Assignment Guidance and Front Sheet

This front sheet for assignments is designed to contain the brief, the submission instructions, and the actual student submission for any WMG assignment. As a result the sheet is completed by several people over time, and is therefore split up into sections explaining who completes what information and when. Yellow highlighted text indicates examples or further explanation of what is requested, and the highlight and instructions should be removed as you populate ‘your’ section.

This sheet is only to be used for components of assessment worth more than 3 CATS (e.g. for a 15 credit module, weighted more than 20%; or for a 10 credit module, weighted more than 30%).

**To be completed by the student(s) prior to final submission:**

Your actual submission should be written at the end of this cover sheet file, or attached with the cover sheet at the front if drafted in a separate file, program or application.

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| **Student ID or IDs for group work** | **e.g. 1234567** |

**To be completed (highlighted parts only) by the programme administration after approval and prior to issuing of the assessment; to be consulted by the student(s) so that you know how and when to submit:**

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| **Date set** |  |
| **Submission date (excluding extensions)** | 19/09/2023 by 12:00pm (UK Time) |
| **Submission guidance** | To be submitted electronically via Tabula  |
| **Late submission policy** | If work is submitted late, penalties will be applied at the rate of **5 marks per University working day** after the due date, up to a **maximum of 10 working days** late. After this period the mark for the work will be reduced to 0 (which is the maximum penalty). “Late” means **after the submission deadline time as well as the date** – work submitted after the given time even on the same day is counted as 1 day late.For **Postgraduate** students only, who started their **current course before 1 August 2019**, the daily penalty is **3 marks** rather than 5. |
| **Resubmission policy** | If you fail this assignment or module, please be aware that the University allows students to remedy such failure (within certain limits). Decisions to authorise such resubmissions are made by Exam Boards. Normally these will be issued at specific times of the year, depending on your programme of study. More information can be found from your programme office if you are concerned. |

**To be completed by the module owner/tutor prior to approval and issuing of the assessment; to be consulted by the student(s) so that you understand the assignment brief, its context within the module, and any specific criteria and advice from the tutor:**

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| **Module title & code** | ES969-10 Quality, Reliability and Maintenance |
| **Module owner** | Jane Marshall |
| **Module tutor** | Jane Marshall |
| **Assessment type** | Essay  |
| **Weighting of mark** | 100% |

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| **Assessment brief** |
| Answer all questions. The PMA is worth 100 marks in total. Marks will be given for technical content with marks also given for presentation, structure, argument and referencing. The word limit is around 5000 words. 1. You have been employed as the six sigma champion to introduce the six sigma methodology into a company. The board has asked you to produce a plan of how you would do this. (You can choose any industry and any size of company.)

The plan should include information about training, choosing suitable projects, measuring performance, human factors, and timescales. It should also discuss the risks associated with this implementation and how they could be mitigated. The benefits of introducing the methodology should be also highlighted and compared to other Quality Management theories.30 marks1. Suggest a suitable R&M plan for a product (choose a relevant product). This plan should contain timescales, reliability tasks to be performed with discussion and justification of the tasks with a discussion of appropriate, justified asset management plan.

70 marksTotal 100 marksIn these questions, you should refer to data and information from journals or books to support your answer and include examples from case studies to illustrate your points. |

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| **Word count** | 5000  |
| **Module learning outcomes (numbered)** | 1. Develop a critical understanding of Quality Management theories
2. Reflect on how analytical techniques can be used to ensure Quality and Reliability.
3. Develop a conceptual understanding of maintenance philosophies.
4. Investigate the role of equipment asset management in an engineering business
5. Evaluate how tools such as Quality Function Deployment (QFD), FMEA and FTA are applied to design for quality, reliability, and maintenance.
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| **Learning outcomes assessed in this assessment (numbered)** | All |
| **Marking guidelines** | https://warwick.ac.uk/fac/sci/wmg/ftmsc/postmodulework/pma/marks/ |
| **Academic guidance resources** | n/a |

**The following is pre-populated for PGT assignments only:**

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| **Writing your Post-Module Assignment (PMA): specific additional advice for WMG’s Postgraduate Taught Students** |
| As a postgraduate level student in WMG you may have some concerns about your ability to write at the high standard required. This short guide is intended to provide general guidance and advice. It is important that if you have any questions you discuss them with your module tutor. Remember, in writing your PMA you need to meet the expectations of the reader and university. |
| **A good PMA generally requires you to answer the question and to include**…1. A title, with your student number, module, lecturer’s name and any other documentation required by the university.
2. A contents page and if appropriate, an abstract.
3. An introduction which acts as a ‘map’ to the rest of the document, describing the aim or purpose of the work and explaining how this aim is achieved. At this point it is usually helpful to paraphrase your conclusion.
4. Evidence of an appropriate level of background reading of relevant texts.
5. Evidence of systematic and clear thinking, indicative of good planning and organisation.
6. Writing which makes sense, is clearly and carefully presented (proof-read and grammar checked).
7. A critical style of writing which compares and contrasts the main theories, concepts and arguments with conclusions that are based in evidence presented.
8. High levels of accurate academic referencing.
9. A logical and well-defined structure with headings and subheadings.
10. Clearly labelled and well-presented diagrams and other graphics that are discussed in the text.
11. Adherence to usual academic standards including length and a timely submission.
12. A reference section in which every source that is cited in the text is listed.
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| **Where to get help:** 1. **Talk to your module tutor if you don’t understand the question or are unsure as to exactly what is required.**
2. Study, Professional and Analytical Skills (SPA) Moodle site – we have a lot of resources on this website with workbooks, links and other helpful tools. <https://moodle.warwick.ac.uk/>
3. The university Academic Writing centre provides workshops and useful tools to help you in all aspects of your work. <https://warwick.ac.uk/services/skills/academicwriting/>
4. Avoiding Plagiarism, the university’s site to help you to reference properly <https://moodle.warwick.ac.uk/course/view.php?id=42224>
5. Wellbeing support services <https://warwick.ac.uk/services/wss>
6. Numerous online courses provided by the University library to help in academic referencing, writing, avoiding plagiarism and a number of other useful resources. <https://warwick.ac.uk/services/library/students/your-library-online/>
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