

Principles for the Assessment of Student Learning: A Report

Last Revised: October 2025

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*We would also like to acknowledge all members of the [Assessment Principles Group](#) who offered continuous leadership, guidance, and feedback as we, together, engaged in consultations with units and groups across UCalgary and developed the draft principles for the assessment of student learning.

Territorial Acknowledgement

The University of Calgary, located in the heart of Southern Alberta, both acknowledges and pays tribute to the traditional territories of the peoples of Treaty 7, which include the Blackfoot Confederacy (comprised of the Siksika, the Piikani, and the Kainai First Nations), the Tsuut'ina First Nation, and the Stoney Nakoda (including Chiniki, Bearspaw, and Goodstoney First Nations). The City of Calgary is also home to the Métis Nation of Alberta Districts Calgary Elbow and Calgary Nose Hill.

The University of Calgary is situated on land Northwest of where the Bow River meets the Elbow River, a site traditionally known as Moh'kins'tsis to the Blackfoot, Wîchîspa to the Stoney Nakoda, and Guts'ists'i to the Tsuut'ina. On this land and in this place we strive to learn together, walk together, and grow together "in a good way."

Executive Summary

The Assessment Principles Group (APG) was formed in 2023 to draft institutional Principles for the Assessment of Student Learning, based on input from across the University of Calgary (UCalgary). Principles for the Assessment of Student Learning will provide a framework to help guide assessment practices, policies, guidelines, procedures, discussions, and decision-making across multiple organizational levels. Consultations with the UCalgary campus community began in the fall of 2024 and occurred over six months. Elder Evelyn Good Striker provided grounding, wisdom and guidance for our processes to help the team move forward in a good way. Over 450 people (staff, students and faculty) engaged in campus conversations, and nearly 900 comments emerged from and were coded from these consultations. Eleven themes emerged from this process including: student learning and growth; curriculum alignment; parallel processes and ethical space; equitable and inclusive; meaningful feedback; clear communication, mental health and wellbeing; academic integrity; educational technologies; continuous enhancement; and resources and support. The following draft principles were developed based on these themes:

- a) Assessment meaningfully supports student learning and growth, is grounded in disciplinary context and highlights applicability and relevance.
- b) Assessment practices demonstrate alignment within the curriculum and modality of the course and program, progressively building upon and reflecting student learning, skills, and competencies throughout their academic journey.
- c) Assessment cultivates a shared and ethical space that respects written and oral traditions and honours diverse Indigenous cultural protocols, perspectives and knowledges.
- d) Assessments are designed to be fair, accessible, equitable and inclusive for diverse educators and learners, and provide multiple ways for students to engage with learning.
- e) Assessments actively engage students by offering multiple opportunities for practice; timely, clear, and meaningful feedback; and structured reflection on their learning to continuously improve and enhance future learning.
- f) Communications about assessments are transparent and designed to ensure clarity on the policies, purpose, tasks, grading standards, and criteria by which students will be assessed.
- g) Assessments consider the mental health and wellbeing of students and educators by recognizing the human and systemic contexts.
- h) Assessments uphold the values, principles, and practices of academic integrity.
- i) Educators and students use educational technologies ethically in assessment and feedback practices, and take proactive measures to mitigate barriers, adverse impacts, and biases.
- j) Assessments inform administrative and curricular processes, including quality assurance and alignment with professional accreditation standards, to continuously enhance educational quality and student success.
- k) The assessment ecosystem is sustainably supported by organizational policies, processes, resources, professional learning, and digital and physical infrastructure.

Each Principle will be accompanied by a description and illustrative examples of teaching and learning strategies, and associated research-informed resources to help provide additional context for how to put these Principles into practice. To align with the commitments in the *ii' taa'poh'to'p* Indigenous Strategy, we must now engage in a parallel process that is grounded in oral traditions. We look forward to

continuing to strengthen these principles based on feedback and input from across the academic community.

Introduction

Teaching and learning in higher education have become increasingly complex with emerging educational technologies and generative artificial intelligence, shifting teaching modalities, expanding enrolments and class sizes, pressures to meet societal needs for innovation and employability, and questions about the purpose and value of postsecondary education (Kenny et al., 2025). Student assessment practices play a key role within the context of these complexities and tensions. Assessment practices greatly impact what, when, and how students learn in higher education (Gibbs & Simpson, 2005). Assessment practices are influenced by individual educators, and a myriad of policies, procedures, networks, and supports across the academic community. Increased attention has focused on assessing student learning, especially following the pandemic, and with the emergence of generative artificial intelligence (Devlin & Samarawickrema, 2022; Eaton, 2023). As identified by our Academic Innovation Plan, authentic and research-informed approaches for student assessment will contribute to the development of future-focused academic programming at UCalgary (University of Calgary, 2023).

Assessment principles are built upon scholarly literature, research-informed practices, and dialogue with faculty, staff, and students across the academic community. Lindstrom et al. (2017) describe,

...principles are the “big ideas” that transcend specific assessment practices across disciplines and fields of study. They do not prescribe assessment practices in a particular context. Across diverse discipline contexts, guiding principles help us reflect on, critically assess, and have confidence in the effectiveness of a critical dimension of our students’ learning experiences - how we assess their learning. Specific assessment strategies are determined by individual teachers, based on their discipline and teaching expertise” (p.5).

Assessment principles can be used: a) to guide the development of assessment procedures and decision-making, b) clarify what meaningful assessment practices look like across multiple contexts, and c) provide inspiration for further reflection and discussion about how assessment can best support student learning, growth and development (Lindstrom et al., 2017; Stowell, 2004). Principles for the assessment of student learning will provide a framework to help guide assessment practices, policies, guidelines, procedures, discussions, and decision-making across multiple organizational levels. These levels include the micro (individual educators), meso (faculties, departments, working groups), macro (institutional) and mega (disciplinary, provincial, national and international) levels (Simmons, 2016; Kenny et al., 2015; Williams et al., 2013).

The following report provides an overview of the background and process for developing assessment principles for student learning at the University of Calgary. Grounded in scholarly literature and a robust consultation process, it then presents a comprehensive list of principles for the assessment for student learning.

Background

In March 2023, a group of leaders from academic units, the student experience portfolio, Registrar's office, Taylor Institute for Teaching and Learning, Secretariat's office and Legal/Student Appeals met to identify pressing issues related to assessment of student learning, and potential actions to be taken. One of the key recommendations from the group was to develop a set of *principles to guide practices for the assessment of student learning* at the University of Calgary. This commitment led to the creation of the [Assessment Principles Group](#), which brought together individuals with interest, expertise and experience in the assessment of student learning to begin to frame the discussion around the development of assessment principles for student learning at the University of Calgary. The APG served as an advisory group to the GFC (Teaching and Learning Committee) with respect to drafting institutional principles for the assessment of student learning.

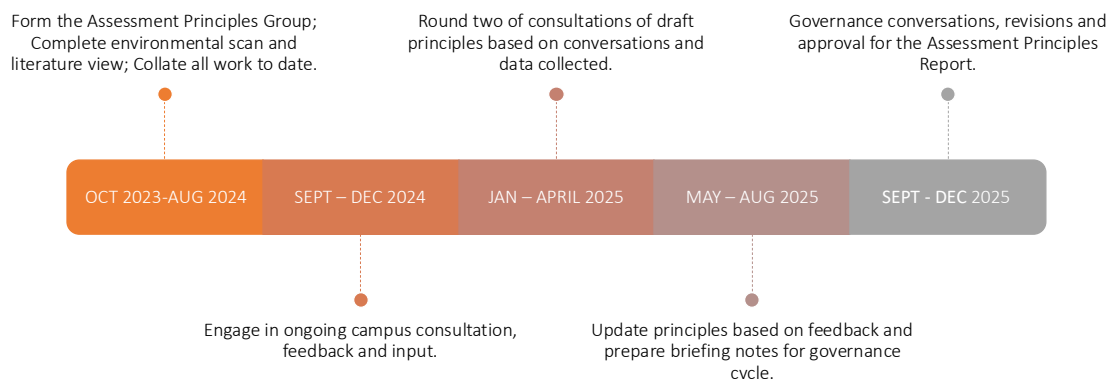
To learn how principles and practices for assessing student learning were conceptualized, developed and shared in higher education settings, the APG conducted an [environmental scan of U15 institutions and a comprehensive literature review](#). We discovered that **the purpose and role of assessment have expanded in higher education**. For example, assessment:

- supports, motivates and engages students in learning;
- provides opportunities for various forms of feedback on teaching and learning (e.g., self-reflection, educator to student, student to student, student to educator), helping students learn from and adjust their learning, and educators learn from and adjust their teaching;
- assists in measuring student performance, generating grades and awarding credentials and certifications;
- helps students and educators gauge and monitor progress and attainment of learning goals in an academic course or program; and,
- informs administrative and curricular processes, including quality assurance and professional accreditation standards (Boud, 2020; Hooda et al., 2022; Ibarra-Saiz et al., 2021; Jones et al., 2021; Memarian & Doleck, 2023; Winestone & Boud, 2022).

Through the environmental scan and literature review, we also noted a need to ensure that the development of principles for the assessment of student learning at UCalgary address: assessment as a learning practice; learning technologies and generative artificial intelligence (AI); student, staff and educator well-being and mental health; meaningful feedback processes; authentic assessment; students as partners in assessment; systemic and multi-level processes for supporting and building capacity in assessment; Indigenous ways of knowing, being, doing and connecting; equity, diversity, inclusion and accessibility (EDIA); graduate and undergraduate student assessment practices, and multiple instructional modalities (e.g., online/blended learning).

Consultations

TIMELINE / Assessment Principles Consultation Plan



The APG initially met with educational leaders from U15 institutions with publicly available assessment principles or who had recently created assessment principles at their university. Although the APG conducted an environmental scan, it was insightful to hear about how they developed these principles and engaged with students, academic staff and leaders, and any lessons learned. The University of Saskatchewan’s and McGill University’s key message to the APG was student assessment is an integral component of academic processes, and it is critical to **take the time needed, consult iteratively with as many people as possible, and maintain transparency** throughout the process. We heard that for assessment principles to be meaningful, they must be grounded in research, include the collective views of multiple partners and groups across the academy, and be accompanied by robust resources and support to help put the principles into practice.

Consultations with the UCalgary campus community began in the fall of 2024. Elder Evelyn Good Striker, a Lakota Dakota from Standing Buffalo First Nation in Saskatchewan and Cheyenne River Sioux Tribe in South Dakota, has provided wisdom, leadership and grounding.

Elder Evelyn shared the importance of moving learning, including how students demonstrate their learning, from head to heart. She also reminded us in natural law, humanity is first. We look after each other first and then everything else.

Educators are responsible for nurturing the learning spirit in all students. In Indigenous oral traditions, learning is about listening, learning, and retelling. It is also about sharing and acting upon what we learn. This sharing and giving of our learning are acts of transformation and kindness that impact generations to come.

Over 450 people engaged in campus conversations about developing principles for the assessment of student learning at the University of Calgary. Nearly **900 comments emerged from the conversations and were coded** as part of our analysis. The consultation process began with a community conversation where representatives from units across campus were invited to a world-cafe style discussion. The APG also facilitated additional sessions throughout November 2024 – March 2025 with the following groups: the Student Legislative Council; the Graduate Student Association; Graduate Representative Council; Associate Deans (Teaching and Learning) Roundtable; the Taylor Institute for Teaching and Learning; students from the Scholars Academy, Academic Turnaround Program (ATP), Neurodiversity Immersive Campus Experience (NICE), Peer Assisted Study Session (PASS) student leaders and First-Generation Student Mentors; staff from Student Accessibility Services Staff that included access advisors and neurodiversity support advisors; Student Success Centre Staff; faculty-specific consultations with the Werklund School of Education and the Cumming School of Medicine; the ii' taa'poh'to'p, Working Circle 4 (Academic Programs) and Working Circle 6 (Policies, Procedures, and Practice), and the General Faculty's Council Teaching and Learning Committee. Individual conversations were also held with 13 Indigenous academic staff members from the Werklund School of Education, Faculty of Science, Faculty of Nursing, Faculty of Arts and Cumming School of Medicine.

The community conversations focused on the current **strengths** and **challenges**, as well as **future possibilities** for student assessment at UCalgary. Comments and thoughts that did not fall within these three categories were also recorded in a fourth section of '**what else.**' Conversations were recorded via an anonymous Padlet link where individuals were given time to add their thoughts and through a scribe taking notes as they listened to others have conversations about the strengths, challenges, and future possibilities for student assessment. In one-on-one or small group conversations written notes were captured. Themes were summarized by four members of the APG on a spreadsheet and iteratively coded based on themes which emerged from the environmental scan and literature review.

Summary of Campus Conversations

Student Learning and Growth

Consultation feedback and the review of research literature emphasized the importance of assessment practices that focus on *learning and growth*. Ideally, assessment approaches prioritize learners' understanding and promotes long-term growth, development, and change among students (Boud & Soler, 2026; López-Pastor & Sicilia-Camacho, 2017). Several comments from participants noted that assessments should be "reflective of learning - and not just about grading/ranking."

To facilitate a shift towards focusing on student learning, consultation groups advocated for more support for developmental grading approaches, such as ungrading (McMorran et al., 2017; Stommel, 2023). Participants suggested a range of assessment approaches that may prioritize learning over grades. A few examples include shifting to "pass/fail," utilizing "mastery-based" rubrics, providing opportunities for assessment "resubmission," and permitting "multiple attempts" for quizzes and assignments.

Additionally, academic staff participants overwhelmingly advocated for assessments that focus on authentic learning and have career and societal relevance and applications (McArthur, 2023; Vallis, 2024). To support this, academic staff members recommended designing “assessments to connect to what students will be needing to do after they graduate” and advancing the “focus on practical, applied learning.” As Ibarra-Saiz et al., (2020) noted, assessment tasks should “reflect professional scenarios, so that students learn what is meaningful for themselves and for the social and professional world they are entering” (p. 3).

Student participants also echoed the need to align assessments with “real-world” skills and lifelong learning. Reflecting on their experiences, they shared that current assessment practices often lack the focus on learning and that “[there is a] disconnect between what is being learned and what is required in the work world.” Students argued that high-stakes exams, rigid formats, and assessments that lack relevance to the future dilute the impact of learning. Assessments, they shared, often “feel more like a hoop you have to jump through that you have to do well on rather than promoting actual learning and understanding of the topic.”

Curriculum Alignment

Our consultations revealed a strong emphasis on outcomes-aligned assessment practices that promote transparency and coherence. Participants recommended that assessments in individual courses align with program and faculty-level commitments on what learners are expected to know, do, and value. Students’ learning in and through assessment practices should also inform course and program level curriculum review and development processes (Braun, 2019; Boud & Soler, 2016; Manis, 2022). This reciprocity, when intentional, enables meaningful growth and development over time for all involved. Support systems, such as employing graduate teaching assistants to “work with an instructor over multiple terms” and facilitating collaborative processes including “instructors talking to each other” for curriculum design, were identified by participants as critical enablers in developing well-aligned assessment structures and frameworks across units and academic programs.

Referring to institutional assessment structures, participants also cautioned about the “structural neglects” underpinning systemic barriers and inequities in assessment. Inconsistencies in grading including “no common grading scale at UCalgary,” clustering assignments due dates (e.g., “3 assignments all due in a week”), and “uneven workloads” were frequently mentioned.

Parallel Processes and Ethical Space

Many Indigenous Scholars and members of the *ii’ taa’ poh’to’p* working circle described assessment as a reciprocal process for students to demonstrate their learning and for instructors to support and engage with students. They shared the importance of spirit (Bastien, 2004; Battiste, 2013) in the learning process and providing opportunities for all students to engage in meaning-making and transformation. They spoke to the importance of parallel processes (*ii’ taa’ poh’to’p* Indigenous Strategy, 2017) and learning. For example, it is important to “create ways for Indigenous students to demonstrate their

knowledge and abilities in both Indigenous and Western/Non-Indigenous ways that is respectful of Indigenous perspectives and practices.” They also acknowledged the importance of relationships and relationality, emphasizing that “everything is alive” and interconnected. Indigenous cultures and pedagogies are grounded in the importance of interrelationships (Bastien, 2004). Donald (2021) speaks to the concept of kinship relationality, which “teaches human beings to understand themselves as fully enmeshed in networks of relationships that support and enable their life and living” (p.29). He further describes ethical responsibility as:

tied to a desire to acknowledge and honour the significance of the relationships we have with others, how our histories and experiences position us in relation to one another, and how our futures as people in the world are similarly tied together. It is an ethical imperative to remember that we as human beings live in the world together and also alongside our more-than-human relatives; we are called to constantly think and act with reference to those relationships (Donald, 2016, p. 11).

They celebrated successes in integrating Indigenous oral traditions, knowledges, Ceremony, storytelling, art and land-based learning opportunities to advance and affirm Indigenous knowledges and perspectives in their courses. They spoke to amplifying the diversity of Indigenous peoples, histories, cultures, practices and protocols, and the current and ever-evolving nature of Indigenous knowledges and lived realities. As Battiste (2013) emphasizes, “Indigenous knowledge is not a singular concept” (p. 180).

Respondents also reinforced ensuring ethical space where oral and written traditions and worldviews are explored through meaningful engagement and dialogue (Ermine, 2007). These spaces include respectful engagement with Indigenous Knowledge Keepers and Elders with deep lived experience and connection to community throughout academic courses and programs, and “ensuring this is done in a good way.” They shared a belief in the importance of designing learning and assessment practices that recognize “holistic experiences” and build upon the lived experience and growth of learners. Most importantly, they shared that learning is about learning how to learn and demonstrating the capacity to carry forward that learning. Their collective input aligns with seeing pedagogy as a “crucial site” for change and transformation across the academic community (Louie et al., 2017).

There was an acknowledgement of ongoing misunderstandings, misconceptions, stereotypes and racism which persist about Indigenous peoples and perspectives across the academic community. They experienced these challenges from students, staff, faculty and academic leaders. Conversations also highlighted multiple institutional barriers related to meaningful engagement with Indigenous knowledges, Knowledge Keepers and Elders in academic courses. For example, barriers included: time for building relational and ethical connections with Indigenous peoples and communities; structural barriers to following appropriate protocol for validating knowledge (e.g., honorarium, gifting, and smudging); physical barriers and wayfinding to learning spaces on campus; and, labor-intensive institutional regulations which hinder access to land-based learning opportunities. The burden of

navigating these barriers too often fall to Indigenous peoples, and it is important to acknowledge and address these barriers moving forward. Many Indigenous academic staff members struggle with working in western systems of education, which are largely based on competition and striving to get the highest grade possible. They reflected on questions such as, “What if our systems for higher education reinforced collectivism, where everyone contributes and can do well?” One respondent shared,

If we can help outline the journey of a program and how this journey relates to a life journey (what one can do with a degree) we can then break that journey down to how the course are smaller parts of the journey and then how assessments are landmarks guiding the journey to show we are on track. This is different than assessing we are good enough, or the best of a group.

Existing grading and assessment policies and course structures (e.g., course outline requirements, large class sizes, limited access to teaching assistants) often hindered the ability of Indigenous academic staff to design and implement student assessment strategies that strongly aligned with Indigenous oral traditions and ways of knowing. As part of a large research-intensive institution, many felt strong perceptions that the way we reward and recognize academic work remains strongly grounded in metrics around research. Despite these barriers and challenges, Indigenous scholars want to engage in this work in a good way and feel a deep responsibility for doing so, especially as it relates to their connections to community.

Themes generated during our discussions with Indigenous scholars and groups are summarized in Figure 1. Conceptualizing assessment from an Indigenous worldview is going to have broader implications for how we teach. As we commit further to moving forward with this work, Ottmann (2013) reflects on the importance of affirming Indigenous perspectives and ways of knowing in educational curriculum:

...it has the potential to strengthen relationships, our learning experiences and therefore society. Because it can help improve the academic and overall well-being of not only Indigenous but non-Indigenous students as well (p.19).

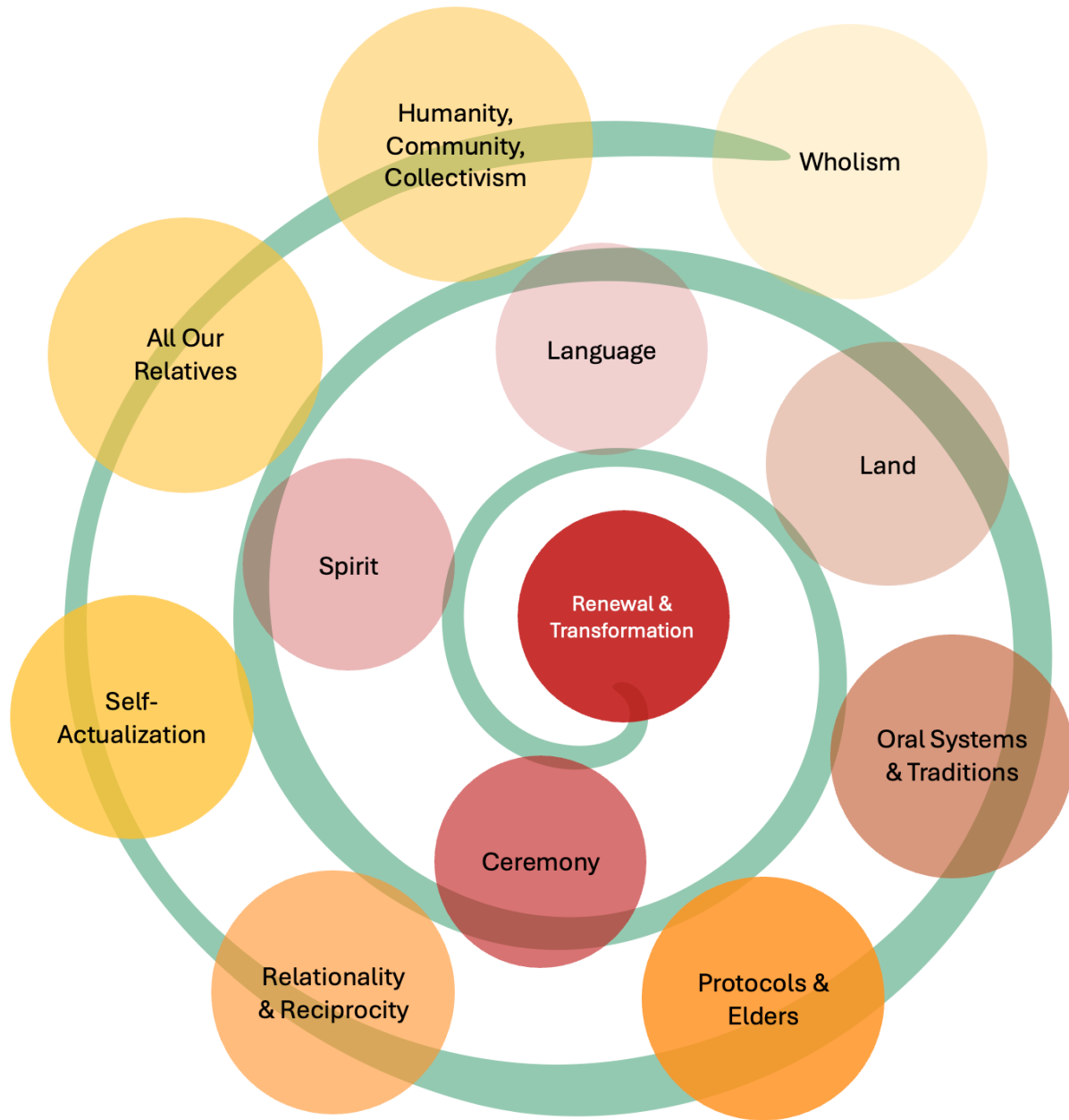


Figure 1: Essential elements for engaging in a journey of renewal and transformation in teaching, learning and assessment that emerged from our conversations with UCalgary Indigenous Scholars and Groups. A spiral composed of circles with varying colours that are smaller at the centre and gradually increase in size toward the outer edge reflects the cyclical and iterative movement of the elements. Each element is further contextualized in the glossary section of the report.

Equitable and Inclusive

During our consultations, we observed a strong need and advocacy for designing diverse and accessible assessments. Participants appreciated assessment designs that were grounded in *Universal Design for Learning* principles (Boothe et al., 2018; CAST, 2024) and offer multiple modes of action and expression,

representation, and engagement. One student participant shared, “I do better in classes with multiple modes of assessment because they test [and develop] different skills.” Student participants also offered a range of suggestions to improve accessibility through assessments. These suggestions include “recording all lectures”, offering choices like “infographics,” “podcasts,” and “project-based work” to demonstrate learning, providing “sensory tools and extra paper”, and allowing scrap paper during exams.

A recurring suggestion in our consultations has been to honor multiple and diverse ways of knowing through assessment practices. One participant shared the importance of strategies that respect and “accommodate Indigenous and immigrant learning and knowledge styles.” Another participant called for a shift in focus towards “decolonizing assessments” by prioritizing “lived experiences” and “oral presentations” over traditional exams. The aim should be to make students’ holistic selves visible and valued in assessment tasks and processes. Jankowski & Baker (2023) identified students’ active involvement and cultural responsiveness as two essential elements of equitable and inclusive assessments. They further argue that:

To address issues of equity in assessment means that students need to be actively involved in the process of assessing their own learning, developing evaluative and reflective judgement skills. Further, giving students choice in how they demonstrate their learning and utilizing multiple sources of evidence appropriate for the students being assessed provide agency to students in relation to their learning (Jankowski & Baker, 2023, p. 9).

Similarly, Elkhoury et al. (2023) called on instructors to create an “institutional culture that prioritizes equity by reframing how we ‘do’ assessment, and by reaching out to students to [be] co-collaborators in this process” (p. 16). Despite this advocacy and support, consultation groups expressed concerns on how many assessment practices continue to be guided by “colonial and neurotypical” traditions. One participant shared that “the institution needs to grapple with its colonial foundations” if we wish to address structural biases and systematic inequities in our teaching and learning practices.

Meaningful Feedback

Assessments are best designed and approached when they offer opportunities for continuous and iterative learning to students (Memarian & Doleck, 2023; Williams, 2023). Assessment, when viewed as a learning journey, emphasize a process where mistakes and errors are considered milestones for further learning and mastery. During our consultations, one academic staff member shared, “Assessment drives further learning by both the instructor (ways to improve or build on knowledge) and the student (self-correction and ongoing learning to improve understanding).”

Similarly, student participants advocated for adjusting assessment and grading practices such that errors are normalized as part of the learning process. Students shared various strategies on how this could be achieved. A few examples included instructors recognizing mistakes as “part of the learning process;” revising “[assessment/exams] weighting” to acknowledge students’ learning over time; and, providing “ongoing small assessments for [continuous] engagement.”

Participants also emphasized the importance of detailed, timely, and constructive feedback in facilitating students' immediate and future learning. Student participants shared that detailed and clear feedback show "where you went wrong" and offer actionable insights for the learning path moving forward. Similarly, when feedback is shared in a timely way, students have an opportunity to "build upon the strategies that you get from the previous assessment." Participants voiced concerns and challenges regarding scaling feedback practices. Particularly, in "large class" contexts, participants identified that "giving feedback (...) is challenging" as there are "too many individual items to mark" and provide feedback. Participants recommended to approach feedback as a dynamic tool and mechanism for learning and growth and not just a transactional afterthought.

Clear Communication

Clear communication and transparency throughout assessment processes help facilitate student achievement and engagement. When instructors provide accessible instructions for assessments clearly outlining the expectations, students are less likely to feel anxious and more likely to achieve learning outcomes (Ambrose et al., 2010; Hattie, 2009). Similarly, clear and transparent expectations guide students in self-regulating their learning and adjusting learning strategies for continuous improvement (Boud, 2020; Pitt & Norton, 2016).

Throughout the consultations, participants highlighted a strong demand for clear, transparent communication in assessment instructions and learning expectations, with students and academic staff emphasizing its impact on procedural fairness, stress management, and learning outcomes. Expressing the need for explicit and standardized guidelines, participants requested "clear expectations, clear rules about how missed assessment will be handled, similar to the consistency of deferred exam policies."

This advocacy for clarity in expectations extends to grading criteria as well. As one participant noted, "Good assessment is clear from beginning to end. The learner/worker knows what success looks like, what work will be involved to get there, and how to get better along the way." Student participants indicated the importance of early, detailed communication of expectations to avoid any confusion or ambiguity. For example, they suggested sharing "clearly what topics will be tested on to direct study" and clarifying "what is expected with exemplars" as ways to make expectations explicit. Students also shared that it becomes easier to focus and do well in courses when instructors and teaching assistants follow "consistent criteria" and when "learning objectives are [clearly] laid out."

Mental Health and Wellbeing

Throughout our consultations, participants advocated for assessment mechanisms and practices that support student learning and reduce stress and anxiety. Several participants voiced concerns about an educator mindset and narrative that "I suffered, so you must suffer." Participants placed a strong emphasis on being creative and inclusive in assessments by prioritizing "holistic wellbeing" and valuing collaboration and trust-building among instructors and students. It is recommended to create space for flexible and wellness-focused assessment procedures and processes. Student participants argued that offering options like "grace periods" and "late day bank[s]" present flexibility and make learning more

accessible. Jankowski et al. (2023) emphasized to view students as whole beings and to keep them at the center of assessment design and administration processes. They noted:

Seeing students as whole persons with basic needs, mental health concerns, and lives beyond the time they are in structured learning environments has the potential to fundamentally shift the evidence base of assessment as well as inform data integrations and analyses to advance student power, privilege, and position in assessment. It is only through actively involving students that collective problems of learning will be solved (Jankowski et al., 2023, p. 26).

Participants noted a range of mental health and wellness issues concerning assessments. For example, student participants shared that concentrated, high-stake assessments continue to cause unnecessary worry and, in some cases, harm. Students indicated that, at times, one exam maybe worth more than half of the course grade, “I had an exam worth 70% last year and it becomes so stressful, and your entire grade is dependent on one day.” Similarly, student participants shared concerns regarding multiple assignments due at the same time. One student shared, “3 assignments all due in a week, can be difficult to manage, confusing, conflicting deadlines, and so many all at once.”

Several participants emphasized the importance of flexible and fair assessment structures to promote student learning. Student participants shared examples of courses where instructors allowed “unlimited attempts,” facilitated staged submissions, offered “immediate [instructor] feedback,” and “dropped [lower grade] assignments.” Student participants praised these approaches for mitigating stress and reducing exam/assignment anxiety. For example, one student noted, “Multiple attempts ensure you spend more time on a problem and you are more connected to the material.” Another student voiced the importance of staged assignments, “When assignments are broken down and submitted in stages. Really helpful in group projects to keep students on task, reduces stress at the end of the term.”

Additionally, instructors’ high workload was a recurring theme in our consultations. Academic staff participants identified instructor workload pressures as a critical pain point, sharing that, “grading loads are burning out excellent instructors.” Academic staff also pointed towards the lack of “support/time to redesign assessments”. For example, one academic staff member shared, “we often don’t have the time or resources to improve our craft (...) Any time spent working on pedagogical development is something we have to volunteer.” Another academic staff, reflected on how they deal with high workload and pressures, shared that “the only thing you can do is just get through the semester”. Elkhoury et al. (2023), in their research with university instructors, found that instructor workload impacts instructors’ wellness which, in turn, is connected to students’ learning and success.

Academic Integrity

During our consultations, participants advocated for promoting assessment designs and processes that are grounded in the best ethical practice of teaching and learning and that uphold the core values of “care”, “integrity”, and “humanness.” Participants drew attention towards a need for a shared commitment to equitable and ethical assessment practices. Our consultations revealed a desire to develop human-centric processes and policies where instructors and students engage in assessment practices from the position of mutual respect and trust. For example, one participant shared a need for,

“students and instructors [to] have reciprocity of trust around assessment and inclusion of assessment as learning.” Student participants argued that strategies like “allowing scrap papers during exams” and accepting students’ “self-declaration of illness” go a long way in building an institutional culture of care.

Academic integrity also hinges on recognizing the emotional and socio-cultural contexts of learning. For example, students navigating difficult times due to isolation, health issues, and financial stress may face ethical dilemmas in high-pressure environments. Policies like “revised weighting on midterm tests if a student performs better on the final” acknowledge growth over ranking, aligning with research showing that flexible assessment models reduce cheating by fostering intrinsic motivation (Anderman & Koenka, 2017). As one student participant noted:

Assessments are used to differentiate students rather than focusing on helping all students show what they know—using as tool of ranking (bell curves)—consistency and transparency in purposes for assessment important.

In view of the rapid emergence of advanced educational technologies, participants indicated a need to reimagine and “rewrite academic misconduct policies” advocating to prioritize pedagogy over surveillance (Eaton, 2023). Several participants recommended having dialogue and partnership with students to co-define ethical and responsible use of educational technologies in the assessment of student learning.

Educational Technologies

Emerging technologies have introduced transformative tools that enhance learning and assessment but also present complex challenges. During our consultations, participants highlighted Gradescope as a helpful assessment management tool that “allows for more detailed assessments and facilitates grading of large courses,” emphasizing its ability to save grading time. Additionally, participants discussed the emergence and use of generative AI tools in post-secondary teaching and learning practices. Participants explored how various AI tools (e.g. “ChatGPT”) may be used “as a teaching assistant and coach” to expand students’ learning. While the potential of generative AI was acknowledged and praised, participants raised concerns regarding its unethical use and applications.

Academic staff participants discouraged the misuse of educational technology, including generative AI, with respect to contract cheating and plagiarism and urged that the institution should develop “clearer guidelines on generative AI use.” One participant noted, “We want students to learn how to use these tools... but we need to learn how to use them properly.”

While discussing the impact of technological arms race on post-secondary teaching, learning and assessments, Eaton (2022) argued to “prioritize student learning above catching [student] cheaters” (p. 1). During our consultations, student participants also wanted clarity on the fair use of educational technology tools like generative AI. Students shared that there should be “less focus on ‘catching’ students” and more focus on educating students to “work with AI technology rather than against it.” One participant suggested that the institution should organize “mandatory yearly AI training for instructors and students” to build digital literacy. Participants emphasized that technological innovations

are here to stay, so instructors and students must approach our teaching and learning priorities, processes, and structures with integrity and move forward in a good way.

Continuous Enhancement

Assessments impact learning, student success, and educational quality at multiple levels of the institution. For example, assessment approaches contribute towards our knowledge and understanding of student learning not only about how it is demonstrated in specific course and classroom contexts, but also how it informs and enhances curricular and quality assurance processes across all levels of the institutions (Jankowski et al., 2023). Assessments are influenced by instructors at the course level (micro), and by the structures, values, policies, norms, and priorities prevalent at the disciplinary and departmental (meso), institutional (macro), and provincial/national (mega) levels.

During our consultations, participants identified assessment as a vehicle to enact institutional teaching and learning priorities, as well as an avenue for further growth and enhancement at all levels of the institution. Participants advocated to develop and support assessment practices that may encourage “greater consistency across the university” in how teaching and learning policies and institutional commitments are articulated, enforced and implemented. Participants reflected that assessment is “a reflection of student learning,” so it is critical that we have “more trust in students” and create an ethical space to “incorporate student voice” in our assessment decisions.

Resources and Support

The appropriateness of physical Learning spaces was emphasized by participants during our consultations. For example, students discussed the impact of appropriate learning spaces during examinations:

Many assessment locations (old classrooms) around the university do not accommodate those of all body shapes, putting unequal physical strain on many. Tests then may not fully reflect student academic abilities but their ability to stay focused in uncomfortable locations.

Institutional and unit-level resources are needed to appropriately support assessment practices. Participants in the consultations often remarked about the limitations of resources, such as teaching assistant resources, “Big classes – how to assess lots of students when instructor/TA resources are limited.” They also noted how the size of sections can impact assessment and wondered if supports could be provided to support assessment changes through input such as:

...I have 1,200 [students] across all sections; How can assessment designs scale without losing authenticity, alignment, and connection to the Principles? (are there supports that can be provided? tools? funding?)

These limitations can make it challenging to change current assessment practices, “Institutional barriers cause faculty to do what they feel works for them...” Lindstrom et al. (2017) note the importance of institutional supports in helping institutions that “...create a culture of assessment into policy frameworks, guides change processes and increases overall organizational sustainability around supporting assessment” (p. 11).

Proposed Draft Principles

Below are proposed principles for the assessment of student learning at the University of Calgary based on our environmental scan, literature review, and campus consultations. These principles are generated to reflect the above-noted themes (see Figure 2) and are presented in no particular order.

The intent will be to ensure that each principle is accompanied by a description and illustrative examples of teaching and learning strategies, and within a variety of contexts. The principles are not static and should continue to be reviewed and revised to align with institutional priorities and research-informed practices. We also continue to engage in conversations with Indigenous Elders, Knowledge Keepers, scholars and groups to better reflect a parallel path and ethical space.

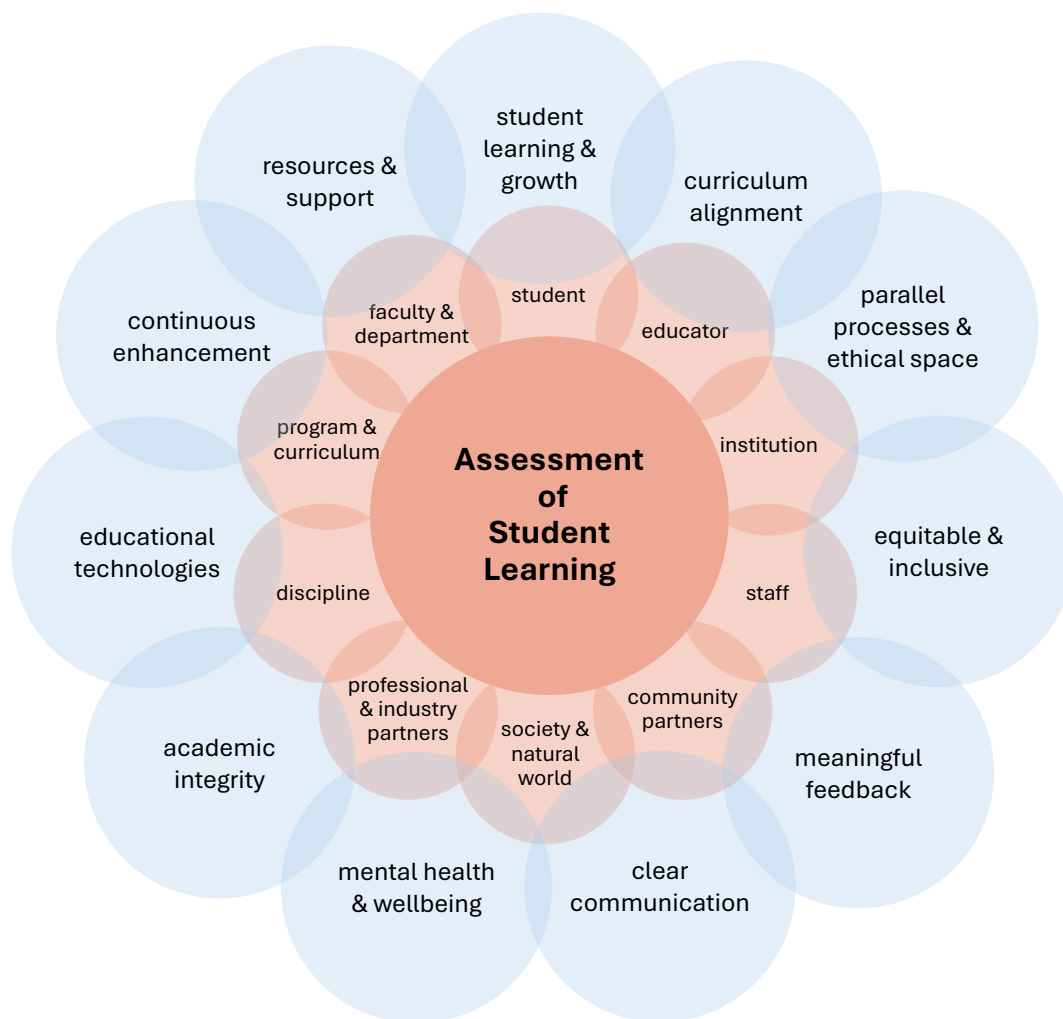


Figure 2: Key themes (outer layer) related to the development of Principles for the Assessment of Student Learning at UCalgary visualized with multiple interrelated factors (middle layer) that influence assessment, and emerged through our environmental scan, literature review, and campus consultations.

Draft Proposed Principles for the Assessment of Student Learning at UCalgary

- a) Assessment meaningfully supports student learning and growth, is grounded in disciplinary context and highlights applicability and relevance.
- b) Assessment practices demonstrate alignment within the curriculum and modality of the course and program, progressively building upon and reflecting student learning, skills, and competencies throughout their academic journey.
- c) Assessment cultivates a shared and ethical space that respects written and oral traditions and honours diverse Indigenous cultural protocols, perspectives and knowledges.
- d) Assessments are designed to be fair, accessible, equitable and inclusive for diverse educators and learners, and provide multiple ways for students to engage with learning.
- e) Assessments actively engage students by offering multiple opportunities for practice; timely, clear, and meaningful feedback; and structured reflection on their learning to continuously improve and enhance future learning.
- f) Communications about assessments are transparent and designed to ensure clarity on the policies, purpose, tasks, grading standards, and criteria by which students will be assessed.
- g) Assessments consider the mental health and wellbeing of students and educators by recognizing the human and systemic contexts.
- h) Assessments uphold the values, principles, and practices of academic integrity.
- i) Educators and students use educational technologies ethically in assessment and feedback practices, and take proactive measures to mitigate barriers, adverse impacts, and biases.
- j) Assessments inform administrative and curricular processes, including quality assurance and alignment with professional accreditation standards, to continuously enhance educational quality and student success.
- k) The assessment ecosystem is sustainably supported by organizational policies, processes, resources, professional learning, and digital and physical infrastructure.

Conclusion

Moving towards transformation in student assessment practices at UCalgary will be an iterative and continuous journey, and these research and community-informed principles provide an important foundation for that work. During our consultations, participants noted, “No assessment is perfect.” Assessment practices, policies, and processes across the academic community are nuanced and contextual. They are influenced by individual educators, disciplinary approaches, student learning experiences, departmental and faculty curriculum conversations and processes, institutional governance, infrastructure, supports and resources, professional accreditation standards, and societal change.

It is unlikely that any assessment practice, process, or policy will adhere to every one of the principles. These principles are meant to guide and influence meaningful reflection, dialogue and decision-making related to assessment practices across the university community, within the context of existing educational and governance processes. As the contexts of our teaching and learning environments become increasingly complex, these principles serve as a tool for continuous and incremental review, learning, growth, action, and transformation. They offer direction for the institution, faculties and individual educators to reflect upon and continuously improve assessment practices. Postsecondary teaching and learning landscapes are rapidly evolving and shifting. It will be important for the institution to commit to reviewing and adjusting these principles on a regular basis.

Glossary

The following section summarizes the conceptual application of terms that guided our work, including the essential elements for engaging in a journey of renewal and transformation in teaching, learning and assessment that emerged from conversations with UCalgary Indigenous scholars and groups. We intentionally centred many of these concepts in the land where this work is situated. Many of these concepts hold meaning across Indigenous nations and communities.

All our relatives: Throughout our journey towards renewal and transformation at the University of Calgary, we often reflect upon connecting meaningfully with “all our relatives” or “all our relations.” *“Kimmapiipitsini* is a Blackfoot concept that “is grounded in the responsibility to be humble, to see all creation as equal, to embody and extend kindness to everything around us — to all our relatives (Grandparents of ii’ taa’poh’to’p, 2025, p.57). Elder Reg Crowshoe further shares, *“We become relatives because we all live in the same environment. The land animals, the plants, human beings, the seasons”* (Grandparents of ii’ taa’poh’to’p, 2025, p.153). Elder Betty Bastien (Bastien, 2004) reflects, “The non-separation of nature and humans is one of the demarcations between Eurocentred and Indigenous philosophy” (p. 80). Noting further, “Learning how to connect the power of self with all other forms of life is the essence of human development” (p. 95).

Ceremony: Ceremony is sacred to Indigenous peoples and communities. As emphasized in Canada’s journey towards truth and reconciliation, “Sacred ceremony has always been at the heart of Indigenous cultures, law, and political life. When ceremonies were outlawed by the federal government, they were hidden away until the law was repealed. Historically and, to a certain degree, even at present, Indigenous ceremonies that create community bonds, sanctify laws, and ratify Treaty making have been misunderstood, disrespected, and disregarded by Canada. These ceremonies must now be recognized and honoured as an integral, vital, ongoing dimension of the truth and reconciliation process” (TRC Canada, 2015a, pp. 269-270).

Elders & Knowledge Keepers: “The terms are interchangeable, referring to ceremonial and spiritual leaders as well traditional and cultural knowledge keepers, recognized by and within the context of the Indigenous community” (ii’ taa’poh’to’p Indigenous Strategy, 2017, p. 47).

Ethical space: The concept of shared, ethical space is a central concept in UCalgary’s ii’ taa’poh’to’p Indigenous Strategy (2017), grounded in Elder Willie Ermine’s seminal work (2007). Grandparents of ii’ taa’poh’to’p (2025) share, “The idea of ethical space is based on the premise that Indigenous and Western thought worlds have inherent, inalienable rights and standing. There is a sacredness to these distinct thought worlds, and authentic relationships between them require a deep commitment to honouring and protecting the spirit inherent in each world. In essence, an ethical relationship between Indigenous and Western thought worlds requires the dominant culture to fully acknowledge and engage with Indigenous communities through their own histories, cultures, knowledge systems, and autonomous practices (p. 59).

Humanity, community & collectivism: Humanity is viewed in the collective context of the relationship to the natural world. “Aboriginal paradigms include ideas of constant flux, all existence consisting of energy waves/spirit, all things being animate, all existence being interrelated, creation/existence having to be renewed, space/place as an important referent, and language, songs, stories, and ceremonies as repositories for the knowledge that arise out of these paradigms. (Little Bear, 2009, p. 8). “[McLeod] asserts that, in the Cree way, “collective narrative memory is what puts our singular lives into a larger context” (McLeod, 2007, p. 11) as we tap into the knowledge within us and allow it to change our understanding and interpretation of the world. Indigenous knowledge does not live somewhere external to Indigenous people; it is within us and it germinates and grows within community” (Martineau, 2018, p. 37).

Indigenization: Indigenization can be understood as the “transformation of the existing academy by including Indigenous knowledges, voices, critiques, scholars, students and materials as well as the establishment of physical and epistemic spaces that facilitate the ethical stewardship of a plurality of Indigenous knowledges and practices so thoroughly as to constitute an essential element of the university.” It is not limited to Indigenous peoples, but encompasses all students and faculty, for the benefit of our academic integrity and our social viability.” (Dr. Shauneen Pete, Indigenous Advisory Circle, University of Regina) (ii’ taa’poh’to’p Indigenous Strategy, 2017)

ii’ taa’poh’to’p: Described as, “the Blackfoot name of the University of Calgary’s Indigenous Strategy, was bestowed and transferred in ceremony by Kainai Elder, Andy Black Water on June 21, 2017. The name signifies a place to rejuvenate and re-energize while on a journey. Traditionally, these places are recognized as safe, caring, restful — and offer renewed energy for an impending journey. In a traditional naming ceremony, transitioning into the new name is a journey of transformation towards self-actualization” (ii’ taa’poh’to’p Indigenous Strategy, 2017, p.2).

Land: Land is a sacred teacher that holds knowledge and wisdom (Hart, 2010; Wilson, 2008). Relationship with the land is further described in the ii’ taa’poh’to’p Indigenous Strategy (2017) as, “Relationship with the land is critically important to Indigenous peoples. While settler cultures have often viewed themselves as living apart from, or “off,” the land, Canada’s Indigenous peoples have a profound and spiritual connection to the land. Betasamosake Simpson suggests that Indigenous education is therefore neither Indigenous nor education unless it comes through the land, unless it occurs in an Indigenous context using Indigenous processes” (p. 23).

Language: Language is sacred and central to Indigenous epistemologies and pedagogies. Little Bear (2009) shares, “One can say that the most important aspect of human learning is the language. It acts as a repository for all of the collective knowledge and experiences that a people, a society, or a nation has. Although it is not the only mode of communication, it is the primary mode. One of the most important tenets in the Aboriginal world is relationships... Our elders repeatedly tell us that our language is a spiritual language” (p. 22). Bastien (2004) further reflects the importance of language to Indigenous communities in emphasizing, “Language reflects the philosophical system of a people. *Siksikaitsipowahsin*, an agglutinating language, evokes and describes the relational perspective

of *Siksikaitsitapi*. *Niiti'powahsinni* is a mirror of the sacred world of the *Niitsitapi*. *Nipaitapiiyssinni* is the *Niitsitapi's* life; it is the world of the sacred – a world that is called into being by the people's words. Language holds the knowledge, the content, and the relationships that constitute the sacred way of life, the "good heart" of the people" (pp. 127-128).

Natural Law: All existence is alive, connected, and filled with energy and spirit. Elder Leroy Little Bear (2000) shares, "...existence consists of energy. All things are animate, imbued with spirit, and in constant motion. In this realm of energy and spirit, interrelationships between all entities are of paramount importance...The idea of all things being in constant motion or flux leads to a holistic and cyclical view of the world" (pp. 77-78). Everything in the universe (human and non-human) is a relative, and there is no separation of self from the land — "*we're part of the land and the land is part of us*" (Reg Crowshoe, in Crowshoe & Lertzman, 2020, p.34). Everything we do has a response, and "[t]here are consequences when we honor natural law, and consequences when we dishonor natural law...When we follow natural law, honoring its principles, protocols and practices, we are in harmony with nature and nature looks after us." (Crowshoe & Lertzman, 2020, p. 33). Natural laws are the source of our survival, including renewal, restoration, rejuvenation and relationship, and the foundation for ethical space, interconnection and community (Crowshoe & Lertzman, 2020; Ermine, 2007; Grandparents of ii' taa'poh'to'p, 2025).

Oral Systems: Elder Reg Crowshoe reflects on the parallel paths of written (Western) and oral (Indigenous) systems along the parallel path sharing, "My grandmother would say "Creator gave the [Western] written system and their administration, and they gave the oral [Indigenous] system their administration. They're both equal, but we have to acknowledge them like the wampum belt with two canoes —not crossing each other. And if we can do that, we can work together" (Reg Crowshoe in Grandparents of ii' taa'poh'to'p, p.3).

Parallel path: The concept of parallel paths is foundation to the ii' taa'poh'to'p Indigenous Strategy. Piikani Elder Elder Dr. Reg Crowshoe's oral teaching have guided us in seeing a parallel path as, "...a process of reconciliation, which entails a collective journey that honours Indigenous Peoples' stories, knowledge and traditions and the renewal and development of authentic relationships with Indigenous peoples and communities." (<https://www.ucalgary.ca/indigenous/about-ii-taapohtop/explore-strategy/conceptual-and-cultural-models>). Parallel Paths is based in the understanding that life is a journey where people within and connected to the university are walking on parallel paths that reflect oral and written systems and world views. It reflects long-standing processes reflected in actions such as treaty-making and the respect traditionally demonstrated for other life. It honours both paths as complementary frameworks with parallel ways of knowing, doing, connecting and being. By intentionally walking in parallel paths, Indigenous people and other members of the university community come together to discuss how to maintain, strengthen and advance the values, understandings and practices of each parallel path in mutual and equitable ways where our actions are based in kindness and respect of relationships, differences and inclusion. Parallel paths acknowledge that we can journey together side by side, address parallel interests and challenges, and move toward shared visions, while walking in ways that maintain our own identities, values, knowledges and

practices. Walking together on parallel paths honours and exercises Indigenous peoples' right to be self-determining and recognizes the rights of others to do the same. The journey is facilitated and strengthened by a grounding in cultural protocols. The concept of "parallel paths" is in UCalgary's Indigenous Strategy, *ii' taa'poh'to'p*, and is based on the oral teachings offered by Piikani Elder Dr. Reg Crowshoe" (UCalgary, n.d., Dimensions EDI in Research Action Plan, p.9).

Protocols: Indigenous nations across Canada have their own distinctive language, culture and protocols. Indigenous ceremony and protocols are critical to truth and reconciliation (TRC, 2015b). Universities must be respectful and inclusive of Indigenous peoples and cultural protocols, including appropriate spaces and processes that allow for the practice of Indigenous Ceremony, visible inclusion of Indigenous cultural observances in official proceedings, and cultural protocol guidelines that ensure consistent approaches for inclusion and respectful engagement with Indigenous peoples, Elders, and Traditional Knowledge Keepers (*ii' taa'poh'to'p* Indigenous Strategy, 2017).

Reciprocity: Within the teaching and learning context, Kirkness and Barnhardt (1991) describe reciprocal relationships as, "making teaching and learning two-way processes, in which the give-and-take between faculty and students opens up new levels of understanding for everyone. Such reciprocity is achieved when the faculty member makes an effort to understand and build upon the cultural background of the students, and the students are able to gain access to the inner-workings of the culture (and the institution) to which they are being introduced" (p. 10).

Relationality: The concept of relationality teaches us about the importance of relationships and interconnections, including our ethical responsibility to maintain good relationships with each other, the natural world, future generations, the sacred, the spirit or the cosmos, and with knowledge or knowing (Donald, 2016; 2021; Wilson, 2008; Williams & Shipley, 2023). Donald (2021) reminds us that humans must "understand themselves as fully enmeshed in networks of relationships that support and enable their life and living" (p.29). Indigenous worldviews emphasize a focus on a relational worldview, described as, "people and entities [living and non-living] coming together to help support one another in their relationship" (Hart, 2010, p.3).

Self-actualization: In the seminal article *Aboriginal Epistemology*, Ermine (1995) describes the process of self-actualization as providing "insights into existence. In their quest to find meaning in the outer space, Aboriginal people turned to the inner space. This inner space is the universe of being within each person that is synonymous with the soul, the spirit, the self or the being" (p. 103).

Spirit: Reciprocity and spirituality are at the heart of Indigenous worldviews, arising from "the interconnections between the human world, the spirit, and inanimate entities" (Hart, 2010, p.8). "Aboriginal epistemology is grounded in the self, the spirit, the unknown. Understanding of the universe must be grounded in the spirit. Knowledge must be sought through the stream of the inner space in unison with all instruments of knowing and conditions that make individuals receptive to knowing. Ultimately it was in the self that Aboriginal people discovered great resources for coming to grips with

life's mysteries. It was in the self that the richest source of information could be found by delving into the metaphysical and the nature and origin of knowledge" (Ermine, 1995, p. 108).

Renewal & Transformation: Indigenous perspectives of the universe are governed by "constant dynamic cycles of transformation and renewal. From this perspective, transformation and renewal are necessary and ongoing parts of life, evident in the natural world and in all of creation. These concepts also point to natural law and the inextricable interconnectedness of the Creator to the cosmos, nature (including the land), and people; they also capture the innate evolution that is part of growth...Transformation and renewal practices also emphasize the ongoing need to change at fundamental levels so relationships and partnerships with Indigenous communities are renewed and strengthened." (ii' taa'poh'to'p Indigenous Strategy, 2017, p. 6). Within the context of teaching and learning in higher education, *Grandparents of ii' taa'poh'to'p* (2025) summarize further that "...the concept of transformation recognizes that core functions of the institution — education and knowledge creation — need to change. The institution must create genuine, open spaces for Indigenous stories, methodologies and pedagogies, transitions, and languages. This in turn demands shared decision making in areas that affect Indigenous education and strategies to make indigenous peoples an integral part of the campus community" (p. 147-148).

Wholism: Wholism approaches learning from the perspective of humans as whole beings. It is education that "encourages intellectual development in terms of knowing, but also involves emotional development, in terms of heart-felt understanding and personal connection, in terms of applicable skills, and spiritual development in terms of honouring teaching and connecting knowledge" (Morcom, 2017, p. 125).

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Acknowledgements

The development of principles for the assessment of student learning took many people who offered leadership, guidance and feedback. We would like to acknowledge the following individuals and groups for their contributions to this work:

Assessment Principles Group (2023-2025)

Natasha Kenny (Administrative co-chair)	Senior Director, Taylor Institute for Teaching and Learning
Barbara Brown (Academic co-chair)	Associate Dean (Teaching and Learning), Werklund School of Education
Adil Arshad	Educational Development Consultant, Taylor Institute for Teaching and Learning
Amy Dambrowitz	Representative named by the Office of the Registrar
Fabiola Aparicio-Ting	Associate Dean (Undergraduate Health & Science Education), Cumming School of Medicine
Kim Grant	Academic staff representative named by the Taylor Institute for Teaching and Learning
Alexandria Poppendorf	Graduate Students' Association, Vice-President Academic
Mark Bauer	Interim Associate Dean (Teaching, Learning and Student Engagement), Faculty of Science
Christine Martineau	Academic staff representative named by the Office of Indigenous Engagement
Roxanne Ross	Director, Student Success Centre
Jessie Dinh	Students' Union, VP Academic
Shannon Parker	Academic staff representative
Robin Arseneault	Taylor Institute for Teaching and Learning

Assessment Principles Group (new in 2025)

Mark Bauer (Academic co-chair)	Interim Associate Dean (Teaching, Learning and Student Engagement), Faculty of Science
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Andrew Szeto	Representative named by the Office of Institutional Commitments
Marie-Claire Shanahan	Associate Dean (Teaching and Learning), Werklund School of Education
Jenny Godley	Representative named by the Faculty of Graduate Studies
Jacob Amengor	Graduate Students' Association, Vice-President Academic
Gabriela Dziegielewska	Students' Union, VP Academic

Special acknowledgement to the following individuals whose leadership and insights have guided us in a good way:

Elder Evelyn Good Striker (Lakota Dakota from Standing Buffalo First Nation in Saskatchewan and Cheyenne River Sioux Tribe in South Dakota)
Michael Hart, Vice Provost (Indigenous Engagement) and Associate Vice-President, Research (Indigenous Engagement)
Shawna Cunningham (Director, *ii' taa'poh'to'p* Indigenous Strategy)
Aubrey Hanson, Associate Professor, Werklund School of Education
Heather Bensler, Associate Professor (Teaching), Faculty of Nursing
Michelle Scott Paul, Associate Dean (Indigenous Education), Faculty of Nursing
Pamela Roach, Associate Professor, Family Medicine & Community Health Sciences
Ahstanskiaki Sandra Many Feathers, Assistant Professor (Teaching) and Academic Coordinator, of Blackfoot Language & Culture Programs, Werklund School of Education
Solange Lalonde, Managing Director, RMTL Consulting Inc.
Tamara Bodnar, Assistant Professor, Faculty of Science
Yvonne Poitras Pratt, Professor, Werklund School of Education
Judy Anderson, Professor, Faculty of Arts
Myrle Ballard, Associate Professor, Faculty of Science
Christine Martineau, Educational Developer (Indigenous Ways of Knowing), Taylor Institute for Teaching and Learning

Special acknowledgements to following groups for their contributions:

- *ii' taa'poh'to'p* Indigenous Strategy Working Circle 4 (Academic Programs)
- *ii' taa'poh'to'p* Indigenous Strategy Working Circle 6 (Policies, Procedures, and Practice)
- Graduate Student Representative Council
- Graduate Student event hosted by the Academic Events Committee
- Students' Legislative Council
- Taylor Institute for Teaching and Learning faculty, staff and students

- Student participants in Scholars Academy, Academic Turnaround Program (ATP), Neurodiversity Immersive Campus Experience (NICE), Peer Assisted Study Session (PASS) student leaders and First-Generation Student Mentors.
- Student Accessibility Services Staff
- Werklund School of Education – Teaching and Learning Advisory Committee
- Cumming School of Medicine – academic staff and academic leaders in CSM (graduate and undergraduate)
- Graduate Academic Program Subcommittee (GAPS)
- Academic Planning and Priorities Committee (APPC)
- General Faculties Council, Teaching and Learning Committee

We would also like to acknowledge the many students, academic staff and colleagues across campus who have contributed to the draft principles through surveys, discussions, meetings and community workshops.