book is an invaluable store of material that will feed into this assignment report and will help you keep track of your progress and as well providing evidence that the project is your own work.

### Task 2 – Project Design

You must develop the solution outlined in the previous assignment report, producing detailed block diagrams, detailed drawings for electrical or electronic circuits, flow charts and coding where programming is involved. In your designs, you must consider your FDS (Functional Design Specification) performance parameters. You must manage the design process including cost drivers and will be required later in the report to evaluate the outcomes. You must apply problem-solving skills, technical knowledge and understanding to create or adapt design solutions that are fit for purpose including operation, maintenance, reliability etc.. You must use and apply information from technical literature. It is highly probable that you will need to work with information that may be incomplete or uncertain and be aware that this may affect the design.

### Task 3 – Project Implementation and Construction

You must implement your designs by first obtaining the necessary components. Your spreadsheet should be used to keep track of costs to ensure the budget is not exceeded. Your work breakdown structure and project plan must be followed and contingencies put into practice where hindrances occur. You must take into

account all constraints outlined in assignment 1 report. Your project plan must be updated to show actual timing and achievement of milestones. You must demonstrate a systematic understanding of, and ability to use, relevant materials, equipment, tools, processes, or products in the construction of the project. You are also required to explain your use of appropriate codes of practice and industry standards as detailed in assignment 1. You will need to demonstrate knowledge and understanding of workshop and laboratory practice during this stage of the project.

## Task 4 – Project Testing

When the construction of the project is complete, you must follow the test plan set out in assignment 1. Evidence will be required that each item of the FDS has been achieved. You must demonstrate a systematic understanding of and ability to use relevant equipment, tools, processes, or products in the testing of the project. You must also use the results of engineering analysis to solve engineering problems and to recommend appropriate action as it is unlikely that the project will work first time. Adjustments to the design may be necessary. In your testing, you must apply quantitative methods in order to understand the performance of systems and components.

## Task 5 – Project Evaluation

Once the project has been fully tested, a detailed comparison must be made between the planned outcomes from the FDS and the actual outcomes with reasons given for why they may be different. Having managed the design process, including cost drivers, you will now be able to evaluate the outcomes.

## Task 6 – Conclusion and Recommendations

Write the overall conclusions for the project and give clear recommendations for its further development.

# GUIDANCE FOR STUDENTS IN THE COMPLETION OF TASKS

You are required to present an electronic report containing detailed observational notes of your work. This report must written with a maximum of 6000 words and should be laid out in the following sections preceded by a title page, acknowledgements, table of contents and list of figures:-

1. **Executive Summary**
2. **Introduction**
3. **Design**
4. **Implementation**
5. **Testing**
6. **Evaluation**
7. **Conclusions and Recommendations**
8. **Citation List**
9. **Appendix**

The executive summary must be written in non-technical language and it must outline all that is contained in the report. It must also be written in the past tense using around 200 words but these will not contribute to the total. The introduction should remind the reader of the aims and objectives of the project. The appendix will contain any of your handwritten calculations and analysis but you must always summarise in the main body of the report. Your pages should be numbered and your figures must also be numbered and listed at the beginning of the report. You will be assessed against the following common assessment criteria. Note that sections of your report have been identified as places where the marks will be awarded. The Turnit-in rubric will be used to record your marks with your tutor's feedback.

**NOTE: The guidance offered below is linked to the five generic assessment criteria overleaf.**
Significant differences from level 5 are highlighted in red.

**1. Engagement with Literature Skills**

Your work must be informed and supported by scholarly material that is *relevant* to and *focused* on the task(s) set; you should make use of scholarly reviews and primary sources, where appropriate (for example, refereed research articles and/or original materials appropriate to the discipline). You should provide evidence that you have accessed a wide *range* of sources, which may be academic, governmental and industrial; these sources may include academic journal articles, textbooks, current news articles, organisational documents, and websites. You should consider the *credibility* of your sources; academic journals are normally highly credible sources while websites require careful consideration/selection and should be used sparingly. Any sources you use should be current and up-to-date, mostly published within the last five years or so, though seminal/important works in the field may be older. You must provide *evidence* of your research/own reading throughout your work, using a suitable referencing system, including in-text citations in the main body of your work and a reference list at the end of your work.

***Guidance specific to this assessment:*** *This will be assessed by sections 3 and 8 of your report.*

**2. Knowledge and Understanding Skills**

At level 6, you should be able to demonstrate coherent and detailed knowledge and a systematic understanding of the subject area, at least some of which is informed by the latest research and/or advanced scholarship within the discipline. You should be aware of the uncertainty, ambiguity and limits of knowledge. Your work must demonstrate the growing extent of your knowledge and systematic understanding of concepts and underlying principles associated with the subject area. *Knowledge* relates to the facts,

information and skills you have acquired through your learning. You demonstrate your *understanding* by interpreting the meaning of the facts and information (knowledge). This means that you need to select and include in your work the concepts, techniques, models, theories, etc. appropriate to the task(s) set. You should be able to explain the theories, concepts, etc. meaningfully to show your understanding. Your mark/grade will also depend upon the *extent* to which you demonstrate your knowledge and understanding; ideally each should be complete and detailed, with comprehensive coverage.

***Guidance specific to this assessment:*** *This will be assessed by section 3 of your report.*

**3. Cognitive and Intellectual Skills**

You should be able to: critically evaluate evidence, arguments, assumptions, abstract concepts and data some of which are at the forefront of a discipline (and that may be incomplete) to devise and sustain arguments, to make judgements and/or solve problems; describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline. Your work must contain evidence of logical, analytical thinking, evaluation and synthesis. For example, to examine and break information down into parts, make inferences, compile, compare and contrast information. This means not just describing what! But also justifying: Why? How? When? Who? Where? At what cost? At all times, you must provide justification for your arguments and judgements. Evidence that you have reflected upon the ideas of others within the subject area is crucial to you providing a reasoned and informed debate within your work. Furthermore, you should provide evidence that you are able to make sound judgements and convincing arguments using data and concepts. Sound, valid conclusions are necessary and must be derived from the content of your work. Where relevant, alternative solutions and recommendations may be proposed.

***Guidance specific to this assessment:*** *This will be assessed by sections 5 and 6 of your report.*

**4. Practical Skills**

At level 6, you should be able to apply the methods and techniques that you have learned to review, consolidate, extend and apply your knowledge and understanding, and to initiate and carry out projects. You will deploy accurately established techniques of analysis and enquiry relevant to the discipline, and apply them in complex and unpredictable contexts, to devise and sustain arguments and/or to solve problems. You should be able to frame appropriate questions to achieve a solution - or identify a range of solutions. You should be able to demonstrate how the subject-related concepts and ideas relate to real world situations and/or a particular context. How do they work in practice? You will deploy models, methods, techniques, and/or theories, in that context or circumstances, to assess current situations, perhaps to formulate plans or solutions to solve problems, or to create artefacts, some of which may be innovative and creative. This is likely to involve, for instance, the use of real world artefacts, examples and cases, the application of a model within an organisation and/or benchmarking one theory or organisation against others based on stated criteria. You should show awareness of the limitations of concepts and theories when applied in particular contexts.

***Guidance specific to this assessment:*** *This will be assessed by sections 3, 4 and 5 of your report.*

**5. Transferable Skills for Life and Professional Practice**

Your work must provide evidence of the qualities and transferable skills necessary for graduate-level employment requiring the exercise of initiative and personal responsibility and decision-making in complex and unpredictable circumstances. This includes demonstrating: the learning ability for professional development to advance existing skills and acquire new competences of a professional nature that will enable you to assume significant responsibility within organisation; that you can initiate and complete tasks and procedures, whether individually and/or collaboratively; that you can use appropriate media to effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences; fluency of expression; clarity and effectiveness in presentation and organisation. Work should be coherent and well-structured in presentation and organisation.

***Guidance specific to this assessment:*** *This will be assessed by the written and presentational quality of your report including page numbering, figure quality, figure numbering and listing, writing style, punctuation, grammar and spelling, and by your executive summary in section 1.*

## Achieving the PLOs for IET/IEng Accreditation

The following PLOs have been targeting to be satisfied by this assignment. Details are given below. The marking scheme on the next page will also be used to record your PLO achievements and comments will be found in the Turnit-in rubric.

**D3i** - *Work with information that may be incomplete or uncertain and be aware that this may affect the design*. This will be satisfied by section 3 of the report.

**D4i** - *Apply problem-solving skills, technical knowledge and understanding to create or adapt design solutions that are fit for purpose including operation, maintenance, reliability etc*.. This will be satisfied by section 3 of the report.

**D5i** - *Manage the design process, including cost drivers, and evaluate outcomes*. This will be satisfied by section 4 of the report.

**D6i** - *Communicate their work to technical and non-technical audiences*. This will be satisfied by the technical aspects of the whole report and your executive summary, in section 1, aimed at a non-technical audience.

**EP2i** - *Demonstrate a systematic understanding of and ability to use relevant materials, equipment, tools, processes, or products*. This will be satisfied by sections 4 and 5 of your report.

**EP3i** - *Demonstrate knowledge and understanding of workshop and laboratory practice*. This will be satisfied by sections 4 and 5 of your report.

**EP4i** - *Use and apply information from technical literature*. This will be satisfied by section 3 of your report.

**EP5i** - *Use appropriate codes of practice and industry standards*. This will be satisfied by sections 3, 4 and 5 of your report.

**EA3i** - *Use the results of engineering analysis to solve engineering problems and to recommend appropriate action*. This will be satisfied by sections 5 and 6 of your report.

# STUDENT FEEDBACK FORM

This section details the *extent* to which the assessment criteria are demonstrated by you, which in turn determines your mark. The marks available for each category of skill are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

| **Generic Assessment Criteria** | **Marks available** |
|---|---|
| **1. Engagement with Literature Skills**. | |
| Section 3: Judicial use and critical evaluation of technical literature in the design of the project. (/5)<br>Section 4: Extent of reading, range of credible sources and use of Harvard method (/5) | 10 |
| **2. Knowledge and Understanding Skills** | |
| Section 3: Advanced knowledge and critical understanding demonstrated in the design of the project (/10) | 10 |
| **3. Cognitive and Intellectual Skills** | |
| Section 5: Testing and analysis of result (/10)<br>Section 5: Critical evaluation of the project outcomes (/10)<br>Section 6: Conclusions and recommendations (/10) | 30 |
| **4. Practical Application Skills** | |
| Section 3: Formulation of innovative and creative design solution to the project problem. (/10)<br>Section 4: Deployment method, use of material, tools, equipment and techniques in the construction of the project. (/10)<br>Section 4: Quality of the final product or system (/10)<br>Section 5: Use of test equipment and presentation of results of the project (/5)<br>Sections 3 and 5: Management of the design process. (/5) | 40 |
| **5. Transferable Skills for Life and Professional Practice** | |
| Sections 1 and 2: Executive summary, acknowledgements and introduction (/5)<br>All Sections: Quality of the report – (/5) | 10 |

| **Assessment Mark** (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed. ) | **Late Submission Penalties (tick if appropriate)** | | **%** |
|---|---|---|---|
| | Up to 1 week late (40% Max) | | |
| | Over 1 week late (0%) | | |

## GENERIC ASSESSMENT CRITERIA

| Level 6 |
|---|
| In accordance with the Framework for Higher Education Qualifications, at the end of Level 6 students should have coherent and detailed knowledge and a systematic understanding of their subject area, at least some of which is informed by the latest research and/or advanced scholarship within the discipline. They will be able to accurately deploy established techniques of analysis and enquiry within a discipline, using their conceptual understanding to devise and sustain arguments and/or to solve problems. They should be aware of the uncertainty, ambiguity and limits of knowledge. They should be able to critically evaluate evidence, arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions. They will apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects. They will have the ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline). They will demonstrate the qualities and transferable skills necessary for employment requiring: the exercise of initiative and personal responsibility; decision-making in complex and unpredictable contexts; the learning ability needed to undertake appropriate further training of a professional or equivalent nature. |

| Level 6 | FAIL | MARGINAL FAIL | SATISFACTORY (3rd / Pass) | GOOD (2.2 / Pass) | VERY GOOD (2.1 / Merit) | EXCELLENT (1st / Distinction) | EXCEPTIONAL (1st / Distinction) |
|---|---|---|---|---|---|---|---|
| **Category** | **0-29%** | **30-39%** | **40-49%** | **50-59%** | **60-69%** | **70-84%** | **85-100%** |
| **Engagement with literature** (including reading, referencing, academic conventions and academic honesty) | Little or no evidence of reading and/or reliance on inappropriate sources. Views and findings mostly unsupported and non-authoritative. Referencing conventions used incoherently or largely absent. | Poor engagement with essential reading. No evidence of wider reading. Reliance on inappropriate sources, and/or indiscriminate use of sources. Heavily reliant on information gained through class contact. Inconsistent and weak use of referencing. | Engagement with a limited range of mostly relevant and credible sources. Some omissions and minor errors. Referencing conventions evident though not always applied accurately or consistently. | Engagement with an appropriate range of research-informed literature, including sources retrieved independently. Some over-reliance on texts. Referencing may show minor inaccuracies or inconsistencies. | Engagement with a wide range of research-informed literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing, with no/very few inaccuracies or inconsistencies. | Engagement with an extensive range of relevant and credible literature, informed by the latest research. Consistently accurate application of referencing. | Exceptional engagement with an extensive range of relevant and credible literature, informed by the latest research. High-level referencing skills consistently and professionally applied. |
| **Knowledge and understanding** (Coherent and detailed knowledge and systematic understanding of the subject area, | Major gaps in knowledge and systematic understanding of the subject matter. Substantial inaccuracies. No awareness of knowledge of the | Gaps in knowledge, with only superficial systematic understanding. Some significant inaccuracies and/or irrelevant material. No awareness of | Limited knowledge and systematic understanding of the relevant concepts and principles within the subject area which to some limited extent, is | Knowledge is reasonably detailed, accurate with a good systematic understanding of the field of study and to some extent, current | Knowledge is reasonably extensive coherent and detailed. Exhibits very good understanding of the breadth and depth of established views, | Excellent coherent and detailed knowledge and systematic understanding of the principles and theories of current research and scholarship. Clear | Exceptionally coherent and detailed knowledge and systematic understanding of the principles and theories of the subject, well-informed by current |

| Level 6 | FAIL | MARGINAL FAIL | SATISFACTORY (3rd / Pass) | GOOD (2.2 / Pass) | VERY GOOD (2.1 / Merit) | EXCELLENT (1st / Distinction) | EXCEPTIONAL (1st / Distinction) |
|---|---|---|---|---|---|---|---|
| **Category** | **0-29%** | **30-39%** | **40-49%** | **50-59%** | **60-69%** | **70-84%** | **85-100%** |
| at least some of which is informed by the latest research and/or advanced scholarship within the discipline.) | latest research and/or advanced scholarship within the discipline. | knowledge of the latest research and/or advanced scholarship within the discipline. | informed by current research and scholarship. | research and scholarship. | and the work is, at least in part, well-informed by current research and scholarship. | awareness of challenges to established views and the limitations of the knowledge base. | research and scholarship. A critical, sophisticated and nuanced awareness of the ambiguities and limitations of knowledge. |
| **Cognitive and intellectual skills** (Conceptual and critical thinking, analysis, synthesis and evaluation of research, assumptions, abstract concepts and data (that may be incomplete); logic, argument and judgement.) | Wholly or almost wholly descriptive work. Little or no analysis, synthesis or evaluation. Failure to develop arguments, leading to illogical or invalid judgements. Unsubstantiated generalisations, made without use of any credible evidence. | Largely descriptive work, with superficial use of critical evaluation. Weak development of arguments and judgements. Information accepted uncritically, uses generalised statements made with scant evidence and unsubstantiated opinions. Ideas sometimes illogical and contradictory. | Limited attempt at critical thinking, analysis, synthesis and evaluation, tending towards description. Some evidence to support emerging arguments and judgements but these may be underdeveloped or with a little inconsistency / mis-interpretation. Asserts rather than argues a case. | Some critical thinking, analysis, synthesis and evaluation. Can analyse new and/or abstract concepts and data without guidance. An emerging awareness of different stances and ability to use evidence (that may be incomplete) to support the argument. Mostly valid arguments and logical judgements. Some tendency to assert/state opinion rather than argue on the basis of reason and evidence. | Sound critical thinking, analysis, synthesis and evaluation demonstrating critical thinking. Ability to devise and sustain persuasive arguments, and to review the reliability, validity and significance of evidence (that may be incomplete) to make mostly appropriate and valid judgements. | Excellent critical thinking, analysis, synthesis and evaluation. Ability to investigate contradictory or incomplete information and make strong, persuasive, arguments and sophisticated judgements. Some evidence of independent thought and ability to 'see beyond the question', suggesting a grasp of the broader field and wider concepts. | Exceptional critical thinking, analysis, synthesis and evaluation based on judiciously selected evidence. Ability to investigate contradictory or incomplete information and make strong, persuasive, arguments and sophisticated, nuanced, judgements. Evidence of independent thought and ability to 'see beyond the question', suggesting an outstanding grasp of the broader field and wider concepts. |
| **Practical skills** (Apply/deploy accurately established tools | Limited or no use of methods, materials, tools and/or techniques. | Rudimentary application of methods, materials, tools | An adequate awareness and mostly appropriate application of well- | A good and appropriate application of standard methods, | A very good application of a range of methods, | An advanced application of a range of methods, | Exceptional levels of application and deployment skills in unpredictable, |

| Level 6 | FAIL | MARGINAL FAIL | SATISFACTORY (3rd / Pass) | GOOD (2.2 / Pass) | VERY GOOD (2.1 / Merit) | EXCELLENT (1st / Distinction) | EXCEPTIONAL (1st / Distinction) |
|---|---|---|---|---|---|---|---|
| **Category** | **0-29%** | **30-39%** | **40-49%** | **50-59%** | **60-69%** | **70-84%** | **85-100%** |
| and techniques; initiate and carry out projects; formulate solutions to solve problems in complex and unpredictable contexts.) | Little or no appreciation of the context of the application. Limited understanding of the application of theory to practice or making appropriate links between the two. Very weak problem-solving skills in complex and unpredictable contexts. | and/or techniques but without consideration and competence. Flawed appreciation of the context of the application. Weak understanding of the application of theory to practice, with only occasional evidence of making appropriate links between the two. Weak problem-solving skills in complex and unpredictable contexts. | established methods, materials, tools and/or techniques. Basic appreciation of the context of the application. Theoretical knowledge and understanding applied in practice, but not always making logical links between the two. Can identify problems and propose basic solutions in complex and unpredictable contexts without fully appreciating the complexity. | materials, tools and/or techniques. Clear appreciation of the context of the application. Mainly consistent, accurate and logical application of theory to practice, making appropriate links between the two Can identify problems and propose mostly appropriate solutions in complex and unpredictable contexts. | materials, tools and/or techniques. Very good consideration of the context of the application, with perceptive insights. Can identify problems and propose appropriate solutions in complex and unpredictable contexts. Evidence of some innovation and creativity. | materials, tools and/or techniques. The context of the application is well considered, and insightful. Application and deployment extend beyond established conventions. Can identify complex problems and propose excellent solutions. Innovation and creativity evident. | practical contexts, drawing skilfully on the latest research within the discipline. Can identify complex problems and propose sophisticated solutions. Assimilation and development of cutting edge processes and techniques. |
| **Transferable skills for life and professional practice** (Exercise of initiative and personal responsibility; professional development; initiate and complete tasks and procedures: individually and/or collaboratively; use appropriate media to | Communication medium is inappropriate or misapplied. Work is poorly structured, disorganised and/or confusingly expressed. Very weak use of language and/or very inappropriate style. Little or no evidence of autonomy (or collaboration, where relevant) in | Communication medium is poorly designed and/or not suitable for the audience. Work is poorly presented in a disjointed manner. It is loosely, and at times incoherently, structured, with information and ideas often poorly expressed. Weak use of language and/or inappropriate style. | Can communicate in a suitable medium but with some room for improvement. Mostly ordered presentation and structure in which relevant ideas / concepts are reasonably expressed. Work may lack coherence in places. Can work as part of a team, but with limited | Can communicate effectively in a suitable format, but may have minor errors. Mostly coherent, organised work, in a suitable structure and is for the most part clearly expressed. Can work effectively independently and/or as part of a team, with clear contribution to group activities. | Can communicate well, confidently and consistently in a suitable format. Work is coherent, fluent, well-structured and organised. Can work very well autonomously and/or as part of a team, with very good contribution to group activities. Demonstrates very good graduate employment skills, | Can communicate professionally confidently and consistently in a suitable format. Work is coherent, very fluent and is presented professionally. Can work autonomously with initiative. Where relevant can work professionally within a team, showing leadership skills as appropriate, | Can communicate with an exceptionally high level of professionalism. Work is exceptionally coherent, very fluent and is presented professionally. Can work exceptionally well and professionally within a team, showing advanced leadership skills. |

| Level 6 | FAIL | MARGINAL FAIL | SATISFACTORY (3rd / Pass) | GOOD (2.2 / Pass) | VERY GOOD (2.1 / Merit) | EXCELLENT (1st / Distinction) | EXCEPTIONAL (1st / Distinction) |
|---|---|---|---|---|---|---|---|
| **Category** | **0-29%** | **30-39%** | **40-49%** | **50-59%** | **60-69%** | **70-84%** | **85-100%** |
| communicate effectively; fluency of expression; clarity and effectiveness in presentation and organisation.) | the completion of tasks. Little or no evidence of the skills required in graduate employment. | Weak independent initiative (or collaboration, if relevant). Limited evidence of the skills required in graduate employment. | involvement in group activities. Demonstrates the basic skills required in graduate employment, with some areas of minor weakness. | Demonstrates the skills required in graduate employment, with some areas of strength and some of minor weakness. | with just occasional minor weakness. | managing conflict and meeting obligations. Demonstrates excellent graduate employment skills and an appetite for further development. | Demonstrates exceptional graduate employment skills and an appetite for further development. |

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