



Building a Pathway: Institutional Frameworks for Responsible AI Development in Teaching and Learning

Application details

C. Project Information

C.1. Project Title	Building a Pathway: Institutional Frameworks for Responsible AI Development in Teaching and Learning
C.2. Project Duration	Three-year project
C.3. Select one or more UCalgary Teaching & Learning Grant <u>area(s)</u> of <u>focus</u> that apply:	☒ Academic integrity & ethics ☒ Course development and innovation ☒ Entrepreneurial thinking and innovation ☒ Professional learning in higher education ☒ Transdisciplinary teaching and learning
C.4. Have you reviewed the <u>Ethics in the Scholarship of Teaching & Learning Guide</u> in preparing your application?	Yes

C.5. Abstract - Please note that this content will be public if successful.

This three-year Educational Leadership project addresses an urgent institutional need: The absence of a clear, ethical, and sustainable pathway for instructors who wish to design, adapt, and deploy AI-powered tools for teaching and learning. As generative AI becomes increasingly embedded in academic practice, faculty across disciplines are beginning to create their own tools for course design, assessment, and learner support. Yet, there is currently no university process to guide this work such as hosting pathway, review structure, or shared ethical framework to ensure that instructor-built AI applications are transparent, accessible, and pedagogically sound.

The project has two primary goals.

- It will develop, test, and institutionalize an **AI Tool Hosting Pathway** that outlines the technical, administrative, and governance requirements for securely hosting instructor-created AI tools within a university-supported environment.
- It will create an **Ethical and Responsible AI Development Framework for Teaching and Learning** that provides guidance on transparency, human oversight, data stewardship, accessibility, and alignment with the Taylor Institute's assessment and inclusive-design principles.

Using a Cumming School of Medicine adaptation of SMARTIE 2.0 as the test case, the project will bring together instructors, academic leaders, and technical units in a structured co-design process that models responsible innovation. The resulting pathway, frameworks, and professional-learning resources will be released as open materials and integrated into Taylor Institute and CSM programming. Collectively, these outcomes will enable the university to support faculty-led AI innovation safely, equitably, and at scale positioning UCalgary as a national leader in ethical, research-informed AI integration in higher education.

D. Project Description

D.1. Describe how your project is grounded in the University of Calgary teaching and learning context. To establish how your proposed project is relevant to student learning at the University of Calgary, explain how it emerges from your local experiences in teaching and learning in an academic course or program. (3 points).

This project is grounded in the University of Calgary's teaching and learning context, where instructors across programs are navigating both the promise and uncertainty of generative AI. Through my work as Generative AI Leader in Residence, I have seen faculty in small, medium, and large enrolment courses struggle with integrating AI in ways that preserve pedagogical alignment, assessment integrity, and equity. At the same time, many instructors want to design their own AI-supported course materials rather than rely on commercial tools, yet the university currently lacks clear pathways for securely hosting, reviewing, or scaling instructor-created AI applications.

To address this gap, the project advances two connected but distinct components. First, it will develop an AI Tool Hosting Pathway that outlines the technical, ethical, and governance requirements needed to support instructor-built AI tools on a university-based platform. Second, it will use SMARTIE 2.0—AI-assisted course design environment—as a working prototype. SMARTIE already exists in an earlier version, and the grant focuses on adapting and deploying a faculty-specific version within UCalgary infrastructure to test the pathway. SMARTIE supports the structured development of course materials such as learning outcomes, aligned assessments, rubrics, assignment designs, task specific AI-use policies and assessments including tests. By situating this work within an authentic instructional context i.e., the Cumming School of Medicine (**CSM**) pilot, the project responds directly to local needs and creates a scalable model for responsible, instructor-led AI innovation that strengthens pedagogical quality and enhances student learning across the university.

D.2. Describe how your project aligns with the area(s) of focus of the UCalgary strategic initiatives you indicated in the previous section. UCalgary is committed to supporting scholarship in these key areas of focus. How will your project strengthen one or more of these priorities? (3 points).

This project aligns most directly with **Entrepreneurial Thinking and Innovation**, **Professional Learning in Higher Education**, **Course Development and Innovation**, and **Academic Integrity & Ethics**, with secondary alignment to **Transdisciplinary Teaching and Learning**.

Entrepreneurial Thinking and Innovation:

The project models entrepreneurial thinking by creating a pathway for instructors to act as *creators* of AI-powered tools rather than passive users. It promotes creativity, experimentation, and knowledge exchange across disciplines, empowering educators to identify instructional challenges and design innovative, context-specific AI solutions that improve teaching and learning outcomes.

Professional Learning in Higher Education:

Through the design, testing, and documentation of CSM adapted version SMARTIE, the project generates professional learning opportunities for CSM academic staff. Participants will gain hands-on experience with AI integration, ethical design principles, and scalable course workflows, strengthening institutional literacy in the responsible use of generative AI for teaching.

Course Development and Innovation:

SMARTIE differs from tools like ChatGPT because it is purpose-built for course design. It embeds institutional assessment principles, alignment checks, rubrics, ethical safeguards, and approval workflows. SMARTIE guides instructors through structured, reviewable development of outcomes, assessments, and learning materials within a secure university-based environment.

Academic Integrity & Ethics:

The project explicitly examines governance, privacy, and ethical oversight for instructor-built AI tools. It models ethical AI use by developing transparent review and deployment pathways that ensure academic integrity and institutional accountability.

Transdisciplinary Teaching and Learning:

The initiative draws together expertise from education, IT, health sciences, and education, fostering collaboration beyond disciplinary boundaries to establish sustainable university-wide models for responsible AI-enabled innovation.

D.3. Identify the educational leadership in teaching and learning that you will pursue through your project, and the specific goals, opportunities and/or challenges you hope to address. Demonstrate how existing pedagogical scholarship informs this work, and explain how your work is situated within the field. (3 points).

How does your project support your colleagues in developing their teaching and learning skillset, and how will you ensure this work has a broad impact on teaching and learning across campus?

This project builds instructors' teaching and learning skills by creating a sustainable, ethical pathway for faculty-led AI innovation. A CSM-specific version of SMARTIE 2.0 is needed to support health-sciences competencies. It helps faculty design aligned outcomes, assessments, and tasks in a governed environment, strengthening responsible AI-supported course design across the institution.

Building Teaching and Learning Skillsets

1. Pedagogical Design and Alignment

SMARTIE works as a structured course-design environment. Instructors generate or upload learning outcomes, and SMARTIE generates aligned assessments, rubrics, (D2L exportable) test items, performance tasks, lesson structures, and reflective activities. SMARTIE differs from general AI tools through its alignment with institutional assessment principles, inclusive-design guidance, governance standards, and integration with UCalgary systems and LMS workflows. By making each design stage visible and reviewable, SMARTIE helps instructors examine the connections between outcomes, assessments, and learning activities, strengthening constructive alignment and supporting consistent, high-quality course materials across disciplines.

2. Ethical and Responsible AI Literacy

The research group will collaboratively explore **Ethical and Responsible AI Literacy** as both a focus of inquiry and a foundation for future institutional guidance. Drawing on scholarship in responsible AI and education (Sabbaghan, 2025), the team will examine issues of data governance, bias, transparency, and explainability which are concepts that are increasingly central to the scholarship of teaching and learning in digital contexts.

The research group will consider questions such as:

- What constitutes responsible human oversight in AI-mediated course design?
- How can AI tools reinforce or challenge inclusive pedagogy?
- What safeguards ensure transparency, accountability, and student trust in assessment and feedback?

Insights from this inquiry will inform the creation of an **Ethical and Responsible AI Framework for Teaching and Learning**, a living document that outlines key considerations, review criteria, and reflective prompts for future faculty who develop their own AI-powered teaching applications.

3. Alignment with UCalgary's Digital Transformation Pathway

This project aligns directly with UCalgary's digital transformation efforts by creating an institutional model for secure, ethical, and scalable AI integration in teaching. Using CSM version of SMARTIE as a prototype, the project advances the university's shift toward governed, faculty-led digital innovation. It complements institutional priorities by establishing a technical and pedagogical AI hosting pathway, supporting responsible experimentation, and contributing to a unified ecosystem for AI-enabled teaching tools. Through alignment with existing IT governance, academic innovation plans, and the AI Hub, the project strengthens UCalgary's capacity to enable sustainable, transparent, and future-oriented digital transformation across programs and faculties.

Opportunities for Institutional Impact

1. Creating a Replicable Pathway

The most immediate institutional impact lies in the development of a **replicable hosting and governance pathway** for instructor-created AI tools. The project's test case with a CSM focused SMARTIE on a university-approved service will document technical specifications, ethical review processes, and administrative requirements for secure deployment. This documentation will become a resource for future

projects, effectively lowering the barrier for innovation by other instructors and faculties.

2. Catalyzing Cross-Faculty Innovation

SMARTIE provides a structured environment for designing aligned outcomes, assessments, and learning materials, making it adaptable across faculties with distinct curricular needs. The Cumming School of Medicine will pilot a faculty-specific version tailored to health-sciences outcomes, accreditation requirements, and assessment practices. Other faculties—such as Nursing, Education, and Arts—can observe the pilot, request discipline-specific adaptations, and participate through a cross-faculty mentorship group. This creates a sustainable mechanism for transdisciplinary knowledge exchange and supports UCalgary's digital transformation efforts by modelling how instructor-created AI tools can be governed, adapted, and scaled across diverse academic programs.

3. Supporting Early-Career and Sessional Instructors

The platform's structured design workflow directly supports instructors who are newer to course design for small, medium, and large enrolments. SMARTIE scaffolds best practices in **outcome alignment, rubric design, and formative assessment, providing a form of mentorship through design**. This responds to local observations that early-career and sessional instructors often lack access to systematic instructional design support, yet teach a substantial proportion of undergraduate students.

Dissemination and Broad Campus Reach

The project will ensure broad and sustainable impact through coordinated dissemination across the **Taylor Institute for Teaching and Learning** and the **Cumming School of Medicine (CSM)**.

1. Taylor Institute Integration

Findings will be shared through Taylor Institute workshops, seminars, and the *University of Calgary Conference on Postsecondary Learning and Teaching*. Participants will showcase how current the SMARTIE 2.0 and the CSM specific version supports measurable learning design and responsible AI integration. Short SoTL briefs and case studies will be published through the **Teaching and Learning Inquiry Series**, ensuring access across campus.

1. Cumming School of Medicine Pilot and Knowledge Sharing

The CSM pilot will serve as a live case for faculty-specific AI integration. Insights will be presented through **professional development sessions and** follow-up mechanisms will be put in place to support instructors, creating a feedback loop between design, implementation, and review.

1. Open Resources and Mentorship

Professional learning materials, templates, and governance checklists will be released as open resources through the Taylor Institute, CSM faculty-development sites, and a proposed **ai.ucalgary.ca/apps** hub. A small cross-faculty mentorship group will support adoption. Future directions include

enabling additional faculty-specific versions of SMARTIE and exploring a technical development track for instructor-built AI tools.

1. Institutional Integration and External Sharing

Lessons from the project will inform university policy on responsible AI use and be shared nationally through STLHE, ISSOTL, and related venues, positioning UCalgary as a leader in educational innovation.

Pedagogical Scholarship and Theoretical Anchoring

The project builds upon established pedagogical research and situates itself within the intersection of **SoTL, digital pedagogy, and educational leadership**:

- **Constructive Alignment (Biggs & Tang, 2011)**: guides the design of measurable outcomes and coherent assessment.
- **Design-Based Research (Brown, 1992; Collins et al., 2004)**: frames the iterative development of SMARTIE 2.0 as inquiry into practice.
- **Communities of Practice (Wenger, 1998)**: informs the professional learning structure emphasizing shared reflection and peer collaboration.
- **Reflective Practice (Schön, 1983)**: underpins faculty engagement with AI-assisted course design as a form of reflection-in-action.
- **Educational Leadership (Spillane, 2004)**: shapes the project's focus on capacity building that extends impact beyond individual classrooms.
- **Ethical AI in Education (Sabbaghan, 2025)**: provides principles for transparency, explainability, and human oversight.

D.4. Identify the activities you will undertake for your project and clearly describe how they align with, and contribute to, the project you identified above. Discuss the kinds of engagement you seek, and the methods or approaches you will use to engage colleagues in this initiative. (3 points).

This three-year initiative will build a sustainable **pathway for instructor-led creation, hosting, and governance of AI-powered teaching and learning tools** at the University of Calgary. Using the CSM version of **SMARTIE** as a working prototype, the project integrates pedagogy, ethics, and infrastructure to support responsible, inclusive, and scalable AI innovation. Activities unfold across three interconnected phases—**Development, Engagement, and Consolidation & Institutionalization**—each aligned with the Educational Leadership stream's emphasis on professional learning and institutional capacity building.

Year 1: Development — Designing and Building the Foundation (September 2026 – August 2027)

Objective: Develop the pedagogical, ethical, and technical foundations for an instructor-built AI tool hosted within a secure, university-based platform.

Activities:

1. Project Setup and Governance:

Form the research team and establish coordination mechanisms across academic and technical units to ensure alignment with university privacy, data, and accessibility standards.

1. Technical Development and SMARTIE 2.0 (CSM Version):

Develop and deploy a **CSM-specific version** of **SMARTIE 2.0** within the university's secure hosting environment. This version will be tailored to the needs of health-sciences educators and will model the end-to-end process for instructor-built AI applications. Development work will include authentication through institutional systems, role-based access, data-governance compliance, and compatibility with multiple learning-management systems used across faculties.

1. Pedagogical Frameworks by Modality:

Create tailored pedagogical frameworks based on **course modality**—in-person, blended, and online. Each will integrate **constructive alignment** (Biggs & Tang, 2011), **Universal Design for Learning**, and **inclusive-design principles** (CAST, 2018) to ensure accessibility and adaptability.

1. Assessment Design Integration:

Embed the **Taylor Institute's Assessment Principles** to guide assessment, rubric, and feedback creation. SMARTIE 2.0 will include functionality to generate **quizzes and tests** aligned with learning outcomes and Bloom's taxonomy, exportable in standard formats (QTI, CSV) for direct LMS import.

1. Ethical Framework Creation:

Draft the **Ethical and Responsible AI Development Framework for Teaching and Learning**, guided by research in responsible AI (Holmes et al., 2022; Selwyn, 2023). This framework will address transparency, bias mitigation, data stewardship, and human oversight.

Year 2: Engagement — Collaborative Co-Design and Professional Learning (September 2027 – August 2028)

Objective: Engage CSM instructors and educational staff in co-designing, testing, and refining SMARTIE and associated frameworks through collaborative professional learning.

Activities:

1. Cross-Faculty and CSM Co-Design Workshops:

Host a series of **interactive workshops** jointly at the **Taylor Institute** and the **Cumming School of Medicine**. Instructors from Medicine will design course components using SMARTIE—building aligned outcomes, rubrics, and assessments, and exploring quiz/test generation across modalities. Workshops will surface challenges around inclusive design, accessibility, and ethical AI use.

1. Refinement of Pedagogical and Ethical Frameworks:

Gather structured feedback from participants and pilot users to refine both the **modality-based pedagogical frameworks** and the **Ethical and Responsible AI Development Framework**, ensuring clarity and usability.

1. SoTL Inquiry and Reflection:

Conduct **anonymous surveys** to document instructors' evolving understanding of AI-assisted course design, ethical reasoning, and assessment practices.

1. Interim Dissemination through Workshops:

Facilitate mid-project workshops where faculty share emerging lessons and review drafts of frameworks and resources. These collaborative sessions will encourage iterative improvement and cross-faculty feedback.

Engagement Approach:

Engagement is collaborative and inquiry-driven, using a **community-of-practice model** (Wenger, 1998). Faculty function as co-researchers, helping shape technical, pedagogical, and ethical models while contributing to the Scholarship of Teaching and Learning.

Year 3: Consolidation and Institutionalization (September 2028 – May 2029)

Objective: Consolidate findings, finalize frameworks, and embed sustainable structures and professional-learning supports for instructor-led AI innovation.

Activities:

1. Final Testing and Evaluation (CSM Version):

Conduct comprehensive testing of the **SMARTIE CSM version** with faculty to ensure scalability, accessibility, reliability, and pedagogical coherence. Evaluate its performance across modalities—lecture-based, blended, and clinical learning—and collect instructor feedback on usability and impact.

1. Finalize Frameworks and Pathways:

Complete and publish the **Ethical and Responsible AI Development Framework for Teaching and Learning** and the **AI Tool Hosting Pathway**, detailing governance procedures, review criteria, data-protection standards, and implementation steps for future instructor-developed tools.

1. Professional-Learning Integration:

Develop modular learning resources—videos, micro-lessons, templates, and checklists—integrated into both **Taylor Institute** programming and **CSM** faculty-development offerings. We envision such a module in the CSM Teaching Excellence Program in the Advanced Stream. Materials will emphasize inclusive design, modality-specific pedagogy, and assessment practices aligned with the Taylor Institute's Assessment Principles.

1. Dissemination and Scaling:

- **Taylor Institute:** Present outcomes through the *Teaching and Learning Seminar Series* and the *Conference on Postsecondary Learning and Teaching*.
- **Cumming School of Medicine:** Share findings through **Departmental Grand Rounds** through the Office of Health & Medical Education Scholarship, and provide materials to course directors and program leads.
- Publish all frameworks and resources as **Open Educational Resources (OERs)** through Taylor Institute and CSM Faculty Development portals.

2. Institutional Integration and Policy Alignment:

Collaborate with **IT Services** and **Learning Technologies Advisory Committee** to recommend project outcomes to inform institutional policy and governance

structures. Establish maintenance, review, and ethics-approval processes to sustain future instructor-created AI initiatives.

1. **National and International Dissemination:**

Publish at least one peer-reviewed SoTL article and present at **STLHE 2029** or **ISSOTL 2029**, highlighting UCalgary's leadership in inclusive, ethical, and research-informed AI in education.

Engagement Philosophy and Methods

The project follows a **participatory, inquiry-based approach** that engages colleagues as collaborators rather than recipients.

1. **Collaborative Design:** Faculty, technologists, and ethics experts co-develop solutions through iterative cycles.
2. **Reflective Practice:** SMARTIE's built-in tracking and reflective prompts capture design and decision-making for SoTL inquiry.
3. **Peer Leadership:** Participants from earlier years mentor peers in subsequent workshops, creating a sustainable network for professional learning.

Anticipated Outcomes and Contributions

By August 2029, the University of Calgary will have:

- A tested and documented **AI Tool Hosting Pathway** that aligns ethical, inclusive, and technical standards.
- A finalized **Ethical and Responsible AI Development Framework for Teaching and Learning**.
- Modality-specific pedagogical frameworks integrating inclusive design and the Taylor Institute's Assessment Principles.
- A **SMARTIE CSM version** supporting outcome alignment, rubric design, and exportable quizzes/tests.
- Professional-learning resources embedded in Taylor Institute and CSM programming.
- Peer-reviewed publications and national recognition for leadership in responsible, research-informed educational innovation.

Together, these activities establish a durable institutional foundation for ethical, inclusive, and forward-looking teaching and learning with AI at the University of Calgary.

D.5. Describe how you will engage students in your project, including their roles and activities and how you will recognize their contributions. Scholarship is strengthened by the inclusion of all relevant perspectives, particularly those of learners, at the centre of teaching and learning experiences. How will you include these perspectives in your project? (3 points).

Students will be meaningfully involved in this project as **research assistants** and **technical collaborators**, contributing to both the educational research and development dimensions of the initiative. Their participation ensures that the project benefits from diverse academic perspectives while providing authentic, mentored experience in applied scholarship and responsible AI development.

Graduate students will support the **Scholarship of Teaching and Learning (SoTL)** components of the project. They will assist with the administration and analysis of **anonymous faculty surveys** and **workshop exit surveys**, identifying themes

related to professional learning, inclusive design, and ethical considerations in AI-supported teaching. Their work will contribute directly to the interpretation of data and the preparation of internal reports and scholarly outputs.

In parallel, **students with programming or data-analysis experience** will contribute to the **technical development** of CSM Specific SMARTIE. Working under supervision, they will help refine the application's interface, improve system performance on the university-based platform, and document technical processes that inform the development of the **AI Tool Hosting Pathway**.

Student contributions will be **acknowledged in all publications, presentations, and institutional reports**, and graduate research assistants will receive appropriate compensation following university policy. Their involvement will not center on testing SMARTIE as users but on advancing the research, analysis, and technical infrastructure that enable ethical, inclusive, and sustainable faculty-led AI innovation at the University of Calgary.

D.6. Describe the impact your project will have on improving teaching and student learning, and link this impact back to your question and the context you described above.

Explain how your work will benefit others, how you will share your findings locally and beyond, and how these impacts will be sustained beyond the funding period for the project. What would successful completion of your project look like? That is, how would it affect the context you described, and how would it provide helpful responses to the question described? How will teaching and learning at the University of Calgary—other academic courses, educators, and contexts—benefit from your project's activities, instruments, or findings? Specify how you will disseminate your findings. (3 points).

This project will have a transformative and lasting impact on teaching and student learning at the University of Calgary by establishing the **infrastructure, ethical framework, and governance model** needed to support the responsible creation and adaptation of **AI-powered teaching and learning tools** by instructors.

As generative AI becomes increasingly embedded in academic practice, many instructors will seek to develop or customize AI tools that enhance their teaching. At present, there is no formal pathway to guide such innovation such as shared process for review, hosting, or ethical assessment. This project directly addresses that institutional gap, ensuring that future developments occur safely, transparently, and in ways that advance learning rather than simply automate it.

Impact on Teaching

The proposed **AI Tool Hosting Pathway** and **Ethical and Responsible AI Development Framework for Teaching and Learning** will equip faculty with the structures and principles necessary to design, adapt, and implement AI tools responsibly. Instructors will gain:

- Clear, step-by-step processes for developing or adapting AI tools within the university's secure environment.
- Guidance on data protection, transparency, and accountability to maintain institutional and ethical integrity.
- Support for inclusive and accessible design, ensuring that AI-supported innovations reflect diverse learner needs and align with the **Taylor Institute's Assessment Principles**.

Impact on Student Learning

Students will experience the indirect but powerful benefits of this institutional shift. Courses and programs will be strengthened by AI tools that are pedagogically grounded, ethically governed, and inclusively designed. As faculty integrate responsibly developed AI applications, students will encounter more transparent, coherent, and equitable learning experiences. The emphasis on ethical development ensures that AI tools enhance, rather than replace, the human dimensions of teaching, maintaining trust and integrity across disciplines.

Institutional and Scholarly Impact

The long-term value of this project lies in its capacity to establish an **institutional ecosystem for innovation**. The resulting pathway and framework will guide all future instructor-led AI initiatives, providing shared language, governance standards, and review processes for the entire university community.

This infrastructure will also position the University of Calgary as a **leader in responsible AI in higher education**, with documented procedures and lessons that can be shared with other institutions seeking similar guidance.

Dissemination and Knowledge Mobilization

Project outcomes will be disseminated through:

- **Campus workshops and professional-learning events** at the Taylor Institute and Cumming School of Medicine.
- **Institutional presentations** to faculty councils, and teaching and learning committees.
- **Open Educational Resources (OERs)**: publication of frameworks, workflow templates, and ethical-review checklists through the Taylor Institute, CSM faculty-development site, and other relevant university outlets.
- **National and international scholarship**: presentations at STLHE 2029 and ISSOTL 2029, and at least one peer-reviewed article on responsible institutional pathways for AI innovation.

Sustainability and Definition of Success

Success will be demonstrated when the University of Calgary has:

1. A **tested and documented pathway** for the ethical development, review, and deployment of instructor-created AI tools.
2. A **campus-wide framework** that aligns technical governance with pedagogical and ethical principles.
3. **Integrated professional-learning supports** ensuring that future faculty innovators have clear guidance, mentorship, and resources.

D.7. How have you included consideration of principles of equity, diversity, inclusion, and accessibility (EDIA) in the design and execution of your project? Incorporating principles of EDIA strengthens communities and has been shown to improve the quality, social relevance, and impact of scholarship and practice. How will you strengthen your work by following these principles? (3 points).

Equity, diversity, inclusion, and accessibility are embedded throughout this project's design, governance, and outcomes. The initiative recognizes that future instructor-created AI tools will shape learning environments across disciplines; therefore, they must be developed through processes that reflect the full diversity of learners and educators at the University of Calgary.

From the outset, the project team will apply **inclusive-design principles** (CAST, 2018) to ensure that the **AI Tool Hosting Pathway** and the **Ethical and Responsible AI Development Framework for Teaching and Learning** support accessibility, transparency, and equitable participation. Workshops and consultations will intentionally include instructors from a range of faculties, teaching modalities, and contract types—ensuring that sessional, early-career, and tenured faculty voices are all represented.

The frameworks and professional-learning materials developed will prompt faculty to consider **universal design for learning**, accessibility standards, and data-equity issues when building or adapting AI tools. By embedding these criteria into review and hosting processes, the project moves EDIA from a peripheral concern to a structural requirement of responsible innovation.

All project documentation and outputs will be written in plain language and made available as **open educational resources** to remove barriers to participation. In this way, the project strengthens institutional capacity for ethical, inclusive, and accessible innovation, ensuring that future AI-enabled teaching tools advance—not undermine—equity and belonging in the university's learning environments.

D.8. Does your project team include an emerging scholar? An emerging scholar can be a graduate student, academic staff, support staff, or postdoctoral scholar listed as a member of your Project Study Team that is participating in a UCalgary Teaching & Learning Grant for the first time.

Yes

In an effort to encourage scholars to develop their skills in research and scholarship around teaching and learning, we are providing an Emerging Scholar incentive of \$5,000 for successful applications that include emerging scholar(s). This individual must be new to the Teaching and Learning Grants program and not have received a grant previously.

This incentive can be used for any eligible grant expense. This is in addition to the specified maximum award amount for two-year grants (\$10,000) and three-year grants (\$40,000). If you apply for this incentive, please ensure that you incorporate the \$5,000 into your budget request and total funds requested.

D.8.1. If yes, please describe the role of the emerging scholar on your team in this project, and explain how participation in this project will benefit the development of their skills and knowledge in the scholarship of teaching and learning. Please do not include identifying information such as team member names in this answer. Instead, please reference the person's role (e.g. "grad student") without mentioning names.

The project team includes an emerging scholar who will contribute to both the conceptual and operational elements of the study. In this project, the emerging scholar will support the design of the inquiry, assist with iterative development of the learning tool, and contribute to data collection and preliminary analysis. Their role includes shaping research instruments, facilitating participant engagement, and helping interpret findings to inform ongoing refinement. They will also participate in team meetings where methodological decisions, ethical considerations, and pedagogical implications are discussed, ensuring they gain direct experience in the full research cycle.

Participation in this project will provide the emerging scholar with meaningful mentorship and guided practice in the scholarship of teaching and learning. They will develop a deeper understanding of inclusive pedagogical frameworks, and the practical integration of generative AI tools in educational contexts. Through hands-on involvement in study design, evidence gathering, and knowledge mobilization, the emerging scholar will strengthen core research skills, including critical analysis, data interpretation, and scholarly communication.

Engagement in this work will also prepare the emerging scholar to contribute to future SoTL initiatives by building confidence with ethics protocols, collaborative research processes, and dissemination strategies. This project offers a structured opportunity for them to advance their expertise, expand their scholarly portfolio, and become meaningfully integrated into a research community focused on innovation in teaching and learning.

D.9. Please list full citations for all sources cited above using a citation style relevant to your context.

SMARTIE 2.0 (the current version) can be accessed at <https://www.smartie.dev>

References

Biggs, J. B., & Tang, C. (2011). *Teaching for quality learning at university* (4th ed.). Open University Press / McGraw-Hill Education.

Brown, A. L. (1992). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 21(1), 5–8.

CAST. (2018). *Universal Design for Learning Guidelines*. CAST.

Collins, A., Joseph, D., & Bielaczyc, K. (2004). Design research: Theoretical and methodological issues. *Journal of the Learning Sciences*, 13(1), 15–42.

Sabbaghan, S. (2025). Charting a human-centered path for generative AI in higher education. In S. Sabbaghan (Ed.), *Navigating generative AI in higher education: Ethical, theoretical and practical perspectives*. Edward Elgar Publishing. <https://doi.org/10.4337/9781035337873.00019>

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.

Spillane, J. P. (2004). Educational leadership. *Educational Evaluation and Policy Analysis*, 26(2), 169–172. <https://doi.org/10.3102/01623737026002169>

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.

E. Timeline & Budget

E.1. Timeline Upload

Please complete the spending timeline template available on the [grants website](#). Once finalized, print to PDF and upload below.

Note: The timeline for grant activities should be April 1 – March 31.

PDF

[TLgrants_Timeline_sabbagh... \(82 KiB download\)](#)

E.2. Budget Summary Upload

Please fill out the budget summary template available on the [grants website](#). Once finalized, print to PDF and upload below.

Note: The budget spending timeline should be from April 1 to March 31. If requested, the emerging scholar supplement should be included in the total funds requested.

PDF

[TLgrants_BudgetSummary_Te... \(130 KiB download\)](#)

E.3. Other Funding

No

Does your project currently have funding from other internal or external sources?

E.4. Total Requested Budget

CA\$42,400.00

\$10,000 maximum for two-year project, or \$15,000 with emerging scholar incentive.
\$40,000 maximum for three-year project, or \$45,000 with emerging scholar incentive.

Log in to [universityofcalgary.grantplatform.com](#) to see complete application attachments.

University of Calgary Teaching and Learning Grants - Budget Summary

<https://teaching-learning.ucalgary.ca/applying-for-a-grant#budget-guidelines-and-recommendations>

When complete print to PDF and upload to the Budget section of your application form. Please do not include any identifying information in your budget.

Project Title

Building a Pathway: Institutional Frameworks for Responsible AI Development in Teaching and Learning

Grant Stream

Educational Leadership (EdL)

BUDGET SUMMARY: Include a detailed estimate of expenditures with a rationale for how all spending will support the project’s goals

Year 1 (April 1-March 31)			
EXPENSE TYPE	RATIONALE <i>(delete categories not used)</i>	Cost	
Personnel			
Research Assistant 2 (Grad)	200 hrs × \$35/hr (inclusive). Assists with platform development, interface refinement, documentation, and testing of the AI Tool Hosting Pathway.	\$	7,000.00
Other (describe)			
Materials and Supplies	Hosting and development costs for the secure, university-based platform supporting the AI	\$	6,000.00
Total Year 1		\$	13,000.00

Year 2 (April 1-March 31)			
EXPENSE TYPE	RATIONALE <i>(delete categories not used)</i>	Cost	
Personnel	<i>Estimate total cost of student (hourly wage x 20% for mandatory employer costs e.g. EI, CPP). Include tasks & calculations</i>		
Research Assistant 1 (Grad)	<i>100 hrs x \$35/hr (inclusive) = \$3500. Supports administration and analysis of anonymous faculty and workshop exit surveys; prepares summary data for dissemination.</i>	\$	3,500.00
Research Assistant 2 (Grad)	<i>200 hrs x \$35/hr (inclusive) = \$10,500. Assists with platform development, interface</i>	\$	7,000.00

University of Calgary Teaching and Learning Grants - Budget Summary

<https://teaching-learning.ucalgary.ca/applying-for-a-grant#budget-guidelines-and-recommendations>

When complete print to PDF and upload to the Budget section of your application form. Please do not include any identifying information in your budget.

Project Title

Building a Pathway: Institutional Frameworks for Responsible AI Development in Teaching and Learning

Grant Stream

Educational Leadership (EdL)

BUDGET SUMMARY: Include a detailed estimate of expenditures with a rationale for how all spending will support the project’s goals

Other (describe)			
Materials and Supplies	Hosting and development costs for the secure, university-based platform supporting the AI	\$	3,000.00
Total Year 2		\$	13,500.00

Year 3 (April 1-March 31)	N/A for Development and Innovation grants		
EXPENSE TYPE	RATIONALE (delete categories not used)	Cost	
Personnel	Estimate total cost of student (hourly wage x 20% for mandatory employer costs e.g. EI, CPP). Include tasks & calculations 30 hrs x \$30/hr (inclusive) = \$3,000. Supports administration and analysis of anonymous faculty and workshop exit surveys; prepares summary data for dissemination.		
Research Assistant 1 (Grad)		\$	900.00
Travel	* Should NOT exceed 30% of total project budget *		
Conference (Domestic)	STLHE 2029 (Canada): 1 team member @ ISSOTL 2029 (\$800 flight domestic flight + \$1200 accomodation for 4 nights)	\$	2,000.00
Conference (International)	2 team members. Covers registration, travel, accommodation. (For European city \$2000 return flight per person and \$3000 accomodation for 3 nights per person)	\$	10,000.00
Other (describe)			
Materials and Supplies	Hosting and development costs for the secure, university-based platform supporting the AI	\$	3,000.00

University of Calgary Teaching and Learning Grants - Budget Summary

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Project Title

Building a Pathway: Institutional Frameworks for Responsible AI Development in Teaching and Learning

Grant Stream

Educational Leadership (EdL)

BUDGET SUMMARY: Include a detailed estimate of expenditures with a rationale for how all spending will support the project’s goals

Total Year 3	\$	15,900.00
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PROJECT TOTAL	\$	42,400.00
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University of Calgary Teaching and Learning Grants Timeline Template

Please fill out the following timeline for your project using a gantt chart. Please do not include any identifying information.

Project Title

Teaching and Learning

Grant Stream

Educational Leadership (EdL)

When complete print to PDF and upload to the Timeline section of your application form

Timeline ** The timeline for grant activities should be April 1 - May 31. **

** The timeline for grant activities should be April 1 - May 31. **

[illegible]