**The Compliance Gateway:**

**Risk Mitigation and Data Integration in Pursuit of Cost Transparency**

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IT-FPX 4997: Capstone I

Site Supervisor: Mike Goettl

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Organizational Introduction

Arborwood University is a private university offering baccalaureate, masters, and doctoral degree programs, along with graduate certificates, in an exclusively online format. The institution is heavily marketed online through social media and ad placement, as well as periodically in national television ad buys. The organization’s marketing team undertook intensive research to identify transformative initiatives that had the potential to drive revenue improvements in an increasingly saturated industry. A key friction point that impeded conversion on the commercial site was identified during the marketing team’s research related to cost transparency. The proposed project, a cost calculator that would be included on the commercial website, would enable prospective students to input information relative to their personal needs and program selection and obtain an estimate of both the cost and time investment required to obtain their degree.

Site Supervisor Introduction

The site supervisor for this project is Michael Goettl, a director in Arborwood University’s Information Technology organization. Mike has been with Arborwood for six years. His experience as the business owner of Arborwood’s commercial website and related paid media pages in marketing has enabled him to lead his IT team in fostering collaborative and transparent communications with his former colleagues in marketing. He has visibility into and influence with all organizations that have a vested interest in this project’s outcomes and leads the developer and business analysis resources associated with the component’s build, testing, and deployment. Mike also has an extensive background in web development, enabling him to provide meaningful and actionable insights into the solution’s architecture and implementation. Lastly, Mike’s experience with gaining legal approval for a number of marketing initiatives in his previous role enables him to advocate for his former organization to take the steps needed to ensure compliance while also retaining the authority to halt the project in the event such compliance approval is not secured.

Identification of the problem, issue, or improvement area selected

The problem identified for this project is a gap in the degree of cost transparency that impedes conversion of prospects on the University’s commercial website and the underlying organizational conflict and risk that prevents a solution from being successfully implemented. The proposed calculator is complex, requiring consideration of factors such as varying cost methods, evaluation of transfer credit parameters, and calculation of savings realized with the inclusion of scholarships, tuition caps, and other similar offerings. The degree of precision required in such calculations, coupled with the need for accurate data, forms the basis of the most significant legal and compliance risk to the project’s implementation. The calculator is intended for incorporation onto the University’s commercial website and paid media pages, and its implementation will be coupled with the formalization of and adherence to a legal and compliance approval process to ensure the solution’s long-term viability and mitigate litigation risk, as well as the development of more robust data integration to improve data timeliness and integrity.

SWOT Analysis: An Assessment of Arborwood University’s Marketing, Information Technology, and Organizational State

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This SWOT analysis provides an assessment of the internal and external factors influencing the success of a planned technical project at Arborwood University. The project under consideration, a tool that would reside on Arborwood’s commercial websites used to calculate user-specific cost estimates for degree completion programs, is a strategic imperative whose concept was developed in response to extensive market research.

The primary finding of this analysis is that a clear market opportunity for differentiation exists, supported by strong internal resources. However, the project's success is jeopardized by the organizational disconnect between constantly-shifting marketing priorities and resulting IT skepticism. It is also at risk of failure in the event that legal/compliance approval is not secured and maintained over the lifespan of the proposed solution.

The calculator project is technically feasible, but its strategic viability is contingent upon leadership resolving the internal conflict, the establishment of formal processes by which legal approval is obtained and renewed over the tool’s lifespan before development proceeds, and implementation of more robust data integration in a bid to ensure calculation accuracy.

## Detailed SWOT Quadrant Analysis

| Category | Assessment | Focus | Key Findings |
| --- | --- | --- | --- |
| Strengths | Helpful | Internal | Organizational stability, financial profitability, and a robust technical foundation.  The IT team is proficient, the organization is profitable, and the culture supports innovation. Stable IT/marketing communication provides a strong foundation for executing the vision *when* clearly defined. |
| Weaknesses | Harmful | Internal | Lack of strategic direction and high operational friction.  Churn in marketing priorities and the absence of a clear strategic roadmap lead to frequent refactoring, frustration in IT, and the potential for project abandonment. An additional weakness that centers on limited data integration is a key technical bottleneck that impairs speed-to-market and automation, and that risks data quality. |
| Opportunities | Helpful | External | Clear market gap for transparency and a supportive technology platform.  Competitors lack personalized cost tools. Arborwood’s content management solution recently furnished new off-the-self functionality that offers a low-overhead path to automate content, enabling Arborwood to achieve best-in-class differentiation and capture significant revenue increases. |
| Threats | Harmful | External | High regulatory risk and market volatility.  The most immediate threat is the failure to secure and maintain legal approval, exposing the project to litigation risk. Other threats include the dependence on external technology and the eventual stabilization/saturation of the post-COVID online learning market. |

## Discussion Points and Strategic Action Basis

This section outlines the areas that will be addressed with the site supervisor to ensure the project aligns with organizational goals and mitigates known risks.

*The Core Conflict: Aspiration vs. Execution*

One substantial internal risk is the disconnect between aspiration and execution. Leadership encourages innovation, but the lack of a clear strategic vision results in a lack of commitment to proposed projects. This, in turn, leads to conflict that undermines trust and interrupts the processes that support deliverables.

* Discussion Point: How can the organization establish a singular, annual product roadmap that transcends marketing shifts to ensure IT efforts are focused and not abandoned or subject to constant deltas?

Strategic Urgency and Competitive Advantage

There is a current, clear, and profitable opportunity to build a best-in-class solution. Market analysis suggests that implementation of the planned solution would yield an estimated $8.9 million per year revenue increase in the first year, which is a 10% increase in corporate revenue growth. The estimated implementation spend is $425,000, which represents a minimal investment relative to the rate of return. This opportunity must be acted on quickly, as the threat of competitors implementing similar or superior solutions is imminent.

* Discussion Point: Given the competitive urgency, what process can be adapted for achieving approval for the project by legal and compliance resources and for maintaining that approval over the lifespan of the solutions?

Critical Threats Requiring Mitigation

| Threat Detail | Recommended Mitigation Strategy |
| --- | --- |
| Regulatory and Litigation Risk | 1. The project will require a formal approval process applied to legal and compliance review of the solution before development begins and will apply rigorous change management processes to protect the legal/compliance approval. 2. The business owner of the solution will establish an ongoing means by which legal and compliance requirements are evaluated and met to ensure that approvals are maintained over the lifespan of the solution. |
| Data Integration Bottleneck | IT will dedicate immediate and protected developer resources to build the required infrastructure to enable automated data fetch from source systems for use in the content management system, converting a key weakness into a strength that supports automation and provides more rigorous data integrity. |

Environmental Scan for the Cost Calculator Project

This Environmental Scan reviews external factors that impact the organization and the proposed solution. The analysis formalizes the Opportunities (O) and Threats (T) identified in the SWOT, providing context for designing a solution that is both technically viable and strategically resilient. The proposed IT solution for the development of a compliant cost calculator component must address the risks and capitalize on the opportunities presented by the external environment.

1. Regulatory & Legal Landscape

The most significant external threat to the project’s success is the complexity of government oversight and consumer protection laws surrounding educational costs and financial projections.

| **Focus Area** | **Key External Factors** | **Project Impact & Risk** |
| --- | --- | --- |
| Federal and State Financial Aid | Legislation such as the Higher Education Act (HEA) and specific state-level laws governing tuition, fees, and disclosure rules. | **High Risk.** Changes in federal definitions related to student loan interest rates, grant eligibility criteria can instantly render the calculator's core logic or its required disclaimers obsolete, necessitating immediate, costly code and content updates. |
| Consumer Protection and Transparency | Regulations from the Department of Education and the Federal Trade Commission (FTC) mandate accuracy and prohibit misleading advertising regarding degree costs and completion times, especially for for-profit institutions. | **Critical Risk.** As a custom calculator provides an individualized *estimate*, strict legal sign-off is required to ensure the output cannot be construed as a binding quote or a guarantee, thus protecting Arborwood from litigation and fines. |

2. Market and Competitive Forces

This analysis confirms the market need for greater transparency while acknowledging the intensifying competition in the online higher education sector.

| **Focus Area** | **Key External Factors** | **Project Opportunity/Threat** |
| --- | --- | --- |
| Competitive Differentiation | Competitors lack personalized, transparent tools for cost and time estimates. Most rely on static tuition tables. | **Opportunity**. Developing a best-in-class, personalized calculator will fulfill a clear market need, serving as a significant competitive differentiator and driving conversion rates, as identified by marketing's research. Marketing and IT estimates indicate that a $425,000 budget to implement the solution would result in a revenue gain of $8.9 million in the first year and a potential revenue gain of $39 million over the lifespan of the solution. |
| Market Saturation and Parity | The pandemic accelerated online adoption, eliminating Arborwood's early advantage. Many competitors now offer comparable online degree completion programs. | **Threat**. Competitors are actively working to close the transparency gap. The project must be delivered with alacrity (as noted in the SWOT) before a major rival launches a similar tool, negating Arborwood's first-mover advantage. |
| Changing Prospect Demographics | Growing national skepticism regarding the ROI of higher education and increasing cost sensitivity among adult learners who are Arborwood's target audience. | **Opportunity**. A transparent calculator directly counters public skepticism by proving the value proposition. It empowers cost-sensitive prospects by giving them control over the estimated time and cost of their degree. |

1. Technological and Platform Trends

This section examines the external technical ecosystem and platform dependencies.

| **Focus Area** | **Key External Factors** | **Project Opportunity/Threat** |
| --- | --- | --- |
| Data Economy and Source Systems | A market trend toward using data integrations across enterprise systems for real-time information retrieval. | **Opportunity**. New content management system component functionality offers the ability to build seamless data integrations to internal source systems (for example, academic management and financial systems), enabling the calculator to pull accurate, real-time data and reducing manual data management. |
| Emergence of AI in Content Generation | The broader use of generative AI tools to create and maintain website copy, FAQs, and content-at-scale. | **Opportunity.** The ability to automate content production and leverage data fetched by the calculator can free up Marketing Content Strategists to focus on the high-level strategy and UI/UX, rather than low-value manual content updates. |

Environmental Scan Conclusion and Next Steps

The Environmental Scan confirms that the market demands the proposed solution, but the regulatory environment poses a critical threat that cannot be managed solely by the IT team. The primary finding is the necessity of formalizing the legal approval process as a mandatory, early-stage project gateway. Regulatory and compliance risks would also be mitigated by the development of data integration solutions, which would have an added long-term cost savings benefit in addition to providing timely and accurate data.

An analysis of the intersection between a SWOT and the development of a project charter

A project charter directly translates the findings of a SWOT into the scope, objectives, and governance principles that will guide the project. Specifically, the SWOT’s identification of opportunities establishes the rationale for the project and its expected outcomes, while the weaknesses identified in the SWOT inform the project’s assumptions, constraints, and risks. In the case of the proposed project, implementation of a solution to the obstacle posed by the lack of cost transparency and the quantification of the solution’s impact on that obstacle in the form of tangible revenue realization provide a compelling business case. In addition, the SWOT analysis identified the biggest threat to the project, namely the regulatory and litigation risk associated with the solution’s implementation. The SWOT therefore mandates that the project plan address this risk by ensuring legal and compliance approval of the solution both before development and on an ongoing, evergreen basis. In doing so, the SWOT has provided the basis for converting a strategic risk into a non-negotiable requirement for the development effort, which may, in turn, prove extensible into other high-profile endeavors undertaken by marketing in response to their research.

Development of a project charter

As a senior business analyst with over 25 years of industry experience, I’ve written a number of project charters over my career, a skill that has been greatly enhanced by my coursework in the last eight months. The project being explored during this and the second Capstone was undertaken by the organization in the fall of 2023 and completed in November 2024. As a result, I’ll be developing the project charter in retrospect with particular attention to the legal and compliance concerns that ultimately derailed the implementation of the solution outlined herein.

The project scope will be defined to include the development of a cost calculator component that allows baccalaureate, master's, and certificate student prospects to estimate the cost of their degree, and that can be included on the various templates that form the foundation of the University’s commercial website and paid media pages. It will also include the development of an API call to the University’s core student administration systems so that real-time cost data can be retrieved and stored in a new component delivered by the content management system that had not previously been leveraged as a data repository. Inclusion of the data automation may serve to mitigate legal and compliance concerns, some of which were predicated on the risk associated with manual data entry and management.

Project Charter

|  |  |
| --- | --- |
| Project Name | “Gateway” |
| Department | * Digital Experience Marketing * Information Technology |
| Focus Area | * Prospect Experience * Compliance and Risk Mitigation |
| Product/Process | Prospect Financial Cost Calculator with Integrated Data |
| Prepared By | Kate Herrick, Project Manager |

Project Charter Version Control

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| --- | --- | --- | --- |
| Version | Date | Author | Change Description |
| 1.0 | October 24, 2025 | K. Herrick | Initial draft |
|  |  |  |  |

1. Project Charter Purpose

The purpose of this project is to successfully implement a prospect-facing cost calculator component on Arborwood University’s commercial websites and paid media pages. The core goal is to address the critical market gap related to cost transparency that impedes prospect conversion. This project is explicitly chartered to design and enforce a formal Legal and Compliance Gateway to secure approval before development proceeds, thereby mitigating the litigation risk identified as the single largest threat to the solution’s viability. Additionally, the project will implement new, automated data integration infrastructure to ensure calculation accuracy and reduce long-term maintenance labor.

1. Project Executive Summary

This charter outlines the plan to build a solution suitable for web page implementation that allows prospective baccalaureate, master's, and certificate students to estimate their degree cost and time commitment based on transfer credits, scholarship and other savings opportunities, and the prospective student’s intended enrollment pace. This is a strategic imperative designed to capture an estimated $8.9 million annual revenue increase in the first year following deployment. The project is structured specifically to overcome two organizational challenges identified in the SWOT analysis:

* The necessity of legal approval to comply with consumer protection and financial aid regulations and to avoid litigation.
* The need for data integration to ensure the real-time accuracy required for compliance.

Success is defined not only by technical delivery, but by securing and maintaining a renewable certification of legal approval for the component's functionality and content.

1. Business Needs

Drivers for this project include:

|  |  |
| --- | --- |
| Impetus | Rationale |
| Conversion Improvement | The lack of personalized cost transparency is the single biggest obstacle preventing prospects from requesting additional information on the commercial website. |
| Risk Mitigation | Regulatory and litigation risk associated with inaccurate or misleading financial projections has been a historical obstacle to the adoption of similar solutions. This project must resolve that risk. |
| Competitive Differentiation | There is a clear market opportunity to create a "best-in-class" tool, as competitors rely on static tuition tables. |
| Data Integrity and Efficiency | The need for accurate, real-time calculation data requires replacing current manual processes with automated data fetches from core student administration systems. |

1. Business Case

The project will address both a strategic market opportunity and a critical compliance threat. By implementing a cost calculator solution, Arborwood is positioned to capture an estimated $8.9 million revenue increase in Year 1 (a 10% corporate revenue growth) and a potential $39 million gain over the solution's lifespan, based on a minimal estimated investment spend of $425,000. Successful implementation requires the investment in Compliance Governance (the formal legal gateway) to ensure the technical solution is legally viable and maintainable.

1. Project Requirements

* *Legal Compliance Gateway*: Mandatory, documented approval from the Legal organization must be obtained before development begins. This process must be rigorous enough to mitigate risks related to FTC and DoE consumer protection laws, as well as third-party or class action litigation related to fraud or misrepresentation.
* *Data Integration:* A new API call and data storage component must be developed to retrieve real-time, accurate cost data from the University’s core student administration systems.
* *Component Functionality*: The solution is planned to be a multi-step “wizard” component in Adobe Experience Manager (AEM), providing estimates for cost, time, remaining credits, and savings for baccalaureate, master's, and certificate programs.
* *Content Customization*: Content producers must be able to customize disclaimers, instructional copy, tool tips, and other supplemental content via the AEM authoring interface.
* *Output Accuracy*: Calculations must correctly factor in tuition caps, scholarships, and transfer credit parameters for dozens of different degree programs.

1. Configuration Management Requirements

Configuration management for this project will focus on the following key assets:

* *Project Documentation*: All documents (Charter, Requirements, Calculation Use Cases and Legal Sign-Off artifacts) will be stored in Arborwood’s centralized, version-controlled project repository.
* *Code*: All custom AEM component code, JavaScript logic, and API servlet code will be managed in Arborwood’s IT source control system.
* *Compliance Artifacts*: The formal legal and compliance sign-off document for the calculator's content and logic will be versioned and stored with change traceability.
* *Change Management and Control*: Any request for changes to the project scope, schedule, budget, or the calculation logic itself must be formally submitted, reviewed by the project’s Change Control Board (CCB), and must include re-approval from the Legal stakeholder(s).

1. Project Boundaries

The scope of this project is limited to:

* Development, testing, and deployment of the custom cost calculator AEM component and its associated calculation logic.
* Development, testing, and deployment of the new API integration infrastructure to fetch real-time data from core student administration systems.
* Applicability is limited to baccalaureate, master's, and certificate programs only.

The project does not include:

* Development of calculator functionality for doctoral programs (due to timeline variability).
* Any changes to the core business logic or financial data within the student administration source systems.
* Marketing campaign execution or media ad buys associated with the component's launch.
* A/B or other competitive user experience testing in advance of solution deployment.

1. Milestones

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| --- | --- |
| Milestone | Target Completion Date |
| Project Charter Approval | January 2026 |
| Design Completion | February 2026 |
| Calculation Use Case Development | April 2026 |
| Detailed Requirements Completion | May 2026 |
| Legal/Compliance Gateway Sign-Off | June 2026 |
| API/Data Integration Build Completion | August 2026 |
| AEM Component Development Complete | November 2026 |
| System Testing and UAT | December 2026 |
| Production Launch | January 2027 |
| Project Closure and Post-Implementation Review | February 2027 |

1. Work Breakdown Structure

1.0 Initiation and Planning

1.1 Project Charter Approval

1.2 Team Kickoff and Resource Allocation

1.3 Design Completion (High-Fidelity Mockups of Calculator Component)

2.0 Detailed Analysis and Legal Gating

2.1 Use Case and Calculation Logic Definition

2.2 Detailed Requirements Completion (Functional and Technical Specifications)

2.3 Data Mapping and API Specification with Student Administration Systems

2.3 Test Plan Development (Including Compliance Scenarios)

2.4 Legal and Compliance Review and Approval

3.0 Execution

3.1 Back-end API Servlet and Data Integration Build

3.2 New AEM Data Repository Component Development

3.3 AEM Calculator Component Development

3.4 API/Component Integration

4.0 Testing

4.1 Unit Testing

4.2 Integration Testing

4.3 End-to-End Testing

4.4 User Acceptance Testing (UAT)

4.5 Legal and Compliance Final UAT Checkpoint

5.0 Deployment and Closure

5.1 Production Deployment

5.2 Content Author Training

5.3 Post-Implementation Review & Lessons Learned

1. Project Stakeholders

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| --- | --- | --- |
| Stakeholder | Organizational Role | Vested Interest/Impact |
| Cain Redner | Project Sponsor/Digital Experiences Director | Final budget authoring and success metric accountability |
| Mike Goettl | Site Supervisor/IT Director | IT team leadership and deployment manager |
| Priyanka Singh | Legal Lead/Associate Counsel | Final legal and compliance authority |
| Erin Gallatin | Business Analyst | Defines use cases, calculation logic, data mapping requirements, and component configuration specifications |
| Akshay Subramanian | Technical Lead | Leads API and component development |
| Nicole Steinmetz | Content Production Lead | Coordinates and trains web authors |

1. High Level Budget

| Project Expense | Estimated Cost | Rationale |
| --- | --- | --- |
| Labor   * Business Analysis * IT Development * Testing | $325,000 | Eight-month, seven-person team development effort. |
| Legal and Compliance Evaluation and Approval | $75,000 | Dedicated risk assessment, including referral to outside counsel for secondary review. |
| Technology | $25,000 | Incurred costs of purchasing extensible functionality in AEM. |
| Total Estimated Cost | $425,000 | Required investment to achieve the $35M annual revenue increase. |

1. Project Conditions
2. Project Assumptions

* The funding and dedicated IT resources necessary for the entire development effort will be maintained and protected from being engaged for other marketing priorities.
* Designated legal and compliance stakeholders will dedicate the necessary time to perform the formal review and provide approval.
* The data integration team will have resources available on a timely basis to guide data mapping efforts if needed.
* The business owner of the core student administration systems will make resources available for table and field identification and other reference needs if required.
* The newly-delivered AEM component to be used as a repository for data that is retrieved via the newly-developed API can be configured as expected.

1. Project Risks

Risk 1:

*Regulatory Veto*: The legal department may not approve the component under any circumstances, rendering the entire project unsalvageable, similar to the previous attempt.

*Mitigation*: Legal Gateway is a mandatory, early gate in the project that follows design, requirements finalization, and use case development so that legal stakeholders have all information regarding the solution’s function and logic prior to issuing approval.

Risk 2:

*IT Skepticism*: IT team's historical frustration with abandoned marketing projects may lead to resistance or disengagement.

*Mitigation*: Leadership must clearly communicate the permanent strategic value and commitment to the project. IT resources must be shielded from conflicting priorities and afforded the bandwidth they need to complete the project without interference.

Risk 3:

*Data Integration Complexity*: The API/source system integration may prove significantly more complex or costly than estimated, impacting the timeline and budget.

*Mitigation*: The need to provide legal stakeholders with full requirements and calculation use cases enables the team to begin analysis early in the project, enabling the team to begin prior to legal approval.

1. Project Constraints

* *Compliance*: The component must adhere to all federal, state, and institutional regulations regarding financial aid and cost transparency.
* *Timeline*: The solution must be deployed by January 2027 so that anticipated revenue gains span the full fiscal year.
* *Scope*: Limited to baccalaureate, master's, and certificate programs only.
* *Platform*: Must be implemented as a custom component within the existing Adobe Experience Manager (AEM) platform.

1. Acceptance Criteria

The project will be considered complete and successful when the following criteria are met:

* Formal, documented Legal and Compliance approval is secured for the calculator's content, logic, and disclaimers.
* The new API call successfully fetches and standardizes real-time cost data from core student administration systems.
* The AEM calculator component is fully deployed to production and successfully calculates the estimated cost and time to completion for all in-scope degree programs.
* The component demonstrates 100% functional accuracy across all tested financial and transfer scenarios defined in the use cases.
* Marketing content authors are fully trained and able to update non-logic content and disclaimers using the AEM authoring interface.

1. Approval Requirements

Project approval will be granted when the Project Charter is signed by the designated approvers. Subsequent approvals required during the project lifecycle include:

* Approval of detailed requirements and design documents.
* Mandatory approval during the Legal/Compliance Gateway.
* Approval of the test plan and successful sign-off on User Acceptance Testing (UAT).
* Approval from the Executive Sponsor to proceed with production deployment.

1. Approvals

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| --- | --- | --- | --- |
| Action | Name | Role | Date |
| Prepared By | Kate Herrick | Project Manager | October 24, 2025 |
| Approved By | Cain Redner | Project Sponsor/Digital Experiences Director |  |
| Approved By | Mike Goettl | Site Supervisor/IT Director |  |
| Approved By | Priyanka Singh | Legal Lead/Associate Counsel |  |
| Approved By | Nicole Steinmetz | Content Production Lead |  |