



UNIVERSITY OF
CALGARY

Institutional Sustainability Strategy

Framework on Engagement for Sustainability

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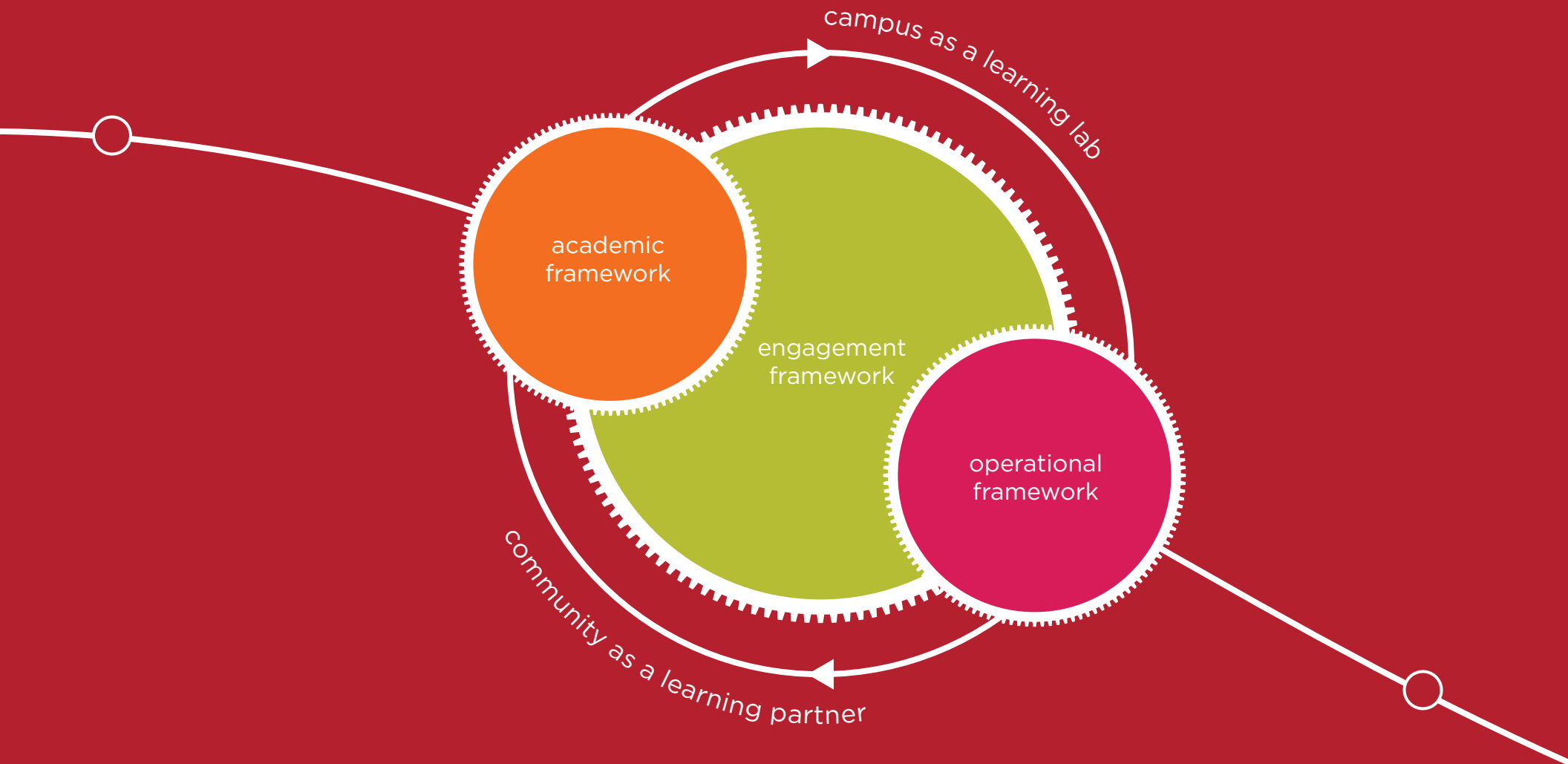
Introduction

The University of Calgary Framework on Sustainability Engagement is the institutional roadmap to inform the development of engagement practices for sustainability. It encompasses our impetus for action, the values and guiding principles that differentiate our approach, and an overview of our current foundations in engagement for sustainability upon which we will build. Lastly, this framework confirms the objectives and strategies that will guide us in fulfilling our commitments to sustainability as laid out in our institutional *Eyes High* vision, our Academic Plan, and our institutional sustainability policy.

Our Framework on Engagement for Sustainability is one of three interdependent frameworks that collectively inform our overarching Institutional Sustainability Strategy (ISS). Additionally, we have an Integrated Framework for Education and Research on Sustainability and a Framework for Sustainability in Administration and Operations. Among these, our Framework on Engagement for Sustainability serves as the bridge to connect our campus community, integrate our diverse academic and operational sustainability practices, and join our campus with local and global communities. Our approach embraces the models of Campus as a Learning Laboratory for applied-practice in sustainability, and Community as a Learning Partner in sustainability.



University of Calgary Integrated Practice Model for Sustainability



Our frameworks were developed through an extensive and iterative campus community consultation process. While each is written to stand alone in terms of presentation, there is an intentional overlap and interdependence within the goals and strategies. Together with the ISS our frameworks are designed to stimulate an integrated sustainability practice.

All frameworks are informed by our institutional core values and by the guiding principles for sustainability that emerged through a campus consultation process. Our approach to sustainability is differentiated by our core values, which inform how our campus community works together and with external communities around sustainability challenges. An additional differentiator is that our students will experience enriched, hands-on, applied-practice experience situated in the context of sustainability. Through this experience we aim to cultivate six foundational competencies for sustainability leadership including: anticipatory thinking, empathy, stakeholder engagement, action-oriented leadership, critical thinking, and systems thinking. Through cross-departmental collaboration we will identify and work towards systemic-level change for sustainability across campus and in the broader community.

Impetus for Action

The University of Calgary embraces sustainability as a core value. Sustainability is one of the key values listed in the *Eyes High* strategic vision and strategy (University of Calgary 2011), is a priority in the university's Academic Plan (University of Calgary 2012a), and underpins priority research themes outlined in the university's Research Plan (University of Calgary 2012b) with particular relevance to the themes

of Human Dynamics in a Changing World and Smart, Secure Cities; and Energy Innovations. Further, the *Eyes High* strategy also confirms our commitment to providing opportunities for students to thrive in programs rich with research, formal education and applied, hands-on experience. This commitment informs this framework and is integral to our approach to assisting students across all disciplines with attaining core competencies for leadership in sustainability.

“Graduates from the University of Calgary will have experienced high quality engaging academic programs and will be thoughtful, communicative citizens and leaders of their respective communities, with an ability to think critically and creatively to solve issues of the day. They will understand the value of collaboration and partnerships and will be used to working with others who are considered traditionally outside of their fields of expertise. They will also appreciate different cultures and see value in diversity of opinion, thought gender, race, and culture. They will appreciate the limited sources available on Earth, and work and live to create a sustainable future.”

— University of Calgary 2012 Academic Plan

“We will engage students fully. University of Calgary graduates will experience a depth and quality of learning that extends far beyond a test, a textbook, classroom or country. We will focus on co-curricular initiatives that expand our ability to graduate students with attributes that align with our goal to be a community of leaders.”

— Eyes High: University of Calgary 2011 Vision and Strategy

Across North America, universities and other institutions of higher learning have experienced unprecedented growth in sustainability programs and practices. Students actively seek opportunities to engage in sustainability, they expect universities to provide them with education for sustainability, and they anticipate that institutions will employ meaningful sustainability or social responsibility practices.

Institutions are engaging with local and global communities to address pressing societal challenges, companies and institutions are forming beneficial partnerships across industries to advance sustainability, and employees are collaborating across organizational boundaries to realize systemic change and innovation in support of sustainability. Fostering student, faculty and staff engagement in communities of practice for sustainability strengthens institutional capacity to develop effective approaches to advance sustainability and to attain more systemic scales of change. Further, building sustainability awareness and leadership capacity through applied practice and service learning on-campus and in the community, in concert with interdisciplinary collaboration, improves both institutional and societal capacity to advance sustainability.

“By teaching students to practice and internalize engaged learning, broadly conceived, we believe colleges and universities can prepare them for 21st-century world of work and give them the tools to effect real change in the world.”

— Rules of Engagement: How Students Learn Well and Do Good, Skorton & Altschuler, Forbes, 2013

Values and Guiding Principles

The University of Calgary's *Eyes High* strategic vision and strategy confirms the core values that will help us to achieve our goal to be one of Canada's top five research universities, fully engaged with the communities we both serve and lead. **Sustainability** is one of the eight core values that we embrace as we reach towards this goal. Further, the University of Calgary's approach to sustainability is itself distinguished by our core values, which explicitly inform how our students, faculty and staff work together, and work with our community to advance sustainability.

Our relationships are defined by a culture of **collaboration** and a shared commitment to achieving common goals. We embrace **globalization** by thinking and acting with a global mindset, acknowledging worldwide connectivity, while also valuing and preserving local and regional connections. We build bridges, both internally and with our community, through proactive **communication**, and with an important focus on integrity and transparency. We **support** our community through interactions that are inclusive and respectful, and we strive to support one another to ensure that diverse needs are met. We are stimulated by

curiosity, relying on this to provoke exploration and innovation, and we aim to promote **balance** in learning, research and work environments through social, cultural and recreational activities to promote a healthy community. Last, we will achieve **excellence** by helping each other to strive toward and ultimately meet our highest ambitions (University of Calgary 2011a). This approach to how we work together is the first differentiator of our institutional sustainability practice.

The second differentiator of our sustainability practice is our commitment to providing opportunities for students to thrive in programs rich with research, formal education and experiential learning. This too emerges from our *Eyes High* Vision and our Academic Plan. At the University of Calgary, students will have unique opportunities for experiential learning and applied practice through research and co-curricular activities situated in a context of sustainability. The campus will serve as a vibrant learning laboratory for sustainability research and will offer co-curricular programs that build essential core competencies for sustainability leadership.

In addition to our institutional core values that shape how we work together, we confirm the following guiding principles that characterize the foundational assumptions that anchor our approach to sustainability. They were derived from an extensive campus community consultation process that informed the development of the Institutional Sustainability Strategy and supporting frameworks.

Social Responsibility

Pressing societal challenges and the well-being of local and global communities depend on research and services in higher learning.

Engagement

Diverse and meaningful connections across disciplines, the student body, operational units, and communities are foundational to creating an engaged community and to effective solution generation.

Experiential Learning

Applied practice and project-based learning are foundational to developing core competencies for sustainability leadership, for integrating knowledge domains and for understanding the importance of place-based solutions.

Capacity Building

Building the capacity of our students — across all disciplines — will transform local and global capacity for leadership in sustainability. Strengthening the capacity of our faculty and staff for leadership in sustainability will transform our student experience.

Diversity

Sustainability is dependent upon understanding and embracing cultural and biological diversity, an appreciation of the magic and wonder of life on Earth, and respect for intergenerational equity.

Entrepreneurialism

Sustainability presents grand challenges that require bold action, innovative problem solving and tenaciousness in the face of increasingly complex and interwoven societal and planetary issues.

Sustainability Engagement: A 2015 View

University of Calgary students, faculty and staff currently benefit from diverse opportunities for engagement with and for sustainability. Our significant progress to date, particularly in student co-curricular sustainability engagement programs and operational sustainability practices, emanates from a strong commitment to collaboration across departments in support of common aspirations in sustainability. Select examples of current initiatives follow:

Internal Initiatives:

- Students have self-organized into more than 50 sustainability-related clubs that undertake initiatives on campus and in local and global communities. The Office of Sustainability coordinates the Sustainability Student Clubs Alliance, which facilitates collaboration and communication between sustainability-related clubs.
- Almost 20 full-time student internships and part-time Peer Helper positions are offered through the Office of Sustainability, with

a primary focus on peer-to-peer outreach and engagement initiatives.

- The Sustainability Street Team provides easy entry points for students outside of clubs to participate in sustainability on campus, and the Sustainability Tier Leadership Program provides students with hands-on leadership development for sustainability.
 - Students are eligible to receive recognition of co-curricular sustainability initiatives through their Co-Curricular Record, an official university document that formally records a student's "out of classroom" experience.
 - The Sustainability Resource Centre on Main Campus provides a central hub for sustainability-related programs and activities, and for sharing resources on how to get involved in sustainability on campus.
 - An Academic Committee on Sustainability comprising over 20 members representing all faculties advised on the development of the Framework on Education and Research for Sustainability.
 - Based on findings from the 2012-13 STARS™ assessment, over 250 faculty members and 27 academic departments were engaged in research that directly
- or indirectly advanced knowledge about sustainability. Additionally, over 350 sustainability-related courses were identified. This demonstrates a significant academic community independently engaged in sustainability.
- The Sustainability Stewardship Working Group (SSWG) (established in 2007) provides a forum for collaboration across business units to advance operational sustainability practices. It has grown into formal and informal working groups encompassing over 75 campus community members (mostly staff).
 - The Sustainability Coordinators Program provides staff from various business units with support and resources to help them engage their peers in practicing sustainability in everyday activities.
 - Each year a number of academic-operational partnerships are undertaken that provide students with applied practice experience. Students have worked on projects such as greenhouse gas inventories and sustainability reporting, they have developed engagement programs and learning outcomes for sustainability courses, and more.



External Initiatives:

- A number of faculties lead initiatives to engage the community around sustainability topics. Select examples include:
 - The Faculty of Environmental Design's makeCalgary initiative explores a diversity of urban issues, one example being "makeCalgary Healthy – Shaping Our Cities, Shaping Ourselves," which explored the relationship between design and community health, and strategies to sustain human and environmental well-being within buildings and communities to make Calgary healthier, vibrant and more productive.
 - The Faculty of Arts' Sustainability in Action initiative offered free community workshops on how to take action to become more sustainable.
 - Haskayne School of Business offers a lecture series on Corporate Sustainability practices and leads the Centre for Corporate Sustainability, which endeavours to enable the Canadian energy sector to understand best practice on key challenges.
- The Office of the Vice-President (Research) leads the Urban Alliance, a partnership between The City of Calgary and the university to encourage and coordinate the seamless transfer of cutting-edge research for the benefit of all communities. One example is the Advancing Canadian Wastewater Assets (ACWA) facility at the Pine Creek Wastewater Treatment Plant. This is a \$38.5 million initiative where university researchers work with municipal operators to advance wastewater treatment technologies and knowledge that will lead to cleaner water, a better-protected ecosystem and improved public health.
- Many faculty members participate in sustainability-related research projects regionally and internationally, in partnership with other University of Calgary faculty and/or other universities.
- The Centre for Community-Engaged Learning offered a number of intensive international co-curricular learning experiences through the ucalgarycares program. In Namibia, student experiences focused around topics such as ethical international engagement and leadership; in Nicaragua, connections between place, resources, poverty and education; in the Yukon, social justice, reciprocity, indigenous ways of knowing and cross-cultural awareness; and in Costa Rica, tourism with positive social impact.
- The Office of Sustainability launched the ucalgarycares Sustainable Cities program in 2015, which engaged students in service-learning projects and workshops with local community organizations and The City of Calgary to help students better understand urban sustainability through the imagineCALGARY framework.
- To support increasing community interest in our sustainable operating practices, the university offers sustainable building and cogeneration facility tours, presentations in the community, the K-12 school system, and industry conferences, and responds to publication requests.
- The university participates in national and North American committees related to the advancement of sustainability in post-secondary education institutions and in various industry sectors such as the energy industry, green buildings, food services, supply chain management, etc. It also continues to contribute to the imagineCALGARY partnership through participation in various committees.

While the University of Calgary has established strong momentum in sustainability engagement, meeting our aspirations for sustainability leadership and attaining second-order change in sustainability requires renewed goals and strategies for sustainability engagement. Our pursuit of second-order change challenges us to move beyond incremental lineal initiatives to more transformation change. We aim to achieve this through engagement structures which build strong and interdisciplinary communities of practice in sustainability; ones that prompt us to delve deeper and to cultivate stronger integration across academics and operations, across departmental boundaries, and across the multiple dimensions of sustainability. We have tremendous potential to reach second-order change through the integration of the many sustainability-related initiatives, programs, and research currently underway.

Sustainability Engagement: A Future View

Internal and external engagement practices for sustainability are an important means for attaining innovative, differentiated, and enriching experiences for our students, faculty, and staff, as well as the broader community. Through the integration of teaching, research, service, operational practices and co-curricular activities, the University of Calgary has the potential and the capacity to contribute to new understandings and applications in sustainability. We aim to create a setting where students, faculty and staff work collaboratively within our campus, as well as with stakeholders beyond our campus, to find real-world solutions to pressing societal challenges and to visibly demonstrate that the University of Calgary is a place where sustainability is a fundamental thread in the institutional fabric. The successful outcome of sustainability engagement programming will be a university where sustainability is embedded in all aspects of campus life and activities — a place where active communities of practice emerge organically through collaboration between students, faculty and staff.

Building upon knowledge gained from engagement experience to date and literature reviews, our approach is aimed at deepening capacities for and engagement in transformative action. As basic knowledge alone does not automatically lead to action, individuals must adopt different attitudes, behaviours, values and habits in order to attain a sustainable future. Our approach recognizes the need to go beyond declarative knowledge about sustainability or aspects such as functioning eco-systems, to also include procedural knowledge (awareness of how to undertake action or develop strategy), effectiveness knowledge (awareness of the influences of perceptions and beliefs on behaviors), and social knowledge (awareness of the influences of social norms) (Frisk and Larson 2011). Through applied practice, project-based learning, and our campus engagement programs, we aim to cultivate six foundational competencies for sustainability including:

1. Anticipatory thinking and long-term foresightedness

“[T]he concept of sustainability calls for long-term future orientation and envisioning,” including “the anticipation and prevention of harmful unintended consequences, and the imperative of intergenerational equity.”²

2. Empathy and understanding of different worldviews and relationships

Sustainability by nature requires a concern for justice, fairness and equity. The complex nature of sustainability necessitates an appreciation for, and openness to diverse ways of knowing and learning. This is derived from knowledge of, and respect for, a diversity of worldviews and cultures.

3. Stakeholder engagement and group collaboration capacities

“...sustainability problems are complex, there is no single “right” solution. Fostering collaboration not only has the potential to mitigate or solve ‘wicked problems’;³ it is also a matter of equitably incorporating multiple views on how to address those problems.” Equipping students with the skills and resources to engage in collaborative decision-making is essential for realizing democratic processes that reflect diverse stakeholder interests.”⁴

4. Action-oriented leadership and change-agency skills

Engaging students, faculty and staff in projects on campus and in the community will increase understanding and instill the importance of action and engagement throughout life. Action learning is a form of experiential learning in which project teams can question their assumptions and apply new knowledge and skills to diverse situations. “Promoting change agency isn’t about simply taking action but also about understanding the implications of our actions, which requires emotional intelligence, interpersonal skills, and understanding of the normative aspects of problems and potential solutions.”⁵

5. Critical thinking and decision-making capacity within complexity

Critical thinking encompasses an ability to detect error and illusions, an ability to organize knowledge in context, to tolerate ambiguity, to appreciate the limits of human problem-solving, to put risk and uncertainty into perspective, to check overconfidence, and an ability to detect maladaptation and respond to it.⁶

6. Systems thinking and an understanding of connectedness

“A systems perspective acknowledges that the world is increasingly connected and decisions made in one area affect others in a complex array of local to global, human-environment interactions and impacts. Progress toward sustainability entails grappling with these dynamics in the face of multiple, potentially conflicting objectives...”⁷

² Frisk and Larson 2011

³ Steiner and Posch 2006; Frisk and Larson 2011

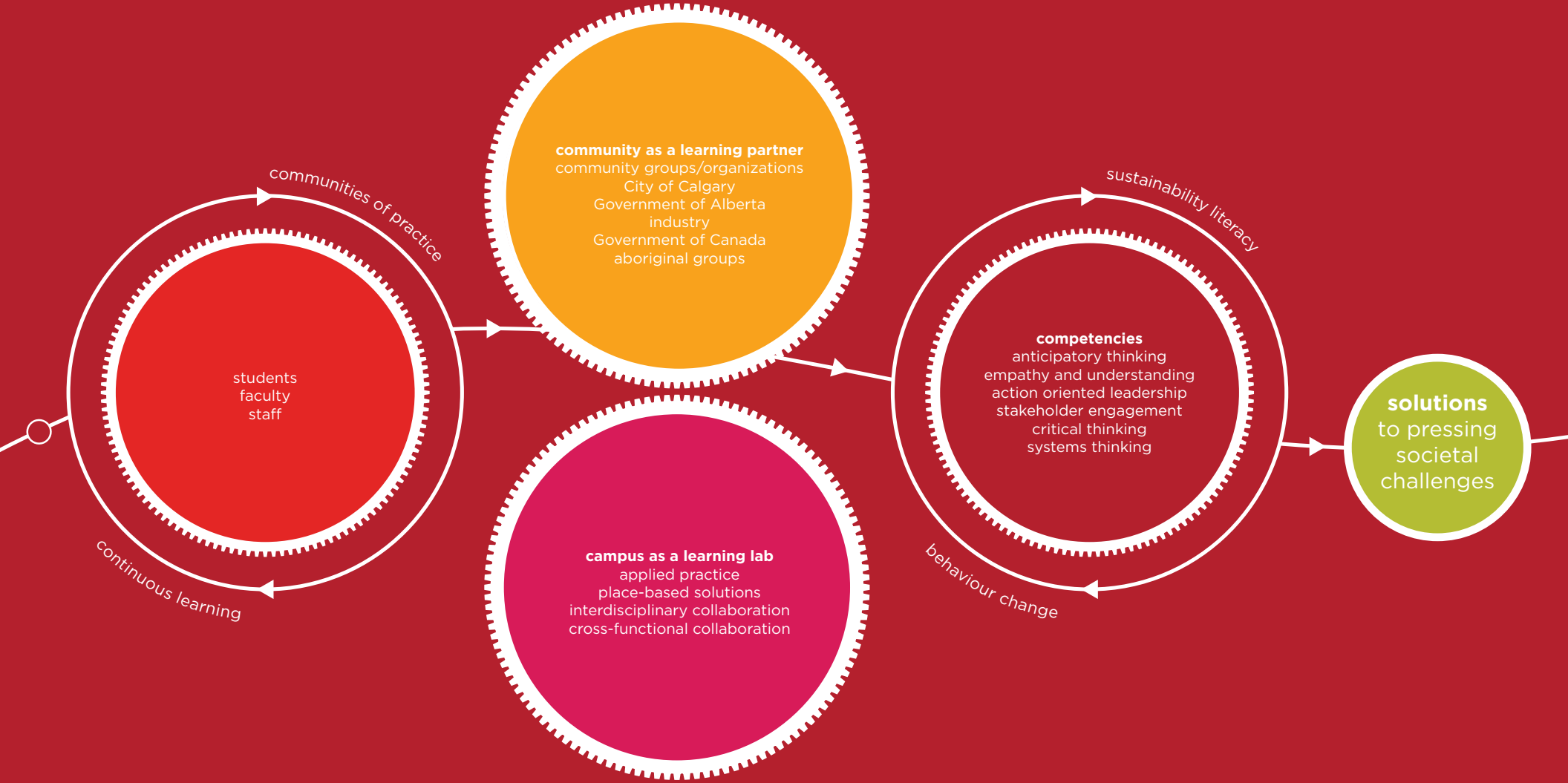
⁴ Frisk and Larson 2011


⁵ Wiek, et al. 2011; Segalas, et al. 2010; Sipos, et al. 2008; Frisk and Larson 2011

⁶ AASHE 2013, Nashville, “Core Competencies in Learning for Sustainability”

⁷ Sherman 2008, cited in Frisk and Larson 2011; see also Agyeman 2003; Frisk and Larson 2011; Orr 2002

The University of Calgary Model of Engagement for Sustainability





The following goals and strategies support the development of these core competencies to enable leadership in sustainability. They provide a basis for integrating academic and operational practices, and inform how we will work with community as a learning partner in advancing sustainability. Following publication of this framework, our next step will be implementation — an implementation committee will be struck, and one of their key roles will be to identify metrics for each goal and strategy. This will subsequently be incorporated into this framework.

Goals and Strategies for Engagement

Goal 1: Build core competencies for leadership in sustainability, and infuse and embed sustainability into the campus experience by utilizing our campus as a learning laboratory for applied practice in sustainability.

Through the “campus as a learning laboratory” model, students will directly engage in applied-practice projects for sustainability through curricular and co-curricular projects that build essential core competencies for sustainability leadership and foster an understanding of the importance of place-based solutions.

This model will build stronger bridges between academic and operational activities, expand interdisciplinary learning and cross-functional collaboration, and utilize existing and new resources and infrastructure as active, experimental environments. Our students will have unique opportunities to be immersed in research environments and projects that directly confront complex societal challenges on our campus, as well as in our local community and across the globe. In this way our students, faculty and staff benefit from a unique and highly energized environment for the practice of sustainability.




Strategies

- 1.1 Enable, recognize and stimulate campus-based applied-practice sustainability projects delivered through co-curricular programs, formal curriculum, and within the Sustainability Studies Certificate Program.
- 1.2 Evolve the current co-curricular campus sustainability projects approach to deepen learning outcomes and core competency development, and to broaden student participation.
- 1.3 Enhance core programming to foster behavioral change in support of embedding sustainability practice in day-to-day action and decision-making.
- 1.4 Celebrate our campus as a learning laboratory for sustainability through a communications and engagement strategy that tells our story on sustainability leadership, shares our knowledge, and recognizes our institutional community leaders.

Goal 2: Promote meaningful engagement among students, faculty and staff across the university in all aspects of sustainability, and link this to the development of active communities of practice.


The approach to sustainability engagement must be dynamic, fluid and responsive to student, faculty and staff needs and demands, as well as reflexive with respect to changing campus sustainability issues and needs. Recognizing the diversity of our campus community, a variety of programs and communications are needed for two-way sharing that results in a vibrant collaborative network. Establishing a diversity of Communities of Practice is a key strategy to help promote meaningful, integrated sustainability engagement across campus.



Communities of Practice provide an important means for fostering an integrated and interdisciplinary sustainability practice and for building the leadership capacities of our students, faculty and our staff. By definition a Community of Practice (COP) encompasses a shared domain of interest, participants that build relationships and learn from one another, and participants that are practitioners (Wenger 2006). COPs for sustainability may be formal or informal and they may have changing participants and domains of interest over time. They will grow, shrink and dissolve to reflect current needs of practitioners and the current sustainability focus areas on campus and in the broader community. A diversity of COPs is an important strategy to foster curiosity, build knowledge and capacities to advance our Institutional Sustainability Strategy, and to promote an integrated sustainability practice that benefits from a diversity of knowledge and ways of knowing in our community.

Strategies

- 2.1 Improve communication and collaboration across disciplinary lines and business units through face-to-face interactions in the classroom, on research projects, through workshops and panel discussions, and through development of a formal speaker series. Faculty, students and staff must collaborate for this to be successful, and collaboration is essential for all parties involved to be sufficiently invested in successful outcomes.
- 2.2 Evolve the existing tier of co-curricular sustainability programs to strengthen the pathways to student engagement in sustainability, energize student communities of practice in sustainability, and support student-led collaborative action.
- 2.3 Evolve the current Sustainability Stewardship Working Group operational practice model to further strengthen cross-portfolio collaboration and institutional capacity to advance the Framework for Sustainability in Administration and Operations.


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- 2.4 Host community events that foster discussion and deliberation about sustainability, share University of Calgary sustainability research and practice, and support the development of communities of practice within the larger external community.
 - 2.5 Continue to evolve strategies and programs to build the capacity for leadership across our administrative and operational units such that sustainability excellence is a core value and operating norm in all centres of service.

Goal 3: More directly engage The City of Calgary, the broader community around Calgary, and the Province of Alberta, including the private sector.

Engagement pertains to sustainability activities currently planned and/or underway, and ongoing communication is necessary to determine the best fit for community needs for research related to sustainability. Undergraduates, graduate students, faculty and staff must be involved in order to improve and strengthen collaborative communication and research relationships with multiple entities and organizations. This will increase the visibility of what the University of Calgary has to offer with respect to faculty expertise, and to make clear that we have the capacity to respond to local, provincial, national and international needs in effective ways.

Strategies

- 3.1 Utilize the Sustainability Studies Certificate program as a way to organize community outreach activities and a community speaker series to feature research projects that are of direct relevance to issues facing rural and urban communities today. The intent is to expose students to multiple faculties and research programs, multiple ideas and perspectives, both disciplinary and interdisciplinary.
- 3.2 Work with the broader Calgary community to form working partnerships for collaborative research initiatives that will enhance research at the University of Calgary, serve the needs of The City of Calgary and surrounding communities, and enhance the undergraduate educational experience.

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- 3.3 Form working partnerships with municipalities, nonprofit organizations and entities to create internship opportunities for undergraduates to engage in community-based service work, active research projects, and community coalition building as part of their undergraduate educational experience.
- 3.4 Foster non-academic working relationships and partnerships with industry as well as the public and voluntary sector at the municipal (particularly The City of Calgary), provincial, and national levels, with an aim to expedite attainment of the goals in our Framework for Sustainability in Administration and Operations, and to accelerate the advancement of sustainability beyond the campus through collaborative partnerships and knowledge mobilization.

Goal 4: Develop collaborative partnerships for research and education with Aboriginal⁸ groups and communities.

Developing partnerships in this area can be achieved through the offering of regular field schools and educational experiences in rural and urban areas, and through development of working educational partnerships that both serve community needs and position the University of Calgary as a leader in this area. There are natural linkages here to the emerging fields of Indigenous Studies, Indigenous education, and the existing degree program in Development Studies, including a focus on international as well as national development studies. The Aboriginal engagement component of the Integrated Framework for Education and Research on Sustainability will be developed in concert with the Aboriginal engagement initiative currently underway in the Faculty of Arts, as well as with similar initiatives being undertaken in the Werklund School of Education, the Haskayne School of Business, and at the university-wide level.

⁸ For the purpose of this report, "Aboriginal" includes First Nations, Inuit and Métis peoples (Aboriginal Affairs and Northern Development Canada 2011).



Strategies

- 4.1 Form active and fully engaged collaborative partnerships with Aboriginal communities to identify their research strengths and needs, and to work directly with them to identify funding streams that will support research to enhance and share these areas of strength.
- 4.2 Create a Summer Research Academy and internships that provide opportunities for rural and urban Aboriginal students to attend the University of Calgary campus to work with students and faculty in any one of the sustainability programming initiatives. This includes the Sustainability Studies Certificate program, work with graduate students and/or faculty with specialized expertise in some aspect of sustainability, and the opportunity to experience and engage with our university campus.

References

Agyeman, Julian, and Briony Angus

2003 The Role of Civic Environmentalism in the Pursuit of Sustainable Communities. *Journal of Environmental Planning and Management* 46(3): 345-363.

Frisk, Erin, and Kelli L. Larson

2011 Educating for Sustainability: Competencies & Practices for Transformative Action. *Journal of Sustainability Education* 2. ISSN 2151-7452.

Sipos, Yona, Bryce Battisti, and Kurt Grimm

2008 Achieving Transformative Sustainability Learning: Engaging Heads, Hands and Heart. *International Journal of Sustainability in Higher Education* 9(1): 68-86.

Steiner, Gerald, and Posch, Alfred

2006 Higher Education for Sustainability by Means of Transdisciplinary Case Studies: An Innovative Approach for Solving Complex, Real-World Problems. *Journal of Cleaner Production* 14(9-11): 877-890.

University of Calgary

2011 *Eyes High: University of Calgary 2011 Vision and Strategy*.

2012a *University of Calgary 2012 Academic Plan*. 1-47.

2012b *University of Calgary 2012 Strategic Research Plan*.

Wiek, Arnim, Lauren Withycombe, and Charles L. Redman

2011 Key Competencies in Sustainability: A Reference Framework for Academic Program Development. *Sustainability Science* 6(2): 203-218. DOI 10.1007/s11625-011-0132-6.

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Appendix B – Document Development Process

Appendix B – Process

Beginning in September 2013 the University of Calgary began the update process of the 2010 Institutional Sustainability Plan (ISP). The primary objective was to draw upon the diversity of expertise and perspectives within the campus community and ultimately to achieve strong ownership of, and commitment to, a new Institutional Sustainability Strategy and supporting frameworks. From September 2013 to April 2014, over 30 workshops and discussion forums were conveyed, including a World Café. Workshops addressing sustainability in the co-curricular context involved student representatives from a diversity of sustainability clubs on campus. Students from the Scholars' Academy developed and led twelve student engagement activities involving 65 students, and a sustainability planning workshop was conducted within a graduate level class of over 60 students. In total over 450 campus community members including students, faculty and staff participated in these opportunities with a large percentage participating in multiple events.

Additionally, the campus community was engaged through campus publications, social media outreach and an online platform to collect feedback and ideas for the new sustainability strategy. From this process a new draft Institutional Sustainability Strategy and three supporting frameworks (academics, engagement and operations) were developed. The draft operational sections were reviewed by the workshop attendees and subsequently further vetted by senior staff (including directors and associate vice presidents) in responsible departments. The draft academic framework was developed through the Academic Committee on Sustainability comprising representatives from all faculties on campus as well as representatives from the Students' Union and the Graduate Students' Association. The Student Legislative Council, the Students' Union and the Graduate Students' Association were apprised of the initiative and provided opportunities for feedback on draft documents.

From April 2014 to March 2015, development of the academic, operational and engagement frameworks continued with a highly iterative process. The draft of the academic framework underwent an extensive and iterative review process with a diversity of academic governance



councils and committees as outlined below. Ultimately, the General Faculties Council approved the academic framework. Drafts of the operational and engagement frameworks and the ISS were reviewed by senior leadership and by senior administrative committees as noted above. Ultimately the University of Calgary Board of Governors approved the ISS and the Executive Leadership Team approved the engagement frameworks for operations and engagement. Throughout this two-year journey, the Institutional Sustainability Strategy Advisory Council, comprising students, faculty, staff and community representatives, provided guidance and strategic direction.

Governance Routing

Integrated Framework for Advancing Sustainability Education and Research

Academic Planning and Priorities Committee	Discussion and Recommendation
General Faculties Council Executive	Discussion and Recommendation
Executive Leadership Team-Operations	Discussion
Dean's Council	Discussion
General Faculties Council	Discussion and Approval

Framework for Sustainability Engagement Framework for Sustainability in Operating Practices

Campus Strategic Initiatives Group	Discussion and Recommendation
Executive Leadership Team Operations	Discussion and Recommendation
Executive Leadership Team	Approval

