



FIT2002 , A1 – Part 3

DELIVERABLE 3: SCOPE DOCUMENT & COST MODEL

Generative AI Declaration:

OpenAI ChatGPT 4o has been used in this piece for research purposes, **some** anecdotal evidence, grammatical corrections, sentence structuring and enhance overall understanding.

Akhil Boda

34396268



Table of Contents

3.1. SCOPE STATEMENT	2
PROJECT TITLE.....	2
DATE.....	2
OBJECTIVES & OUTCOMES.....	2
FUNCTIONAL REQUIREMENTS & DELIVERABLES	3
NON-FUNCTIONAL REQUIREMENTS	4
EXCLUSIONS	4
SUCCESS CRITERIA	4
CONSTRAINTS	5
PROJECT ASSUMPTIONS.....	5
PLANNED START/END	6
ESTIMATED COST	6
PROJECT GANTT CHART	7
3.2. COST MODEL	9
ESTIMATION METHODOLOGIES	10
RATIONALE	10
LABOUR	10
MATERIALS AND EQUIPMENT	11
INSTALLATION	11
TRAVEL	11
OVERHEADS.....	11
SOFTWARE.....	12
RESERVES	12
COST SUMMARY	12
3.2. COST BASELINE	13
COST ASSUMPTIONS.....	14
REFERENCES	15

3.1. Scope Statement

Project Title

Monash Campus Digitisation Initiative Portfolio:

Digital Learning Spaces Enhancement Project

Date

14/01/2025

Objectives & Outcomes

The Digital Learning Spaces Enhancement Project upgrades Monash University's educational settings with innovative digital infrastructure to support hybrid and flexible. By implementing SMART interactive displays, AI-driven tools, high-definition video conferencing, and WCAG 2.1-compliant improvements, the project addresses deficits in inequitable learning, resource inefficiencies, and gaps in accessibility, aligning with the Campus Digitisation Strategy and SDGs 4 and 9 learning (United Nations, 2014; United Nations, 2025).

Anticipated outcomes include improved student satisfaction, greater faculty adoption of digital tools, enhanced operational efficiency, and a sustainable, technology-driven learning environment, strengthening Monash's global reputation in digital education.

Functional Requirements & Deliverables

1. Interactive & Collaborative Learning

The system enhances multi-format learning, allowing for easy interchanging between in-person and online dualities. Interactive content is powered by touch-driven annotations, live collaboration, and wireless content distribution to boost engagement.

2. Advanced Hybrid Learning Experience

AI-enabled video tracking effortlessly adjusts camera angles, assuring the instructor remains clearly visible. Noise-reduced audio and adaptive bandwidth streaming enables high-quality, real-time hybrid education.

3. Enhanced Assessments & Learning Analytics

Automation of feedback using AI, gamification, and multimedia quizzes enhances student involvement. Learning analytics monitor progress, enabling educators to improve teaching methods.

4. Accessibility and Compliance

The system features real-time captioning, text-to-speech functionality, dyslexia-friendly typefaces, and adjustable display options to comply with WCAG 2.1 accessibility guidelines and cater to various student requirements.

5. Scalable & Secure Infrastructure

Unified content management, role-specific permissions, and smooth integration with Moodle, Teams, and Zoom guarantee security and scalability, supported by automated system oversight for dependability.

6. Faculty & IT Support

A user-friendly interface, AI-driven support centre, and self-service diagnostic tools reduce the burden on the University's IT Support Department while benefitting student experience and satisfaction.

Deliverable	Expected Completion
a. <u>Improved Accessibility & Compliance</u> <ul style="list-style-type: none">- Real time captioning of streamed classes/sessions- Proprietary text to speech functionality- WCAG 2.1-compliance report	12/03/2025
b. <u>Upgraded Hybrid Learning Spaces</u> <ul style="list-style-type: none">- Interactive displays- AI Enhanced video conferencing- High fidelity audio systems	18/04/2025
c. <u>Enhanced Moodle Features</u> <ul style="list-style-type: none">- AI driven feedback- Gamification- Multimedia quizzes- Real time learning analytics	07/05/2025
d. <u>Scalable & Secure Digital Infrastructure</u> <ul style="list-style-type: none">- Improved network connectivity bandwidth, download/upload speeds and reliability- Role-based security controls- Centralised control management	18/04/2025
e. <u>Faculty & IT Support Resources</u> <ul style="list-style-type: none">- Training modules- AI powered troubleshooting tools	12/05/2025

f. Final Project Evaluation & Report - Assessment of: <ul style="list-style-type: none"> - Project impact - Digital implementation performance - Student/staff usage/satisfaction/engagement metrics - Alignment with University strategic goals 	27/01/2026
---	------------

N.B. Dates are displayed in format: DD-MM-YYYY

Non-Functional Requirements

Non-functional requirements ensure reliable, secure, and efficient behaviour of deliverables, enabling smooth integration of upgrades aimed at improving hybrid learning models. A uniform interface, adaptive design, and intuitive navigation enhance usability for students and faculty. With 99.9% uptime, low-latency video, and high-fidelity audio, the system provides consistent access to learning resources, supporting Monash's commitment to high-quality education. Enhanced security, role-based access controls, and WCAG 2.1 compliance promote inclusivity and fairness ideologies. Scalability and future-proofing enable integration of new technologies without quality loss. Proactive monitoring and AI-driven support minimise disruptions, aligning with Monash's strategic goals and reinforcing its leadership in innovative education.

Exclusions

The project focuses on integrating and enhancing Monash University's existing infrastructure rather than replacing or overhauling its technologies. As such, the scope excludes multi-campus revamps, limiting implementation to the Clayton Campus to effectively utilise resources and deliver targeted outcomes. The development of entirely new software systems is not included, as the project emphasises improving existing platforms like Moodle and implementation of others like Microsoft Teams, and Zoom. Similarly, integration with third-party learning platforms beyond these is excluded to maintain compatibility and reduce complexity. Upgrades to personal student and faculty devices are outside the scope, as the project targets shared learning spaces. Additionally, research and development of radically new teaching deliveries are excluded to maintain focus on current hybrid and flexible learning models currently offered at the University. These exclusions ensure the project remains practical, achievable within its budget and timeline, and aligned with the University's strategic objectives.

Success Criteria

1. Scope:

- Successful delivery of planned functional requirements, enhanced with the entire capacity of intended non-functional requirements regarding hybrid spaces, Moodle upgrades and accessibility compliance
- 100% completion of all planned classroom upgrades, supported with total satisfaction of OHS compliance regulatory standards.
- Avoid scope creep by strictly adhering to project exclusions

2. Budget

- Remain within total project costs (as seen in Part 3.2) – this is supported by:
- Proactive financial monitoring that is aligned with the Project Cost Baseline in tandem with a variance analysis approach

3. Timeline

- Achieve all milestones as key markers for project completion as specified in the project Gantt chart (seen below)

- Ensure timely deployment of deliverables according to project schedule tools (WBS/Gantt chart) and with further alignment with the University's academic calendar to minimise disruptions to daily operations

4. Business Goals

- Improve student engagement
 - o At least 85% of hybrid equipped classrooms are actively used (at least 3x per week) for hybrid teaching within 3 months of deployment
- Compliance
 - o 100% of classroom upgrades are compliant with OHS safety standards
 - o 100% of the University's digital learning content are compliant with WCAG 2.1. standards
- Accessibility and Inclusivity
 - o At least 75% of students categorised with accessibility needs adopting and utilising implemented accessibility features.
 - o Achieve 85% satisfaction rate from students with accessibility needs.

5. Deliverables

- Successfully procure and install 100% of planned hardware components
- Achieve 100% system uptime, reliability (components and features) and quality standards for deployed tools
- Passing grade in all areas of training materials in 90% of teaching faculty who participate

6. Risk Management

- Proactive mitigation of 90% of identified risks prior to any impact to project constraints
- Address delays, budget overruns and any challenges with implementing or adopting technologies through regular reviews (one formalised session per week)

Constraints

The initiative has a total project budget of \$629,240.74, demanding vital focus on deliverables and efficient cost management. Quality requirements ensure that the enhanced systems fulfill performance requirements while aligning with Monash's current infrastructure. The speed of implementation might be restricted by the availability of equipment and personnel, particularly concerning technology installation and training for faculty. System design and deployment must be guided by regulatory requirements, which include adherence to WCAG 2.1 standards and the University's IT policies. Moreover, the project needs to follow strict deadlines to prevent interference with academic schedules, exemplifying the need for thorough planning and collaboration among all involved parties.

Project Assumptions

- The \$629,240.74 budget will remain fixed, with unforeseen costs managed within the contingency fund.
- Vendors will deliver equipment (e.g., SMART displays, video conferencing tools) on time, and installation will proceed as scheduled.
- Faculty and IT staff will actively participate in training, with 90% of faculty completing training on time.
- All tools and systems will comply with WCAG 2.1 standards and Monash's IT security and data privacy policies.
- Enhancements will integrate seamlessly with existing systems (e.g., Moodle, Microsoft Teams, Zoom).
- Students and faculty will demonstrate minimal resistance to adopting upgraded technologies.
- The project will not face disruptions to the academic calendar or major scheduling conflicts.
- Proactive risk management will minimise the impact of delays or technical issues.

Planned Start/End

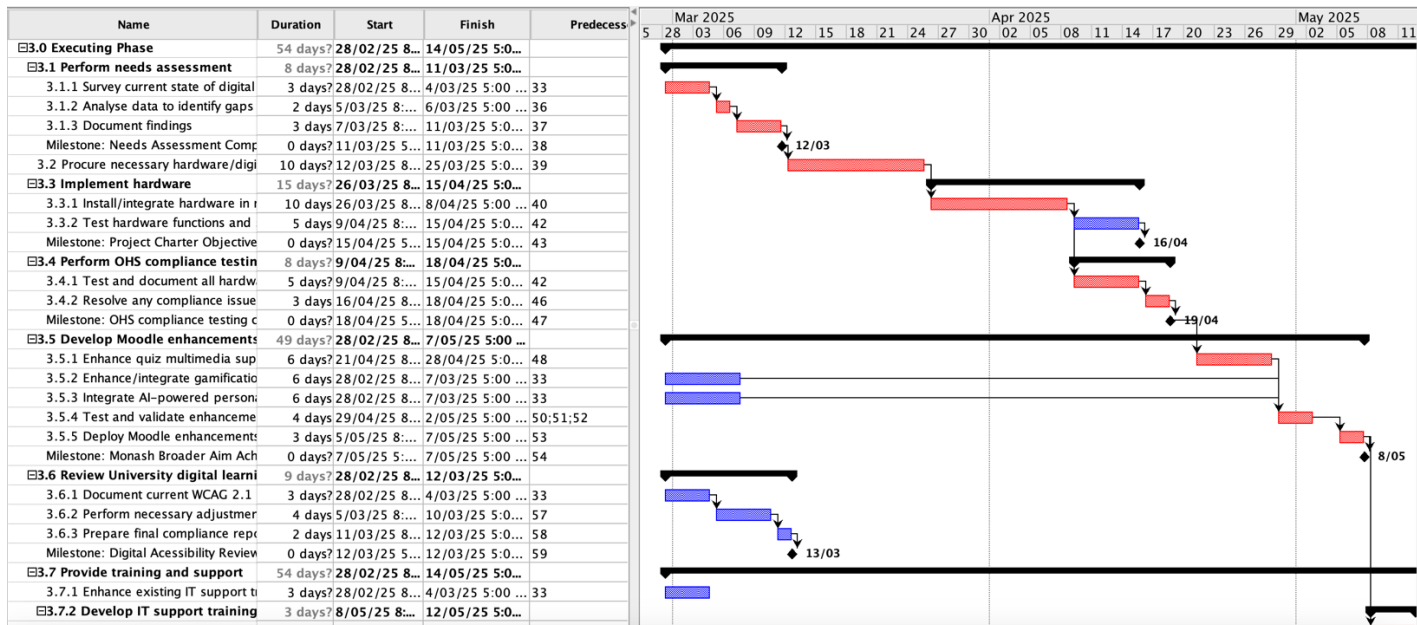
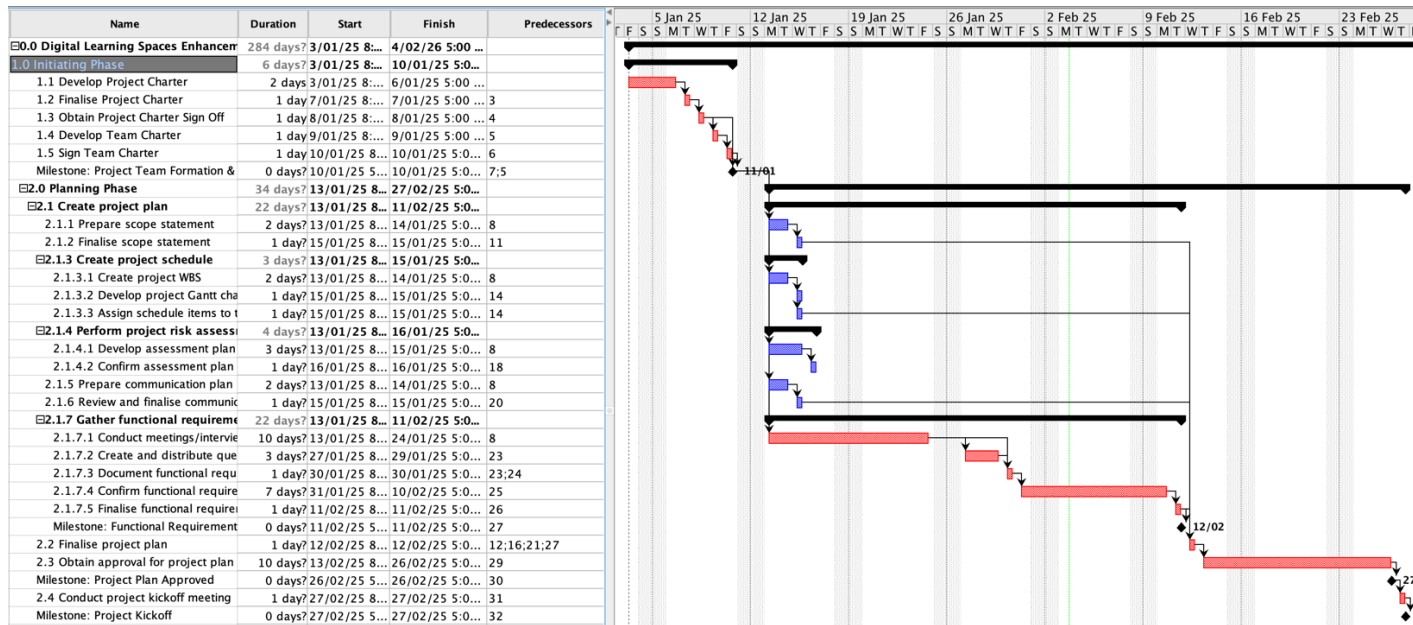
Project Start: 03/01/2025

Project End: 04/01/2026

Estimated Cost

The total project budget is \$629,240.74. This is distributed across the project in accordance to lifecycle stages: initiation, planning, execution, monitoring & controlling and closure. Furthermore, 10% of this allowance is reserved mainly for contingency in anticipation of known unknown events.

Project Gantt Chart



3.2. Cost Model

PROJECT COST MODEL			PROJECT BUDGET		\$ 571,855.22	
Category	Item	Units/Hours	Rate	Subtotal	Total	% of Total Project Budget
PROJECT						
1. Initiation					\$ 13,735.52	2.40%
Labour	Project Manager	24	\$ 125.00	\$ 3,000.00		
	Mid Level Business Analyst	20	\$ 112.50	\$ 2,250.00		
	Senior Systems Engineer	8	\$ 131.25	\$ 1,050.00		
	Mid Level Front End Developer	8	\$ 85.00	\$ 680.00		
	Mid Level UI/UX Designer	16	\$ 85.00	\$ 1,360.00		
	Quality Assurance Specialist	8	\$ 90.00	\$ 720.00		
	IT Support Trainer	8	\$ 46.00	\$ 368.00		
	Accessibility Specialist	8	\$ 75.00	\$ 600.00		
	Faculty Representative	4	\$ 75.00	\$ 300.00		
	Student Representative	4	\$ 60.00	\$ 240.00		
	Systems Administrator	6	\$ 46.00	\$ 276.00		
	Project Sponsor (Monash CIO)	8	\$ 260.00	\$ 2,080.00		
Materials and Equipment	Printing	360	\$ 0.50	\$ 180.00		
Overheads	Administrative Staff	16	\$ 39.47	\$ 631.52		
2. Planning					\$ 19,804.52	3.46%
Labour	Project Manager	40	\$ 125.00	\$ 5,000.00		
	Business Analyst	40	\$ 112.50	\$ 4,500.00		
	Senior Systems Engineer	20	\$ 131.25	\$ 2,625.00		
	Mid Level UI/UX Designer	40	\$ 85.00	\$ 3,400.00		
	IT Support Trainer	8	\$ 46.00	\$ 368.00		
	Accessibility Specialist	8	\$ 75.00	\$ 600.00		
	Faculty Representative	8	\$ 75.00	\$ 600.00		
	Student Representative	8	\$ 60.00	\$ 480.00		
	Systems Administrator	10	\$ 46.00	\$ 460.00		
	Project Sponsor (Monash CIO)	8	\$ 120.00	\$ 960.00		
Materials and Equipment	Printing	360	\$ 0.50	\$ 180.00		
Overheads	Administrative Staff	16	\$ 39.47	\$ 631.52		
3. Executing					\$ 470,593.24	82.29%
Labour	Project Manager	120	\$ 125.00	\$ 15,000.00		
	Business Analyst	120	\$ 112.50	\$ 13,500.00		
	Senior Systems Engineer	140	\$ 131.25	\$ 18,375.00		
	Mid Level Front End Developer	200	\$ 85.00	\$ 17,000.00		
	Mid Level UI/UX Designer	100	\$ 85.00	\$ 8,500.00		
	Data Scientist (AI Specialist)	40	\$ 100.00	\$ 4,000.00		
	Quality Assurance Specialist	160	\$ 90.00	\$ 14,400.00		
	IT Support Trainer	120	\$ 46.00	\$ 5,520.00		
	Accessibility Specialist	100	\$ 75.00	\$ 7,500.00		
	Faculty Representative	40	\$ 75.00	\$ 3,000.00		
	Student Representative	20	\$ 60.00	\$ 1,200.00		
	Systems Administrator	40	\$ 46.00	\$ 1,840.00		
	Compliance and OHS Officer	80	\$ 46.00	\$ 3,680.00		
Materials and Equipment	Interactive Display Systems	50	\$ 3,000.00	\$ 150,000.00		
	HD Video Conferencing	50	\$ 1,500.00	\$ 75,000.00		
	Networking and Connectivity	50	\$ 1,000.00	\$ 50,000.00		
	Servers & Storage	1	\$ 10,000.00	\$ 10,000.00		
	Training Materials	1	\$ 1,000.00	\$ 1,000.00		
Installation	Field Technician (Specialised Hardware Installation)	350	\$ 50.00	\$ 17,500.00		
	Vendor Specific Installation	50	\$ 600.00	\$ 30,000.00		
	Networking Configuration/Setup (Network Engineer)	200	\$ 80.00	\$ 16,000.00		
Overheads	Administrative Staff	192	\$ 39.47	\$ 7,578.24		
4. Monitoring & Controlling					\$ 44,413.66	7.77%
Labour	Project Manager	100	\$ 125.00	\$ 12,500.00		
	Business Analyst	70	\$ 112.50	\$ 7,875.00		
	Senior Systems Engineer	20	\$ 131.25	\$ 2,625.00		
	Mid Level Front End Developer	40	\$ 85.00	\$ 3,400.00		
	Mid Level UI/UX Designer	40	\$ 85.00	\$ 3,400.00		
	Quality Assurance Specialist	50	\$ 90.00	\$ 4,500.00		
	IT Support Trainer	50	\$ 46.00	\$ 2,300.00		
	Accessibility Specialist	35	\$ 75.00	\$ 2,625.00		
	Systems Administrator	35	\$ 46.00	\$ 1,610.00		
Travel	Transport of testing equipment	1	\$ 500.00	\$ 500.00		
Overheads	Administrative Staff	78	\$ 39.47	\$ 3,078.66		

5. Closure					\$ 15,604.40	2.73%
Labour	Project Manager	40	\$ 125.00	\$ 5,000.00		
	Business Analyst	20	\$ 112.50	\$ 2,250.00		
	Quality Assurance Specialist	20	\$ 90.00	\$ 1,800.00		
	IT Support Trainer	10	\$ 46.00	\$ 460.00		
	Accessibility Specialist	15	\$ 75.00	\$ 1,125.00		
	Systems Administrator	10	\$ 46.00	\$ 460.00		
	Project Sponsor (Monash CIO)	7	\$ 260.00	\$ 1,820.00		
Materials and Equipment	Documentation					
	Printing	2000	\$ 0.50	\$ 1,000.00		
	Binders/folders	50	\$ 2.00	\$ 100.00		
	Archiving and Backup	1	\$ 500.00	\$ 500.00		
Overheads	Administrative Staff	20	\$ 39.47	\$ 789.40		
	Long Term Document Archiving/Storage	1	\$ 300.00	\$ 300.00		
					Project Total	\$ 564,151.34
						98.65%
SOFTWARE						
Collaboration Platforms	Zoom	-	-	\$ 500.00		
	Slack	-	-	\$ 800.00		
PM Tools	MS Project	-	-	\$ 500.00		
	Jira	-	-	\$ 1,200.00		
	Asana	-	-	\$ 1,000.00		
Document Management/Sharing	SharePoint	-	-	\$ -		
	LucidChart	-	-	\$ -		
Modelling	Miro	-	-	\$ -		
	Canva	-	-	\$ -		
Communication	Google Suite	-	-	\$ -		
Testing	Deque Axe Pro (accessibility)	-	-	\$ 1,000.00		
	Apache (performance/load)	-	-	\$ 1,000.00		
Content Creation	Adobe Creative Cloud (Team Membership)	12	\$ 141.99	\$ 1,703.88		
					Software Total	\$ 7,703.88
						1.35%
RESERVES						
Contingency (10% project budget)		0.1	\$ 571,855.22	\$ 57,185.52		
Miscellaneous (adapters/cables/temporary hardware for closeout)		1	\$ 200.00	\$ 200.00		
					Contingency Total	\$ 57,385.52
					Total Project Costs	\$ 629,240.74
						100.00%

Estimation Methodologies

This project cost model combines bottom-up, analogous and parametric methodologies to ultimately maximise accuracy and practicality.

The bottom-up estimation encompasses detailed, and task specific costs associated with WBS items, like labour and material allowances.

Analogous estimations compare components like hardware procurement and installation costs to enable prediction of expenses with less detailed information.

Parametric estimations are appropriate for components like printing, which ensure consistent and scalable forecasting.

Rationale

Labour

- Project team members' pay are sourced from the [HAYS IT Contractors Rates Guide FY24/25](#) (HAYS 2024) with further calculations to estimate hourly rates, as reflected in this document.
 - Project Manager
 - Business Analyst
 - Systems Engineer
 - Front End Developer
 - UI/UX Designer
 - QA Specialist
 - AI Specialist (Data Scientist)

- **Exceptions:**
 - i. Estimation for Accessibility Specialist is sourced from [Robert Half 2024 IT Salary Guide](#) (Robert Half Management Consulting Company, 2024)
 - ii. Compliance and OHS Officer pay rates were estimated using Seek (n.d.-b).
- 2. Monash University's staff pay are sourced from the [Monash University 2024 Enterprise Agreement](#) and its Higher Education Worker (HEW)/Academic levels (Monash University, 2024), with further calculations to estimate hourly rates, as reflected in this document.
 - IT Support Trainer (HEW Level 6)
 - Faculty Representative (Academic Level C)
 - Student Representative (Academic Level B)
 - Systems Administrator (HEW Level 7)
 - Project Sponsor (Executive CIO)
 - **Overhead:** Administrative Staff (HEW Level 5)

Materials and Equipment

1. Documentation:
 - a. Printing: Commercial printing standards charge approximately \$0.49 per page for colour printing, which is also inclusive of maintenance costs (Officeworks, n.d.-a)
 - b. Binding/folders: An aggregate estimate between multiple sources (Woolworths Group n.d.; Officeworks, n.d.-b)
2. Interactive Display Systems: Higher/more advanced models pricing (SMART Technologies, n.d.)
3. HD Video Conferencing Equipment: Polycom Studio equipment which are suitable for implementation at Monash University (Poly, n.d.)
4. Networking and Connectivity: Advanced and reliable infrastructure suitable for enterprises – Cisco Catalyst Series Switches (Cisco Systems, n.d.)
5. Servers and Storage: A mid-range server e.g. Dell PowerEdge Rack Server (Dell Technologies, n.d.)

Installation

1. Field Service Technician (Specialised Hardware Installation): Industry estimate according to Seek (n.d.-a)
2. Vendor Specific Installation: As indicated by SMART Technologies (n.d.).
3. Network Configuration/Setup (Network Engineer) – as indicated by HAYS (2024).

Travel

1. Transport of testing equipment: Considers both on-site and off-site testing costs (SafeWork SA, n.d.; Ranger, n.d.)

Overheads

1. Long Term Document Archiving/Storage: The University likely utilises services for digital storage and backup like Google Workspace and SharePoint (specific work component for this project), so only physical files and documentation need secure long-term storage (Iron Mountain, n.d.).

Software

Annual licensing/subscription costs are indicated according to each vendor's pricing information. The exception is Adobe Creative Cloud (Content Creation) whereby a 'team' plan requires monthly payments (Microsoft, n.d.-a, n.d.-b; Adobe, n.d.; Atlassian, n.d.; Asana, n.d.; Slack, n.d.; Zoom, n.d.; Deque Systems, n.d.; Apache, n.d.).

Reserves

1. Contingency: 10% of total project budget.
 - The contingency reserve exists as an appropriate means against known unknown potential eventualities. These may be for reason including, but not limited to:
 - i. Technology related risks
 - Unexpected software or hardware issues (procurement or integration)
 - Changes to licensing or subscription costs
 - ii. Resource risks
 - Reduced schedule efficiency indicated by a Schedule Performance Index value < 1
 - Additional unplanned labour due to skill shortages or turnovers
 - iii. Vendor or supplier risks
 - Untimely delivery or increased costs of hardware
 - Increased costs for installation
 - iv. Risk of scope creep
 - Unplanned scope creep which negatively impact time and/or cost constraints
 - v. Regulatory and compliance risks
 - Additional effort to meet updated government or institutional guidelines for accessibility
 - Adjustments to Moodle or digital tools to align with Australian standards
 - vi. Schedule risks
 - Delays in key milestones caused by overruns during development, testing or deployment phases
 - While the specific percentage for contingency can vary based on the nature of a project (Baccarini, 2005), this project's allocation is aligned with established practices in Australian project management as evident in (Danesh-Mand, 2019).
2. Miscellaneous costs potentially needed with unexpected additional need of temporary hardware.

Cost Summary

Component	Subtotals
Labour	\$199,182.00
Materials and Equipment	\$287,960.00
Installation	\$63,500.00
Overheads	\$13,009.34
Software	\$7,703.88
Reserves	\$57,385.22
Grand Total	\$629,240.74

3.2. Cost Baseline

N.B. Cost Model and Cost Baseline subtotals and totals may slightly vary due differences in rounding, and distribution of costs across the months. E.g. the nature of distributing project manager baseline costs result in slightly lesser subtotal compared to what is shown in the cost model i.e. \$40,500 vs. 40,499.97. Although similar instances occur throughout, this cost baseline is still a valid representation of a monthly cost breakdown for the proposed project cost model shown in A1.3.2 Cost Model.

PROJECT	PROJECT TIMELINE												Individual Subtotals	Component Subtotals	Level Subtotals
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12			
LABOUR														\$ 199,182.01	\$ 564,151.35
Project Manager	\$ 5,500.00	\$ 2,500.00	\$ 7,500.00	\$ 7,500.00	\$ 1,785.71	\$ 1,785.71	\$ 1,785.71	\$ 1,785.71	\$ 1,785.71	\$ 1,785.71	\$ 1,785.71	\$ 5,000.00	\$ 40,499.97		
Mid Level Business Analyst	\$ 3,850.00	\$ 1,750.00	\$ 11,545.63	\$ 11,545.63	\$ 240.54	\$ 240.54	\$ 240.54	\$ 240.54	\$ 240.54	\$ 240.54	\$ 240.54	\$ -	\$ 30,375.04		
Senior Systems Engineer	\$ 525.00	\$ 525.00	\$ 1,312.50	\$ 1,312.50	\$ 6,000.00	\$ 6,000.00	\$ 6,375.00	\$ -	\$ -	\$ -	\$ -	\$ 2,625.00	\$ 24,675.00		
Mid Level Front End Developer	\$ 340.00	\$ 340.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ 3,400.00	\$ 21,080.00		
Mid Level UI/UX Designer	\$ 680.00	\$ 680.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 500.00	\$ -	\$ -	\$ -	\$ -	\$ 6,800.00	\$ 16,660.00		
Quality Assurance Specialist	\$ 360.00	\$ 360.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 2,400.00	\$ -	\$ -	\$ -	\$ 1,800.00	\$ 4,500.00	\$ 21,420.00		
IT Support Trainer	\$ 184.00	\$ 184.00	\$ 1,840.00	\$ 1,840.00	\$ 1,840.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 828.00	\$ 2,300.00	\$ 9,016.00		
Accessibility Specialist	\$ 300.00	\$ 300.00	\$ 3,000.00	\$ 3,000.00	\$ 2,100.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,125.00	\$ 2,625.00	\$ 12,450.00		
Faculty Representative	\$ 150.00	\$ 150.00	\$ 300.00	\$ 300.00	\$ 300.00	\$ 1,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,900.00		
Student Representative	\$ 120.00	\$ 120.00	\$ 600.00	\$ 600.00	\$ 240.00	\$ 240.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,920.00		
Systems Administrator	\$ 138.00	\$ 138.00	\$ 920.00	\$ 920.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,610.00	\$ -	\$ 920.00	\$ 4,646.00		
Project Sponsor (Monash CIO)	\$ 1,040.00	\$ 1,040.00	\$ 480.00	\$ 480.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,820.00	\$ 4,860.00		
Data Scientist (AI Specialist)	\$ -	\$ -	\$ 2,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000.00		
Compliance and OHS Officer	\$ -	\$ -	\$ 1,840.00	\$ 1,840.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,680.00		
MATERIALS AND EQUIPMENT														\$ 287,960.00	
Printing	\$ 180.00	\$ 180.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00	\$ 1,360.00		
Binders/folders	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100.00	\$ 100.00		
Interactive Display Systems	\$ -	\$ -	\$ 75,000.00	\$ 75,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000.00		
HD Video Conferencing	\$ -	\$ -	\$ 37,500.00	\$ 37,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,000.00		
Networking and Connectivity	\$ -	\$ -	\$ 25,000.00	\$ 25,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000.00		
Servers & Storage	\$ -	\$ -	\$ 5,000.00	\$ 5,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000.00		
Training Materials	\$ -	\$ -	\$ 500.00	\$ 500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00		
Archiving and Backup	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500.00	\$ 500.00		
INSTALLATION														\$ 63,500.00	
Field Technician	\$ -	\$ -	\$ -	\$ 10,000.00	\$ 7,500.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,500.00		
Vendor Specific Installation	\$ -	\$ -	\$ 12,000.00	\$ 12,000.00	\$ 6,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000.00		
Networking Configuration/Setup (Network Engineer)	\$ -	\$ -	\$ 6,000.00	\$ 8,000.00	\$ 2,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,000.00		
OVERHEADS														\$ 13,009.34	
Administrative Staff	\$ 316.00	\$ 316.00	\$ 316.00	\$ 316.00	\$ 2,526.00	\$ 2,526.00	\$ 2,526.00	\$ -	\$ -	\$ 1,539.00	\$ 1,539.00	\$ 789.34	\$ 12,709.34		
Long Term Document Archiving/Storage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300.00	\$ 300.00		
TRAVEL														\$ 500.00	
Transport of testing equipment	\$ -	\$ -	\$ -	\$ -	\$ 250.00	\$ 250.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500.00		
SOFTWARE															\$ 7,703.88
COLLABORATION PLATFORMS	\$ 1,300.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,300.00		
PM TOOLS	\$ 1,000.00	\$ 500.00	\$ 1,200.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,700.00		
DOCUMENT MANAGEMENT/SHARING													\$ -		
MODELLING													\$ -		
COMMUNICATION													\$ -		
TESTING				\$ 1,000.00				\$ 1,000.00					\$ 2,000.00		
CONTENT CREATION	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 141.99	\$ 1,703.88		
RESERVES															\$ 57,385.22
Contingency (10% project budget)	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 4,765.44	\$ 57,185.22		
Miscellaneous (adapters/cables/temporary hardware for closeout)	\$ 200.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200.00		
Monthly Costs	\$ 21,090.43	\$ 13,990.43	\$ 206,761.56	\$ 218,561.56	\$ 44,889.68	\$ 25,449.68	\$ 21,734.68	\$ 8,933.68	\$ 7,933.68	\$ 10,082.68	\$ 12,225.68	\$ 37,586.77			\$ 629,240.45

Cost Assumptions

- The project scope and cost model assume that 50 campus classrooms are requiring upgrades, with an exact quantity only able to be confirmed by a legitimate needs assessment.
- Labour hourly rates were calculated according to a standard 8-hour workday/38-hour workweek.
- Faculty Representative: Monash University staff member which advocates educational wellbeing, satisfaction, teaching quality etc. of teaching staff at the University.
- Student Representative: Monash University staff member which advocates the educational wellbeing, satisfaction
- Hardware components have been calculated arbitrarily with a 50 units allocation. Further, the cost calculation assumes an approximate pricing for SMART units. The needs assessment (an item of the executing phase) would better reveal exactly which brand and model of interactive displays best integrate with the University's infrastructure. E.g. another competitor vendor may have models that fit the functional/nonfunctional requirements with consequently different pricing than what is indicated

References

- Adobe. (n.d.). *Creative Cloud for teams pricing*. <https://www.adobe.com/creativecloud/business/teams/pricing.html>
- Apache. (n.d.). *JMeter overview*. <https://jmeter.apache.org>
- Asana. (n.d.). *Asana pricing plans*. <https://asana.com/pricing>
- Atlassian. (n.d.). *Jira pricing*. <https://www.atlassian.com/software/jira/pricing>
- Baccarini, D. (2005). *Understanding project cost contingency: A survey*. Department of Construction Management, Curtin University of Technology.
https://espace.curtin.edu.au/bitstream/handle/20.500.11937/9641/20855_downloaded_stream_311.pdf
- Cisco Systems. (n.d.). *Networking solutions: Switches, routers, and wireless*. <https://www.cisco.com>
- Danesh-Mand, P. (2019). *Risk Society Contingency Guideline*. Risk Engineering Society and Engineers Australia.
https://www.engineersaustralia.org.au/sites/default/files/Learned%20Society/Resources-Guidelines%26Practice%20notes/RES_Contingency_Guideline_2nd_Edition_Mar_2019_FINAL.pdf?
- Dell Technologies. (n.d.). *Dell PowerEdge rack servers*. <https://www.dell.com/en-au>
- Deque Systems. (n.d.). *Deque Axe pricing*. <https://www.deque.com>
- Hays. (2024). *IT Contractor Rates Guide*. Hays.
https://www.hays.com.au/documents/276732/1102429/Hays+Technology+Contractor+Rates+Guide.pdf?em=vSExTpc6vXgZVrUrK0AlyWjoQJ9JZz71d0YinLP5ZNE=&utm_source=SFMC&utm_medium=email&utm_campaign=AU_CA_Hays_Tech_contractor_rates_guide_Trigger_2024&utm_content=&utm_term=&jobSource=SFMC
- Hays. (2024/2025). *HAYS Salary Guide: Health and Safety roles*. <https://www.hays.com.au>
- Iron Mountain. (n.d.). *Document storage and retrieval solutions*. <https://www.ironmountain.com>
- Microsoft. (n.d.-a). *Microsoft Project pricing*. <https://www.microsoft.com/en-au/microsoft-project/pricing>
- Microsoft. (n.d.-b). *SharePoint in Microsoft 365*. <https://www.microsoft.com/en-us/microsoft-365/sharepoint/collaboration>
- Monash University. (2024). *2024 Enterprise Agreement*.
https://www.monash.edu/__data/assets/pdf_file/0012/3752868/2024-Enterprise-Agreement-MUEA.pdf
- Officeworks. (n.d.-a). *Print and copy services*. <https://www.officeworks.com.au>
- Officeworks. (n.d.-b). *Ring binders*. Officeworks. <https://www.officeworks.com.au/shop/officeworks/c/office-supplies/binders-binder-accessories/ring-binders>
- Poly. (n.d.). *Polycom Studio video conferencing equipment*. <https://www.poly.com>

Ranger. (n.d.). *Testing services for lifting & rigging equipment*. Ranger. <https://ranger.com.au/testing-services/>

Robert Half Management Consulting Company. (2024). *Robert Half 2024 IT Salary Guide*.
<https://content.roberthalfonline.com/SG24/SG24-PDF/2024-Salary-Guide-AU.pdf>

SafeWork SA. (n.d.). *Inspection and testing of electrical equipment*. SafeWork SA.
<https://safework.sa.gov.au/workplaces/work-tasks-and-projects/inspection-and-testing-of-electrical-equipment>

SEEK. (n.d.-a). *Field service technician average salary in Australia*. <https://www.seek.com.au/career-advice/role/field-service-technician/salary>

SEEK. (n.d.-b). *Workplace Health and Safety Coordinator average salary*. <https://www.seek.com.au/career-advice/role/workplace-health-and-safety-coordinator>

Slack. (n.d.). *Pricing for Slack plans*. <https://slack.com/pricing>

SMART Technologies. (n.d.). *SMART Board interactive displays for education*. <https://www.smarttech.com>

United Nations. (2015). *Goal 4 | Ensure Inclusive and Equitable Quality Education and Promote Lifelong Learning Opportunities for All*. United Nations. <https://sdgs.un.org/goals/goal4>

United Nations. (2024). *Goal 9 | department of economic and social affairs*. United Nations.
<https://sdgs.un.org/goals/goal9>

Woolworths Group. (n.d.). *Office folders & binders*.
Woolworths. <https://www.woolworths.com.au/shop/browse/home-lifestyle/stationery-office-supplies/binders-folders>

Zoom. (n.d.). *Zoom pricing plans*. <https://zoom.us/pricing>