**Literature Review Outline (Revised for Public Access)**

This outline addresses the IT challenges of the Arborwood University cost calculator project by grounding the technical solution in compliance, data integrity, and the strategic necessity of transparency, using publicly accessible sources.

**I. Governing Risk: Formalizing Compliance Gateways in IT Projects**

This theme reviews research on how organizations mitigate critical regulatory risks by embedding formal legal and compliance checkpoints (or **gateways**) directly into the technology development and governance lifecycle.

**1. Example Resource: The Strategic Role of Governance**

**Citation:** Kaplan, R. S., & Norton, D. P. (2007). *The execution premium: Linking strategy to results.* Harvard Business Review Press.

**Description:** This seminal business strategy text argues that formal **governance structures** are essential for translating strategic goals (like meeting market demand for transparency) into project-level controls (like your compliance gateway). This prevents the kind of misalignment between executive intent and operational execution that derailed the previous effort.

**2. Example Resource: IT Governance and Risk Management Frameworks**

**Citation:** ISACA. (2019). *COBIT 2019 Framework: Introduction and Methodology.* ISACA. Retrieved from [Insert COBIT 2019 PDF Link Here]

**Description:** The **COBIT framework** is a globally recognized standard for IT governance. This source provides a robust model for managing IT-related risk, directly supporting the inclusion of a formal, documentation-heavy control process—your **Legal Gateway**—as a mandatory milestone in the project's design phase.

**3. Example Resource: Aligning Compliance with Project Management**

**Citation:** Project Management Institute (PMI). (2021). *A guide to the Project Management Body of Knowledge (PMBOK Guide).* (7th ed.). Project Management Institute.

**Description:** This foundational text emphasizes the necessity of **stakeholder engagement and risk response planning**. It provides the core justification for transforming the major risk of regulatory veto into a mandatory governance milestone, ensuring the Legal Counsel is engaged and signs off on the core deliverables.

**II. Ensuring Accuracy: API-Driven Data Integration Best Practices**

This theme explores industry white papers and public-facing technical guides on implementing Application Programming Interfaces (APIs) to ensure the accuracy and **real-time reliability** of financial data, thereby mitigating the risk associated with manual data entry.

**4. Example Resource: The Case for Real-Time Data**

**Citation:** Oracle. (2022). *The business value of real-time data: How immediate insights drive better decisions.* [Insert Oracle White Paper Link Here]

**Description:** This white paper argues that manual, batch, or cached data introduces significant error, which is untenable for a financial calculator. It makes the business and technical case for using **live API calls from a system of record** (Arborwood's core student administration system) to provide the necessary data fidelity for high-risk applications.

**5. Example Resource: Microservices and Integration Patterns**

**Citation:** Martin, M. F. (2018). *Microservices architecture.* Addison-Wesley Professional. (Available widely as public documentation or excerpts).

**Description:** The principles of microservices detail how to build efficient, granular services to expose specific business data (like tuition caps or fee schedules) without exposing the entire underlying legacy system. This justifies the development of a dedicated, narrowly focused **API layer** for the calculator to pull precise information.

**6. Example Resource: API Security and Reliability**

**Citation:** U.S. National Institute of Standards and Technology (NIST). (2020). *API Security Guidance.*[Insert NIST Publication Link Here]

**Description:** This public technical guidance provides best practices for securing APIs that transmit sensitive or high-value data. It reinforces the IT team's need to develop a robust, reliable, and **secure data integration pipeline**, ensuring the connection between the calculator component and the student administration system is protected and dependable.

**III. Mitigating Litigation Risk: Transparency and the Regulatory Environment**

This theme directly addresses the legal environment of higher education, focusing on government mandates and public documentation that reinforce the necessity of accurate, non-misleading financial transparency tools.

**7. Example Resource: Federal Disclosure Requirements**

**Citation:** U.S. Department of Education (DoE). (Current Year). *Higher Education Act (HEA) of 1965, Title IV, General Provisions.* Retrieved from [Insert Current HEA Reference Link Here]

**Description:** This foundational federal legislation dictates required financial disclosures. Referencing the **Higher Education Act** establishes the legal context for why cost transparency is mandatory, and why any online tool providing cost estimates must be scrupulously accurate to avoid statutory violations.

**8. Example Resource: Regulatory Scrutiny of Net Price Calculators**

**Citation:** The Pew Charitable Trusts. (2019). *Improvement needed: Making the net price calculator a more useful tool for students.* [Insert Pew Report Link Here]

**Description:** This public policy report evaluates the effectiveness and accuracy of the federally mandated **Net Price Calculator (NPC)**. Its findings—often highlighting *inaccuracies and usability issues*—justify the market need for Arborwood to build a custom, high-fidelity calculator while validating the risk associated with all online financial tools.

**9. Example Resource: Consumer Protection and Financial Advertising**

**Citation:** U.S. Federal Trade Commission (FTC). (Current Year). *Guides Concerning the Use of Endorsements and Testimonials in Advertising.* Retrieved from [Insert FTC Guides Link Here]

**Description:** The **FTC's** general guidance on advertising applies to financial representations made by universities. This source reinforces the legal necessity of **clear, prominent disclaimers** and the prohibition of **misleading estimates**, underscoring the Legal team's concerns and the need for the specific governance controls in your charter.

**10. Example Resource: Market Demand and Strategic Enrollment**

**Citation:** Noel-Levitz (EAB). (2024). *Annual Student Financial Aid and Enrollment Report: Key Findings on Cost and Transparency.* [Insert EAB/Noel-Levitz Report Link Here]

**Description:** This annual industry report from a leading enrollment management consultancy quantifies the market demand for cost transparency, often confirming that "**cost ambiguity**" is a primary reason for student attrition. This report provides the strong, data-driven **Business Case** for the project to the Executive Sponsor.