

# PRJM6003

## PROJECT RISK MANAGEMENT



# Project Risk Management

## Assessment 2 – Report (Project Budget) (40%)

### Monte Carlo Simulation

#### Aim of Assessment

##### Learning Outcomes applicable to this assessment

1. Create a risk management plan for an authentic project
2. Apply quantitative risk analysis within a cost model, and evaluate and analyse the results
3. Evaluate and reflect upon a project risk experience through a risk management theoretical perspective

#### Budget Report (using Monte Carlo Simulation)

**Select a project:** The project can be from your work experience, or a social project (could be the same project as Part A of Assessment 1, but best for learning purposes if the project is a real future project. Students may use the project from Time Management or Cost Management units).

**NOTE: This submission should be produced as a formal project management document, not an academic assignment.**

**Produce a Budget Report:** The document is designed to be given to the Project Sponsor for approval. The sponsor is not knowledgeable about the cost estimating process or Monte Carlo simulation. The report must contain the following five sections:

#### 1. Introduction

- a. Executive Summary:** This section establishes the key elements within the report, including project scope, budget, recommendations, and any other relevant information. Appropriate context must be provided when describing the project, this includes background information on the organization, the intended goals/benefits of the project, and the project and product scope.
- b. Recommended Baseline Budget:** Provide a deterministic baseline budget composed of 10-30 cost variables (This is an estimate based on the most likely value for each cost variable, excluding risk events and contingency). You must structure the budget in a manner consistent with industry best practices. Furthermore, you must explain the source of information used to produce the estimate for each item in the budget (i.e. suppliers, subcontractors, historical costs, etc.). The Sponsor needs to be confident that your estimates are up-to-date and accurate!
  - i. Justification of Probability Distribution for One Cost Variable** - Explain and justify the selected values (minimum, most likely, and maximum) in the probability distributions for at least one of the cost variables in your Table

**NOTE: Once you have completed the above deterministic baseline budget, then conduct Monte Carlo Simulation incorporating the following points:**

- Replace deterministic values in the Recommended Baseline Budget with probability distributions; and
- Add two (2) specific risk events to the model
- Add a Correlation for **ONLY TWO** Variables

2. **Explanation of Two Risk Events:** Provide a brief paragraph or two for each risk event that covers the following key points:

- Briefly explain what the risk event is and what are the risk key causes.
- Justify the Probability and Consequences of the risk event in terms of your selected probability distribution values for minimum, most likely, and maximum.  
(Note: you must choose/explain risk events that if they eventuate they will increase the sponsor's budget)

3. **Contingency & Risk Management**

- Recommendation for Contingency:** Recommend a contingency amount. Explain why you are recommending the contingency that you have selected.
- Risk Management:** based on the Tornado Chart, explain to the sponsor how you will control and minimise the following to ensure that your contingency is sufficient:
  - Most sensitive cost variable (use sensitivity analysis to determine)
  - Most sensitive risk event (use sensitivity analysis to determine)
- Correlation Matrix:** Select two correlated variables (i.e. one correlation) from your cost model. Explain why they might be correlated. And the likely nature and strength of this correlation

4. **Organisational Policy:** Compare and comment on your cost results against the organisational policy that states "it is expected that the Baseline Budget (i.e. excluding contingency) should have an 80% probability of being with a range of -5/+10%."

5. **References and Professional Style Presentation:** The referencing style for this assignment is strictly Chicago 17th B format. Any use of GEN AI must be clearly cited and referenced. Any use of GEN AI must be clearly cited and referenced.

**Appendix A - MCS Quick Output Report:** Must be included in Appendix A of the Template. You must clearly show the Tornado Chart (labels fully legible), Output Statistics and Percentile Tables. NOTE THAT NO MARKS AWARDED FOR THIS SECTION BUT REQUIRED FOR GRADING – IF THIS PART IS MISSING OR POORLY PRESENTED THEN LOW MARKS WILL LIKELY BE THE RESULT.

**Appendix B - AI Use and Documentation:**

*Permitted for this Assessment as per the Guidelines Pages 4-6 of this Assessment Brief.*

Generative AI permitted for use in research for your assignment but not to provide the entire answer. If most of the assessment is found to be GEN AI without adequate citation, references, documented history etc. as per the Policy document pages 3-5 then a low grade will likely be the result and/or an Academic Integrity Case raised.

**Original Contribution and Understanding of Unit Learning Outcomes (ULO's)**

Students must demonstrate an adequate or better understanding of unit learning outcomes, supported by clear and original analysis.

## Format

All assignments should be thoroughly checked for typing, spelling and grammatical errors before being submitted. STUDENTS MUST USE THE TEMPLATE available in the Assignment 3 Folder. Do not change ANY ASPECT OF THE TEMPLATE INCLUDING FONTS ETC. The assignment must be submitted in MS Word Format to Turnitin and not a PDF.

**Note 1:** All source material MUST be acknowledged and any form of plagiarism will result in appropriate measures being taken. Do not copy other students' work or assist/collaborate.

**Note 2:** If using past material from another unit (e.g. Cost Management) make sure you declare at the top of the assignment the Unit\Year\Semester that the material originated from, or you risk a self-plagiarism case being raised.

(Excludes Cover Page, TOC, References, Appendices)

## Word Limit (Excludes Cover Page, TOC, References, Appendices)

**Length:** 2500-3500 (words in excess of 10% of the maximum range will not be marked)

## Late Submissions

Will be penalised as per the Curtin University Late Assessment Policy in the Unit Outline.

## Special Conditions

The following conditions, if found, will NOT BE INCLUDED IN MARKING OR CONTRIBUTE TO YOUR GRADE:

- Use of "Notes to Sponsor" in any Appendix or at the end of your report. All notes should in fact be incorporated in your discussion in the executive briefing in section 1.a.
- Your Project cannot be similar to the Margaret River Holiday used in class or Module examples. Thus you cannot use Cost Variables like Petrol consumption (or alike) or Risk Events such as "SICK" or "SPEEDING FINE".

## Marking Criteria

1. Introduction	15
2. Explanation of Two Risk Events	15
3. Contingency & Risk Management	20
4. Organizational Policy	15
5. References & Professional Report Style Presentation	10
Appendix A – Quick Output Report	No Marks
Appendix B – AI Use & Documentation	10
Original Contribution and Understanding of ULO's	15
<b>Total</b>	<b>100 (marks)</b>



**ACADEMIC INTEGRITY AND PROFESSIONALISM POLICY**  
**MASTER OF PROJECT MANAGEMENT PROGRAM**

<b>Academic Integrity and Professionalism</b>	<p>As students in the Master of Project Management Program, it is essential to uphold the highest standards of academic integrity and professionalism. The use of Artificial Intelligence (AI) tools in preparing and completing your Assessment submission is permitted only under the following conditions.</p> <ul style="list-style-type: none"><li>• <b>General Expectations:</b><ul style="list-style-type: none"><li>○ <b>Transparency:</b> You must clearly document and reference all instances where AI tools have been used to contribute to the development of your Assessment submission.</li><li>○ <b>Original Contributions:</b> Your Assessment submission must demonstrate your own unique, critical, and original work. Using AI tools to generate all or the majority of your Assessment content will not meet the Assessment's Learning Outcomes as documented in the Unit Outline and will result in a failing mark.</li><li>○ <b>Alignment with Unit Outline Learning Outcomes:</b> Your Assessment submission must show your understanding of and ability to apply the concepts taught within the Unit. Relying on AI-generated content without significant input and synthesis on your part does not demonstrate this understanding and will result in a failing mark.</li></ul></li><li>• <b>How to Document AI Tool Use:</b><ul style="list-style-type: none"><li>○ <b>Identify the AI Tool(s) used:</b> Clearly state the name and version (if applicable) of approved AI tool(s) used in generating your Assessment submission. Please note that the following AI Tools are the only ones allowed for use in preparing your Assessment submission and can be accessed via your Curtin Single Sign-On (SSO).<ul style="list-style-type: none"><li>▪ Curtin Approved Grammarly (see Blackboard)</li><li>▪ Microsoft Copilot</li><li>▪ Microsoft Teams</li><li>▪ Adobe Express</li></ul></li><li>○ <b>Specify the Purpose of the AI Tool used:</b> Describe exactly how the AI tool(s) were used in preparing and generating your Assessment content. For example:<ul style="list-style-type: none"><li>▪ “AI was used to generate my outline.”</li><li>▪ “AI suggested revisions to improve grammar, spelling and clarity.”</li></ul></li></ul></li></ul>
<b>Academic Integrity and Professionalism (continued)</b>	

- "AI generated a draft section, which I critically reviewed and substantially revised."
- **Provide Context:** Explain the extent of AI tool(s) contribution. For example:
  - "Approximately 15% of the content in this section was generated using AI."
  - "AI-assisted with brainstorming ideas but did not write any part of the final text."
- **Demonstrating Your Original Contributions:**
  - **Highlight Unique Work:** Clearly indicate where your original analysis, synthesis, and insights are present in the Assessment submission. Use headings, annotations, or comments to make these sections stand out.
  - **Explain Decision-Making:** In a reflective section or footnotes, discuss how you reviewed, critiqued, or adapted any AI-generated content in your Assessment submission to align with the required Learning Outcomes.
  - **Supplementary Documentation:** In an appendix, you must submit all drafts or notes showing the development of your Assessment work, including iterations where you refined AI contributions with your own unique input.
- **How to Cite and Reference the use of AI Tools:**
  - **In-Text Citations:** Where AI-generated content or suggestions are included in your work (even if heavily edited), you must provide an in-text citation. For example:
    - (OpenAI 2025) or (Grammarly 2025)
  - **Reference List:** Include in your Reference List full details of all AI tools used in the preparation and generation of your Assessment submission. For example:
    - OpenAI. (2025). ChatGPT (January 2025 version) [AI language model]. Retrieved from <https://openai.com>
    - Grammarly. (2025). Grammarly Writing Assistant [Version 2.0]. Retrieved from <https://grammarly.com>
    - Chicago 17<sup>th</sup> B (Author-Date) method refer to: <https://uniskills.library.curtin.edu.au/referencing/chicago17/other/#generative-ai>
- **How to Document AI use and Prompt History**
  - Include an appendix that contains:

	<ul style="list-style-type: none"><li>▪ Clear identification of the Gen AI tool used</li><li>▪ Your entire chat or prompt/response history with the Gen Ai tool in relation to the assessment.</li></ul> <ul style="list-style-type: none"><li>• <b>Examples of Non-Compliant Use of AI Tools:</b><ul style="list-style-type: none"><li>○ <b>The following practices violate Curtin’s Academic Integrity Standards and will result in academic penalties:</b><ul style="list-style-type: none"><li>▪ Submitting work predominantly or entirely generated by AI without significant personal input or analysis.</li><li>▪ Failing to document or misrepresenting the use of AI tools.</li><li>▪ Using AI tools to bypass the critical thinking or creative processes expected in the Assessment.</li><li>▪ Presenting AI-generated content as your own original work without acknowledgment.</li></ul></li></ul></li><li>• <b>Why Academic Integrity Matters:</b><ul style="list-style-type: none"><li>○ Academic integrity is a cornerstone of ethical practice and professional responsibility in Project Management. Your ability to critically evaluate information, develop original insights, and demonstrate personal mastery of project management theories, concepts and practices is essential for success in both academia and your future career. Misrepresentation of AI-generated content undermines your learning experience and the value of your degree.</li><li>○ By adhering to the Academic Integrity guidelines, you ensure your work remains credible, ethical, and reflective of your abilities. If you have any doubts or questions about the appropriate use of AI tools in your Assessments, consult your Unit Coordinator or Lecturer before submitting your Assessment.</li></ul></li><li>• For further information on the use of Gen-AI software see Curtin’s Academic Integrity Website - <a href="https://www.curtin.edu.au/students/essentials/rights/academic-integrity/">https://www.curtin.edu.au/students/essentials/rights/academic-integrity/</a> and <a href="https://uniskills.library.curtin.edu.au/digital/gen-ai/">https://uniskills.library.curtin.edu.au/digital/gen-ai/</a></li></ul>
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End of Assignment Brief.