



LMS EVALUATION REPORT

Evaluation of Learning Management System Options and Strategic
Recommendations for Wentworth Institute of Technology



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Executive summary

The LMS Vendor Evaluation Report for Wentworth Institute of Technology (WIT) examines whether to renew the contract with Brightspace or to transition to a new Learning Management System (LMS), as WIT's current five-year agreement is nearing its end. This decision was informed by a comprehensive process, beginning with a case analysis of WIT's previous LMS transition from Blackboard to Brightspace in 2020, which provided valuable insights into challenges and success factors. Following this, an extensive requirements gathering phase was conducted, engaging various stakeholders through interviews, surveys, and focus groups to understand the specific needs and priorities of faculty, students, and administrators. Vendor analysis was then performed, evaluating potential LMS options to determine alignment with WIT's strategic goals. Through these steps, Brightspace emerged as a suitable choice, meeting WIT's requirements for integration, usability, and continuity. Although areas for improvement, such as the grading system and real-time gradebook updates, were identified, transitioning to alternatives like Canvas would involve significant financial, time, and operational costs. Therefore, the recommendation is to extend Brightspace's contract for another five years, with a focus on negotiating targeted enhancements to address grading and other critical functionalities, ensuring the LMS continues to support WIT's academic and operational objectives effectively.

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1. Phase 1 - Case Analysis

1.1 Introduction

In 2020, Wentworth Institute of Technology (WIT) decided to transition from its existing Learning Management System (LMS), Blackboard, to a new platform. This case analysis examines WIT's process of selecting a replacement LMS, ultimately choosing Brightspace. The analysis covers the historical context of this decision, the selection process, and key lessons learned during the transition.

1.2 Stakeholder register:

Stakeholder	Role	Impact	Involvement	Responsibilities
Digital Technology Services (DTS)	LMS Administrators	Ensures seamless LMS functionality and integration with systems like Banner, Panopto, and Turnitin.	High	Manage technical aspects, oversee integrations, ensure system stability and data security.
Teaching & Learning Collaborative (TLC)	Instructional Support	Supports faculty in utilizing LMS tools effectively to enhance teaching and learning experiences.	High	Provide faculty development sessions, assist with LMS instructional design, and offer ongoing feedback on LMS functionality.
Faculty/Professors	End Users of LMS	Require reliable tools for teaching, grading, and course management; impacted by LMS usability and performance.	High	Provide feedback on necessary features, participate in vendor evaluations, and use LMS for teaching and grading.
Students	End Users of LMS	Need an intuitive system for accessing course materials, submitting assignments, and receiving grades.	High	Engage with LMS for coursework, provide user experience feedback, and report any issues.
Administrative Staff	Course Coordinators, Academic Admins	Need LMS to integrate with administrative systems (e.g., Banner) for scheduling, enrollment, and data reporting.	Medium	Ensure LMS supports administrative functions, provide feedback on system scalability, and participate in decision-making.

Academic Executives (Deans, Provost)	Decision-Makers	Make strategic decisions about LMS adoption based on institutional goals and faculty/student needs.	High	Oversee final LMS selection, ensure alignment with Wentworth's educational objectives, and allocate necessary resources.
Accreditation Staff	Compliance and Standards	Ensure the LMS supports compliance with accreditation standards and facilitates necessary institutional reporting.	Medium	Assess LMS for compliance features, evaluate reporting capabilities, and ensure adherence to accreditation requirements.
Selected Vendors	LMS Providers	Interested in securing Wentworth's contract; demonstrate that their LMS meets Wentworth's specific needs.	Medium	Present product features, support pilot testing, offer integration solutions, and address technical queries. These vendors were Canvas, blackboard new version and Brightspace

Table 1.2

1.3 Issues with Blackboard:

The decision to move away from Blackboard was based on several issues that affected both faculty and students:

- **Inconsistent Integration with Third-Party Tools:** One of the primary reasons for dissatisfaction was Blackboard's inability to smoothly integrate with third-party applications. Many external tools used by the university, such as Turnitin and Banner, encountered compatibility issues, often resulting in disruptions during course delivery. This inconsistency also increased costs, as WIT was paying significant fees for functionality that did not work reliably.
- **Inaccurate Gradebook:** Professors had issues with the frequent inaccuracies of Blackboard's gradebook. This made it difficult to manage and report grades accurately, leading to confusion for both students and faculty. For an institution heavily reliant on accurate assessments, this was a major concern.
- **Value for the cost:** Given the system's limitations, the university felt that Blackboard was charging too much for the value it provided. With many third-party tools not functioning as expected and the

system's overall instability, the high fees became unsustainable, prompting the search for a better alternative.

1.4 Requirements Determination for the New System:

The requirements for the new LMS were primarily gathered by engaging with the stakeholders through surveys, interviews, and open forums. Faculty and students were asked to provide feedback on Blackboard's functionality and highlight the key areas that needed improvement.

Which included:

- Consistent Integration with Third-Party Tools.
- Accurate Gradebook Functionality.
- User-Friendly Interface.
- Adapt to future integrations with new third-party tools and to be customized according to departmental requirements.

1.5 The Process to Select a New System

The process of selecting a new LMS began with gathering requirements from key stakeholders, including faculty, staff, and students, and reviewing the common issues with Blackboard. The institution evaluated three potential LMS platforms: Canvas, Brightspace, and Blackboard Ultra, considering their ability to meet Wentworth's needs.

- **Vendor Meetings:** Representatives from each LMS vendor were invited to campus to present their systems. Faculty, staff, and students participated in open forums where they could directly engage with each system and provide feedback. This process enabled Wentworth to assess each platform's strengths and weaknesses based on real user perspectives.
- **Evaluation of Features:** While Brightspace, Canvas, and Blackboard Ultra each offered robust features, Brightspace stood out due to its seamless integration with Wentworth's existing tools like Banner, Panopto, and Turnitin, which required fewer adjustments compared to Canvas and Blackboard Ultra. Additionally, Brightspace offered greater customization options, allowing Wentworth to tailor the user interface to specific institutional needs. Though Canvas and Blackboard Ultra provided solid functionalities, Brightspace's dedicated integration support and flexible gradebook aligned more closely with Wentworth's requirements, making it the preferred choice.
- **Pilot Testing:** After selecting Brightspace as the preferred LMS, Wentworth conducted a pilot testing phase involving selected faculty, staff, and students. These participants, representing a diverse cross-

section of Wentworth's academic departments and administrative units, evaluated the platform in a real-world environment. This process provided comprehensive feedback on Brightspace's usability, functionality, and overall effectiveness, ensuring it met the practical needs of the institution before full implementation.

- **Data Transfer:** Wentworth needed to transfer courses from Blackboard to the new LMS to test each platform's capacity for handling course modifications and customizations. Brightspace provided flexible options for data migration and course customization, which were crucial factors in its final selection. This flexibility, combined with its superior integration capabilities, distinguished Brightspace as the best option for Wentworth's long-term needs.

1.6 Did WIT Choose the Right System at the Time?

At the time of the decision, WIT selected Brightspace based on its ability to address the key pain points experienced with Blackboard, including improved integration with third-party tools and a more accurate and user-friendly gradebook. While Canvas offered strong user experience features and robust teaching tools, its high cost and less seamless integration made it less appealing. Blackboard Ultra, on the other hand, provided a familiar grading and assessment environment, but its interface was still less intuitive and didn't fully address the integration challenges. Brightspace's flexibility to adapt to future technological needs and the positive feedback from faculty, staff, and students during the initial rollout indicated that it was the right choice at the time.

1.7 Lessons Learned from the Requirements Gathering and Selection Process

- **Involvement of Stakeholders is Critical:** Engaging a diverse group of stakeholders, including faculty, students, and IT staff, ensured that the system selected met the needs of all users. The inclusion of vendor presentations and open forums allowed for transparency and collaboration in the decision-making process.
- **Focus on Key Features:** The decision to prioritize mid-level requirements, such as accurate grading tools and third-party integration, helped to ensure that the new system addressed the most pressing issues. However, it was also clear that improvements could still be made in areas like data feeding and system flexibility.
- **Long-Term Considerations:** When selecting a system, it is important to not only meet the current needs but also consider the long-term growth of the institution. WIT acknowledged the need for scalability and future-proofing the LMS by evaluating how easily Brightspace could integrate new tools and updates in the future.

2. Phase 2 - Requirements Gathering

2.1 Stakeholders

2.1.1 Stakeholder Register:

Stakeholder	Involvement Level	Role Responsibilities
Digital Technology Services (DTS)	High	Oversee LMS technical functions, manage system performance, and ensure smooth integration with tools like Banner, Panopto, and Turnitin.
Teaching & Learning Collaborative (TLC)	High	Provide instructional support, conduct workshops, and assist faculty in leveraging LMS tools effectively for enhanced teaching.
Faculty/Professors	High	Use LMS for teaching, grading, and course management; give feedback on functionality and improvements needed for effective teaching.
Students	High	Use LMS for academic engagement, submit feedback on usability, and report technical issues encountered.
Administrative Staff	Medium	Coordinate scheduling and enrollment in LMS, manage data reporting, and participate in LMS feedback and testing.
Academic Executives (Deans, Provost)	High	Guide policy and resources for LMS; ensure LMS aligns with institutional goals and strategic objectives.
Accreditation and Compliance Staff	Medium	Monitor LMS for compliance, manage reporting requirements for accreditation, and support documentation standards.
Student Government and Feedback Groups	Medium	Collect student feedback, advocate for student needs, and work with DTS and TLC to address LMS usability issues.

Table 2.1.1

2.1.2 Stakeholder Engagement Matrix:

Stakeholder	Influence/power	Impact Level and Description
Digital Technology Services (DTS)	High	High Impact: Critical role in ensuring LMS functionality, integrating with other systems (Banner, Panopto, Turnitin), and maintaining system security and performance.
Teaching & Learning Collaborative (TLC)	High	High Impact: Provides essential instructional support to faculty, enabling effective use of LMS tools for teaching and promoting innovative teaching practices.
Faculty/Professors	Medium	High Impact: Directly affected by LMS usability for teaching, grading, and course management. Their feedback influences LMS adjustments for enhanced teaching efficacy.
Students	Low	High Impact: Need a user-friendly, accessible LMS to engage with academic content, submit assignments, and monitor grades. Their feedback drives usability improvements.
Administrative Staff	Medium	Medium Impact: Depend on LMS integration with systems like Banner for course scheduling, enrollment, and data management, impacting smooth academic operations.
Academic Executives (Deans, Provost)	High	High Impact: Influence strategic LMS decisions, guide resource allocation, and ensure LMS aligns with Wentworth's educational and strategic objectives.
Accreditation and Compliance Staff	Medium	Medium Impact: Ensures the LMS meets accreditation and compliance standards, impacting the university's reporting and documentation processes.
Student Government and Feedback Groups	Low	Medium Impact: Collects and conveys student feedback to DTS and TLC, impacting improvements in LMS usability and meeting students' academic needs.

Table 2.1.2

2.2 Interview, Survey, Focus Groups insights.

2.2.1 Focus Group with Deans insights (Primary Group)

- **Cost of Change:** The deans mentioned that the cost of switching LMS could be significant in terms of:
 - Time: The time required to implement and train staff on a new system.
 - Financial: There could be financial burdens associated with switching platforms.
 - Ease of Transition: The ease or difficulty of switching from Brightspace to another LMS was raised as a concern.
- **Adjunct Faculty Usage:**
 - Adjunct faculty members, who typically teach fewer courses (1-2 classes), may not fully utilize or engage with the LMS. Cost of change may not seem worth it to them as they only have minimal interaction with the system.
- **Canvas vs Brightspace:**
 - During previous decision-making Canvas was considered, but there were discussions around whether the potential benefits of switching to Canvas would justify the cost.
 - Some deans mentioned that Brightspace may not be perfect but suggested that improvements in contract negotiations could make sticking with Brightspace a better option.
 - Blackboard was also discussed as a more rigid platform with a stricter structure, and there were mentions that Brightspace offered more flexibility in where structure could be made.
- **Functionality Concerns:**
 - Concerns about not fully utilizing all the features of Brightspace were raised, and some deans noted that not all functional aspects were being used effectively.
 - It was noted that Brightspace could be improved in how information, such as syllabi and course documents, is uploaded and distributed.
- **Assessment Improvements and Accreditation:**
 - A significant point of discussion was around how assessment features in Brightspace could be improved to meet evolving academic needs.
- **Instructor Engagement:**
 - Most deans who taught (were instructors) expressed satisfaction with Brightspace, while others were open to considering a return to Blackboard.
 - Issues with real-time gradebook updates were raised, with some wanting a more integrated and real-time experience in grading and assessments.

2.2.2 Interviewing Accreditation Staff insights

- **Accreditation and LMS:**

- Accreditation involves rigorous standards across various aspects, such as curriculum, financials, mission, and hiring practices. Brightspace, like other LMS platforms, plays a role in meeting these standards by maintaining records of student learning, assessment, and project artifacts.

- **Brightspace vs. Blackboard:**

- Brightspace is user-friendly for students and faculty, resembling a webpage. However, some faculty members miss certain features from Blackboard, such as separate assessment spaces and better archive/data systems.
- Blackboard was used for 15 years and preferred by some due to features like grade transfers to the institution's systems, which Brightspace lacks without manual support or third-party plugins.

- **Challenges with Brightspace:**

- From an administrative perspective, Brightspace is not as user-friendly. Faculty and staff face difficulties with certain functions, particularly those needed behind the scenes (BTS), affecting administrative and accreditation support.
- Brightspace lacks seamless integration with third-party applications, which complicates tasks like grade tracking and reporting.

- **Considerations for Contract Renewal:**

- Faculty members suggest that while Brightspace was chosen for its fiscal benefits, ease of use, and user-friendly interface, it may not fulfill all needs. They wish for features like a "living course manual" that would streamline teaching processes and administrative tasks.
- There is mixed sentiment about continuing with Brightspace. Some faculty members feel a transition may be beneficial if another LMS could offer better integration with institutional systems and smoother grade management.

2.2.3 Interview with Vice Provost for Academic Affairs insights

- **Background and Role:**

- The Vice Provost for Academic Affairs has been in the role for five years, overseeing departments such as the Success Studio, Registrar's Office, and Military Connective Services. They transitioned to this role from a faculty position in 2020, around the same time as Wentworth's switch from Blackboard to Brightspace.

- **Transition to Brightspace:**

- The decision to adopt Brightspace began a year before the role change. The TLC led stakeholder meetings, reviewed industry LMS options, and hosted campus showcases. Brightspace was chosen for its features in reporting and digital accessibility, which were key criteria.
- The transition process included a pilot phase that expanded due to demand. While a conversion tool from Blackboard was available, most courses required rebuilding due to limitations in automatic migration, adding to implementation challenges.

- **Strengths and Limitations of Brightspace:**

- Brightspace offers advantages such as digital accessibility tools and the option for students to download materials in various formats (e.g., PowerPoint to PDF).
- However, the gradebook feature is considered clunky, and the Vice Provost preferred the simpler organizational structure of Blackboard, which was more straightforward for setting up courses.
- Feedback from faculty highlighted the need for improvements in reporting and ease of use. Brightspace's ticketing system for feature requests can be slow, with faster response times available at an additional cost.

- **Future Needs and Considerations:**

- The Vice Provost emphasizes the importance of digital accessibility, ease of use, and privacy in future LMS evaluations. They also support the integration of AI for embedded tutoring and automated support, though current LMS vendors have limited AI implementation.
- Wentworth gathers LMS feedback through surveys and focus groups, though survey response rates remain a challenge.

2.2.4 DTS staff member Interview insights

- **Brightspace Transition:**
 - The project manager oversaw the implementation of Brightspace, focusing on the smooth integration of third-party applications such as Banner.
 - Although not involved in the initial selection process, their main priority was ensuring technical aspects and third-party integrations worked seamlessly during the rollout.
- **Previous Systems:**
 - Brightspace was selected for its user-friendly and visually appealing interface, ease of navigation, and efficient course archiving and activation.
 - Strong customer support was a key factor in choosing Brightspace over other LMS options.
- **Usage and Integration Issues:**
 - The project manager does not actively use Brightspace but handles technical issues related to it.
 - Challenges were noted with fixing third-party integration issues, as these required assistance from external providers, leading to potential delays.
 - Students preferred Brightspace's modern, intuitive design compared to previous systems.

2.2.5 Interview TLC staff member insights

- **Thoughts on Canvas:**
 - Canvas is considered the most user-friendly LMS, ideal for both faculty and students, and has proven to be simple to transition into from systems like Blackboard.
 - Canvas fosters communication among faculty and provides global collaboration features, along with robust analytics.
 - The LMS is intuitive and does not require frequent contact with support services, making it easier for institutions to manage.
- **Thoughts on Brightspace:**
 - Brightspace poses challenges, especially for faculty, due to its complex interface and limited standardization, which makes transitioning from other LMS platforms more difficult.
 - Regular help tickets are often necessary, and the system does not offer extensive customization options beyond basic graphic changes.
 - Only 75% of faculty meet foundational usage measures set by the TLC and Provost, indicating potential challenges with usability and engagement.

- Third-party integrations are limited, and additional features or upgrades require extra costs and dedicated faculty willing to learn new functionalities.
- **Transition Considerations:**
 - The ease of transitioning to a new LMS depends largely on institutional factors, including the effectiveness of the tech team's preparation and the faculty's motivation to adapt to the new system.
- **Characteristics of an Ideal LMS:**
 - An ideal LMS should balance ease of use for both students and faculty, as faculty experience directly impacts students' usability.
 - For students, the LMS should have clear navigation and visibility of key information, while faculty need tools for easy course management, collaborative features, and a straightforward gradebook.

2.2.6 Student Survey insights

- **Overall User Experience:** Students have mixed feelings about Brightspace's look and ease of use. Some find it difficult to navigate, especially when locating assignments, due dates, and grades, while others report it as easy or neutral.
- **Frequency of Use:** Most students report that Brightspace is used "all the time" in their classes, though the frequency of specific features like rubrics and feedback varies by professor.
- **System Openness:** Students show varied openness to switching to a different LMS, with some open to change, some indifferent, and others against it.
- **Mobile Usage:** Mobile version usage and notifications are somewhat common, but not all students use these features consistently.
- **Common Issues:** Challenges include difficulty finding support when issues arise, with some students encountering frequent problems in quizzes and exams.

2.2.7 Faculty Survey insights

- **LMS Experience and Confidence:** All respondents have prior experience with other LMS platforms, primarily Blackboard, with Canvas also being a preferred alternative. Confidence in using Brightspace varies, with about half feeling very confident.
- **Brightspace Usage and Preferences:** Faculty members use Brightspace frequently, with common favorite features including the quiz/assignment system, grading, and announcements. However, some respondents find the grading interface and discussion boards challenging to work with.
- **Technical Support:** Satisfaction with the technical support provided by the TLC is mixed, with some expressing moderate disappointment, indicating potential areas for improvement in support responsiveness.
- **Openness to Change:** Nearly half of the respondents are open to replacing Brightspace, while others are more hesitant or undecided, suggesting varying levels of satisfaction with the LMS.
- **Suggested Improvements:** Faculty members expressed a desire for a more streamlined and intuitive interface, simplified workflows (e.g., fewer clicks, easier grading setup), and better integration with third-party applications like LeopardWeb.

2.2.8 Summary

- **Cost and Transition Time:** High financial and time costs are involved in transitioning to a new LMS, affecting implementation and staff training.
- **Adjunct Faculty Usage:** Adjuncts teaching fewer courses may find the cost of switching LMS unjustifiable due to minimal usage.
- **Canvas vs. Brightspace:** Canvas is user-friendly but was ultimately not chosen due to cost-benefit considerations. Brightspace offers flexibility over Blackboard's rigid structure.
- **Functionality Gaps:** Brightspace's content management and assessment features need improvements to meet academic and accreditation standards.
- **Grading and Real-Time Updates:** Faculty and students desire a more integrated, real-time grading and assessment experience.
- **Technical Support and Integration:** Brightspace has usability challenges for administrative tasks, issues with third-party integrations, and slow support response times.
- **Desired LMS Features:**
 - Simplified workflows and intuitive interface.
 - Enhanced integration with institutional systems like LeopardWeb.
 - A "living course manual" and AI-based support for better usability.
- **Ideal LMS Characteristics:** Clear student navigation, easy course management for faculty, collaborative tools, and an accessible, user-friendly gradebook.

2.3 Request of Proposals

In response to Wentworth's need to evaluate potential Learning Management Systems (LMS) that align with institutional priorities, a Request for Proposals (RFP) was created to solicit detailed information from various LMS vendors. This RFP outlines Wentworth's specific requirements, including user experience, integration capabilities, scalability, and support for teaching and learning tools, which are crucial for supporting both faculty and students. The RFP provides a structured framework for vendors to present their solutions, allowing Wentworth to make an informed comparison based on functionality, cost, and overall alignment with institutional goals. This rigorous approach ensures that the selection process is transparent, comprehensive, and geared towards finding the best long-term LMS solution.

(RFP is in Appendix H and it also contains implementation plan with Gantt charts, WBS and network Diagram)

3. Phase 3 - Vendors Vetting

3.1 Priorities and requirements of Wentworth:

- Improved User Experience: An intuitive and accessible interface makes navigation easier to a great degree.
- Teaching and Learning Support: all resources for content, assignments, and other teaching approaches.
- Seamless Integration: Smooth interoperability with SIS, Banner, Turnitin, Panopto, and Zoom.
- Scalability and Flexibility: The solution should be scalable to accommodate future growth, new programs, and departmental needs.
- Data Security and Compliance: Robust protection of data in compliance with FERPA and access controls in a secure manner.
- Robust Reporting and Analytics: Provides insightful analytics on monitoring student performance and outcomes.
- Training and Support: Rigorous training and continuous support for faculty/students.
- Transition Cost: This will include the feasibility assessment in terms of time, effort, and cost for any migration to an LMS.

3.2 Vendors search and exploration:

1. Canvas by Instructure

- *Pros:* Canvas also boasts ease of navigation, ease with which it integrates seamlessly, and advanced analytics. It also has flexibility and ease of use, it has become very popular among higher education, whereby faculty and students intuitively find their way around. It also works seamlessly in integrating third-party educational tools like Zoom, Turnitin, and Panopto to facilitate blended and online learning (*Instructure*).
- *Cons:* Canvas tends to be expensive, particularly for the advanced features. Analytics takes time to get used to, especially for administrators (*Forbes Advisor, 2024*).
- *Decision:* **Selected.** Canvas closely maps to the priorities identified by Wentworth providing strong support in user experience, pedagogy, and integration and, therefore represents the best option to move forward for further evaluation.

2. Brightspace by D2L (Current LMS)

- *Pros:* Brightspace was highly analytics-driven, featured very strong accessibility, and had a design that served the needs of the faculty and students quite well. The integration with

existing Wentworth systems was already quite prominent, thus creating an easy user interface on an interdepartmental basis. Brightspace is very customizable, equally, with strong support for mobile learning (*D2L Corporation*).

- *Cons:* The system is somewhat complicated for some users to carry out back-end administrative work, and some of the advanced functionalities require training to utilize the full potential of the system and teachers have reported problem with grading system.
- *Decision:* **Selected**. Brightspace remains in the option realm since it's currently the LMS used by Wentworth and was an immediate integration with existing familiarity among faculty and students. Further review and consideration include leveraging the best option to continue or replace.

3. Absorb LMS

- *Pros:* Absorb LMS has a neat and friendly, intuitive interface; it also boasts excellent analytics and reporting. The initial success is very often based on its ease of use, having default setups which are appealing to the learners for the purpose of online training and self-directed learning environments (*Forbes Advisor, 2024*).
- *Cons:* Absorb LMS is decidedly engineered for corporate learning environments and does not contain many of the integrations and features needed for higher education. Less customizable than some other academic-focused platforms (*Forbes Advisor, 2024*).
- *Decision:* **Not selected**. The corporate orientation of LMS, along with its lack of explicit integrations, make it a very poor fit for the academic environment at Wentworth.

4. Moodle

- *Pros:* Moodle is an open-source Learning Management System that is highly customizable; there are a lot of plugins that may be added to serve a wide range of academic purposes. It is cost-effective, with no licensing fees required. It allows far-reaching configuration and adaptation to specific institutional requirements. Also, it has an active open-source community that ensures continuous development and support (*Moodle Pty Ltd.*).
- *Cons:* Moodle requires advanced technical ability for personalization, and its interface may appear somewhat dated next to some commercial sites such as Canvas or Blackboard. This could affect the user experience of the faculty and students.
- *Decision:* **Selected**. Because of its flexibility and low cost, especially suited to the needs of Wentworth for scaling up and adapting, Moodle makes it a choice for further consideration (*Forbes Advisor, 2024*).

5. Schoology

- *Pros:* Schoology offers a social learning environment that is mobile-compatible, thus generally making life easier for students and faculty who want to collaborate. Its social media-style layout and collaboration features are well-suited to foster student engagement.
- *Cons:* Schoology is designed originally with K-12 education in mind and hence lacks most of those sophisticated features or integration that would be necessary to work within higher education contexts. The focus on younger learners constrains scalability and functionality for university-level use (*Forbes Advisor, 2024*).
- *Decision:* **Not selected**. Schoology, by design and functionality, does not fit the scalability, advanced analytics, and academic rigor needs of Wentworth to the extent the other two tools do.

6. Blackboard Learn Ultra

- *Pros:* Blackboard Learn Ultra boasts the best reputation within higher education because of its assessment, grading features, and advanced reporting and analytics capabilities. The Ultra interface is sleeker and more modern; therefore, it is easier to use compared to Classic Blackboard, which will help support a better user experience (*Forbes Advisor, 2024*).
- *Cons:* Although updates were carried out, Blackboard is still an interface that polarizes people; compared to the newer offerings, Canvas or Brightspace, Blackboard is less intuitive and more convoluted in navigating and setting (*Forbes Advisor, 2024*).
- *Decision:* **Selected**. Blackboard's rich and enterprise grading, assessment, and analytics tools align with the high priority needs of Wentworth; thus, consideration is warranted.

7. TalentLMS

- *Pros:* TalentLMS is a cloud-based system that boasts simplicity and ease of use. It has a very simple interface and requires minimum technical setup, which acts to the advantage of institutions with limited IT resources. It is affordable, especially for smaller institutions (*Forbes Advisor, 2024*).
- *Cons:* TalentLMS is less scalable; it also lacks some advanced educational features, which larger institutions often need. Perfect for small-scale implementations, it cannot satisfy the needs of a higher student body or more serious academic courses (*Forbes Advisor, 2024*).
- *Decision:* **Not selected**. While TalentLMS is highly scalable, having fewer feature options makes it less compatible to meet the criteria of Wentworth. The system would likely be better suited for smaller-scale institutions.

8. Sakai

- *Pros:* Sakai is a completely open-source LMS with active support from a robust academic community, making it very flexible and customizable. With no licensing fee, it is cost-

effective, and one can configure it for any academic requirement with the help of community-developed plugins and tools (*Apereo Foundation*).

- *Cons:* The interface of Sakai is less modern and user-friendly compared to commercial LMS platforms. Sakai requires a lot of technical resources for its administration; that might be a problem for institutions without an IT department (*Forbes Advisor, 2024*).
- *Decision:* Not selected. Sakai had much functionality that could have been customized to suit Wentworth's needs, but this very custom need - and similar interface issues - were huge detriments to our final decision.

3.3 Selected LMS Platforms for Further Analysis:

- Canvas by Instructure
- Brightspace by D2L
- Moodle
- Blackboard Ultra

Wentworth Institute of Technology has selected four LMS platforms—Brightspace, Canvas, Moodle, and Blackboard Ultra—for further evaluation based on their potential to meet key institutional priorities. These priorities include enhancing user experience, supporting both teaching and learning, and ensuring seamless integration with existing systems. The decision to prioritize Blackboard Ultra over Absorb LMS, for instance, was influenced by its alignment with Wentworth's academic needs, particularly in terms of robust grading, assessment tools, and specialized support for higher education.

A detailed decision scorecard was developed as a structured framework to evaluate each LMS against critical requirements. This scorecard (as shown in Tables 3.4, 3.4.1, 3.4.2, and 3.4.3) was built around key priorities gathered from various stakeholders, including faculty, IT staff, and students, in Phase 2 of the evaluation process. Each LMS platform was assessed individually on factors like user experience, integration capability, scalability, data security, and transition costs.

This systematic evaluation provides a clear comparison of each LMS's strengths and limitations, helping Wentworth make an informed choice that aligns with both current needs and long-term objectives.

3.4 Creating decision scorecard:

Priorities & Conditions	Weight (%)	Priority Level
Enhancing User Experience	20%	High
Gradebook	7 %	High
Other teaching and learning support	8 %	High
Seamless Integration (with SIS, Banner, etc.)	20%	Highest
Scalability and Flexibility	10%	Medium
Data Security and Compliance	15%	High
Robust Reporting and Analytics	10%	Medium
Training and Support	5%	Low
Cost of Transition	5%	Low

Table 3.4

3.4.1 Canvas scorecard evaluation

Evaluation Criteria	Weight (%)	Score	Weighted Score	Reasoning
Enhancing User Experience	20%	9/10	18%	Known for an intuitive, user-friendly interface.
Gradebook	7%	8/10	5.6%	Offers a functional gradebook, but some find it complex.
Teaching and Learning Support	8%	9/10	7.2%	Supports diverse teaching needs, with strong pedagogical tools.
Seamless Integration	20%	9/10	18%	Integrates well with academic tools, including SIS, Banner, etc.
Scalability and Flexibility	10%	9/10	9%	Highly scalable and adaptable for new departmental needs.
Data Security and Compliance	15%	8/10	12%	Strong compliance, though some advanced features are add-ons.
Robust Reporting and Analytics	10%	8/10	8%	Provides strong analytics but needs customization for advanced reporting.
Training and Support	5%	8/10	4%	Extensive training resources, including "train-the-trainer" programs.
Cost of Transition	5%	7/10	3.5%	Higher transition cost: initial setup is significant.
Total Score	100%		85.3%	

Table 3.4.1

3.4.2 Brightspace scorecard evaluation

Evaluation Criteria	Weight (%)	Score	Weighted Score	Reasoning
Enhancing User Experience	20%	8/10	16%	User-friendly, though backend tasks may need training.
Gradebook	7%	7/10	4.9%	Functional gradebook, but some issues reported with ease of use.
Teaching and Learning Support	8%	9/10	7.2%	Comprehensive tools that meet faculty and student needs well.
Seamless Integration	20%	10/10	20%	Fully integrated with WIT's systems like Banner, Panopto, etc.
Scalability and Flexibility	10%	8/10	8%	Flexible for departmental needs, but future scalability is a concern.
Data Security and Compliance	15%	9/10	13.5%	Provides robust security and FERPA compliance.
Robust Reporting and Analytics	10%	8/10	8%	Good analytics, though advanced features require customization.
Training and Support	5%	7/10	3.5%	Good training resources, though backend support could improve.
Cost of Transition	5%	10/10	5%	Low transition cost as it is the current LMS in use.
Total Score	100%		85.1%	

Table 3.4.2

3.4.3 Moodle scorecard evaluation

Evaluation Criteria	Weight (%)	Score	Weighted Score	Reasoning
Enhancing User Experience	20%	7/10	14%	Customizable interface but may feel outdated to some users.
Gradebook	7%	6/10	4.2%	Functional but lacks some features compared to competitors.
Teaching and Learning Support	8%	8/10	6.4%	Supports diverse teaching needs, especially with plugins.
Seamless Integration	20%	7/10	14%	Integrates with tools, but setup and customization can be complex.
Scalability and Flexibility	10%	9/10	9%	Highly flexible and customizable, suited for evolving needs.
Data Security and Compliance	15%	7/10	10.5%	Security is reliant on customization; compliance setup is needed.
Robust Reporting and Analytics	10%	7/10	7%	Basic analytics; requires plugins for more advanced reporting.
Training and Support	5%	6/10	3%	Community support available; limited professional support.
Cost of Transition	5%	8/10	4%	Low-cost option but high customization needs increase time cost.
Total Score	100%		71.1%	

Table 3.4.3

3.4.4 Blackboard Ultra scorecard evaluation

Evaluation Criteria	Weight (%)	Score	Weighted Score	Reasoning
Enhancing User Experience	20%	8/10	16%	Modern interface in Ultra, though navigation can be complex.
Gradebook	7%	9/10	6.3%	Robust grading and assessment tools, highly favored by faculty.
Teaching and Learning Support	8%	9/10	7.2%	Strong grading and content tools, well-suited for academic use.
Seamless Integration	20%	9/10	18%	Integrates well with academic tools like Banner and SIS.
Scalability and Flexibility	10%	8/10	8%	Scalable for future growth; flexible for new programs.
Data Security and Compliance	15%	8/10	12%	Strong compliance with data security regulations.
Robust Reporting and Analytics	10%	8/10	8%	Advanced analytics well-suited for tracking academic progress.
Training and Support	5%	7/10	3.5%	Comprehensive training, but a learning curve for new users.
Cost of Transition	5%	7/10	3.5%	Moderate transition cost, similar to Canvas.
Total Score	100%		82.5%	

Table 3.4.4

3.4.5 Summary

Evaluation Criteria	Weight (%)	Canvas	Brightspace	Blackboard Ultra	Moodle
Enhancing User Experience	20%	18%	16%	16%	14%
Gradebook	7%	5.6%	4.9%	6.3%	4.2%
Teaching and Learning Support	8%	7.2%	7.2%	7.2%	6.4%
Seamless Integration	20%	18%	20%	18%	14%
Scalability and Flexibility	10%	9%	8%	8%	9%
Data Security and Compliance	15%	12%	13.5%	12%	10.5%
Robust Reporting and Analytics	10%	8%	8%	8%	7%
Training and Support	5%	4%	3.5%	3.5%	3%
Cost of Transition	5%	3.5%	5%	3.5%	4%
Total Score	100%	85.3%	85.1%	82.5%	71.1%

Table 3.4.5

Table 3.4.5 presents a comparative score of four LMS options (Canvas, Brightspace, Blackboard Ultra, and Moodle) based on key criteria. Canvas leads with 85.3%, excelling in user experience and support. Brightspace is close at 85.1%, standing out in integration and data security. Blackboard Ultra scores 82.5%, with strengths in grading and support, while Moodle trails at 71.1%, reflecting lower scores in integration and security. Overall, Canvas and Brightspace align most closely with Wentworth's priorities.

3.5 Total Cost of Ownership

The **Total Cost of Ownership (TCO)** tables summarize the projected expenses over a three-year period for each LMS option: Brightspace, Blackboard Ultra, Moodle, and Canvas. Each table includes costs for license fees, implementation, support and maintenance, and training. This cost breakdown provides a comprehensive view of the financial requirements associated with each LMS, supporting a cost-benefit analysis by allowing Wentworth to balance the financial investment against each platform's offered features and alignment with institutional needs.

3.5.1 Brightspace TCO

Year	License	Implementation Cost	Support & Maintenance	Training	Yearly Total
1	\$384,000	\$40,000	\$69,120	\$8,000	\$501,120
2	\$384,000	-	\$69,120	-	\$453,120
3	\$384,000	-	\$69,120	-	\$453,120
3-Year Total	-	-	-	-	\$1,407,360

Table 3.5.1

3.5.2 Blackboard TCO

Year	License Fees	Implementation Cost	Support & Maintenance	Training	Yearly Total
1	\$480,000	\$45,000	\$72,000	\$9,000	\$606,000
2	\$480,000	-	\$72,000	-	\$552,000
3	\$480,000	-	\$72,000	-	\$552,000
3-Year Total	-	-	-	-	\$1,710,000

Table 3.5.2

3.5.3 Moodle TCO

Year	Hosting & Support	Implementation Cost	Moodle Support	Training	Yearly Total
1	\$36,000	\$20,000	\$20,000	\$5,000	\$81,000
2	\$36,000	-	\$20,000	-	\$56,000
3	\$36,000	-	\$20,000	-	\$56,000
3-Year Total	-	-	-	-	\$193,000

Table 3.5.3

3.5.4 Canvas TCO

Year	License Fees	Implementation Cost	Support & Maintenance	Training	Yearly Total
1	\$575,000	\$50,000	\$115,200	\$10,000	\$750,200
2	\$575,000	-	\$115,200	-	\$690,200
3	\$575,000	-	\$115,200	-	\$690,200
3-Year Total	-	-	-	-	\$2,130,600

Table 3.5.4

Note: These are estimates and assumptions based on research as real pricing is not mentioned for all the LMS and is undisclosed except Moodle.

3.6 Conclusion

The evaluation shows that Canvas, Brightspace, Moodle, and Blackboard Ultra each have strengths aligned with Wentworth's needs. Canvas stands out for its user-friendly experience and scalability, while Brightspace offers seamless integration and continuity as the current LMS. Moodle is a flexible, cost-effective option but requires technical support, and Blackboard Ultra is strong in assessment and analytics but has a less intuitive interface. The decision will depend on weighing cost, integration, and adaptability to support Wentworth's priorities effectively.

4. Recommendation

After careful consideration of the survey results, the assessments by the vendors, and input from key stakeholders, Wentworth Institute of Technology is best advised to **retain Brightspace as its LMS of choice**. The concerns voiced by the faculty, deans, and students themselves, about transition costs in terms of time, convenience, and adjustment, are considerable. Transitioning from Blackboard to Brightspace already required substantial effort and adaptation, and another shift would likely entail similar or greater disruption. While it is not perfect, Brightspace was successfully integrated into the Wentworth system and already well-recognized by its user base.

Canvas scored slightly higher in usability; however, the costs and logistical demands of migration outweigh its advantages. Faculty and students have adapted to Brightspace, and many stakeholders expressed concern that a new transition would mean repeating the learning curve, resulting in decreased efficiency in the short term. Additionally, faculty have highlighted that the grading system within Brightspace could benefit from improvements, suggesting an area for contractual focus.

Considering this, **the recommendation is to negotiate enhancements to Brightspace's grading system and other user-experience improvements** rather than undertake a costly LMS migration. **Extending the contract with Brightspace for another five years** would provide stability, allowing time for tailored improvements that meet Wentworth's needs while minimizing disruption.

5. Risk Analysis

5.1 Risk Register

Item	Risk Description	Probability	Impact	Response Plan	Owner	Type
1	Adaptation challenges for transition	Low	Medium	Provide additional training and resources	IT Dept	Mitigate
2	User dissatisfaction with grading system	Medium	Medium	Negotiate enhancements to grading features	LMS Team	Enhance
3	Disruption during system upgrades	Low	High	Schedule upgrades during off-peak hours	IT Dept	Mitigate
4	Unexpected departure of a key LMS manager, such as the Director of Technology Services (DTS)	Low	High	Identify secondary lead and cross-train	HR	Mitigate

Table 5.1

This **Risk Register** (Table 5.1) outlines key risks associated with the continued use of the Brightspace LMS at Wentworth Institute of Technology. It lists each risk, along with its likelihood of occurring (Probability), potential severity if it does occur (Impact), and the planned response to manage or mitigate the risk. The table also identifies the team responsible for each action and categorizes the response type, ensuring Wentworth has clear strategies to maintain LMS stability, user satisfaction, and operational continuity.

5.2 Probability and Impact Matrix

Probability	Low Impact	Medium Impact	High Impact
Low Probability	Minor procedural delays	Adaptation challenges for transition	Disruption during system upgrades, unexpected departure of DTS
Medium Probability	Routine adjustments	User dissatisfaction with grading system	(No risks in this category)
High Probability	(No risks in this category)	(No risks in this category)	(No risks in this category)

Table 5.2

The **Probability and Impact Matrix** (Table 5.2) provides a visual framework for assessing risks based on their likelihood and potential consequences. This matrix helps prioritize the risks, allowing Wentworth to focus on those that could have significant impacts on project objectives and require more robust management strategies.

5.3 Key Risks Overview and Prioritization

Adaptation Challenges for Transition (Low Probability, Medium Impact): Transition-related issues may arise as users adapt to updates or new features within the Brightspace LMS. While the likelihood of these challenges is low due to users' existing familiarity with Brightspace, the impact remains moderate. Additional training and resources can mitigate this risk effectively.

User Dissatisfaction with Grading System (Medium Probability, Medium Impact): Dissatisfaction with Brightspace's grading features, as reported by faculty and students, poses a significant concern. Addressing this issue by negotiating enhancements to the grading system could improve user satisfaction and overall LMS effectiveness.

Disruption During System Upgrades (Low Probability, High Impact): System upgrades are necessary for maintaining LMS functionality and security. However, unplanned disruptions during these upgrades can have a high impact, potentially affecting ongoing courses and user access. Scheduling upgrades during off-peak hours can help mitigate this risk.

Unexpected Departure of Key LMS Manager (Low Probability, High Impact): The sudden loss of critical staff, such as the Director of Technology Services (DTS), would significantly impact LMS stability and continuity. To manage this risk, cross training a secondary lead is recommended to ensure continuity in LMS management and support functions.

Risks of Most Concern: The risks with the highest concern are those with a high potential impact—namely, disruption during system upgrades and the departure of key staff in DTS. Ensuring robust contingency plans and cross-training will help mitigate these risks. Additionally, user dissatisfaction with the grading system warrants attention, as it directly impacts faculty and student satisfaction with the LMS.

6. Implementation Plan

Because Brightspace is part of the existing infrastructure at Wentworth, it will not require a full LMS migration with its associated complicated data transfer, re-integration, and extreme training. Rather, this implementation plan focuses on extending the current contract with Brightspace while addressing key pain points that would involve revising the grading system and overall user experience. The suggested improvements can then be effectively implemented by Wentworth through a structured process that minimizes the extent of disturbance to faculty, staff, and students. The following steps describe the roadmap for successfully negotiating, developing, and deploying these targeted improvements.

1. Contract Negotiation & Alignment

- Meet with Brightspace representatives to finalize contract extension.
- Engage internal stakeholders to align on priorities for system improvements and confirm key areas for enhancement, particularly in grading and user experience.

2. Define Enhancement Specifications

- Collaborate with Brightspace to define specific technical and functional requirements, especially for grading and user interface improvements.

3. Development & Testing

- Brightspace develops the agreed-upon grading system and user experience enhancements.
- Conduct pilot testing with select faculty and students to assess the effectiveness of the new features and gather initial feedback.

4. Training & Support Preparation

- Develop training materials and organize workshops for faculty and administrative staff to introduce new features and changes.
- Train Digital Technology Services (DTS) and Teaching & Learning Collaborative (TLC) teams to support users and manage any issues.

5. Full Rollout & Monitoring

- Deploy the updated Brightspace platform to all users across the institution.
- Monitor performance, collect ongoing user feedback, and conduct regular evaluations to ensure the system meets Wentworth's needs.

6.1 Schedule Plan

No.	Task Name	Duration	Start Date	Finish Date
1.0	<i>Contract Negotiation & Alignment</i>	10 days	Thu 6/12/25	Wed 6/25/25
1.1	Meet with Brightspace representatives	5 days	Thu 6/12/25	Wed 6/18/25
1.2	Engage internal stakeholders	5 days	Thu 6/19/25	Wed 6/25/25
2.0	<i>Define Enhancement Specifications</i>	10 days	Thu 6/26/25	Wed 7/9/25
2.1	Define technical and functional requirements with Brightspace	10 days	Thu 6/26/25	Wed 7/9/25
3.0	<i>Development & Testing</i>	25 days	Thu 7/10/25	Wed 8/13/25
3.1	Brightspace develops agreed-upon grading system and UX enhancements	10 days	Thu 7/10/25	Wed 7/23/25
3.2	Conduct pilot testing with select faculty and students	15 days	Thu 7/24/25	Wed 8/13/25
4.0	<i>Training & Support Preparation</i>	15 days	Thu 8/14/25	Wed 9/3/25
4.1	Develop training materials and organize workshops for faculty and staff	10 days	Thu 8/14/25	Wed 8/27/25
4.2	Train DTS and TLC teams to support users	5 days	Thu 8/28/25	Wed 9/3/25
5.0	<i>Full Rollout & Monitoring</i>	10 days	Thu 9/4/25	Wed 9/17/25
5.1	Deploy updated Brightspace platform to all users	5 days	Thu 9/4/25	Wed 9/10/25
5.2	Monitor performance and collect feedback	5 days	Thu 9/11/25	Wed 9/17/25

Table 6.1

Table 6.1 outlines the implementation schedule for the proposed Brightspace enhancements, detailing each task, duration, and timeframe for completion. This structured approach ensures efficient coordination and a phased rollout of system improvements. Each phase, from initial contract negotiation to final deployment and monitoring, has been carefully scheduled to align with Wentworth's academic calendar and operational requirements, minimizing disruption and maximizing the effectiveness of the enhancements.

6.2 Work Breakdown Structure

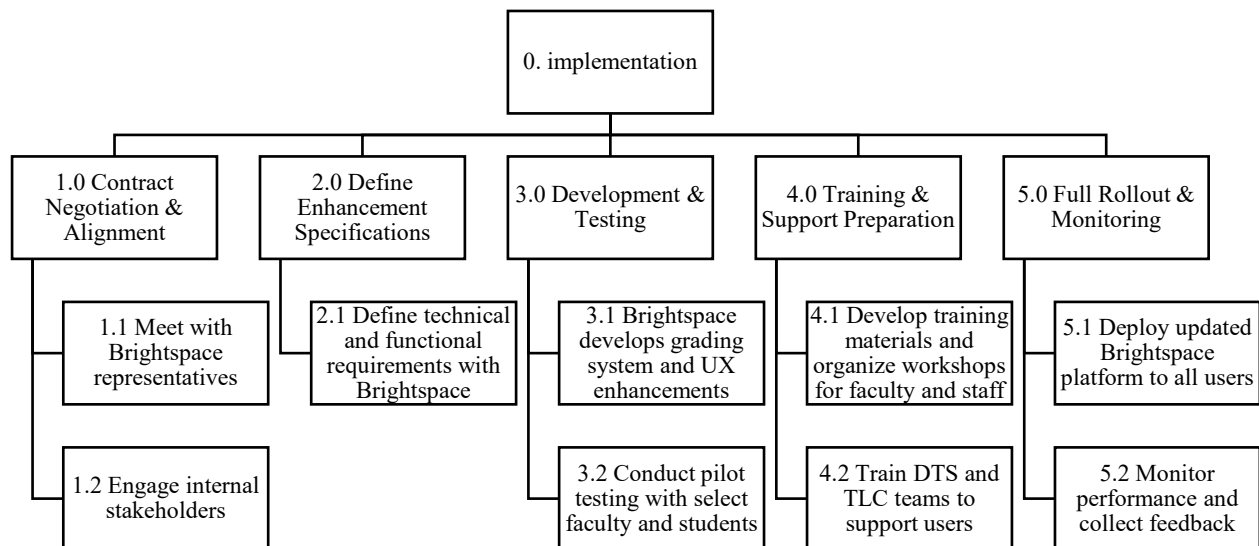


Figure 6.2

Figure 6.2 illustrates the Work Breakdown Structure (WBS) for the LMS Implementation Project. This hierarchical diagram organizes the primary tasks and subtasks involved, from initial contract negotiation and alignment through the final rollout and monitoring phases. Each main task is further broken down to reflect the specific steps required, ensuring a comprehensive and structured approach to implementing the recommended improvements in Brightspace.

6.3 Gantt Chart

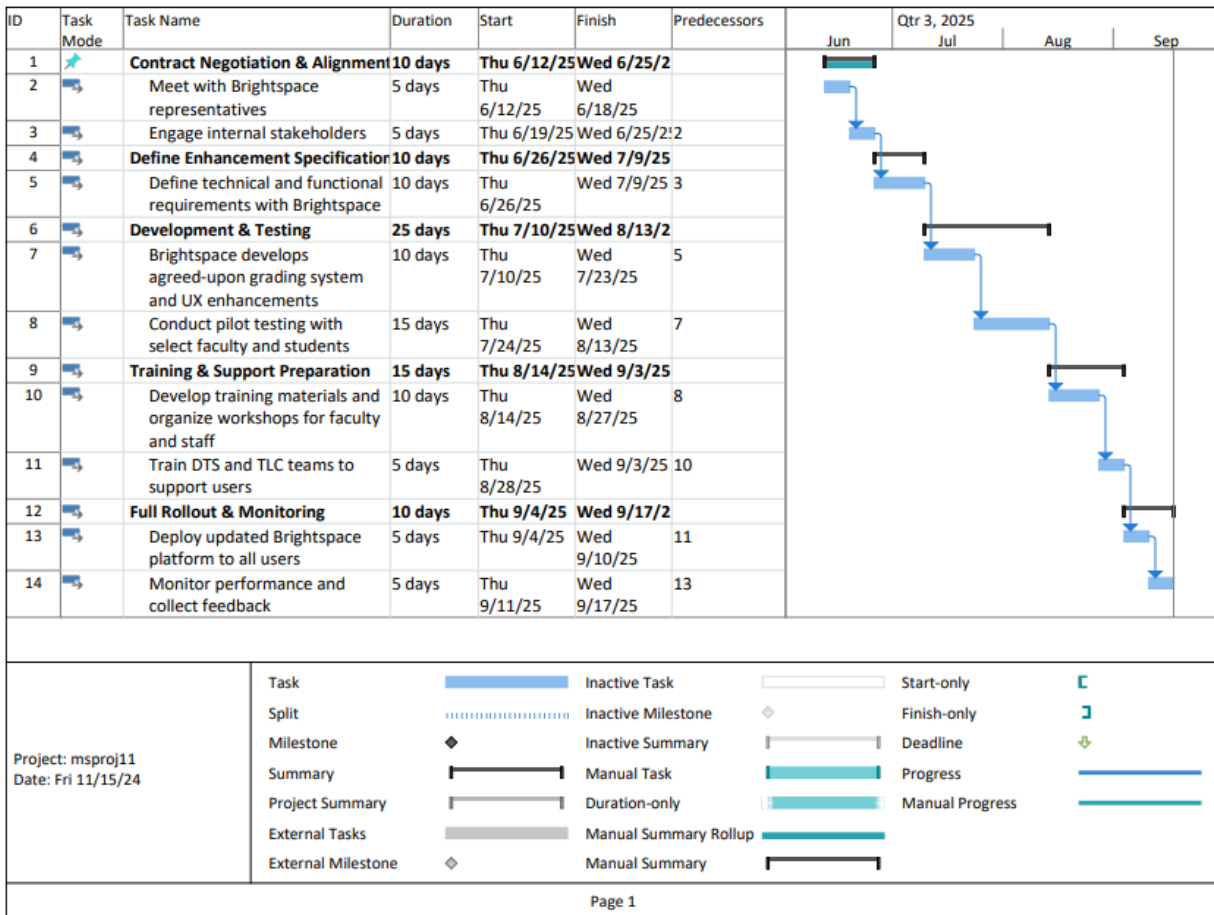


Figure 6.3

Figure 6.3 displays a Gantt Chart outlining the implementation plan for the Brightspace LMS enhancements. It details each task's timeline, duration, and dependencies, providing a visual representation of the project schedule. The chart illustrates the sequence of phases, from initial contract negotiation to full rollout and monitoring. Milestones, deadlines, and dependencies between tasks are highlighted, ensuring a clear path for the completion of each project component within the specified timeframe. This structured approach enables effective tracking and coordination of tasks across all involved teams and stakeholders.

6.4 Network Diagram

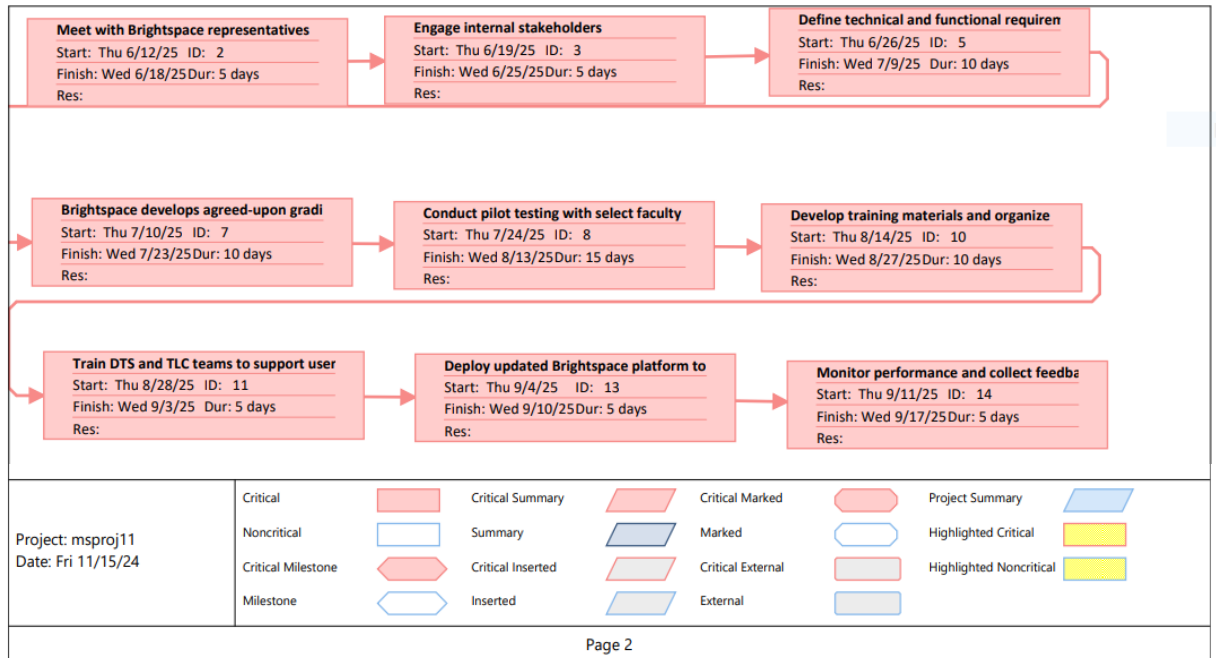


Figure 6.4

Figure 6.4 displays the Network Diagram for the LMS Implementation Project, illustrating the sequence and dependencies of each task. This visual layout highlights both critical and non-critical tasks, showing their start and finish dates along with durations. The diagram allows for an understanding of task dependencies, ensuring a structured workflow and identifying which steps are critical to maintaining the project timeline. This structured approach helps in coordinating resources and preparing for potential delays in any interconnected tasks.

7. Conclusion

In conclusion, this project confirmed that Brightspace remains the most suitable LMS for Wentworth Institute of Technology given its established integration, user familiarity, and overall alignment with institutional needs. While some challenges exist, particularly around grading functionalities, a strategic contract renewal with targeted improvements provides an efficient solution. This approach balances stability with continuous enhancement, ensuring the LMS can better serve Wentworth's evolving academic environment without the high costs and disruptions associated with a complete migration.

8. References

Forbes Advisor. (2024). Best learning management systems (LMS) 2024. *Forbes Advisor*.
<https://www.forbes.com/advisor/business/best-learning-management-systems/>

D2L Corporation. (n.d.). Brightspace learning management system. *D2L*.
<https://www.d2l.com/brightspace/>

Instructure. (n.d.). Canvas LMS. *Instructure*. <https://www.instructure.com/canvas>

SelectHub. (n.d.). Cost of ownership: Typical cost structure for Oracle learning management system. *SelectHub*. <https://www.selecthub.com/price-guides/lms-software.pdf>

Gartner Research. (2024). Magic quadrant for learning management systems and corporate learning systems. *Gartner Research*. <https://www.gartner.com/en/research/methodologies/magic-quadrants-research>

Data Bridge Market Research. (n.d.). Global learning management system market - industry trends and forecast to 2028. *Data Bridge Market Research*.
<https://www.databridgemarketresearch.com/reports/global-learning-management-system-market>

Moodle Pty Ltd. (n.d.). Moodle LMS. *Moodle*. <https://moodle.com/lms/>

PowerSchool Holdings, Inc. (n.d.). Schoology learning management system. *PowerSchool*.
<https://www.powerschool.com/classroom/schoology/>

Apereo Foundation. (n.d.). Sakai project: Learning management system. *Apereo Foundation*.
<https://www.apereo.org/projects/sakai>

Epignosis. (n.d.). TalentLMS. *Epignosis*. <https://www.talentlms.com/>

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10. Appendices

10.1 Requirements Gathering: Focus Group/Interviews/Survey

Appendix A: Focus Group to Deans

1. How has Brightspace impacted teaching and learning in your department?
2. What are the biggest benefits and challenges of using Brightspace?
3. Do you think Brightspace helps your faculty meet their teaching goals? Why or why not?
4. Were you involved when the decision to adopt Brightspace was made?
5. If yes, what would you do differently next time to make sure the LMS fits your department's needs better?
6. Who do you think has the most influence when deciding on the LMS?
7. Did you take part in the pilot for Brightspace?
8. Were you part of the decision process to switch from Blackboard to Brightspace? What challenges do you remember?
9. Are there tools in Brightspace that faculty don't use enough? What can be done to improve this?
10. What's the most common feedback you get from faculty and students about Brightspace?
11. Have any faculty mentioned particular issues or successes with Brightspace?
12. If we considered switching to a new LMS, what features or tools would be most important for you?
13. What advice would you give to the team deciding whether to stay with Brightspace or move to a new LMS?
14. How would you compare your experience using Blackboard to Brightspace?
15. What was the biggest problem you or your faculty faced when using Blackboard?
16. What feedback did you get from faculty and students about Blackboard?
17. In your opinion, was switching from Blackboard to Brightspace the right move? Why or why not?
18. What's one thing Brightspace does better than Blackboard?
19. If you could have changed one thing about how Blackboard was used, what would it have been?
20. How do you handle onboarding part-time faculty who may not be familiar with Brightspace?
21. As a dean who teaches one class, how has Brightspace affected your own teaching experience?

Appendix B: Interview Questions to Accreditation Staff

1. Do you interact with/use Brightspace in your work? How?
2. How does Brightspace affect the difficulty of your work here at Wentworth? Are there any improvements you would like to see in Brightspace?
3. In your previous work, have you used an LMS? Which one?
4. What role does a university's LMS have when it comes to accreditation?
5. How does university LMS play a role in meeting accreditation requirements? in terms of data for student reporting?
6. Is the accreditation support in Brightspace sufficient or does it need improvement?
7. Is the use of Brightspace applicable/helpful with accreditation work?
8. Have people in your field / peers mentioned any problems or difficulties with Brightspace?
9. What other LMS do your peers use at other universities? are they better or worse for your job role?
10. Do you think that Wentworth should extend the contract with Brightspace or transition to a new program?

Appendix C: Interview with Vice Provost for Academic Affairs

1. Can you tell us what your title and what your role is here at Wentworth?
2. Your role turnover was in 2020 and that was about the same time as the rollover for Brightspace; can you go into a little more detail about that process?
3. What experiences do you have with other LMSs?
4. As a professor, what are the positives and negatives of using Blackboard?
5. Aside from the reporting features, were there any other reasons for the switch from Blackboard to Brightspace?
6. Was there any feedback that you've heard from your colleagues/students/DTS about the LMS in both positions?
7. Have you noticed any challenges or limitations that you feel need to be addressed in Brightspace?
8. If we were to move forward with choosing a new LMS, what would some of the requirements need to be?
9. What about budget?
10. What was the approximate price?
11. Was the conversion tool a 3rd party software?
12. What are the most important features or improvements you would like to see in the LMS over the next five years?
13. Are you guys already looking at options?
14. Has Wentworth conducted a formal review since the rollout of the current LMS, and how often do they conduct a formal review?
15. Brightspace was rolled out during COVID – did you have a specific deadline to accomplish it, and with issues converting classes, did you have to tell users there would be delays?
16. Do you think if we did switch to another LMS, it would take the same timeframe for people to learn the new system, or do you think people have learned from using the two other LMSs?
17. When you get feedback, how does that feedback get passed to Brightspace, especially in urgent situations?
18. Do you personally use Brightspace on a day-to-day basis or occasionally?
19. What is your favorite or least favorite feature of Brightspace?
20. Has Brightspace honored their contract?
21. Have there been any formal or informal complaints about the current system that you've heard? Feedback from students, faculty, and staff?
22. You mentioned that the organizational aspect of Blackboard was better than Brightspace. What was that organizational aspect?

23. Going forward with the implementation of AI, do you think it should be a consideration when looking at a new system?
24. We as a class are aware that some surveys took place to find out how students felt about Blackboard. Do you think that's the most effective method to gather stakeholder requirements?

Appendix D: Interview with DTS Staff

1. What were your main responsibilities as a project manager on this particular project?
2. As a project manager on the transition to Brightspace, what were your main focuses throughout the project?
3. What set Brightspace apart from other competing LMS systems?
4. What are some things you will do differently for this LMS transition than the last one?
5. What are the biggest lessons you have learned?
6. What was the process like helping faculty convert their classes over from Blackboard to Brightspace?
7. What were some issues with the rollout during COVID?
8. Was Brightspace responsive during the rollout?
9. Of the previously tested LMS systems, which was your favorite? Why?
10. Because the last two grade books are not easy to navigate, will you be making that a higher priority on the list this time around when choosing a new LMS?
11. Will you be looking for similar characteristics in a new LMS?
12. Are there any factors you will be looking to avoid that didn't work in previous systems?
13. Do you use Brightspace?
14. If yes, what do you usually use Brightspace for?
15. How would you explain the difference between the backend of Brightspace and the user interface?
16. On the backend, what are the biggest issues you have to fix that faculty and students are not aware of?
17. What issues, if any, have you experienced with the integration of third-party apps or services?
18. Are you aware of any current issues Brightspace has regarding integration or functionality?

Appendix E: Interview with TLC Staff

1. What are your thoughts on Canvas as an LMS?
2. Why do you think Canvas is the friendliest LMS for faculty and students?
3. Have you worked with other LMSs besides Canvas and Blackboard?
4. What are some key features of Canvas that stand out to you?
5. Have you heard of any schools switching away from Canvas to another LMS?
6. Does Canvas facilitate communication among faculty?
7. What are your thoughts on the analytics features of Canvas?
8. How often did you need to contact help services with Canvas?
9. What are your thoughts on Brightspace as an LMS?
10. What challenges do you see with the faculty interface in Brightspace?
11. Was Brightspace developed with guidance for administrators?
12. How does Brightspace's customization compare with other LMSs?
13. How is the Provost informed about faculty usage of Brightspace?
14. How difficult is it to implement courses in Brightspace?
15. What are your thoughts on the add-ons available for Brightspace?
16. How well do third-party applications integrate with Brightspace?
17. What is your opinion on Brightspace's gradebook?
18. What factors influence the smoothness of a transition to a new LMS?
19. What qualities do you think a good LMS should have?
20. How important is the balance between student and faculty needs in an LMS?

Appendix F: Student Survey

(Responses: 83)

1. What school are you a part of?
 - a. School of Management 55.42%
 - b. School of Engineering 25.30%
 - c. School of Computing and Data Science 15.66%
 - d. School of Architecture and Design 3.61%
2. When is your expected graduation?
 - a. 2026 51.81%
 - b. 2028 24.10%
 - c. 2027 14.46%
 - d. 2025 7.23%
 - e. Unsure 2.41%
3. How much do you like how Brightspace looks?
 - a. Somewhat like it 42.17%
 - b. Neutral 22.89%
 - c. Strongly like it 14.46%
 - d. Somewhat dislike it 13.25%
 - e. Strongly dislike it 7.23%
4. How difficult is it to find your assignments and their due dates?
 - a. Neutral 48.19%
 - b. Easy 37.35%
 - c. Hard 14.46%
5. How difficult is it to find your grades?
 - a. Easy 42.17%
 - b. Neutral 33.73%
 - c. Hard 24.10%
6. How often do your classes use Brightspace?
 - a. All the time 69.88%
 - b. Some of the time 30.12%
7. How open would you be to using a different system instead of Brightspace?
 - a. Open 42.17%
 - b. Indifferent 37.35%

- c. Against 20.48%
- 8. Overall, how difficult is it to use Brightspace?
 - a. Fine to use 63.86%
 - b. Easy to use 30.12%
 - c. Hard to use 6.02%
- 9. How often do your professors use the rubric feature on Brightspace?
 - a. Some of the time 65.06%
 - b. Not at all 20.48%
 - c. All the time 14.46%
- 10. How difficult is it to submit assignments?
 - a. Easy 66.27%
 - b. Neutral 31.33%
 - c. Hard 2.41%
- 11. How often do your professors use the feedback feature on Brightspace?
 - a. Some of the time 73.49%
 - b. All the time 14.46%
 - c. Not at all 12.05%
- 12. How often do you run into problems with quizzes/exams?
 - a. Not at all 49.40%
 - b. Some of the time 46.99%
 - c. All the time 3.61%
- 13. How often do you use the mobile version of Brightspace?
 - a. Some of the time 53.01%
 - b. All the time 24.10%
 - c. Not at all 22.89%
- 14. Do you use mobile notifications for Brightspace?
 - a. Yes 56.63%
 - b. No 43.37%
- 15. How difficult is it to get help with problems on Brightspace?
 - a. Neutral 44.58%
 - b. Unsure 28.92%
 - c. Hard 18.07%
 - d. Easy 8.43%

Appendix G: Faculty Survey

(Responses: 15)

1. What department are you associated with?
 - a. School of Management: 60.00%
 - b. School of Sciences and Humanities: 20.00%
 - c. School of Architecture and Design: 6.67%
 - d. School of Computing and Data Science: 6.67%
 - e. School of Engineering: 6.67%
2. How long have you been working at Wentworth?
 - a. 10 years: 60.00%
 - b. years: 20.00%
 - c. 7 years: 6.67%
 - d. 6 years: 6.67%
 - e. 2 years: 6.67%
3. Have you used any other LMS (learning management system) before?
 - a. Yes: 100.00%
4. How confident are you with Brightspace compared to other LMSs?
 - a. Very confident: 46.67%
 - b. Confident: 40.00%
 - c. Somewhat confident: 13.33%
5. How confident are you with Brightspace compared to other LMSs? (Other LMS)
 - a. Confident: 40.00%
 - b. Very confident: 33.33%
 - c. Somewhat confident: 20.00%
 - d. Not confident: 6.67%
6. Which LMS have you used previously? (*free responses grouped*)
 - a. Blackboard Ultra - 11 faculties: 73.33%
 - b. Blackboard - 2 faculties: 13.33%
 - c. WebCT - 1 faculty: 6.67%
 - d. Moodle - 2 faculties: 13.33%
 - e. Canvas - 4 faculties: 26.67%
7. How often do you use Brightspace?
 - a. Every day: 66.67%

- b. 4-6 times a week: 26.67%
 - c. times a week: 6.67%
8. What are your favorite features of Brightspace? *(free responses grouped)*
- a. Grading: 53.33%
 - b. Quiz/Assignment System: 53.33%
 - c. Announcements: 40.00%
 - d. Discussion Boards: 13.33%
 - e. Course Documents: 6.67%
 - f. Posting of PowerPoints: 6.67%
 - g. Calendar: 6.67%
9. What are your least favorite/most challenging features to work with in Brightspace? *(free responses grouped)*
- a. Grading: 33.33%
 - b. Discussion Boards: 26.67%
 - c. Quiz/Assignment System: 26.67%
 - d. Exporting midterm/final grades to LeopardWeb: 13.33%
 - e. Disconnect between grading and assignments: 6.67%
 - f. Announcements: 6.67%
10. How satisfied are you with the technical support provided by TLC?
- a. Very satisfied: 33.33%
 - b. Moderately disappointed: 20.00%
 - c. Neither satisfied nor disappointed: 20.00%
 - d. Moderately satisfied: 20.00%
 - e. Very disappointed: 6.67%
11. Are you open to replacing Brightspace?
- a. Yes: 46.67%
 - b. No: 26.67%
 - c. Maybe: 26.67%
12. Given the chance, what aspect would you change about Brightspace?
- a. Simplification and Ease of Use: 35.71%
 - b. Grading and Assignment Integration: 28.57%
 - c. Usability Improvements: 21.43%
 - d. Support and Accessibility: 14.29%

10.2 Request of Proposal

Appendix H: Request Of Proposal

Request Of Proposals

Learning Management System (LMS)

October 23rd, 2024

All communications regarding this RFP must be directed, **by e-mail**, to: xxx@wit.edu

Executive Summary

Wentworth Institute of Technology (WIT) is in the fourth year of a five-year contract with Brightspace as its Learning Management System (LMS). As the contract approaches its conclusion in Summer, WIT is inviting vendors to submit proposals to help determine whether the university should renew its contract with Brightspace or transition to a new LMS that better meets the needs of its faculty, students, and administrative staff.

Vendors are expected to provide solutions that will address the university's need for an LMS that supports teaching, learning, and administrative processes efficiently. This tender is aimed at evaluating the performance of Brightspace in comparison with other potential LMS options to identify the best path forward for the university.

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1. Purpose of this RFP

1.1 Business Objectives for LMS Selection

The primary business objectives of Wentworth Institute of Technology (WIT) in selecting or renewing its Learning Management System (LMS) include:

- **Enhance User Experience:** The LMS must offer a user-friendly, intuitive interface for both faculty and students. It should simplify course creation, grading, and student engagement while minimizing the learning curve for new users.
- **Support Teaching and Learning:** The LMS should provide robust tools that support teaching and learning activities. This includes features like content management, assignment tracking, grading systems, and the ability to facilitate blended or online learning environments.
- **Seamless Integration with Existing Systems:** The LMS must integrate effectively with the university's existing infrastructure, including systems like the Student Information System (SIS), Banner, and third-party tools such as Turnitin, Zoom, and others.
- **Customization and Flexibility:** The LMS must be flexible enough to meet the specific needs of various departments. It should allow for easy customization and updates to reflect new teaching methodologies, departmental requirements, and emerging technologies.
- **Scalability for Future Growth:** The LMS must be able to scale to accommodate future growth in terms of users, courses, and new programs. It should also support the introduction of new features and technologies as the university evolves.
- **Data Security and Compliance:** The LMS must ensure the highest standards of data security and privacy. It should comply with relevant data protection regulations and institutional policies to safeguard sensitive information.
- **Reporting and Analytics:** The LMS should provide robust reporting and analytics tools that enable faculty and administrators to track student progress, engagement, and performance. These features should offer insights that help improve student outcomes and support academic planning.
- **Cost of Change:** While financial costs are not the primary focus, vendors should provide a rough estimate of the potential costs of transitioning from Brightspace to a new LMS. This includes considerations for the time required for implementation, training, and the overall ease of migrating data and users to a new platform.

2. Organizational overview

2.1 About Wentworth Institute of Technology

Founded in 1904, Wentworth Institute of Technology is a nationally recognized university based in Boston, Massachusetts. Wentworth offers a variety of undergraduate, graduate, and continuing education programs, with a focus on engineering, architecture, design, computer science, and other applied technical fields. With a strong emphasis on hands-on learning, Wentworth integrates theoretical education with real-world experiences, including mandatory co-ops for all undergraduate students, fostering strong connections with industry and preparing students for successful careers.

Wentworth's student body consists of 4,000 students, with a vibrant community engaged in research, internships, and projects that emphasize practical application and innovative problem-solving. The institution's close ties with industry leaders and organizations provide unique opportunities for students to connect their academic experiences with professional development.

2.2 Key Properties

The primary system used for academic management at Wentworth Institute of Technology is Brightspace by D2L, which serves as the university's Learning Management System (LMS) for all courses and academic activities. Brightspace is the central platform for managing course content, assignments, assessments, grades, and communications between students and faculty.

Key integrations that enhance the LMS experience include:

- **Panopto:** For lecture capture and multimedia content delivery.
- **Turnitin:** To maintain academic integrity and for plagiarism detection.
- **Zoom:** For virtual classes and remote meetings.
- **Banner:** Integrated with Brightspace to manage student data such as enrollment and grades.

Brightspace is not only designed to enhance the student learning experience but also provides resources and training to faculty members. The Teaching and Learning Collaborative (TLC) offers workshops, tutorials, and personalized consultations to help faculty effectively utilize the platform's features. Faculty members are trained on how to manage courses, create assessments, engage with students through discussion forums, and track student progress.

2.3 Operational Background

Wentworth Institute of Technology operates under a decentralized model where individual academic departments and faculty manage their course content using Brightspace. Faculty members are responsible for structuring their courses and uploading materials, while the Teaching and Learning Collaborative (TLC),

in collaboration with Digital and Technology Services (DTS), plays a key role in managing the backend of Brightspace.

The TLC ensures smooth operation and integration of third-party tools into Brightspace, including platforms like Panopto, Turnitin, and Zoom. They provide essential technical support for integrating Brightspace with Banner (the university's Student Information System) and other critical applications.

The DTS team works closely with TLC to handle technical aspects, including updates, security protocols, and troubleshooting system-wide issues. Together, TLC and DTS ensure that Brightspace remains a reliable and functional system for the entire Wentworth community.

3. Program Scope and Plan

3.1 Scope

The following services and activities are considered within the scope of this Request for Proposal (RFP) for selecting a Learning Management System (LMS) for Wentworth Institute of Technology:

- **LMS Software Management:** This includes the continued use and management of the current LMS platform or exploring options for alternative LMS platforms that meet Wentworth's needs.
- **Integration Services:** The LMS must integrate with existing university systems such as Banner (for student information) and third-party tools like Panopto, Turnitin, and Zoom.
- **Faculty and Student Training Services:** Sufficient training must be provided to both faculty and students to fully utilize the LMS's features.
- **Support and Maintenance Services:** Ongoing technical support for users, troubleshooting assistance, and periodic maintenance to ensure reliable operation of the LMS.
- **Assessment and Analytics Tools:** Incorporation of tools that allow faculty to track student performance, manage assessments, and provide timely feedback.
- **Grading and Assessment Tools:** The LMS should handle comprehensive grading systems, supporting various types of assessments (quizzes, assignments, projects, participation, etc.).
- **Customization and Flexibility:** The LMS should offer flexibility to meet specific departmental needs, allowing for easy customization and updates that reflect new teaching methodologies, departmental requirements, and emerging technologies.
- **Mobile Accessibility:** The LMS must offer a mobile-friendly interface to enhance accessibility and ensure that faculty and students can engage with the system on various devices.

Out of Scope:

- **Non-Academic Platforms:** Tools or software unrelated to core academic functions, such as student life applications, are out of scope unless specified as part of the LMS integration.

3.2 Selection Plan

The selection and implementation process for evaluating various LMS platforms will involve multiple phases with participation from diverse stakeholders at Wentworth Institute of Technology, including faculty, administrative staff, and students.

1. **Proposal Review:** Written technical and pricing proposals from vendors will be assessed by a core selection team consisting of representatives from key departments.
2. **Demonstration & Presentation Phase:** Shortlisted vendors will conduct demonstrations to showcase the technical capabilities, user interface, and integrations offered by their LMS. Feedback will be collected from participants to evaluate user-friendliness and system flexibility.
3. **Proof of Concept (PoC) Phase:** The top two vendor finalists will be asked to participate in a PoC phase where their LMS platforms will be implemented in a limited, sandbox environment at Wentworth. This phase will assess each LMS's performance, security, and integration capabilities in a real-world scenario.
4. **Final Vendor Selection:** After completing the PoC phase, the selection team will decide on the LMS platform that best meets Wentworth's requirements based on overall performance, cost, and ease of integration.

3.3 Implementation Plan

The LMS implementation process will be carried out in a phased approach to ensure a smooth transition. The key steps are as follows:

1. Initial Setup and Integration:

- a. Install and configure the LMS platform (whether on-premises or cloud-based).
- b. Integrate the system with existing tools like Banner, Panopto, and Turnitin.

2. Training and Onboarding:

- a. Conduct targeted training for faculty and students, focusing on core features and system navigation.
- b. Offer personalized support for advanced users and specific departmental needs.

3. Pilot Phase:

- a. Deploy the LMS for a select group of departments to test functionality and gather feedback.
- b. Resolve any technical issues identified during the pilot before campus-wide rollout.

4. Full Deployment:

- a. Roll out the system across all departments.
- b. Migrate data from the current LMS to ensure that course content, grades, and student records are securely transferred.

5. Ongoing Support:

- a. Provide continuous technical support, regular updates, and troubleshooting services to ensure the system remains stable and user-friendly.
- b. For this RFP, we request fixed-price bids for the initial setup and training, along with estimates for further phases.

(Note: For detailed schedule view section 7.1 & for detailed plan with diagrams view section 8)

4. Business Scenarios

Please provide a response to each business scenario below. Take care to provide “non-technical” responses when referring to non-technical scenarios and focus on a narrative description of the user experience, using screen shots where useful. Please indicate how a particular set of tasks and events could be realized in your solution. You are welcome to describe alternative approaches where it makes sense.

4.1 Structure

- **User Profile:** A description of the user that includes audience type, demographics, preferences, and any other details that are appropriate to the scenario.
- **Background:** The set-up for the scenario. This section contains information about how the user came to use the application, and any pertinent details that influence their interaction.
- **Objective:** The task that the user will complete in the scenario. This section describes what the user’s intentions are for the scenario.
- **Narrative:** What happens. A story is told about what the user experiences and does. Included are decisions that the user makes and the consequences.

4.2 Scenarios

4.2.1 Scenario 1: Submitting Assignments via LMS

User Profile: Sophomore student, John Whitmen, enrolled in the Computer Science program. John is familiar with using the LMS to submit assignments but prefers a mobile experience.

Background: John is finishing his programming assignment, which is due later tonight. He has completed the work on his laptop and needs to upload the file through the LMS using his mobile device.

Objective: John must submit his programming assignment through the LMS by uploading the necessary files and confirming that they have been submitted successfully.

Narrative: John accesses the LMS on his mobile device to submit his programming assignment. He navigates to the assignment section within his course, selects the relevant assignment, and uploads the required files directly from his phone's storage. Upon submission, the system provides immediate confirmation and sends an email notification to confirm the successful submission.

4.2.2 Scenario 2: Faculty Uploading Grades

User Profile: Professor Walter White, a full-time faculty member teaching a Chemistry 1 class. He is familiar with using the LMS for course management and grading.

Background: Professor White has finished grading all the final lab reports for his Chemistry class. He now needs to upload the final grades into the LMS and ensure they are accessible to students.

Objective: Professor White must upload the final grades for his course, verify the accuracy of the entries, and ensure that students can view their final grades.

Narrative: Professor White logs into the LMS and navigates to the "Gradebook" section of his Chemistry course. He selects the "Upload Grades" option, allowing him to import a pre-formatted CSV file containing the final lab report grades. The system prompts him to map the columns in the CSV to the correct gradebook categories, ensuring that the grades are properly assigned to the final assessment. After successfully uploading the grades, the system performs a validation check to ensure that all entries are correctly formatted and that no grades are missing. Professor White reviews the grades in the system, making any necessary adjustments. Once satisfied with the entries, he finalizes the grades and publishes them. The system automatically sends notifications to the students, informing them that their final grades are now available for viewing.

4.2.3 Scenario 3: LMS Role in Supporting Accreditation

User Profile: Jane Adams, the Director of Accreditation at Wentworth, responsible for ensuring that the university meets the rigorous standards set by accreditation bodies.

Background: Jane's role involves collecting and analyzing data to submit for accreditation reviews. This includes compiling reports on student performance, faculty engagement, and course outcomes from various departments. Jane needs to ensure that the LMS effectively supports this data collection, providing reliable and accessible information for accreditation.

Objective: Jane must generate and review detailed reports on course completion rates, assessment results, and student performance across different programs. The LMS needs to support compliance by offering robust reporting and data aggregation tools to meet accreditation standards.

Narrative: Jane logs into the LMS and accesses the "Accreditation Compliance Dashboard." She reviews reports from multiple departments, focusing on student completion rates, grade distributions, and faculty participation in assessments. The LMS allows her to filter data by department, course, and academic year, giving her the ability to pull specific information needed for accreditation.

As Jane prepares to submit the data, she notices that while the LMS has robust assessment tools, it lacks full integration with external reporting software, which is crucial for automating the accreditation submission process. She manually compiles some of the external data, such as faculty reviews, to ensure that all required documentation is included. After reviewing the data and making minor adjustments, Jane exports the necessary reports to share with external accrediting bodies. She concludes that while the LMS supports the majority of their data needs, improved integration with third-party tools would further streamline the accreditation process.

4.2.4 Scenario 4: Resolving LMS Integration Issue with External Tools

User Profile: Justin Maxell, Senior IT Project Manager in the Digital and Technology Services (DTS) department at Wentworth Institute of Technology. His responsibilities include overseeing the integration of the LMS with other campus systems like Banner and external tools like GitHub and Gradescope.

Background: A faculty member, Professor Susan Johnson, is trying to upload final assignment grades for her Intro to Computer Science class. The grades, which were submitted via GitHub and graded through Gradescope, are not syncing correctly with the LMS and the Banner system. This issue affects multiple courses across the department, causing concern about the accuracy and consistency of grade reporting for the semester.

Objective: Justin must resolve the issue causing the failure in syncing grades from external tools (GitHub and Gradescope) into the LMS and Banner, ensuring that all data is accurately reflected in both systems.

Narrative: Justin receives a support request from Professor Johnson indicating that the grades entered through GitHub and Gradescope are not being properly synced with the LMS or Banner. After logging into the systems and reviewing the integration logs, Justin discovers that a recent API update between the LMS and these external tools caused a compatibility issue, disrupting the flow of data. Justin contacts the LMS support team and works with the vendors responsible for GitHub and Gradescope to troubleshoot the integration. After identifying the root cause, he collaborates with his DTS colleagues to implement a patch that resolves the sync problem. Once the patch is applied, Justin tests the system by running a few grade syncs using sample assignments. He confirms that grades from GitHub and Gradescope now seamlessly sync with the LMS and Banner, allowing for accurate grade reporting. Justin informs Professor Johnson and the affected faculty that the issue has been resolved. To prevent similar issues in the future, he sets up monitoring tools to flag any discrepancies in the syncing process, particularly when external grading tools are used.

4.2.5 Scenario 5: Faculty Uploading Course Content and Syllabus for a New Course

User Profile: Professor David Evans, a faculty member in the Management Department. He is responsible for teaching a newly introduced course called Technology Acquisition.

Background: Professor Evans is preparing to teach the new Technology Acquisition course, which is being offered for the first time in the Management Department. He needs to upload the syllabus and course materials to the LMS before the semester begins. Since this is a new course, Professor Evans wants to ensure that all content is well-organized and accessible to students.

Objective: Professor Evans must upload the course syllabus and initial learning materials for the Technology Acquisition course onto the LMS, ensuring that students can access the content before the start of the semester.

Narrative: Professor Evans logs into the LMS and accesses the course setup for Technology Acquisition. As this is a new course, he begins by uploading foundational materials, including the syllabus, which provides details on course objectives, weekly topics, and grading policies. He organizes the course content by creating modules, adding lecture materials, readings, and links to relevant external resources. To ensure easy access for students, he enables a feature that allows in-platform viewing of the syllabus without downloading. After organizing the course layout, he activates notifications to inform students when new materials are available and sets up a discussion forum for student introductions and course-related questions.

5. Advanced Q&A

We have specific questions about your solution that do not fit neatly into the scenarios above. We've grouped these into several categories below:

5.1 Integration requirements

5.1.1 Banner Integration

Background: Wentworth uses Banner for student records, registration, and grading processes.

Question: How does your LMS handle real-time synchronization with Banner for managing student data and grades? What custom configurations, if any, are required to ensure seamless integration?

5.1.2 External Tool Integration

Background: Wentworth relies on third-party tools like GitHub, Gradescope, and Turnitin for grading and plagiarism detection.

Question: How does your LMS integrate with these third-party tools? Does the integration allow for real-time grade syncing, and what additional configuration or setup is required for optimal performance?

5.2 Functional & Technical requirements

5.2.1 Course Content Migration

Background: Wentworth faculty use existing platforms to host and organize course content.

Question: How does your system handle migrating course content from an existing LMS? Can the system maintain the course structure, including assessments, media, and assignments, during migration?

5.2.2 User-Friendly Interface

Background: Faculty and students require an LMS interface that supports efficient navigation and interaction.

Question: Does your LMS provide configurable navigation options and modular layouts that can be tailored to enhance user accessibility and course structure needs?

5.3 System requirements

5.3.1 Security and Privacy

Background: As an institution dealing with sensitive student and faculty data, security is a priority.

Question: How does your LMS ensure compliance with privacy standards such as FERPA? What encryption and security measures are in place to prevent unauthorized access to student data?

5.3.2 Disaster Recovery

Background: Wentworth needs robust disaster recovery protocols to ensure data integrity and availability during system outages.

Question: What disaster recovery solutions do you provide? How quickly can data be restored, and what options do you offer for regular backups and disaster recovery planning?

6. Written Submission Outline Section

Vendors are required to provide detailed responses following the structure outlined below. Submissions must address all questions and requirements specified in the RFP, ensuring that each section is clearly labeled and easy to navigate. The proposal should be organized into the following sections:

1) Executive Summary

- Provide a high-level overview of your solution.
- Summarize how your LMS meets Wentworth's requirements and the key benefits of adopting your platform.
- Highlight any unique features or functionalities that differentiate your solution from others.

2) System Architectural Design

- Provide diagram(s) and a description of how your solution is designed to accommodate Wentworth's needs.
- Suggest a physical architecture suited to Wentworth's scale. Present any alternative designs as you see fit.

3) Completed Responses to Business Scenarios

- Include detailed responses to the Business Scenarios outlined in Section 4.

4) Completed Responses to Advanced Q&A

- Address all questions in the Advanced Q&A from Section 5.

5) Proposed Approach to Maintenance and Support

- Propose a suitable level of ongoing technical support and maintenance, including updates and upgrades.
- Please address the following questions:
 - How are support issues escalated through your organization?
 - What is your typical issue solving process?
 - How quickly are escalated issues resolved?
 - How is communication with university stakeholders handled during major support issues?

6) Proposed Approach to Proof of Concept (PoC)

- Describe your approach for participating in a Proof of Concept (PoC) if selected.
- Provide details on the team that would participate, their qualifications, and your experience with similar PoC engagements.

7) Training

- Recommend a training curriculum suitable for Wentworth's DTS, TLC, faculty, and staff (assume 40 participants).
- Include details on your “train the trainer” programs and any customized training sessions specifically tailored for these roles:
 - **DTS:** Training should focus on system administration, backend configuration, integration with third-party systems (e.g., Banner, GitHub, Gradescope), and troubleshooting.
 - **TLC:** Training should focus on how to create instructional resources, assist faculty with course design, and manage user experience for students and faculty. Include content on utilizing assessment and reporting tools within the LMS to support accreditation and learning outcomes.
 - **Faculty:** Training should cover course content creation, syllabus management, grading tools, and best practices for engaging students through the LMS. Focus on tools that simplify grading, assignment management, and communication with students.
 - **Staff:** Training should focus on non-academic use of the LMS for administrative tasks.

8) Background About Your Company and Solution

1. Corporate Profile

- Provide a company profile, including:
 - a) including your experience in the LMS industry, number of years in business, office locations, and the size of your team dedicated to LMS development.
 - b) Support and customer success.
 - c) Highlight your growth in serving higher education institutions and your commitment to innovation in educational technology.

2. System Releases

- Describe the most recent major and minor releases of your LMS, highlighting any significant improvements.
- Include information on the next anticipated release, including the expected release date and key enhancements.

3. Financial Viability

- Provide evidence of long-term financial viability, including:
 - Audited financial statements for the past two years (or equivalent financial data).
 - Current balance sheet and any other relevant financial documentation.

4. References

- Supply at least three references from higher education institutions in North America that use your LMS solution.
- Include contact names, phone numbers, and relevant details regarding the implementation.

9) Costs and Charges

- Provide a detailed cost breakdown for all components, including:
 - Software or service license fees.
 - Optional module costs.
 - Licensing costs for development, staging, and QA environments.
 - Annual maintenance and support costs.
 - Costs related to participation in the Proof-of-Concept phase and training.
 - Provide estimates for any optional pilot phases.
- Clearly indicate which costs are attributed to which vendor if multiple vendors are involved.
- Include any assumptions or variables that may affect the pricing.

10) Sample Contracts

- Include sample contracts for the software and services provided, along with terms for maintenance and support at the recommended level.

11) Appendices

- Include any additional materials not covered above in a separate appendix. This appendix should be delivered as a separate file with its own table of contents.

7. Selection Process and Schedule

This section outlines the key activities and dates for the selection process, which includes vendor submissions, presentations, and Proof of Concept (PoC) phases. Note that the PoC and any subsequent phases are estimates at this point.

7.1 Schedule of Events

Task Name	Duration	Start	Deadline
RFP Release	0 days	Wed 10/23/24	Wed 10/23/24
Intent to Respond Period	45 days	Wed 10/23/24	Tue 12/24/24
Questions Period	45 days	Wed 12/25/24	Tue 2/25/25
Proposal Submission	0 days	Tue 2/25/25	Tue 2/25/25
Proposal Review	20 days	Wed 2/26/25	Tue 3/25/25
Demonstration & Presentation Phase	14 days	Wed 3/26/25	Mon 4/14/25
Proof of Concept (PoC) Phase	30 days	Tue 4/15/25	Mon 5/26/25
Final Vendor Selection	12 days	Tue 5/27/25	Wed 6/11/25
Initial Setup and Integration	20 days	Thu 6/12/25	Wed 7/9/25
Training and Onboarding	14 days	Thu 6/12/25	Tue 7/1/25
Pilot Phase	21 days	Thu 7/10/25	Thu 8/7/25
Full Deployment	15 days	Fri 8/8/25	Thu 8/28/25
Ongoing Support	40 days	Fri 8/29/25	Thu 10/23/25

Table 7.1

- **Intent to respond:** Interested vendors must reply via email, using the statement provided, confirming their intent to respond.
- **Vendor presentation:** Vendors will be asked to demonstrate their proposed solutions, following a script tied to the scenarios outlined in the RFP.
- **Proof of Concept (PoC):** Finalists will be required to develop a PoC based on the university's requirements.

7.2 Agenda for Full-Day Demo Meetings

Time	Agenda Item	Length
9:00 – 9:10	Introductions	10 minutes
9:10 – 9:30	Bidder company overview	20 minutes
9:30 – 10:30	Overview of proposed architecture, approach	1 hour
10:30 – 10:45	Break	15 minutes
10:45 – 12:15	Demonstration of use-case scenarios	90 minutes
12:15 – 1:00	Joint lunch break and informal discussions	45 minutes
1:00 – 2:00	Continue scenario demonstrations	1 hour
2:00 – 3:00	Demonstrate bidder answers to "Advanced Q&A"	1 hour
3:00 – 3:30	Proposed pricing walk-through	30 minutes
3:30 – 4:00	Break and private team caucus	30 minutes
4:00 – 5:00	Final questions, discussion	1 hour

Table 7.2

7.3 PoC Process

The Proof of Concept (PoC) phase will involve two finalists whose LMS platforms will be tested in a sandbox environment at Wentworth. The PoC will last two to four weeks, and will include:

- Development of functionality: Vendors will implement their LMS in a controlled environment, addressing specific scenario scripts provided by Wentworth.
- Mid-PoC and Final Presentations: Vendors will present their progress at mid-point and final stages, including a half-day training session for Wentworth stakeholders.

7.4 Cancellation of Request

Wentworth reserves the right to cancel all or part of this RFP at any time. The issuance of this RFP does not imply any commitment to purchase products or services.

8. Detailed Plan with Diagrams

8.1 Work Breakdown Structure

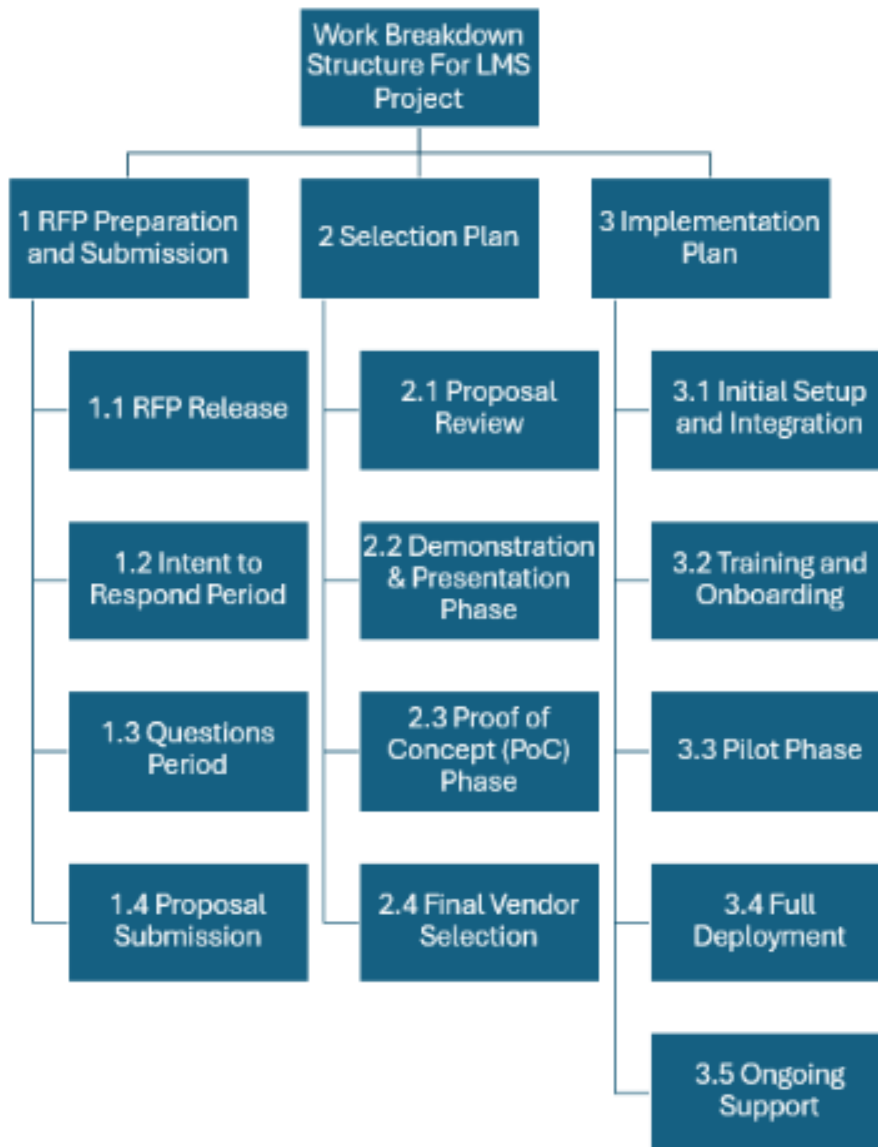


Fig 8.1

8.2 Gantt Chart with Deadlines

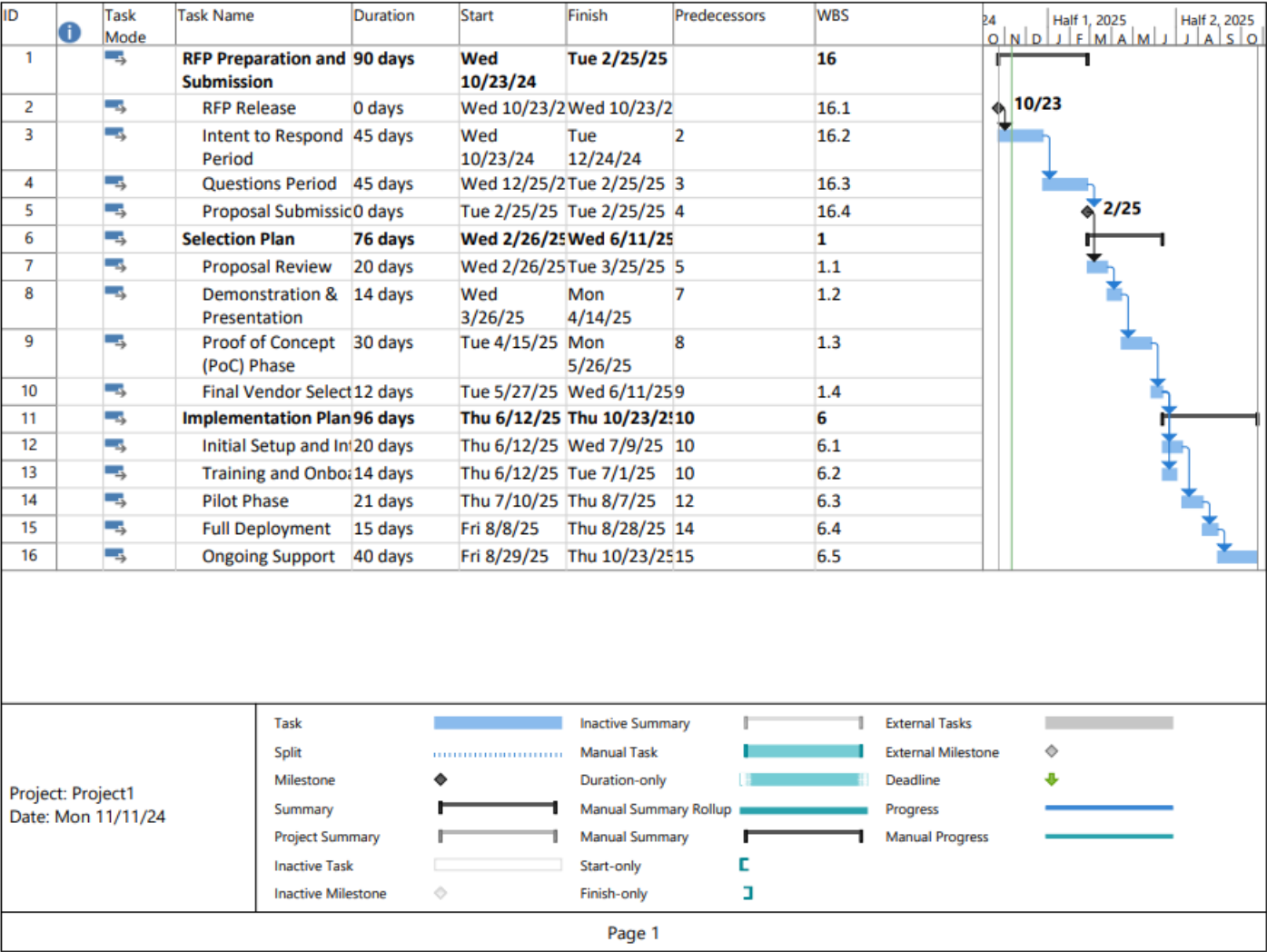


Fig 8.2

8.3 Network Diagram

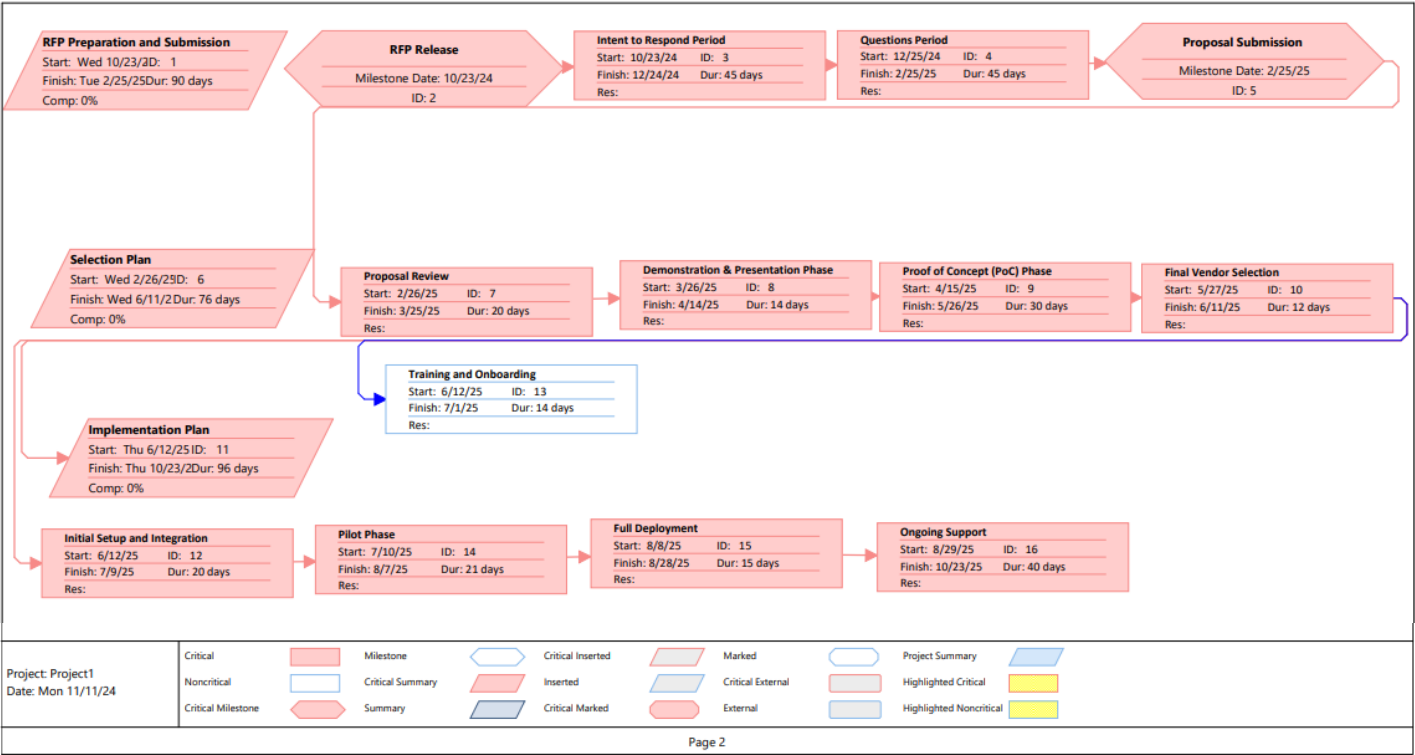


Fig 8.3