# **Higher Nationals**

# **Assignment Brief – BTEC (RQF)**

**Higher National Diploma in Computing**

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| **Student Name /ID Number** | **Aaron Mascarenhas** |
| **Unit Number and Title** | **6 - Managing a Successful Computing Project** |
| **Academic Year** | **2018-2019** |
| **Unit Assessor** | **K. Baht** |
| **Assignment Title** | **Artificial Intelligence (AI)** |
| **Issue Date** | **w/c 12/11/2018** |
| **IV Name** | **Dr Sam Al-Jajjoka** |
| **Draft submission date** | **w/c 6/5/2019** |
| **Final submission date** | **w/c 20/5/2019** |
| **Re-submission date (if required)** | **w/c 17/6/2019** |

**Plagiarism**

Plagiarism is a particular form of cheating. Plagiarism must be avoided at all costs and students who break the rules, however innocently, may be penalised. It is your responsibility to ensure that you understand correct referencing practices. As a university level student, you are expected to use appropriate references throughout and keep carefully detailed notes of all your sources of materials for material you have used in your work, including any material downloaded from the Internet. Please consult the relevant unit lecturer or your course tutor if you need any further advice.

**Student Declaration**

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| **Student declaration**  I certify that the assignment submission is entirely my own work and I fully understand the consequences of plagiarism. I understand that making a false declaration is a form of malpractice.  Student signature: Aaron Date: 04/02/2019 |

**Learning Outcomes and Assessment Criteria**

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|  | **Grading Criteria** | **Met** | **Grading Criteria** | **Met** | **Grading Criteria** | **Met** |  |
| LO1 | P1 |  | M1 |  |  |  |  |
| LO1 | P2 |  |  |  |  |  |  |
| LO1 | P3 |  |  |  |  |  |  |
| LO1&2 |  |  |  |  | D1 |  |  |
| LO2 | P4 |  | M2 |  |  |  |  |
| L03 | P5 |  | M3 |  |  |  |  |
| L03 | P6 |  |  |  |  |  |  |
| LO3&4 |  |  |  |  | D2 |  |  |
| LO4 | P7 |  | M4 |  |  |  |  |

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| **Assessor Feedback:** | | | | |
| **Grade:** | **Assessor Signature:** | | | **Date:** |
| **Resubmission Feedback:** | | | | |
| **Grade:** | | **Assessor Signature:** | **Date:** | | |

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| Submission Format: |
| Submission format of tasks is written reports (short and long), project management plan using gantter, project logbook (using Google docs), research and production of a presentation with notes. With the reports you are required to make use of headings, paragraphs and subsections as appropriate, and all work must be supported with research and referenced using the Harvard referencing system. Please also provide a bibliography using the Harvard referencing system. The recommended word limit for long reports is 2,000–2,500 words and 500 words for short reports, although you will not be penalised for exceeding the total word limit. |
| Unit Learning Outcomes: |
| **LO1** Establish project aims, objectives and timeframes based on the chosen theme.  **LO2** Conduct small-scale research, information gathering and data collection to generate knowledge to support the project.  **LO3** Present the project and communicate appropriate recommendations based on meaningful conclusions drawn from the evidence findings and/or analysis.  **LO4** Reflect on the value gained from conducting the project and its usefulness to support sustainable organisational performance. |
| Assignment Brief and Guidance: |
| **Introduction to theme set by Pearson**  **Artificial Intelligence (AI)**  **What potential benefits and challenges can arise from the inclusion of AI into a system?**  Artificial Intelligence covers computer systems that are able to perform tasks normally requiring human intelligence. These tasks might include visual perception, speech recognition, decision-making, and translation between languages and many more.  AI impacts on every aspect of society and has the potential to be fully integrated into daily work and social lives in the very near future.  This unit will enable you to examine the multi dimensions and applications of AI within computing systems from the standpoint of a prospective computing professional. This will provide the opportunity for you to investigate the uses and potential innovations within computing systems and explore the solutions to the problems presented.  **Conduct small scale secondary research using the internet, journals and newspaper reports**  **Part 1**  **Task 1(Date due 21/11/18)**  Devise project aims and objectives for a chosen scenario. You need to produce a short report for this (500 words maximum).  **Criteria P1**  **Task 2 (28/11/18)**    1. Produce a project management plan using **MS Project** for your chosen scenario that covers aspects of cost, scope, time, quality, communication, risk and resources.  **Criteria P2**  2. Produce a work breakdown structure and a **Gantt Chart** to provide timeframes and stages for completion using **MS Project.**  **Criteria P3**  3. Produce a comprehensive project management plan, milestone schedule and project schedule for monitoring and completing the aims and objectives of the project using Gantter (include resources and risks).  **Criteria M1**  **Evidence - Submit MS Project plan in classroom**  **Part 2**  **Project logbook needs to be kept from this point onwards for the project. It should provide evidence that you have thought about the direction of your project and in particular what problems you have encountered and steps you have taken to address them. This must be submitted in Google Docs (Template will be provided online)**  **Task 1 (Date due 16/1/19)**  a) Carry out small-scale research by applying qualitative or quantitative research methods appropriate for meeting your chosen scenario’s project aims and objectives.  It is important to recognise that project work is reliant on gathering information/data that can be analysed. The scale of the project means that there must be time for both primary and secondary research. An advised model would be to use secondary research as this will help you to conduct and interpret primary data collection. The project could then yield data/information that could be compared with the findings of secondary research information.  Should you decide to choose primary data, you may use data collection tools such interviews and questionnaires.  **Evidence - list of resources which you have consulted and gathered the data from.**  **Criteria P4**  b) Evaluate the accuracy and reliability of different research methods you have applied. You need to produce a report which must be supported by wider reading. Make sure you use Harvard Referencing.  **Criteria M2**  **Task 2**  Critically evaluate your project management process and appropriate research methodologies you have applied.  **Criteria D1**  **Part 3**  **Task 1 (Date due 30/1/19)**  a) Analyse research and data using appropriate tools and techniques. This can be done using graphs and charts to show trend analysis, coding or typologies.  **Criteria P5**    b) Communicate appropriate recommendations as a result of your project research and data analysis to draw valid and meaningful conclusions. This needs to be presented logically, where the assumption is that the audience has little or no knowledge of the project process.  **Evidence - submit the presentation with notes on classroom**  **Criteria P6**  c) Evaluate the selection of appropriate tools and techniques (e.g. which sampling techniques have you used and why, how many questionnaires/surveys were carried out, population under consideration, how many research papers did you consult) for accuracy and authenticity (e.g. reliability) to support and justify your recommendations.  **Criteria M3**  **Part 4**  **Task 1 (Date due 26/3/19)**  a) Reflect on the value of undertaking the research to meet stated objectives and own learning and performance. This is a written reflection of around **500 words**. Use the **Performance Review Template** (can be found at the end of the assignment) to help you with this task.  **Criteria P7**  b) Evaluate the value of the project management process you have carried out and use of quality research to meet stated objectives of your project to support your own learning and performance. This report needs to be supported by wider reading.  **Criteria M4**  c) Critically evaluate and reflect on the project outcomes, the decision-making process and changes or developments of the initial project management plan to support justification of recommendations and learning during the project.  Avoid generalisation and focus on personal development and research journey in a critical and objective way.  **Criteria D2** |

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| **Pass** | **Merit** | **Distinction** |
| **LO1** Establish project aims, objectives and timeframes based on the chosen theme. | | **LO1 & 2**  **D1** Critically evaluate the project management process and appropriate research methodologies applied. |
| **P1** Devise project aims and objectives for a chosen scenario.    **P2** Produce a project management plan that covers aspects of cost, scope, time, quality, communication, risk and resources.    **P3** Produce a work breakdown structure and a Gantt Chart to provide timeframes and stages for completion. | **M1** Produce a comprehensive project management plan, milestone schedule and project schedule for monitoring and completing the aims and objectives of the project. |
| **LO2** Conduct small-scale research, information gathering and data collection to generate knowledge to support the project. | |
| **P4** Carry out small-scale research by applying qualitative and quantitative research methods appropriate for meeting project aims and objectives. | **M2** Evaluate the accuracy and reliability of different research methods applied. |
| **LO3** Present the project and communicate appropriate recommendations based on meaningful conclusions drawn from the evidence findings and/or analysis. | | **LO3 & 4**  **D2** Critically evaluate and reflect on the project outcomes, the decision-making process and changes or developments of the initial project management plan to support justification of recommendations and learning during the project. |
| **P5** Analyse research and data using appropriate tools and techniques.    **P6** Communicate appropriate recommendations as a result of research and data analysis to draw valid and meaningful conclusions. | **M3** Evaluate the selection of appropriate tools and techniques for accuracy and authenticity to support and justify recommendations. |
| **LO4** Reflect on the value gained from conducting the project and its usefulness to support sustainable organisational performance. | |
| **P7** Reflect on the value of undertaking the research to meet stated objectives and own learning and performance. | **M4** Evaluate the value of the project management process and use of quality research to meet stated objectives and support own learning and performance. |

Assessment Criteria

Templates for Evidence Collection

The logbook template and performance review questions are examples of what can be used, but tutors can devise or use other appropriate resources if they wish to do so.

Project Logbook Template

**Name:**

**Project title:**

**Date:**

**Update on weekly research/tasks achieved**

**Points to consider:**

What have you completed?

Did you fulfil task requirements?

Are you on track and within deadlines set?

Did you need to make any changes to your project management plan?

**Any risks and/or issues identified?**

**Points to consider:**

Did you identify risks/issues with a lack of skills required for undertaking research/tasks?

Did you identify any additional risks/issues that have an impact on the project management plan?

**Problems encountered**

**Points to consider:**

What barriers did you face?

How did you overcome them?

**New ideas and change of project direction**

**What have I learnt about myself this week?**

**Points to consider:**

How did I feel when I had to deal with tasks/problems?

Did I find it useful to complete the tasks?

How well have I performed? What did I contribute?

What can I improve on next week?

How might this learning apply in the future?

**Tasks planned for next week**

**Points to consider:**

Which tasks are priority?

Have you set aside sufficient time for completion?

**Project plan status to date (on, ahead, behind)**

**Supervisor comments to address**

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Performance Review Template

**Performance Review**

• What was the project supposed to accomplish?

• Did the project succeed in its aims? How do you know? Specifically, outline any evaluation and assessment undertaken.

• What things do you think worked well and why? Evaluate all aspects of the project (e.g. initial inception, project activities and project outcomes) from a range of perspectives.

• What problems emerged during the project and how were they tackled? Was there timely identification of issues and resolution during the project process?

• What did you learn from undertaking the project?

• How would you rate your performance as project manager?

• What strengths and weaknesses of your performance did you identify?

• How will this inform and support your continuous professional development?

Guidance for Students

You should read this information before starting on your project. You should refer to these instructions as you complete work for this unit.

• Read the brief and think about what the project brief is asking.

• Research what the project brief is asking. How can you approach the problem, opportunity, hypothesis and requirements being posed?

• Apply a range of secondary research sources to plan/scope and support the project and its findings. Secondary research sources may include textbooks, journal articles, newspapers and magazine articles (not factual accounts).

• Develop your project plan based on the deliverables of the project, the constraints of the project and the assumptions made.

• Conduct your project according to your stated project plan and meet with your tutor to receive a sign-off at each stage of the project process.

• Primary research sources may include original first-hand accounts, legal and historical documents, results of experiments and market research data collection. Apply both qualitative and quantitative research methods to evaluate data collected from primary research.

• Keep notes of your progress throughout the project in your **logbook**. This is an important record of your work and must be used to record the development of your ideas and your progress through the project. The logbook should include:

• A record of what you did, when and what you were thinking.

• A record of where things went wrong and what you did to overcome any unexpected results.