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2016



# COMPREHENSIVE INSTITUTIONAL PLAN

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# **COMPREHENSIVE INSTITUTIONAL PLAN**

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# EXECUTIVE SUMMARY

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The vision of the University of Alberta is to inspire the human spirit through outstanding achievements in learning, discovery, and citizenship in a creative community, building one of the world's great universities for the public good. It is recognized as one of the top 100 publicly-funded universities in the world and as one of Canada's top five comprehensive academic and research institutions. Through research and teaching excellence, the U of A is driving Alberta's future prosperity through the education and training of the next generation of scientists, business owners, social scientists, policy-makers, musicians, artists, and volunteers who will contribute to a thriving civic culture and a vibrant socio-economic landscape.

As one of Canada's pre-eminent research-intensive institutions, the University of Alberta is leading the province in world-class research outcomes and student experiences that drive innovation and enhance scientific, social, cultural, and economic development. In addition to the centrality of the post-secondary sector to job growth and economic diversification, it is also a critical source for skills development in civic engagement and community service and outreach. Through programs like Community Service-Learning (CSL), the U of A is providing students with opportunities to work and have a direct impact on local organizations and the not-for-profit sector while simultaneously fostering partnerships between the university and its surrounding communities. Through linking academic work with community-based experience, the U of A is equipping students with the communication, critical thinking, and leadership skills they will need to be successful in their chosen fields, while increasing public awareness of social issues and enhancing university-community relationships.

Within a highly competitive global knowledge economy, the value of university excellence in education, research, and service cannot be overstated. With 200 undergraduate programs and 170 graduate programs spanning 18 faculties, as well as a variety of other programs designed to meet the needs of Alberta's adult learners, the multi-campus U of A supports learners and learning, and creativity and discovery, while facilitating access to opportunities for traditional and non-traditional students and researchers. Research-intensive institutions like the U of A are ideally placed to address societal problems from a multidisciplinary perspective.

The university remains steadfastly committed to partnering with the Government of Alberta to explore opportunities for growth, to continuing to diversify Alberta's economy, and to serving the province of Alberta by taking a leadership role.

The goals articulated in this document ubiquitously address access, affordability, and quality. The U of A is always concerned with quality. Specific attention to quality of programs is mentioned only where we feel there is work to be done to achieve our pervasive high standards. The university does not dwell on quality because it is a foundational expectation. The university is concerned with access and this is explicit in many of the goals presented. Affordability is important for all of our programs, and must be balanced with the needs to address quality and access, and also with the need to be globally competitive in addition to being the leading post-secondary institution in Alberta.

The 2016 Comprehensive Institutional Plan (CIP) document is transitional in nature as the University of Alberta is in the midst of an institutional strategic planning process. The main objective during this process is to develop a plan that all members of the U of A community

create and embrace. It will reflect common values and capture a collective vision of what the university aspires to be. Together, the university community will establish concrete, achievable, and measurable goals and strategies that will support the university's vision and provide direction that both responds to and takes advantage of changing external and internal environments. In the years ahead, the university will look to this strategic plan to guide all institutional academic and administrative priority-setting, decision-making and governance.

**For the 2016 CIP, the University of Alberta is focused on six key priorities:**

**FACULTY RENEWAL** There is an urgent need to address the low number of assistant professors. These new professors play a critical role in the academy by bringing with them vibrant perspectives and contributing to the university's teaching and innovative research capacity. This deficit has been created by reduced hiring after a series of challenges to the university's base operating budget. Creative solutions are being developed to increase the number of new assistant professors. Renewal strategies must also address diversity in the academy with particular attention to growing the number of Indigenous scholars and ensuring that Indigenous scholarship becomes more prominent, as well as ensuring a strong presence of globally relevant perspectives. Identifying, recruiting, and supporting the next generation of faculty is critical. Success will be influenced by social, intellectual, and physical supports such as social forums and gathering places, critical masses of scholars to support the development of strong ideas, and new and modernized infrastructure including spaces, labs, and classrooms.

**STUDENT EXPERIENCE** To attract, retain, and support its diverse body of students—local, rural, national, international, and under-represented—the U of A must provide contemporary and innovative learning experiences, including community service learning and experiential learning. The university must foster a welcoming and supportive environment in physical and social terms. Students require facilities that allow them to feel comfortable and that promote engagement with people, ideas, and learning supports. To succeed, students must understand they are essential members of the university community and must see the university as a necessary and relevant stepping stone towards engagement with the rest of the world. As such, the university is focused on recruiting a more diverse student body and creating programs and spaces such as the Maskwa House of Learning on North Campus, as well as refreshed science labs at Augustana Campus and Campus Saint-Jean, that support and welcome Indigenous and rural students to pursue advanced degrees. Experiential learning (e.g. through summer research programs) positions students strongly for future career opportunities.

**TEACHING AND LEARNING** This is the core activity of the university—supporting undergraduate and graduate students, researchers, and scholars, as well as accomplished members of professions who need to refresh their educations to advance their positions in industry or to advance industry itself. Teaching and learning practices have shifted away from traditional lecture-style presentations to a greater breadth of learner styles and more opportunities to co-create and engage with knowledge, by focusing on emerging technologies to reach beyond classrooms and to enhance classroom activities. More hands-on experiences are also provided to bridge the theory-to-practice gap. The university endeavours to more strongly embrace these shifts and to better support professors who want to change the way they teach—to purchase, update and even create better physical and technological systems and places to permit innovative teaching, learning, and assessment. The university also strives to attend to its greater mission to transform society and culture by ensuring all content respects Indigeneity, equity, and diversity.

## RESEARCH EXCELLENCE

Research drives innovative developments leading to economic growth and prosperity in our society. As the leading research-intensive institution in Alberta, and one of the top five in Canada, the U of A has a particular responsibility to ensure that its people and the materials and resources they need—such as labs, IT infrastructure and supports, libraries, and access to communities—are of the highest quality possible. The research world has indisputably shifted to team-based explorations and approaches to discovery that are more multidisciplinary in nature and globally relevant. The university competes nationally and internationally for the best researchers, as well as for the top funding sources to support research activities. To recruit exceptional researchers and to support them in producing the highest-calibre outcomes, ranging from fundamental knowledge creation to new applied technologies, and including the training of scholars and professionals, attention and resources must be devoted to research facilities and defining (and then pursuing) research excellence in a shifting context. This requires intellectual and physical supports including new hires, research assistants, infrastructure, and specifically targeted development and investment in partnerships with communities, industries, and other countries.

## COMMUNITY ENGAGEMENT

The university is focused on enhancing the communities in which it operates, as well as the communities with which it engages, both near and far. The university will strive to maintain and expand connections with communities, increasing engagement and consultation. This includes direct interaction such as meetings or events with community members and stakeholder groups, as well as the development of welcoming spaces and partnerships around facilities to enhance university integration with community groups. For example, the Twin Arenas project at South Campus will expand current opportunities for groups to engage with each other and to work toward mutual goals such as supporting the development of minor sport and coaching. The Edmonton Galleria Project downtown will invigorate and increase accessibility to fine arts programs in music, and in art and design. The development of facilities, programming and, most important, relationships will be priorities in this area. Interaction with industry provides expanded experiences for our students as they prepare to enter the workforce.

## INFRASTRUCTURE

As Alberta's largest and oldest post-secondary institution, the U of A manages more than 1.7 million square metres of complex facility inventory, ranging in age from more than 100 years old to brand new. Existing facilities must be able to keep pace with the ongoing teaching, research, and administrative needs of a changing campus community and expanding research mandate. There is also a need to ensure that the university has the necessary infrastructure to support and foster continued enrolment growth and key faculty recruitment. Continued research growth requires increasingly complex labs and equipment, and increased participation of under-represented populations. Among the university's capital priorities are maintaining and refurbishing older facilities, such as the historic Dentistry/Pharmacy building; constructing new academic buildings such as the Translational Lab on North Campus and the new Science Lab at Augustana; creating new and contemporary residence spaces to support more students with diverse needs; creating buildings and spaces to address reconciliation responsibilities, such as the Maskwa House of Learning; and building facilities that enhance community engagement, such as the Edmonton Galleria Project and the Twin Arenas on South Campus.

# ACCOUNTABILITY STATEMENT

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This Comprehensive Institutional Plan was prepared under the Board's direction in accordance with legislation and associated ministerial guidelines, and in consideration of all policy decisions and material, economic, or fiscal implications of which the Board is aware.

*Original signed by Michael Phair*

**Michael Phair**

Chair, University of Alberta Board of Governors

# INSTITUTIONAL CONTEXT

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## University of Alberta Mandate

**As approved by the Minister of Advanced Education and Technology, July 2009**

Created by the University Act, 1906, of the Legislative Assembly of the Province of Alberta, the University of Alberta is a board-governed, publicly-funded university that operates as a Comprehensive Academic and Research Institution under the authority of Alberta's Post-Secondary Learning Act. Its fundamental mandate is to offer a broad range of outstanding learning and research programs to prepare citizens and leaders who will make a difference. The university plays a leading role in Campus Alberta through collaboration with other Alberta institutions, responding to vital community relationships at every level, and giving a national and international voice to Alberta innovation. Its activities enhance student opportunities and build Alberta's capacity for long-term, knowledge-driven sustainable development at the global forefront.

The university provides instructional excellence through both on-campus and distance delivery in a vibrant and supportive learning and research environment. Its residential, multi-campus setting includes many research and field facilities. The university community discovers, disseminates, and applies new knowledge through interrelated core activities.

In a dynamic and integrated learning and research environment, the University of Alberta offers graduate and undergraduate students the opportunity to earn internationally respected credentials, including bachelor's, master's and doctoral degrees, and university certificates and diplomas. It also offers programs in French leading to university degrees, certificates, and diplomas, as well as college certificates and diplomas. A number of its programs are unique within Alberta and western Canada. Post-doctoral fellows come to the university to refine their teaching, mentoring, and research skills.

The University of Alberta is a balanced academy, with strong arts and sciences programs featuring the faculties of Agricultural, Life and Environmental Sciences, Arts, Augustana, Extension, Native Studies, Physical Education and Recreation, Science, and Campus Saint-Jean. These faculties are foundational to and interlinked with the university's network of strong professional faculties, including Business, Education, Engineering, Graduate Studies and Research, Law, Medicine and Dentistry, Nursing, Pharmacy and Pharmaceutical Sciences, Public Health, and Rehabilitation Medicine. In addition, all of our faculties are involved in professional development and continuing education.

The university establishes and maintains an environment of inquiry-based learning anchored in strong academic programming and an array of co-curricular student life opportunities. Academic support, social/community enrichment, health and wellness, and career and life development are cornerstones of the University of Alberta student experience. In all activities, the University is committed to high standards of health and safety while assuming appropriate levels of risk. The intellectual and creative diversity of the campus, including its international and multicultural population and exchange programs, makes for an engaging student experience. Fine arts displays, stage performances, museum collections, athletics, and recreational opportunities

combine with residence life to present multi-dimensional possibilities. Experiential learning opportunities based in the community augment on-campus activities with real-life applications.

Transfer and collaborative degree completion agreements with partner institutions broaden student opportunities and provide rural, northern, and Indigenous communities with access to University of Alberta programs. Similar innovative arrangements centred at the university deliver information and knowledge resources to post-secondary and government communities through both inter-library and online access.

The university's research and creative activities produce a dual impact through the preparation of highly qualified graduates and a continuous flow of innovation. The university attracts scholars of international reputation: undergraduate and graduate students, post-doctoral fellows, staff, and faculty. Collectively, they foster, conduct, and disseminate research and creative activity, pure and applied, within and across all the major program areas at an internationally recognized level of excellence.

University faculties, centres, and institutes combine resources and talents for collaborative advantage through research partnerships with other academic institutions, business, governments and public agencies. The university actively transfers new knowledge and creative works to Alberta, Canada, and the world for community benefit, including commercial development of intellectual property when appropriate and feasible.

In every aspect of its mandate, the University of Alberta partners with the province of Alberta in social, cultural, and economic development, fostering and establishing the provincial, national, and international connections and understanding that support leading global enterprise and citizenship for Albertans. University administrators, faculty, staff, and students contribute regularly to public debate and to government and corporate examination of issues. Start-up companies and new technologies licensed to existing companies lead Alberta in new directions and employ graduates. The university continually moves out into its communities through its graduates, its creative and research advances, and its ongoing opportunities for experiential and lifelong learning.

## MISSION STATEMENT

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Our mission is to create and sustain a vibrant and supportive learning environment that discovers, disseminates, and applies new knowledge through teaching and learning, research and creative activity, community involvement, and partnerships. The University of Alberta gives a national and international voice to innovation in our province, taking a lead role in placing Canada at the global forefront.

# AFFORDABILITY, ACCESSIBILITY, AND QUALITY GOALS, PRIORITY INITIATIVES, AND EXPECTED OUTCOMES

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As a large, publicly-funded, research-intensive university, the University of Alberta is like a small city, with a population larger than that of Charlottetown, PEI, or Brandon, Manitoba. The university attracts highly qualified students from Alberta, Canada and the world. In total, there are close to 50,000 people pursuing their educational credentials and careers as academic and non-academic staff at the U of A. They undertake these pursuits in more than 100 buildings across five campuses (North or Main Campus, South Campus, Campus Saint-Jean, Augustana Campus, and Enterprise Square).

Like a city, the U of A has many short- and long-term goals. Student cohorts stay with us for anywhere from two years (certificates and master's programs) through four or six years (undergraduate and PhD programs). Many students will complete up to three degree programs with us. At any one time, there is a minimum of four cohorts of undergraduate students (based on a standard four-year undergraduate degree). Graduate students' progress is celebrated by milestone achievements and exams, so reporting their 'years' of study is less meaningful, but their total time to completion is still an important metric. At the U of A, faculty must move through the stringent evaluation steps defining the period of assistant professor in a maximum of seven years. If they successfully achieve tenure and promotion, they can be with us a further 20 to 30 years.

The U of A experiences many of the social, economic, environmental, and physical challenges of small cities. The U of A needs to attract and retain top students (in cohorts), and exceptional faculty and staff (who must be willing to grow and change with the cohorts over long careers). The university is an engaging environment. Its largest segment (students) constantly refreshes (the undergraduates always have an average age of about 20 years). The stable component of the institution, the faculty and staff as a group, must be managed and developed to maintain a healthy demographic profile and to respond to external changing political, social, economic, and environmental conditions—all at the same time as anticipating and planning the educational path for the future cohorts who will go on to become scientific and civic leaders.

The university must persist and grow with, and in spite of, external opportunities and challenges. It must look into the future, through research and discovery, to create the next generations of citizens. As a result, the goals of the university encompass basic maintenance and repair of aging infrastructure; creating and building new infrastructure; shifting away from an “ivory tower” approach to higher education to vibrant community engagement and collaboration with scholarship and scientific discovery; continuing to pursue research excellence across all segments of the academy; translating research knowledge to community and to learners; embracing, and in fact developing, new ways of teaching and learning to provide transformative experiences for students; and renewing the professoriate that is the backbone of all these activities.

The University of Alberta has also recognized the critical importance of a sustained and powerful response to the findings of the national Truth and Reconciliation Commission (TRC) and the fundamental importance of having that response be created through community consultation. The earliest parts of that response can be found in the goals and priorities listed in the Affordability, Access, and Quality section, including immediate actions to increase the numbers and to support Indigenous learners and faculty, and the building of a shared space focused on Indigenous ways of learning and knowing, the Maskwa House of Learning, as part of a strategy to indigenize the physical and social environments at the University.

The following goals, initiatives, outcomes, and measures describe the path of the U of A over the next one to three years. The goals all reflect the constant pursuit of quality, ensure appropriate affordability, and maximize access—broadly defined. These goals will ensure the university retains and improves its position as a top 100 university in the world, and best serves its strongest ally and constituent community, the province of Alberta.

## FACULTY RENEWAL

## FACULTY RENEWAL GOALS, INITIATIVES, OUTCOMES, AND MEASURES

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>GOALS – FACULTY RENEWAL</b>		
G1 Faculty Renewal	To renew the professoriate, improving the balance of ranks and increasing diversity.	2025
<b>PRIORITY INITIATIVES – FACULTY RENEWAL</b>		
P1 Increase the number of assistant professors	Assistant professors represent the academic future of the university. The pool needs renewal, as it has been depleted over recent years.	2025
P2 Increase faculty identifying as Indigenous	Prioritize the hiring of scholars who are members of Indigenous groups.	2025
P3 Increase the diversity of the academy	Individuals with diverse backgrounds expand our available conceptual tools, leading to a more creative academy. Prioritize hiring women and visible minorities, institute a high-level review of current status and hiring processes, and develop strategies for increasing awareness and diversity.	Ongoing, achieved by 2025
P4 Attend to deferred maintenance required to support Faculty Renewal	Alberta's substantial investment in the infrastructure of the university requires regular maintenance. Welcoming, modernized spaces support teaching, research, and learning for faculty, staff, and students. The highest priority expansion and preservation projects required to support Faculty Renewal are noted in Appendix F (Tables 8 and 9). Critical projects in the immediate future relating to Faculty Renewal include the Maskwa House of Learning as we endeavour to recruit more Indigenous faculty and students, the Translational Lab on North Campus, the Edmonton Galleria project that will allow the departments of music and art and design to expand to meet enrolment and programming demands, and a refurbishment and modernization of the science labs at Augustana Campus and Campus Saint-Jean.	<ul style="list-style-type: none"> <li>• Galleria Project: 2019 (Table 8 – Highest New Capital Priorities)</li> <li>• Maskwa House of Learning: 2018 (Table 8 – Highest New Capital Priorities)</li> <li>• Translational Lab: 2020 (Table 8 – Highest New Capital Priorities)</li> <li>• Augustana Science Labs: 2020 (Table 9 – Highest Expansion Priorities)</li> </ul>

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE			
<b>EXPECTED OUTCOMES – FACULTY RENEWAL</b>					
E01 Implement employment equity and diversity strategies	Review and strengthen existing strategies to create an equitable and respectful workplace.	2020			
E02 Expand programs to support best practices in inclusive recruitment and hiring	Provide formal training and support for committees in the recruitment and sensitive consideration of highly qualified candidates from diverse constituencies.	2020			
E03 Tailor and enhance existing mentoring programs to support the cohort of new faculty	Leverage network or co-mentoring approaches connected to teaching, learning, research, engagement, and service to support diverse new faculty.	2018			
<b>PERFORMANCE MEASURES – FACULTY RENEWAL</b>					
PM1 Proportion of assistant professors	LAST ACTUAL 2015-16	TARGET 2016-17	TARGET 2017-18	TARGET 2025	2025 <sup>1</sup>
	17%	17%	18%	21%	
<b>Source:</b> Institutional Data Warehouse, as of Jan. 7, 2016. <b>Notes:</b> Data are as of Oct. 1 of the reported year. Proportion is based on professors in teaching faculties.					
PM2 Number of Indigenous faculty members	LAST ACTUAL 2014-15	TARGET 2016-17	TARGET 2025	2025	
	17	17	26		
<b>Source:</b> Employment Equity Census Questionnaire, University of Alberta. <b>Notes:</b> Data are as of Dec. 31 of the reported year. Excludes contingent faculty.					
PM3 Proportion of female professors	LAST ACTUAL 2015-16	TARGET 2016-17	TARGET 2025	2025	
	36%	36%	43%		
<b>Source:</b> Institutional Data Warehouse, as of Jan. 7, 2016. <b>Notes:</b> Data are as of Oct. 1 of the reported year. Proportion is based on professors of all ranks in teaching faculties.					
PM4 Proportion of faculty members from visible minority groups	LAST ACTUAL 2014-15	TARGET 2016-17	TARGET 2017-18	TARGET 2025	2025
	17%	17%	18%	20%	
<b>Source:</b> Employment Equity Census Questionnaire, University of Alberta. <b>Notes:</b> Data are as of Dec. 31 of the reported year. Excludes contingent faculty.					

<sup>1</sup> This date is dependent on both funding and attrition due to retirements or resignations, factors which cannot be reliably predicted.

## STUDENT EXPERIENCE GOALS, INITIATIVES, OUTCOMES, AND MEASURES

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE <sup>2</sup>
<b>GOALS – STUDENT EXPERIENCE</b>		
G2 Increase the breadth of locations from which U of A undergraduate students are drawn	Nearly half of the undergraduate students at the U of A currently list their hometown as Edmonton. Increase geographical reach to bring a diverse group of Albertans, Canadians, and international students to the U of A to serve provincial labour market development	2025
G3 Increase recruitment and retention of Indigenous students	Increase the number of Indigenous students to reflect their demographic representation in the Alberta population. Improve retention of Indigenous students to match retention for other groups in the same cohort.	2025
G4 Improve access to student services, especially those that support a healthy campus	Health, particularly mental health, is not the absence of illness. Programs to ensure well-being will benefit students, staff, and faculty, will make the university a more safe, productive, and accessible learning and work environment, and will ensure students reach their potential.	2018
<b>PRIORITY INITIATIVES – STUDENT EXPERIENCE</b>		
P1 Increase recruitment of Alberta students from outside the Greater Edmonton area	To increase reach and impact across the province.	2025
P2 Build sufficient residence capacity to house all first-year students requesting on-campus housing	Students' academic experience is enriched by linking learning with other aspects of their lives. Living in on-campus residences significantly affects and supports student success and provides opportunities and access to rural, Indigenous, under-represented, and international students. Phase 1 of the expanded housing strategy will include design and construction of 820 new bed spaces as described in Appendix F.	2018
P3 Increase recruitment of international students and seek a more even distribution of countries of origin	To increase the opportunities for local students to experience international connections, to enhance the global community, and to reduce reliance on a small number of sources for international students.	2025
P4 Increase support for Indigenous students	Early identification of needs, tailoring, and enhancing service availability upon acceptance, upon arrival on campus, and early in the program; indigenizing campuses.	2020
P5 Complete Maskwa House of Learning	Provide a space where Indigenous and non-Indigenous people can meet on campus to learn about each other. This new space will also support ceremonies, events, and services for Indigenous peoples. Renewed programming within Education North will be offered in conjunction with initiative. Details of the project can be found in Table 8 of Appendix F. <sup>3</sup>	2018

<sup>2</sup> These dates consider that students are arranged in four- to six-year cohorts, minimally requiring that time frame for any turnover of demographics.

<sup>3</sup> The Maskwa House of Learning will jointly support the goals of faculty renewal, student experience, and teaching and learning.

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE <sup>2</sup>
P6 Sustain and enhance student mental health initiatives, including increased access to mental health services	Mental health services and initiatives benefit the health of all members of the university community.	2017
P7 Commence renewal of the Office of the Dean of Students	Commence a significant restructuring of the offices that deliver front-line student services. Increased capacity and more efficient access to student services will improve the overall student experience, thereby improving student satisfaction, retention, and completion rates.	2017
P8 Implement the recommendations of the Healthy Campus Strategic Plan	Ensure the alignment and optimal deployment of campus wellness services to ensure maximum benefit for faculty, staff, and students.	2018
P9 Implement the recommendations of the Review of the University of Alberta's Response to Sexual Assault	Take action to provide a safe and secure working and learning environment, acknowledging the inherent dignity of each member of our community.	2017
P10 Implement an institutional Sustainability Plan	The Sustainability Plan supports the three pillars of sustainability: environmental, economic, and social. Plans are in place to "green" U of A activities, to reduce energy demands, and to increase quality of experience on campus for all. This will include evaluating the benefits of adding energy co-generation capacity in the university heating plant to decrease greenhouse gas emissions, as described in Appendix F.	2020
<b>EXPECTED OUTCOMES – STUDENT EXPERIENCE</b>		
E01 Implementation of a revised national and international recruitment strategy	Deploy recruitment resources to expand recruitment of students from across Alberta, Canada, and from a broad range of other countries.	2017
E02 Increased offers of admission to selected groups	Expand offers to qualified potential students in key regions of the province and the world.	2017
E03 Increased acceptance of offers of admission to selected groups	Increase uptake of offers made to potential students in key regions of the province and the world—an indicator of reputation among students who have multiple choices.	2019
E04 Improved student experience through expanded supports for student life	Increase efficiency of student access to on-campus student services and supports.	2017

STUDENT EXPERIENCE

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE <sup>2</sup>				
<b>PERFORMANCE MEASURES – STUDENT EXPERIENCE</b>						
PM1 Proportion of Alberta undergraduate students from outside of Edmonton	Maintain the current proportion of Alberta students from outside the Greater Edmonton area.	2018				
	<table border="1"> <thead> <tr> <th>LAST ACTUAL 2015-16</th> <th>TARGET 2016-17</th> </tr> </thead> <tbody> <tr> <td>31%</td> <td>31%</td> </tr> </tbody> </table>	LAST ACTUAL 2015-16	TARGET 2016-17	31%	31%	
	LAST ACTUAL 2015-16	TARGET 2016-17				
31%	31%					
<p><b>Source:</b> Institutional Data Warehouse as of Jan. 7, 2016. <b>Notes:</b> Proportion based on students registered on Dec. 1 of the reported year with an original hometown census province of Alberta and a hometown census division that is not Edmonton. Post-graduate medical education students are excluded.</p>						
PM2 Distribution of international students	Maintain the current proportion of international students with attention to the distribution by country. Targets to be determined following the institutional strategic planning process.	2018				
	<b>SOURCE COUNTY OF INTERNATIONAL STUDENTS, 2015-16</b>					
	Graduate	China 920				
		Iran 414				
		India 248				
		USA 134				
		Bangladesh 100				
		Saudi Arabia 69				
		Brazil 64				
		Pakistan 56				
		Nigeria 55				
		Egypt 54				
	Undergraduate	China 3,120				
		South Korea 123				
		Nigeria 99				
	India 98					
	Hong Kong 65					
	Japan 56					
	Brazil 51					
<p><b>Source:</b> Institutional Data Warehouse as of Jan. 18, 2016. <b>Notes:</b> Includes countries with 50 or more students indicating this as their country of citizenship. Includes students with an original national status of international. Reflects students registered as of Dec. 1 of the reported year. Post-graduate medical education students are excluded.</p>						

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE <sup>2</sup>																																			
PM3 Proportion of Indigenous undergraduate students	<p>Define and achieve target for Indigenous students, taking into account both the composition of the university-aged population of Alberta and the percentage of high-school completers within this, and the broader, cohort.</p> <table border="1" data-bbox="492 464 987 554"> <thead> <tr> <th>LAST ACTUAL 2015-16</th> <th>TARGET 2016-17</th> <th>TARGET 2024-25</th> </tr> </thead> <tbody> <tr> <td>3.6%</td> <td>3.6%</td> <td>6.0%</td> </tr> </tbody> </table> <p><b>Source:</b> Institutional Data Warehouse as of February 2, 2016.  <b>Notes:</b> Includes students who have self-identified as Indigenous. Includes students who have an original hometown province of Alberta. Data are as of Dec. 1 of the reported year. Post-graduate medical education students are excluded.</p>	LAST ACTUAL 2015-16	TARGET 2016-17	TARGET 2024-25	3.6%	3.6%	6.0%	2025																													
LAST ACTUAL 2015-16	TARGET 2016-17	TARGET 2024-25																																			
3.6%	3.6%	6.0%																																			
PM4 Use of campus wellness services	<p>Visits to campus wellness services indicate that our campus population is able to access necessary services on campus.</p> <table border="1" data-bbox="492 768 987 1199"> <thead> <tr> <th colspan="5">Uptake of Health Services</th> </tr> <tr> <th>UNIT</th> <th>MEASURE</th> <th>2012-13</th> <th>2013-14</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>University Health Centre</td> <td>Total visits</td> <td>49,540</td> <td>48,953</td> <td>47,595</td> </tr> <tr> <td>Counseling and Clinical Services</td> <td>Direct treatment</td> <td>10,025</td> <td>12,189</td> <td>12,474</td> </tr> <tr> <td>Pharmacy</td> <td>Prescriptions filled</td> <td>35,456</td> <td>35,420</td> <td>34,906</td> </tr> <tr> <td>Sexual Assault Centre</td> <td>Support sessions</td> <td>206</td> <td>217</td> <td>255</td> </tr> <tr> <td>Sexual Assault Centre</td> <td>Psychological services</td> <td>n/a</td> <td>287</td> <td>430</td> </tr> </tbody> </table> <p><b>Source:</b> Dean of Students. <b>Notes:</b> Based on the fiscal year, April 1 to March 31. <b>Total visits:</b> Counts visits, not individuals. Includes students, staff, faculty, and immediate family of students. Direct treatment services are only for students. Direct treatment includes individual psychology and psychiatric appointments, group therapy sessions, and initial consultations. Prescriptions filled is the industry standard metric for general pharmacy service level. Support sessions includes both drop-in and appointments, but does not include in-house psychologist (captured separately). Psychological services capture the number of support sessions delivered by the in-house psychologist.</p>	Uptake of Health Services					UNIT	MEASURE	2012-13	2013-14	2014-15	University Health Centre	Total visits	49,540	48,953	47,595	Counseling and Clinical Services	Direct treatment	10,025	12,189	12,474	Pharmacy	Prescriptions filled	35,456	35,420	34,906	Sexual Assault Centre	Support sessions	206	217	255	Sexual Assault Centre	Psychological services	n/a	287	430	Ongoing
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PM5 Graduate satisfaction with their educational experience	<table border="1" data-bbox="492 1507 987 1577"> <thead> <tr> <th>LAST ACTUAL 2014</th> <th>TARGET 2016</th> <th>TARGET 2018</th> </tr> </thead> <tbody> <tr> <td>90%</td> <td>90%</td> <td>90%</td> </tr> </tbody> </table> <p><b>Source:</b> Alberta Enterprise and Advanced Education: Alberta Graduate Outcomes Survey. <b>Notes:</b> Data are the most recent available.</p>	LAST ACTUAL 2014	TARGET 2016	TARGET 2018	90%	90%	90%	Ongoing																													
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## TEACHING AND LEARNING GOALS, INITIATIVES, OUTCOMES, AND MEASURES

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>GOALS – TEACHING AND LEARNING</b>		
G5 Enhance teaching and the focus on learning outcomes	Post-secondary teaching is undergoing a radical change that will benefit learners. Supports will be put in place to ensure that the U of A remains a leader in this field.	2020
<b>PRIORITY INITIATIVES – TEACHING AND LEARNING</b>		
P1 Support training in new teaching methods and curriculum design	Increase instructor access to training and mentorship, particularly in use of emerging technologies in teaching such as flipped classrooms, blended learning, and other digital access. <sup>4</sup>	2020
P2 Improve access for distance and non-traditional learners	Offer classes through distance learning and explore flexible and creative scheduling to accommodate diverse learners.	2020
P3 Improve mentorship and skills development for graduate students	Eighty per cent of graduate students will work outside of the academy after completing their degree and need help to transition as highly qualified personnel serving government, industry, and cultural sectors of society.	2018
P4 Indigenization of the curriculum	Increase the exposure of all faculty, staff, and students to Indigenous history and traditional ways of knowing.	2018
<b>EXPECTED OUTCOMES – TEACHING AND LEARNING</b>		
E01 Increased emphasis on new teaching methods	Increase the uptake of new models for instructional design, assessment, and teaching by the professoriate.	2020
E02 Expanded Centre for Teaching and Learning (CTL)	Increase the resources that will allow the CTL to provide practical supports and training in new pedagogical methods.	2018
E03 Expanded oversight for graduate supervision and mentorship	Develop guidelines and expectations for graduate supervision.	2017
E04 Implementation of the University of Alberta Graduate Attributes	Graduate attributes extend the value of disciplinary expertise and prepare students to be the informed, concerned, and involved citizens of the future.	2019
E05 Improved tracking and management systems for student performance	Implement the Graduate Student Management System.	2018

<sup>4</sup> Effective deployment of new teaching methods requires ongoing investment in information technology infrastructure and in the renewal and modernization of facilities. Plans for these investments, which benefit students and faculty members across campus, can be found in appendices F and G.

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE		
<b>PERFORMANCE MEASURES – TEACHING AND LEARNING</b>				
PM1 Increased use of teaching supports by faculty and teaching assistants	Building instructional capacity.	2018		
		LAST ACTUAL 2014	% INCREASE	
	Number of Registrations in Centre for Teaching and Learning Sessions, Workshops and Programs	1,741	4.4%	
	<b>Source:</b> Centre for Teaching and Learning, Annual Report 2014, page 16. <b>Notes:</b> Percent increase is from previous year.			
PM2 Professional skills development in graduate students	Measures of uptake of Faculty of Graduate Studies and Research (FGSR) graduate professional skills development program.	2017		
		LAST ACTUAL 2014-15	TARGET 2015-16	TARGET 2016-17
	Number of graduate students who participated in professional practice sessions	1,645	1,645	2,000
	Number of teaching or professional practice sessions	86	86	110
	<b>Source:</b> FGSR Statistics. <b>Notes:</b> Professional Practice refers to sessions that are related to career development, soft skill development, entrepreneurship, life skills, and workplace strategies. Examples of each of these would be resume writing, conflict resolution, StartUp U, time management, and working in a team. Number of graduate students is based on an average of participants per session.			

## RESEARCH EXCELLENCE

## RESEARCH EXCELLENCE GOALS, INITIATIVES, OUTCOMES, AND MEASURES

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>GOALS – RESEARCH EXCELLENCE</b>		
G6 Research to address global challenges	Pursue excellent, relevant, and high-impact research and encourage interdisciplinary research teams and partnerships with the intent to address complex problems at the local and global scale.	2020
G7 Enhance our research-intensive environment for all levels of study	Ensure a dynamic and strong research community in which the full complement of outstanding faculty, post-doctoral fellows, graduate, and undergraduate students required for enhanced knowledge creation and transmission fully participate in the research mission of the institution. <sup>5</sup>	2020
<b>PRIORITY INITIATIVES – RESEARCH EXCELLENCE</b>		
P1 Support areas of emerging and identified strength	Work with the university community and stakeholders to identify areas of collective strength and selectively support them.	2020
P2 Expand collaborative and multidisciplinary research capacity	Build capacity for meaningful research collaborations with industry, community, and post-secondary sector partners, both locally and internationally, to drive high-impact, relevant research.	2020
P3 Increase respect for the reciprocity of research contracts between U of A researchers and their partners from all sectors	U of A researchers will work with community, industry, and academic partners to ensure that the promise of research is fulfilled and conscientiously translated into solutions. In an environment of shifting funding expectations, increased attention to sharing of relevant results and outcomes with all partners, research sensitivity, and knowledge mobilization are key to continuing positive interactions with all partners.	2018
P4 Expand the complement of post-doctoral fellows by identifying avenues to fund costs of the existing and expanded cohort	This talent pool is critical to Alberta's research capacity and impact, and essential to our role as a global partner of choice for international research consortia and training programs with top-tier collaborators. Post-doctoral fellows drive innovation and research in and out of university settings, including industrial, community, and social settings, and are an important source of future faculty members in many disciplines, as well as serving as highly qualified personnel in government, industry/business, and cultural sectors of society. They are key to shifting Alberta to a learning-based society that welcomes intellectual and economic diversity. The funding sources for post-doctoral fellows need to be better understood before a clear target can be established.	Dependent on funding
P5 Leverage provincial funding to attract greater external investment from the public and private sectors	Sponsored research is essential to the mission of the U of A, supporting research that addresses key social, cultural, and economic issues on a local and global scale. Provincial research dollars should be matched to other sources (federal and industrial) to maximize value for Albertans.	Ongoing

<sup>5</sup> Modernization, renewal and repurposing of buildings will provide the infrastructure required to house and support vibrant research programs. Institutional capital priorities are described in detail in Appendix F.

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>EXPECTED OUTCOMES – RESEARCH EXCELLENCE</b>		
E01 More meaningful research partnerships between the U of A and stakeholders	Develop criteria for evaluating the effectiveness of partnerships from the perspectives of all stakeholders.	2018
E02 An expanded and diverse community of post-doctoral fellows	Development of competitive funding packages for post-doctoral fellows. This will drive the establishment of a diverse community of post-doctoral fellows to interact and co-operate between disciplines to inspire novel solutions to complex challenges.	2020
E03 Expanded supports for early career	Development of early-career researcher supports, including research mentorship, planning, and grant writing skills.	2019

RESEARCH EXCELLENCE

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE																												
<b>PERFORMANCE MEASURES – RESEARCH EXCELLENCE</b>																														
PM1 Hiring (faculty, post-doctoral fellows, chairs) and funding in research priority areas.	Research priority will be determined as an outcome of the institutional strategic planning process.	Anticipated to begin in 2018																												
PM2 Prestigious national and international awards for faculty, post-doctoral fellows, and graduate students.	<table border="1"> <thead> <tr> <th>FACULTY AWARDS, U15 RELATIVE POSITION</th> <th>LAST ACTUAL 2014</th> </tr> </thead> <tbody> <tr> <td>University of Alberta</td> <td>4</td> </tr> </tbody> </table> <p><b>Source:</b> Award data from individual awarding organizations.  <b>Notes:</b> Includes 3M Teaching Fellows, Fulbright Scholars, Killam Research Fellows and Prizes, Royal Society of Canada Fellows and College of New Scholars, National Academies of Engineering and Sciences, Sloan Research Fellowships, Trudeau Fellows, Canadian Academy of Health Sciences Fellows, Falling Walls Young Innovator of the Year, SSHRC Impact Awards and NSERC Prizes awarded during the five-year period, 2010 to 2014. In the case of institutions sharing awards, each was given credit for having received the award.</p> <table border="1"> <thead> <tr> <th>NUMBER OF TRI-COUNCIL SCHOLARSHIP AWARDS, U15 RELATIVE POSITION</th> <th>LAST ACTUAL, 2014</th> <th>TARGET, 2017</th> </tr> </thead> <tbody> <tr> <td>Social Sciences and Humanities Research Council (SSHRC)</td> <td>8</td> <td>8</td> </tr> <tr> <td>Canadian Institutes of Health Research (CIHR)</td> <td>7</td> <td>7</td> </tr> <tr> <td>Natural Sciences and Engineering Research Council (NSERC)</td> <td>5</td> <td>5</td> </tr> </tbody> </table> <p><b>Source:</b> U15 Data Exchange, summarized Tri-Council data.  <b>Notes:</b> Report is by competition year. Includes scholarship awards for masters and doctoral students.</p> <table border="1"> <thead> <tr> <th>NUMBER OF BANTING POSTDOCTORAL FELLOWSHIPS, U15 RELATIVE POSITION</th> <th>LAST ACTUAL, 2011-2014</th> <th>TARGET, 2011-2015</th> </tr> </thead> <tbody> <tr> <td>Social Sciences and Humanities Research Council (SSHRC)</td> <td>6</td> <td>6</td> </tr> <tr> <td>Canadian Institutes of Health Research (CIHR)</td> <td>6</td> <td>6</td> </tr> <tr> <td>Natural Sciences and Engineering Research Council (NSERC)</td> <td>7</td> <td>7</td> </tr> </tbody> </table> <p><b>Sources:</b> U15 Data Exchange, summarized Tri-Council data for SSHRC and NSERC as of Feb 2, 2016. CIHR Funding Decisions Database for CIHR data as of Feb 24, 2016. <b>Notes:</b> Report is by competition year.</p>	FACULTY AWARDS, U15 RELATIVE POSITION	LAST ACTUAL 2014	University of Alberta	4	NUMBER OF TRI-COUNCIL SCHOLARSHIP AWARDS, U15 RELATIVE POSITION	LAST ACTUAL, 2014	TARGET, 2017	Social Sciences and Humanities Research Council (SSHRC)	8	8	Canadian Institutes of Health Research (CIHR)	7	7	Natural Sciences and Engineering Research Council (NSERC)	5	5	NUMBER OF BANTING POSTDOCTORAL FELLOWSHIPS, U15 RELATIVE POSITION	LAST ACTUAL, 2011-2014	TARGET, 2011-2015	Social Sciences and Humanities Research Council (SSHRC)	6	6	Canadian Institutes of Health Research (CIHR)	6	6	Natural Sciences and Engineering Research Council (NSERC)	7	7	Ongoing
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TYPE	DESCRIPTION	EXPECTED COMPLETION DATE								
PM3 Research consortia and partnerships formed with top-tier international partners.	See Appendix C for selective descriptions of active research consortia and partnerships.	Ongoing								
PM4 Usage of the Grant Assist Program	This program improves the quality and competitiveness of applications via enhanced application preparation and support including concept discussion, internal review, feedback, workshops, and writing and editing.	Ongoing								
	<table border="1"> <thead> <tr> <th data-bbox="493 558 781 585">GRANT ASSIST PROGRAM, NUMBER OF REVIEWS</th> <th data-bbox="837 558 927 585">LAST ACTUAL</th> </tr> </thead> <tbody> <tr> <td data-bbox="493 596 610 623">Health Sciences</td> <td data-bbox="837 596 886 623">1,658</td> </tr> <tr> <td data-bbox="493 634 740 661">Natural Sciences and Engineering</td> <td data-bbox="837 634 870 661">214</td> </tr> <tr> <td data-bbox="493 672 727 699">Social Sciences and Humanities</td> <td data-bbox="837 672 870 699">226</td> </tr> </tbody> </table>	GRANT ASSIST PROGRAM, NUMBER OF REVIEWS	LAST ACTUAL	Health Sciences	1,658	Natural Sciences and Engineering	214	Social Sciences and Humanities	226	
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	<p><b>Source:</b> Grant Assist Program updates. <b>Notes:</b> Data are cumulative since inception. Natural Sciences and Engineering inception, July 2013, includes mentorship to applicants and internal peer reviews as of Jan. 2016. Health Sciences inception June 2010, includes internal peer reviews as of Jan. 2016. Social Sciences and Humanities inception Mar 2013, includes internal peer reviews, as of Jan. 2016.</p>									
PM5 Maintain or improve our relative position in the U15 group of universities for total sponsored research funding.	Maintain or improve our relative position in the U15 group of universities for total sponsored research funding.	Ongoing								
	<table border="1"> <thead> <tr> <th data-bbox="493 961 683 989"></th> <th data-bbox="699 961 789 989">LAST ACTUAL 2013-14</th> <th data-bbox="805 961 862 989">TARGET 2014-15</th> <th data-bbox="878 961 943 989">TARGET 2015-16</th> </tr> </thead> <tbody> <tr> <td data-bbox="493 1020 643 1104">Sponsored research funding, U15 relative position</td> <td data-bbox="699 1020 716 1047">5</td> <td data-bbox="805 1020 854 1047">Top 5</td> <td data-bbox="878 1020 927 1047">Top 5</td> </tr> </tbody> </table>		LAST ACTUAL 2013-14	TARGET 2014-15	TARGET 2015-16	Sponsored research funding, U15 relative position	5	Top 5	Top 5	
	LAST ACTUAL 2013-14	TARGET 2014-15	TARGET 2015-16							
Sponsored research funding, U15 relative position	5	Top 5	Top 5							
	<p><b>Source:</b> Canadian Association of University Business Officers (CAUBO): Financial Information of Universities and Colleges, Report 3.1. Data are the most recent available.</p>									

## COMMUNITY ENGAGEMENT

## COMMUNITY ENGAGEMENT GOALS, INITIATIVES, OUTCOMES, AND MEASURES

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>GOALS – COMMUNITY ENGAGEMENT</b>		
G8 Expand community engagement and consultation	Increase community interactions to build two-way relationships with stakeholders on and off campus including urban, rural, Indigenous, and minority communities and their leaders.	2020
<b>PRIORITY INITIATIVES – COMMUNITY ENGAGEMENT</b>		
P1 Support training in new teaching methods and curriculum design	<p>The Galleria project (Table 8, Appendix F) will expand art, design, and music education, scholarship, performance, and research in the downtown core of Edmonton.</p> <p>The Twin Arenas (Table 8, Appendix F) project will provide needed space for academic, varsity, community and recreational sport activities.</p> <p>The Translational Lab—The proposed Diagnostic Centre—will co-house provincial, private, and university labs, supporting translation of medical research. Details on these community partnership projects are listed in Appendix F.</p>	<p>Galleria: 2019 (Table 8, Appendix F)</p> <p>Twin Arenas: 2018 (Table 8, Appendix F)</p> <p>Translational Lab: 2019 (Table 8, Appendix F)</p>
P2 Increase engagement with communities and stakeholders on and off campus	To be relevant, the university must understand stakeholder needs and challenges. Forums that facilitate two-way exchanges of information and understandings need to be developed along with regularly planned opportunities for exchanges.	2020
P3 Create partnerships and programs and presentations that include face-to-face interactions	Increase and promote partnerships for community service-learning, co-op, practica, internships and other placements of students in off-campus settings. Develop workshops and presentation formats that include real-time interactions with community members, using Enterprise Square, Campus Saint-Jean, North and South Campus, and Augustana Campus as meeting places.	2020
P4 Work consultatively with communities, broadly defined, to identify gaps as well as future needs, and build the human capacity to meet them	Develop partnerships that result in community-level capacity building, needs-driven professional programs, and reduced talent drain from communities.	2020

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>EXPECTED OUTCOMES – COMMUNITY ENGAGEMENT</b>		
E01 Galleria project	Develop plans for completion of the project.	Dependent on government funding
E02 Twin Arenas project	Develop plans and partnering relationships for completion of the project.	Dependent on government funding
E03 Two-way engagement with communities	Develop and regularly schedule community-relevant events.	2018
E04 Partnerships	Increase partnerships for community service-learning and other experiential learning opportunities.	2019
<b>PERFORMANCE MEASURES – COMMUNITY ENGAGEMENT</b>		
PM1 Public interaction	Community Engagement	2020
		LAST ACTUAL
	Co-op participation	8%
	Community Service Learning Course Placements	1,506
	Alumni Connections	46,420
	<p><b>Sources:</b> Institutional Data Warehouse, Community Service Learning, and Office of Alumni Relations. <b>Notes:</b> Co-op participation is the proportion of students registered in co-op programs in fall 2015. Post-graduate medical education students are excluded. CSL course placements are for the 2014-15 academic year. Alumni connections includes connections with alumni, students, and their guests in the 2014-15 fiscal year.</p>	

### INFRASTRUCTURE GOALS, INITIATIVES, OUTCOMES, AND MEASURES

# INFRASTRUCTURE

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>GOALS – INFRASTRUCTURE<sup>6</sup></b>		
G9 Functional renewal and reduction in deferred maintenance	Preserve existing physical assets by addressing deferred maintenance and functional renewal to acknowledge the changes in research and teaching requirements. Reduce the significant risk posed by the current institutional deferred maintenance liability. Details provided in Focus 1 of Appendix F.	Ongoing
G10 Envelope funding for pre-design services.	Pre-design services are critical to prepare for opportunities to implement capital projects more quickly than what has been traditional. Having “shovel ready” projects allows for quick response to funding availability on short notice and creates higher certainty in scope and budget profiles. Details provided in Focus 2 in Appendix F.	Ongoing
G11 Student housing	Accommodation of 18 per cent of full-time students in purpose-built housing featuring supportive programs. (A Strategy for Student Housing, 2015–2040, Phase 1). Details provided in Focus 3 in Appendix F.	2018
G12 New program space	A number of new spaces are required to support faculty renewal initiatives and to enhance the student experience. Details provided in Focus 4 in Appendix F.	Ongoing
G13 Sustainable development program	Undertake programs and projects that reduce energy consumption, thereby reducing our carbon footprint as well as providing operating efficiencies.	Ongoing

<sup>6</sup> Many of the university’s infrastructure priorities are intrinsic to goals listed in other subsections of this plan. Some capital priorities are so fundamental to the effective operation of the institution as to supersede any one priority area and have been listed here.

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>PRIORITY INITIATIVES – INFRASTRUCTURE</b>		
P1 Enhancing basic service provision	These projects include the expansion and renewal of basic infrastructure services at all U of A campuses including planning, benchmarking, service reliability, heating and electrical plant expansions, and improvements to deep sewer, water supply, and road lighting. Details provided in Highlights 2014–2015 section of Appendix F.	Ongoing
P2 Pre-design services	Pre-design services will be completed for several buildings including the Medical Sciences, Clinical Sciences, Augustana Science, South Academic, and Mechanical Engineering buildings.	2018
P3 Expanding residences	Implement the North Campus portion of Phase 1 of The Strategy for Student Housing, 2015–2040, including 300 new bed spaces for upper-year undergraduates in East Campus Village and 520 new bed spaces for first-year students in a tower on the Lister Hall site.	2018
P4 New buildings	Programming and planning activities will be undertaken for new capital projects including a science facility at Augustana to accommodate more students, a new facility for the Alberta School of Business to accommodate faculty growth, new music and art and design facilities (Galleria), and completion of the Engineering backfill designs.	2017
P5 Research lab ventilation	Optimization of air flows for research labs to reduce exhaust and supply air deliveries (Phase 1 Li Ka Shing, Katz, CCIS and NREF).	2016
P6 People counters (classrooms)	Installation of electronic devices in classrooms that measure occupancy and utilization.	2016
P7 Co-generation	Installation of a gas turbine generator (TG3) with a heat recovery steam generator (HRSG). The intent is to install a natural gas turbine that generates 25 MW of power and simultaneously generates about 70,000 kg/hr of high-pressure steam.	2020

## INFRASTRUCTURE

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>EXPECTED OUTCOMES – INFRASTRUCTURE</b>		
E01 Basic infrastructure added	Basic infrastructure is available in advance of new construction on North and South campuses.	2018
E02 Continued facility renewal	The Medical Sciences, Clinical Sciences, Augustana Science, and South Academic buildings will be “shovel-ready.”	Ongoing
E03 Increased residence capacity	Open 300 new student residence bed spaces for upper-year undergraduate students in East Campus Village. Open 520 new bed spaces for first-year students in a fifth tower to be added to the Lister Hall site.	2018
E04 Space utilization	High-quality programs and planning will ensure efficient and effective use of new space in support of the faculties’ requirements.	2017
E05 Address climate change objectives	Reductions in electrical use will result in corresponding reductions in greenhouse gas emissions.	2016
E06 Optimize space utilization	People counter data will be used to provide feedback for ventilation control to supply only the quantity of air equal to the occupant load for energy savings.  Another benefit is gathering data for utilization of classroom spaces. A full data set, once compiled, will allow for a determination on shutting down of spaces for summer months, reprogramming of spaces, or targeted renewals to allow for increased utilization.	Ongoing
E07 Additional co-generation capacity	The expected outcomes are increased reliability, reduction of greenhouse gas emissions, energy cost reduction, and increased efficiency of the district energy system that serves the U of A and its campus partners. Planning and environmental applications must be completed in advance of final design and construction.	2020

TYPE	DESCRIPTION	EXPECTED COMPLETION DATE
<b>PERFORMANCE MEASURES – INFRASTRUCTURE</b>		
PM1	New infrastructure and expansion of existing infrastructure to support the development of the northeast sector of South Campus and the North Campus is installed. (Details provided in Appendix F, tables 8, 9, 10).	2018
PM2	Pre-design documentation to schematic design phase for the Medical Sciences, Clinical Sciences, Augustana Science, South Academic, Business, and Mechanical Engineering buildings will be completed.	2018
PM3	820 new, high-quality student bed spaces are constructed on North Campus, on time and on budget.	2018
PM4	Functional and general space programming documents are in place for new buildings.	2015–2016
PM5	Direct reduction in electrical utility for the noted buildings and a reduction of greenhouse gas emissions of 10,000 tonnes of CO <sub>2</sub> on an annual basis.	Ongoing
PM6	Energy savings and reduced operating costs.	Ongoing
PM7	Power generated through the new unit will reduce greenhouse gas emissions by 40 per cent compared with conventional power production.	2020



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# APPENDIX A: FINANCIAL AND BUDGET INFORMATION

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# 2016–2017 CONSOLIDATED BUDGET

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Prepared under the Public Sector Accounting Standards (PSAS), the University of Alberta's 2016–2017 consolidated budget (see Table 1) reflects the entire enterprise, including unrestricted and restricted funds. Funding for general operations is fully unrestricted within the consolidated budget; funding for ancillary operations remains within those entities and the majority of research revenues, philanthropic sources of revenue, and capital project funding are fully restricted.

For 2015–2016, the university is estimating a consolidated excess of revenue over expense of \$18.3 million—slightly below the budgeted excess of \$23.1 million. Consolidated revenues were \$10 million higher than budgeted, and consolidated expense was \$15 million higher than budgeted.

For 2016–2017, the consolidated budget reflects an excess of revenue over expense of \$38 million on budgeted revenue of \$1,877 million and budgeted expense of \$1,839 million. The \$38-million excess of revenue over expense is equal to two per cent of the university's budgeted consolidated revenue and is driven almost exclusively by excess of revenue within restricted funds.

The Statement of Operations (Budget by Function) under the PSAS and the Statement of Cash Flows Budget are presented in tables 5 and 6.

## CONSOLIDATED REVENUE

Budgeted revenue for 2016–2017 is \$1,877 million. As illustrated in Figure 1, as a publicly-funded institution, 52 per cent or \$970 million comes from the Government of Alberta, mostly through the Campus Alberta Grant, sponsored research funding, and capital funding. Of the \$970 million, \$621 million represents the Campus Alberta Grant, the primary source of unrestricted funding for the university's day-to-day operating activity. The 2016–2017 budget has been prepared based on a two per cent increase to the Campus Alberta Grant.

Federal and other government revenue of \$184 million largely reflects the funding received by the university in support of its research mandate. This revenue is budgeted to be slightly higher than the 2015–2016 preliminary actuals but lower than the 2015–2016 budgeted revenues. Any change in this revenue source is driven by the federal government's level of investment in Tri-Council funding and the university's national competitiveness in these and other funding competitions.

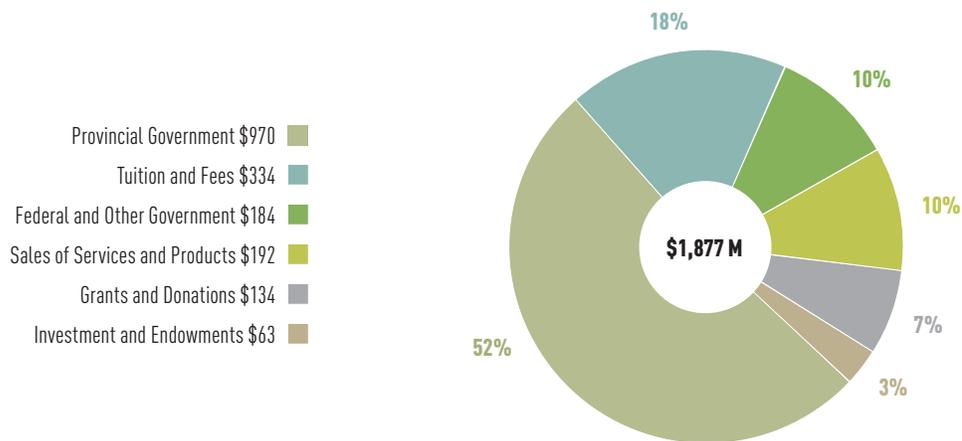
Tuition and related fees are budgeted at \$334 million and, at 18 per cent, represent the second-largest source of consolidated revenue and are unchanged as a percentage of revenue from 2015–2016. Tuition and related fees include all instructional fees, market modifiers, and non-instructional fees. The fee revenue is largely unrestricted, resides in the operating fund, and is used for the day-to-day general operations of the university. With the passing of Bill 3, all tuition fees falling within the Tuition Fee Regulation and Mandatory Non-Instructional Fees (MNIF) were held at 2014–2015 levels. In December 2015, the Board of Governors approved a 1.6 per cent increase to international student tuition fees for 2016–2017. In future years, the university has forecast all tuition fees under the tuition regulation and MNIF to increase by Alberta CPI.

Although international student fees are also forecast to increase at a minimum of Alberta CPI, the university continues to closely monitor overall program costs, market demand, and tuition levels for international students at competing institutions to determine whether additional adjustments in international tuition should be made.

The third-largest sources of revenue include federal and other grant funding as well as sales of services and products. These revenue sources generate \$184 million and \$192 million respectively, and each represent 10 per cent of consolidated revenue. The majority of the federal funding is generated through federal research grants; the majority of sales of services and products are generated through the university’s ancillary operations. Increased revenue through ancillary operations is driven by continuing growth in the university’s residence capacity as well as the December 2015 board-approved 1.7 per cent base rent increases and differentiated increases to select properties. Parking rates for permits was increased by 1.4 per cent.

The other sources of consolidated revenue for 2016–2017 include grants and donations of \$134 million and investment income of \$63 million.

**FIGURE 1** CONSOLIDATED REVENUE BUDGET 2016-17 BY SOURCE (\$MILLION)



## CONSOLIDATED EXPENSE

For 2016–2017, consolidated expense is budgeted at \$1,839 million. For the first time in several years, the budget does not include any across-the-board cuts; however, as of July 1, 2015, all faculties and units assumed responsibility for the funding of across-the-board salary increases and merit.

As Figure 2 illustrates, investments in salaries and benefits to maintain teaching, research, and other critical activities account for over \$1.1 billion or 61 per cent of total expense.

At the time of preparing the budget, the university was still in negotiations with both staff associations. Therefore, the salary and benefit expenditures are based on a forecast adjustment to salaries and benefits. Any final salary and benefit agreement that differs from the forecast will result in a variance to the recommended budget.

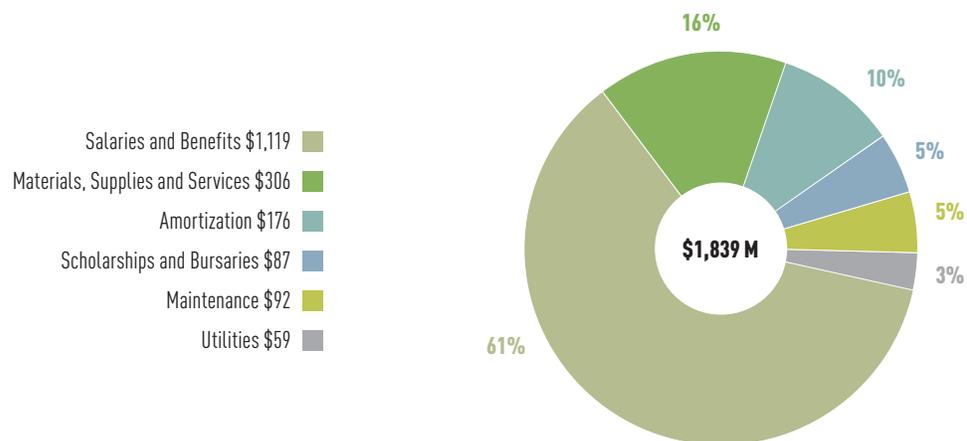
In addition to the negotiated changes to salaries and benefits, the university must also budget for inflationary increases to non-statutory benefits such as supplementary health plans, any statutory benefit increases, and adjustments to pension plan contributions in response to unfunded pension plan liabilities.

The university's next largest expense is materials, supplies, and services. Budgeted at \$306 million, these expenses provide essential support across the campuses, including information systems and technology, research expenditures, library resources, and day-to-day operations such as insurance premiums, communications, and classroom support. This expense line also includes the costs of goods sold and recovered. In budgeting for these expense items, the university continues to face the challenge whereby inflation within higher education significantly exceeds general inflationary pressures. Examples of this include library collections, which are affected not only by general inflationary increases, but also by the value of the Canadian dollar. For 2016–2017, the library collections budget will be increased by 11 per cent or \$2.5 million in response to publisher increases and currency adjustments, with \$1.6 million attributed to the impact of the falling Canadian dollar. Information technology anticipates inflation increases of 6.2 per cent on contracts, plus an additional 2.5 per cent on exchange rates. Facilities and Operations anticipates average inflation increases of 2.9 per cent plus an additional 2.5 per cent due to minimum wage impact and across-the-board merit rollover. These inflationary increases are occurring at a time when the university's grant has increased by two per cent and the majority of tuition revenue has been held at 2014–2015 levels.

A further significant expense in the consolidated budget is \$176 million for the amortization of capital assets. Under the PSAS, amortization is an annual expense that is calculated based on the estimated useful life of the asset. These assets include such things as buildings, scientific and computing equipment, software, and learning resources.

For 2016–2017, scholarship and bursary expenses are budgeted at \$87 million. The decline in scholarship and bursary expense from 2015–2016 is within the restricted special purpose funding, while the scholarship and bursary expense in the operating fund has been increased.

**FIGURE 2** CONSOLIDATED EXPENSE BUDGET 2016–2017 BY TYPE



### OPERATING FUND

Consistent with the university’s commitment to transparent budget information, in addition to the fully consolidated budget table the university also presents the budget by fund including the university’s operating fund (see Table 2).

As noted, the operating fund is unrestricted and is used to support the primary teaching and learning activities of the university. To ensure alignment of the operating fund with the consolidated budget, this fund is presented using PSAS and therefore includes the amortization of capital assets.

For 2016–2017 the university has budgeted total operating fund revenues of \$1,096 million and total operating fund expense of \$1,094 million for an operating fund excess of revenue over expense of \$2 million. The operating fund has been prepared based on the core assumption of a two per cent increase to the Campus Alberta Grant and the freeze in tuition fees and MNIF in 2016–2017 pursuant to Bill 3.

The two primary sources of revenue within the operating fund are the Campus Alberta Grant, and tuition and related fees totalling \$981 million or 89 per cent of the operating fund revenue. The remaining 11 per cent of revenue is derived from federal and other government funding, donations and investment income, and sales of services and products.

Within the operating fund, 75 per cent or \$817 million of expense is associated with salaries and benefits. Ten per cent of expenses are associated with the materials, supplies, and services that support teaching and learning, with the remaining 15 per cent of expense associated with utilities, maintenance, amortization expense, and scholarships and bursaries.

With the provincial government’s commitment to reinvesting in higher education, the university received a two per cent grant increase in 2015–2016 and the university has budgeted a further two per cent grant increase in 2016–2017. These actual and budgeted funding increases provided the university a unique opportunity to invest in the academy and position the university for the implementation of its new strategic plan.

As the 2015–2016 grant increase was confirmed later in the fiscal year, the university decided to use that funding on a one-time basis in 2015–2016 and combine it with the 2016–2017 budgeted grant increase of two per cent. This provided the university with over \$25 million in base funding to invest strategically and position the university for the implementation of its new strategic plan in 2016. In 2015–2016 one-time funding of \$10.4 million or 95 per cent of the grant increase was invested in teaching and research priorities, with the goal of further leveraging the \$25 million in base funding in 2016–2017.

In preparing the 2016–2017 budget and in alignment with the university's goals of faculty renewal, student experience, teaching and learning, research excellence, and community engagement, the university developed a four-point budget strategy:

- 1. Invest the 2015–2016 two per cent grant increase on a one-time basis in 2015–2016 to position the university for its 2016–2017 investments. For 2016–2017, combine the two per cent base fund increases in 2015–2016 and 2016–2017, allowing the university to maximize strategic investment in the academy. Combined, this will allow for a total base investment in the academy of more than \$25 million in 2016–2017.**
- 2. Focus investments on priorities that will have the highest impact on students and members of the university community, such as new academic positions, student funding support, and research.**
- 3. Meet compliance requirements.**
- 4. Maintain institutional supports.**

In implementing this four-point strategy the university has made the following base funding investments in the 2016–2017 operating fund budget:

- In support of faculty renewal, the university will invest \$6 million in base funding to renew the professoriate. This will include increasing the number of assistant professors, hiring Indigenous faculty, and increasing diversity within the academy.
- In support of the student experience, the university will invest \$2 million in undergraduate student scholarships and \$0.5 million in programs—all of which will assist in recruiting a more diverse student body and ensuring the well-being of our students.
- In support of teaching and learning, a total of \$1.2 million will be invested in student IT systems to streamline university processes and improve the functionality of the student systems.
- In support of research excellence, the university will invest \$2.54 million in library collections in an effort to prevent erosion of the collection due to the negative impact of current exchange rates and inflationary pressures. A total of \$0.4 million will be invested in research supports and compliance including the hiring of a dedicated veterinarian.
- In support of community engagement, the university will invest \$2.2 million to increase community interactions, build two-way relationships with stakeholders, and develop partnerships that result in community-level capacity building.

The university continues to be affected by external factors regarding compliance requirements and regulatory issues, as well as the fundamental need to maintain institutional supports such as the basic requirement of the university's heating, cooling, and lighting costs. Consequently, just over \$10 million will be allocated to institutional supports, the largest portion of this being the increasing costs of utilities and the requirement for increasing pension plan contributions. The increase in utility costs in 2016–2017 is the result of the end of a rebate program administered by the utilities ancillary and available to North Campus customers in 2014–2015 and 2015–2016. These rebates were made available through the drawdown of the utilities reserve that had been built up over previous years. Although energy prices have softened, with the conclusion of this rebate program, the university's utility costs are higher in 2016–2017. The balance of the increase in utility costs is due to the timing of gas purchases and the market conditions at the time. Finally, of the \$10 million, \$0.85 million will be invested in Finance and Administration and Facilities and Operations budget pressures.

These strategic investments are being made now to position the university to act quickly on its new strategic plan and further enhance its position as one of Canada's, and the world's, leading comprehensive research-intensive universities.

# OPERATING FUND BUDGET ASSUMPTIONS AND SENSITIVITIES

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The university prepares its fiscal estimates and final budgets using a comprehensive integrated planning and budget process, involving key stakeholders from across the institution. Key budget assumptions and sensitivities are cornerstones of the university's multi-year budgeting process. The goal is to achieve improved accuracy in forecasting elements of the budget and provide common assumptions for budget planners across the university.

## 2016–2017 BUDGET ASSUMPTIONS

Key highlights of the university's revenue assumptions include:

- a two per cent increase to the Campus Alberta Grant
- maintaining general tuition increases and MNIF at 2014–2015 levels while increasing international student tuition fees by 1.6 per cent for 2016–2017
- a modest increase in international student enrolment with stable enrolment in domestic students
- a modest recovery in short- and long-term interest rates and investment income following the significant decline in 2015–2016 investment income

Key highlights of the university's expenditure assumptions include:

- salary and benefit adjustments subject to ongoing negotiations
- overall benefit cost increases averaging five per cent
- faculties and administrative units continuing to assume responsibility for the funding of negotiated salary across-the-board and merit
- discontinuation of the utility rebate program at the end of 2015–2016
- a modest increase in scholarship expenditures
- potential Alberta climate change impact

## 2015–2016 BUDGET SENSITIVITIES

### REVENUE APPROXIMATE VALUE

- one per cent on Campus Alberta Grant: \$6.1 million
- one per cent change on credit tuition: \$3.5 million
- 0.25 per cent on short-term interest rate: \$1.3 million

### EXPENSE APPROXIMATE VALUE

- one per cent change in salary settlements (AASUA and NASA): \$6.1 million
- one per cent increase in benefits: approximately \$1.4 million
- \$1/gigajoule increase in natural gas: \$2.7 million (ancillary budget)
- one per cent operating budget reduction: \$7 million

## FORECAST BUDGET ASSUMPTIONS

The university has used the following forecast budget assumptions.

### REVENUE ASSUMPTIONS:

- The grant will increase at one per cent per year for each of 2017–2018 to 2019–2020.
- Regulated tuition will increase annually by Alberta CPI (approximately 1.6 per cent per year) as confirmed by the ministry.
- All mandatory non-instructional fees will increase by a minimum of Alberta CPI.
- Interest income will remain at historically low levels with some modest recovery.

### EXPENDITURE ASSUMPTIONS:

- Changes to ATB salary adjustments, merit, and benefit costs will be subject to collective agreement negotiations for 2016–2017 and beyond.
- Faculties and administrative units will continue to have responsibility for the funding of salary across-the-board and merit.
- All other expenditures are forecast to increase in the range of two to 10 per cent.

**TABLE 1** 2016-17 CONSOLIDATED BUDGET (\$'000'S)

	2015-16		Budget	Projections		
	Approved Budget	Prelim. Actuals	2016-17	2017-18	2018-19	2019-20
<b>REVENUE</b>						
Provincial Government	940,491	969,197	969,586	967,311	978,792	994,435
Federal and Other Government	188,997	174,813	183,647	187,516	196,631	209,543
Tuition and Related Fees	333,053	330,391	334,378	343,153	351,434	357,556
Sales of Services and Products	179,292	189,771	192,433	198,249	207,841	213,553
Grants and Donations	107,278	120,579	133,816	128,269	128,219	131,988
Investment Income	73,879	48,332	62,743	66,811	72,563	77,986
<b>Total Revenue</b>	<b>1,822,990</b>	<b>1,833,083</b>	<b>1,876,603</b>	<b>1,891,309</b>	<b>1,935,480</b>	<b>1,985,061</b>
<b>EXPENSE</b>						
Salaries	915,941	904,339	930,206	953,463	982,391	1,008,634
Employee Benefits	183,524	186,944	188,462	198,085	209,641	220,763
Materials, Supplies and Services	292,320	293,336	306,371	310,600	320,841	331,717
Utilities	53,808	51,507	58,645	57,403	59,673	61,130
Maintenance	81,663	109,134	91,960	77,515	74,811	75,903
Scholarships and Bursaries	92,719	89,663	87,105	89,932	92,980	96,082
Amortization of Capital Assets	179,841	179,827	176,233	180,015	185,382	191,852
<b>Total Expense</b>	<b>1,799,816</b>	<b>1,814,750</b>	<b>1,838,982</b>	<b>1,867,013</b>	<b>1,925,719</b>	<b>1,986,081</b>
<b>Excess of Revenue Over Expense</b>	<b>23,174</b>	<b>18,333</b>	<b>37,621</b>	<b>24,296</b>	<b>9,761</b>	<b>(1,020)</b>
Investment In Capital Assets	(9,781)	(45,315)	(47,860)	(23,044)	(11,698)	(27,445)
Increase(decrease) for the Year	13,393	(26,982)	(10,239)	1,252	(1,937)	(28,465)
Unrestricted Net Assets, Beginning of Year	(58,349)	(32,234)	(59,216)	(69,455)	(68,203)	(70,140)
<b>Unrestricted Net Assets, End of Year</b>	<b>(44,956)</b>	<b>(59,216)</b>	<b>(69,455)</b>	<b>(68,203)</b>	<b>(70,140)</b>	<b>(98,605)</b>

**TABLE 2** 2016-17 CONSOLIDATED BUDGET BY FUND (\$'000'S)

	OPERATING	ANCILLARY OPERATIONS	RESEARCH	CAPITAL	SPECIAL PURPOSE	TOTAL
<b>REVENUE</b>						
Provincial Government	648,722	-	130,235	118,921	71,708	<b>969,586</b>
Federal and Other Government	8,161	-	166,637	8,849	-	<b>183,647</b>
Tuition and Related Fees	332,440	1,938	-	-	-	<b>334,378</b>
Sales of Services and Products	80,300	96,344	3,249	12,390	150	<b>192,433</b>
Grants and Donations	12,957	-	108,769	6,504	5,586	<b>133,816</b>
Investment Income	13,975	2	29,320	-	19,446	<b>62,743</b>
<b>Total Revenue</b>	<b>1,096,555</b>	<b>98,284</b>	<b>438,210</b>	<b>146,664</b>	<b>96,890</b>	<b>1,876,603</b>
<b>EXPENSE</b>						
Salaries	669,122	23,969	193,115	-	44,000	<b>930,206</b>
Employee Benefits	148,155	5,150	25,057	-	10,100	<b>188,462</b>
Materials, Supplies and Services	110,838	24,887	140,556	-	30,090	<b>306,371</b>
Utilities	51,690	6,944	11	-	-	<b>58,645</b>
Maintenance	31,406	24,182	2,854	33,488	30	<b>91,960</b>
Scholarships and Bursaries	35,466	-	42,469	-	9,170	<b>87,105</b>
Amortization of Capital Assets	47,556	10,684	-	117,993	-	<b>176,233</b>
<b>Total Expense</b>	<b>1,094,233</b>	<b>95,816</b>	<b>404,062</b>	<b>151,481</b>	<b>93,390</b>	<b>1,838,982</b>
<b>Excess of Revenue Over Expense</b>	<b>2,322</b>	<b>2,468</b>	<b>34,148</b>	<b>(4,817)</b>	<b>3,500</b>	<b>37,621</b>
Investment in Capital Assets	(28,354)	(5,057)	(1,390)	(13,059)	-	<b>(47,860)</b>
Net Transfers Credit (Debit)	21,297	479	(23,093)	4,817	(3,500)	-
<b>Increase (Decrease) for the Year</b>	<b>(4,735)</b>	<b>(2,110)</b>	<b>9,665</b>	<b>(13,059)</b>	<b>-</b>	<b>(10,329)</b>
Unrestricted Net Assets (Deficiency), Beginning of Year	(174,880)	38,571	63,418	13,675	-	<b>(59,216)</b>
<b>Unrestricted Net Assets (Deficiency), End of Year</b>	<b>(179,615)</b>	<b>36,461</b>	<b>73,083</b>	<b>616</b>	<b>-</b>	<b>(69,455)</b>

# INSTITUTIONAL BUDGET RISKS

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As a result of current market conditions, the price of oil, government funding levels, and uncertainty regarding key government policy decisions, the budget risks to the university are substantial.

Specific factors affecting the university's budget risks include the following:

- **CAMPUS ALBERTA GRANT.** High Risk.  
The grant continues to be the university's primary source of unrestricted revenue. With continuing downward pressure on oil and gas prices and low oil and gas price forecasts in the mid-term, provincial government revenues will be constrained, affecting the ability of the government to provide increased funding to the university.
- **INTEREST RATES.** High Risk.  
With the decline in oil revenue and the sluggish Canadian economy, the Bank of Canada rate remains at unprecedented low levels. The university has forecast a modest recovery in the 2016–2017 rates. If interest rates do not see some recovery, university revenue will be negatively affected.
- **EXCHANGE RATES.** High Risk.  
The Canadian dollar continues to decline against the U.S. dollar with falling oil prices and historically low bank rates. Although a lower Canadian dollar benefits the provincial government in terms of oil and gas revenue and reduces some international students' cost of tuition, a declining Canadian dollar also increases the university's costs for goods and services purchased in U.S. dollars.
- **COMPENSATION.** High Risk.  
The single largest expenditure for the university is employee compensation. Total compensation negotiations with the associations are critical in terms of their impact on the university's budget and forecasts. Through negotiations, the university must achieve alignment between its primary revenue and cost drivers. With faculties and units responsible for the funding of across-the-board and merit, if this balance is not achieved it will trigger further layoffs and deterioration in quality and service levels.
- **PENSION PLAN CONTRIBUTION RATES.** High Risk.  
The continuing increase in pension plan contributions represents a significant risk to the university. Without structural reforms to the pension plans, the level of pension plan contributions as a percentage of total benefit costs will become unsustainable.
- **LONG-TERM SUSTAINABILITY OF OPERATING FUND.** High Risk.  
The operating fund forecasts a small deficiency in 2017–2018, but the deficiency increases dramatically in 2018–2019 and 2019–2020. This is a result of revenues increasing only marginally with constraints on both grant increases and tuition, while expenses, particularly salary and benefits, are forecast to increase at a much faster rate and compounding each year.

- **TUITION REVENUE.** Medium Risk.  
The university requires the ability to adjust tuition levels in response to market demand and conditions. This is particularly true regarding graduate and international student tuition fee levels. If there are constraints on the Campus Alberta Grant, the university must have the flexibility to generate alternative sources of funding to fulfil its academic mission and sustain the quality of the learning experience. With ongoing constraints in government funding, the university must develop a resource management model that will incent the generation of new sources of revenue while more effectively managing its cost drivers and existing resource allocations.
- **STUDENT ENROLMENT MIX.** Medium Risk.  
Total tuition revenue is driven by tuition levels and a complex mix of student type and degree program. Any variation in student mix between undergraduate and graduate, domestic and international, and level of enrolment in various degree programs can have a negative impact on total tuition revenue.
- **ALTERNATIVE REVENUE.** Medium Risk.  
The university must increase its capacity to generate alternative sources of revenue to offset changes to grant funding, tuition revenue limitations, and low investment income returns. The university requires government support to enable it to generate these new revenue streams. However, these strategies will take several years to be fully implemented and may be subject to significant fluctuations. Donations are also an important source of alternative revenue. Current economic conditions will put pressure on the Office of Advancement and its ability to increase donations.
- **LAND TRUST.** Medium Risk.  
The University of Alberta Properties Trust Inc. – this wholly-owned subsidiary of the University of Alberta acts as trustee to manage and develop university-owned lands and to raise dedicated, permanent funding to support the core mission of the university. The Board of Directors is comprised of professionals with expertise in the fields of real estate, land appraisal and development, finance communications and municipal affairs who will act in the best interest of the institution through its developments and to build relationships with neighbouring communities and the City of Edmonton.
- **EQUITY ISSUES.** Medium Risk.  
The university has started to undertake a review of data to assess whether equity issues are present within the academic workforce. Although additional analysis is required if equity issues are identified, they will need to be addressed by the university.
- **MINIMUM WAGE INCREASE.** Medium Risk.  
The university is facing large increases in contractual obligations from suppliers, driven by increases in minimum wage.

# CAPITAL AND ANCILLARY BUDGETS

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## CAPITAL

The university can only achieve its vision as a leading public institution for higher education serving the public good if it has access to well-supported, well-planned strategic construction of new facilities and repurposing and renewal of its existing facilities. As the university changes, space must transform to meet new needs and requirements. The university's ability to meet its own objectives and those of the province depends on continued investment for new facilities and for renewal and functional renewal of older facilities.

Table 3 lists the capital projects for 2016–2017. New and continuing capital construction is budgeted at \$117 million of the \$143 million in capital projects which are mainly debt financed. The capital budget also includes just over \$26 million in capital program spending under the infrastructure maintenance and energy management programs. Detailed information on the university's capital plan can be found in Appendix F.

**TABLE 3** 2016-17 CAPITAL BUDGET (\$'000's)

	ACTUALS TO DATE PRELIMINARY	2016-2017 RECOMMENDED BUDGET	FORECAST TO COMPLETE	TOTAL ESTIMATED PROJECT BUDGET
<b>Capital Projects</b>				
Agricultural Research Infrastructure - St Albert / Kinsella / Mattheis	12,327	120	-	12,447
CME Renewal - Levels 2, 3 7	19,962	4,038	-	24,000
Devonian Botanic Garden - Infrastructure Upgrades	150	2,500	10,350	13,000
Devonian Botanic Garden - Islamic Garden	-	5,000	8,000	13,000
East Campus Village - Phase 3	2,500	20,000	17,500	40,000
East Campus Village - Pinecrest & Tamarack	24,161	-	-	24,161
East Campus - Infill	6,850	100	-	6,950
Edmonton Clinic Health Academy	377,740	4,287	-	382,027
HRIF Project (Li Ka Shing / Katz Group ) Fit Outs	107,056	8,924	5,444	121,424
HRIF Project (CTRIC cGMP Fit Out - Li Ka Shing Level 7)	15,777	20	-	15,797
Ice Cores - South Academic Building	500	3,900	-	4,400
Donadeo Innovation Centre for Engineering (ICE)	134,400	-	-	134,400
Lister Tower # 5	1,800	17,000	15,900	34,700
Peter Lougheed Hall (formerly Leadership College)	20,032	22,223	1,710	43,965
Pharmacy Fit Up	44,797	203	-	45,000
Physical Activity & Wellness Centre (PAWC)	56,274	100	-	56,374
Research & Collections Resource Facility (formerly BARD II)	1,219	19,281	9,500	30,000
South Campus - Intersection 63 Ave / 122 Street	4,488	374	-	4,862
Other Capital Projects	31,993	9,212	574	41,779
<b>Total - Projects Underway / Proceeding</b>	<b>862,026</b>	<b>117,282</b>	<b>68,978</b>	<b>1,048,286</b>
<b>Annual Capital Programs:</b>				
Infrastructure Maintenance Program Grant		17,040		
Energy Management		9,000		
<b>Total Annual Capital Programs</b>		<b>26,040</b>		
<b>TOTAL</b>	<b>862,026</b>	<b>143,322</b>	<b>68,978</b>	<b>1,048,286</b>

\* The recommended Capital Budget forecast was developed in October 2015 and contains values which may not align with or may not include projects identified in the Comprehensive Institutional Plan.

	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
<b>Future Capital Projects</b>					
Augustana Science Labs & Classroom Building	500	7,500	22,000	28,000	32,000
Campus Saint-Jean Science Labs	-	2,000	20,000	18,000	-
Clinical Sciences Building - Phase 1 Renewal	-	-	2,000	8,000	1,800
Dentistry Pharmacy Functional Renewal Phase 1	-	1,000	20,000	20,000	9,000
Devonian Botanic Garden - Ecological Learning Centre	50	100	10,000	9,850	-
Engineering Backfill Projects	-	8,000	14,000	14,000	-
Heating Plant - Boiler Replacement & Co-gen Turbine	-	4,000	15,000	25,000	33,000
Maskwa House of Learning	2,000	15,000	13,000	-	-
Mechanical Engineering Renewal / Replacement	-	-	5,000	30,000	25,000
Medical Sciences Building - Phase 1 Renewal	-	-	5,000	18,000	7,000
School of Business	-	-	-	2,000	40,000
Science Backfill Projects	-	10,000	9,000	2,000	-
South Campus Basic Infrastructure	-	3,000	7,000	5,600	-
Twin Arenas	-	2,000	30,000	28,000	-
Universiade Pavilion - Building Envelop Replacement	-	-	5,000	10,000	1,000
<b>Total Future Capital Projects</b>	<b>2,550</b>	<b>52,600</b>	<b>177,000</b>	<b>218,450</b>	<b>148,800</b>

\* The recommended Capital Budget forecast was developed in October 2015 and contains values which may not align with or may not include projects identified in the Comprehensive Institutional Plan.

## ANCILLARY

The university runs several large ancillary operations: Ancillary Services (Residence Services, Hospitality Services, Parking, Real Estate and Commercial Property Management Services, ONEcard), the University of Alberta Bookstore, Enterprise Square, the University Health Centre, and Utilities.

All of the university's ancillaries must generate the required revenues to support both their operating and ongoing capital requirements, and therefore maintain both operating and capital reserves.

With the exception of the Bookstore, the university's ancillary operations continue to be in strong operating positions while maintaining both operational and capital reserves. The Bookstore continues to undergo significant restructuring in response to fundamental changes in the retail book sector. See Table 4.

**TABLE 4** 2016–2017 ANCILLARIES BUDGET (\$,000)

	2015-16		Budget	Projections		
	Budget	Forecast	2016-17	2017-18	2018-19	2019-20
<b>Ancillary Services</b>						
Revenues	75,575	73,956	77,257	80,210	87,843	91,407
Expenses (Net Amort, Capital Acqn., Debt Rpymt.)	73,167	73,176	79,033	79,386	81,385	101,097
<b>Net Operations</b>	<b>2,408</b>	<b>780</b>	<b>(1,776)</b>	<b>824</b>	<b>6,458</b>	<b>(9,690)</b>
<b>Reserve Balances, Closing</b>						
Operating	1,437	1,265	3,104	4,346	6,016	6,705
Capital	24,205	24,277	20,662	20,244	25,032	14,653
<b>Total Reserve Balance</b>	<b>25,642</b>	<b>25,542</b>	<b>23,766</b>	<b>24,590</b>	<b>31,048</b>	<b>21,358</b>
<b>Augustana: Residence, Conferencing, and Food</b>						
Revenues	3,494	3,424	3,615	3,687	3,761	3,837
Expenses (Net Amort, Capital Acqn., Debt Rpymt.)	3,580	3,709	4,042	3,408	3,464	3,528
<b>Net Operations</b>	<b>(86)</b>	<b>(285)</b>	<b>(427)</b>	<b>279</b>	<b>297</b>	<b>309</b>
<b>Reserve Balances, Closing</b>						
Operating	1,000	432	940	1,151	1,377	1,612
Capital	3,223	4,572	3,637	3,705	3,776	3,850
<b>Total Reserve Balance</b>	<b>4,223</b>	<b>5,004</b>	<b>4,577</b>	<b>4,856</b>	<b>5,153</b>	<b>5,462</b>
<b>Bookstore</b>						
Revenues	14,282	14,326	14,304	14,304	14,304	14,304
Expenses (Net Amort, Capital Acqn., Debt Rpymt.)	14,952	15,200	14,314	14,279	14,325	14,372
<b>Net Operations</b>	<b>(670)</b>	<b>(873)</b>	<b>(10)</b>	<b>24</b>	<b>(22)</b>	<b>(68)</b>
<b>Reserve Balances, Closing</b>						
Operating	(1,134)	(1,193)	(1,203)	(1,179)	(1,201)	(1,269)
Capital	-	-	-	-	-	-
<b>Total Reserve Balance</b>	<b>(1,134)</b>	<b>(1,193)</b>	<b>(1,203)</b>	<b>(1,179)</b>	<b>(1,201)</b>	<b>(1,269)</b>

	2014-15		Budget	Projections		
	Budget	Forecast	2015-16	2016-17	2017-18	2018-19
<b>University Health Services</b>						
Revenues	6,320	6,313	6,600	6,649	6,688	6,732
Expenses (Net Amort, Capital Acqn., Debt Rpymt.)	6,289	6,776	6,497	6,579	6,718	6,799
<b>Net Operations</b>	<b>30</b>	<b>(463)</b>	<b>103</b>	<b>70</b>	<b>(30)</b>	<b>(67)</b>
<b>Reserve Balances, Closing</b>						
Operating	294	263	366	436	405	339
Capital	200	100	100	100	100	100
<b>Total Reserve Balance</b>	<b>494</b>	<b>363</b>	<b>466</b>	<b>536</b>	<b>505</b>	<b>439</b>
<b>Utilities*</b>						
Revenues	95,481	95,126	103,826	103,670	105,088	107,525
Expenses (Net Amort, Capital Acqn., Debt Rpymt.)	102,181	101,826	103,826	103,670	105,088	107,525
<b>Net Operations</b>	<b>(6,700)</b>	<b>(6,700)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Reserve Balances, Closing</b>						
Operating	332	4,742	4,742	4,742	4,742	4,742
Capital	10,117	4,114	4,114	4,114	4,114	4,114
<b>Total Reserve Balance</b>	<b>10,449</b>	<b>8,856</b>	<b>8,856</b>	<b>8,856</b>	<b>8,856</b>	<b>8,856</b>
<b>TOTAL</b>						
Revenue	195,152	193,145	205,602	208,520	217,683	223,805
Expenses	200,169	200,686	207,712	207,323	210,980	233,321
<b>Net Operations</b>	<b>(5,018)</b>	<b>(7,542)</b>	<b>(2,110)</b>	<b>1,197</b>	<b>6,703</b>	<b>(9,516)</b>
<b>Reserve Balances, Closing</b>						
Operating	1,929	5,508	7,948	9,495	11,340	12,129
Capital	37,745	33,063	28,513	28,163	33,022	22,717
<b>Total Reserve Balance</b>	<b>39,675</b>	<b>38,571</b>	<b>36,461</b>	<b>37,658</b>	<b>44,362</b>	<b>34,846</b>

## CONCLUSION

The university's 2016–2017 budget has been developed around the primary focus of investing in new academic positions and the student experience, while positioning the university for the release of its new strategic plan. Based on current budget assumptions, significant new dollars can be allocated to the hiring of new professors and to key areas that will enhance the student experience. However, the 2016–2017 budget is not without substantial risks.

With the profound drop in the price of oil and a slowing Chinese economy, the global economy is going through a period of dramatic realignment. Some economists argue that this is a structural realignment and not a cyclical one. Consequently, as the impact of a weaker Alberta economy takes hold, all aspects of the Alberta government's revenues are under significant downward pressure including personal income tax, corporate taxes, and royalty revenues. These economic and financial trends create significant budget risks for all of the university's major revenue sources including the Campus Alberta Grant, tuition revenue, interest income, donations, research grant funding, and capital funding.

**TABLE 5** STATEMENT OF OPERATIONS BUDGET FOR THE YEARS ENDING MARCH 31, 2016 TO 2020 (\$,000)

	Estimated Actual 2016	Budget March 31, 2017	Forecast March 31, 2018	Forecast March 31, 2019	Forecast March 31, 2020
<b>REVENUE</b>					
Government of Alberta grants	970,388	969,586	967,311	978,792	994,435
Federal and other government grants	174,712	183,647	187,516	196,631	209,543
Student tuition and fees	323,460	334,378	343,153	351,434	357,556
Sales of services and products	189,297	192,433	198,249	207,841	213,553
Donations and other grants	121,203	133,817	128,269	128,220	131,988
Investment income	55,060	62,743	66,811	72,563	77,986
	<b>1,834,119</b>	<b>1,876,603</b>	<b>1,891,309</b>	<b>1,935,480</b>	<b>1,985,061</b>
<b>EXPENSE</b>					
Learning	1,102,852	1,131,998	1,157,389	1,196,690	1,232,048
Research	470,242	476,452	491,459	508,759	525,959
Facility operations and maintenance	139,847	134,716	120,090	119,507	122,061
Ancillary services	102,721	95,816	98,075	100,763	106,013
	<b>1,815,662</b>	<b>1,838,982</b>	<b>1,867,013</b>	<b>1,925,719</b>	<b>1,986,081</b>
<b>Annual operating surplus</b>	<b>18,457</b>	<b>37,621</b>	<b>24,296</b>	<b>9,761</b>	<b>(1,020)</b>
Endowment contributions and capitalized investment income	23,963	15,450	19,514	16,391	17,047
Annual surplus	42,420	53,071	43,810	26,152	16,027
Accumulated surplus, beginning of year	1,489,184	1,531,604	1,584,675	1,628,485	1,654,637
<b>Accumulated surplus, end of year</b>	<b>1,531,604</b>	<b>1,584,675</b>	<b>1,628,485</b>	<b>1,654,637</b>	<b>1,670,664</b>

Within this context and looking forward, in order for the university to be positioned to fully leverage its new strategic plan it must have:

- the flexibility to grow its revenue from non-traditional sources including initiatives such as the Land Trust
- the flexibility to respond to changing market demand for its educational programs and services
- access to resources that will enable it to participate in national and international research collaborations and provide the required infrastructure
- the ability to maximize the use of its existing resources and reallocate them toward emerging priorities

**TABLE 6** STATEMENT OF CASH FLOWS BUDGET FOR THE YEARS ENDING MARCH 31, 2016 TO 2018 (\$,000)

	Actual 2015	Estimated Actual 2016	Budget 2017	Forecast 2018
<b>OPERATING TRANSACTIONS</b>				
Annual surplus	181,920	42,420	53,071	43,810
Add (deduct) non-cash items:				
Amortization of tangible capital assets	169,186	179,757	176,233	180,015
Expended capital recognized as revenue	(113,379)	(121,220)	(117,993)	(120,223)
Losses on disposal of tangible capital assets	986	-	-	-
Increase in employee future benefits	3,086	5,251	2,317	66
Increase (decrease) in accounts receivable	(32,038)	(2,137)	(2,170)	12,798
Increase (decrease) in inventories for sale	436	(10)	(10)	(10)
(Decrease) increase in accounts payable and accrued liabilities	(28,403)	3,341	3,391	3,442
Decrease in deferred revenue	(46,352)	(53,959)	(42,375)	(29,337)
Increase (decrease) in prepaid expenses	1,896	(27)	(27)	(27)
Increase in spent deferred capital contributions	83,958	82,224	61,761	59,215
<b>Cash provided by operating transactions</b>	<b>221,296</b>	<b>135,640</b>	<b>134,198</b>	<b>149,749</b>
<b>CAPITAL TRANSACTIONS</b>				
Acquisition of tangible capital assets, net of proceeds on disposal	(181,614)	(178,478)	(217,078)	(163,873)
<b>Cash applied to capital transactions</b>	<b>(181,614)</b>	<b>(178,478)</b>	<b>(217,078)</b>	<b>(163,873)</b>
<b>INVESTING TRANSACTIONS</b>				
(Purchases) of portfolio investments, net of sales	(29,268)	30,762	(15,905)	(20,303)
<b>Cash (applied to) provided by investing transactions</b>	<b>(29,268)</b>	<b>30,762</b>	<b>(15,905)</b>	<b>(20,303)</b>
<b>FINANCING TRANSACTIONS</b>				
Debt - new financing, net of repayments	22,361	21,687	49,216	21,822
<b>Cash provided by financing transactions</b>	<b>22,361</b>	<b>21,687</b>	<b>49,216</b>	<b>21,822</b>
Increase (decrease) in cash and cash equivalents	32,775	9,611	(49,569)	(12,605)
Cash and cash equivalents, beginning of year	25,188	57,963	67,574	18,005
<b>Cash and cash equivalents, end of year</b>	<b>57,963</b>	<b>67,574</b>	<b>18,005</b>	<b>5,400</b>



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# **APPENDIX B: ENROLMENT PLAN AND PROPOSED PROGRAMMING CHANGES**

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The strength of the University of Alberta is founded on the quality and diversity of its people, programming, research, and resources. The U of A remains committed to attracting outstanding undergraduate and graduate students, post-doctoral fellows, and professors from Alberta, across Canada, and abroad. Our academy represents Canada's and Alberta's cultural diversity and is an inclusive community that values its founding Indigenous people, minorities, and rural and northern communities. Along with an exceptional and highly skilled technical and professional staff, these individuals create an integrated environment of teaching, learning, research, and creative activities. They enable the breadth and quality that characterizes the university's public and private partnerships in Alberta, its participation in national consortia and initiatives, and its collaborations with top-tier international institutions and agencies.

The U of A aims to provide enriched and transformative student experiences, resulting in graduates who are engaged, global citizens prepared to contribute to the social and economic well-being of the province, the nation, and the world.

Access to programs at the U of A evolves in response to student demand, workforce needs, and new fiscal resources or constraints.

**TABLE 7** UNIVERSITY OF ALBERTA: ENROLMENT TARGETS MEASURED IN FLES (DOES NOT INCLUDE PGME/DE)

	2014-15 TARGET				2014-15 ACTUALS			
	UNDERGRAD	GRADUATE MASTERS	GRADUATE DOCTORAL	TOTAL	UNDERGRAD	GRADUATE MASTERS	GRADUATE DOCTORAL	TOTAL
ALES	1,227	225	215	1,667	1,238	425	335	1,998
Arts	4,871	393	449	5,713	4,804	454	562	5,820
Augustana	899	-	-	899	927	-	-	927
Business	1,786	234	60	2,080	1,771	448	66	2,285
Education	2,551	450	308	3,309	2,422	445	367	3,234
Engineering*	4,020	708	612	5,340	4,225	849	969	6,043
Extension		30	-	30	-	34	-	34
Law	525	4	8	537	525	5	9	539
Medicine & Dentistry**	1,050	259	279	1,588	1,055	384	440	1,879
Native Studies	130	8	-	138	117	12	-	129
Nursing**	1,401	84	84	1,569	1,623	64	81	1,768
Pharmacy	467	15	31	513	479	28	40	547
Physical Education & Recreation	800	55	56	911	827	84	66	977
Rehabilitation Medicine*		835	32	867	2	819	51	872
Saint-Jean***	529	28	-	557	521	20	-	541
School of Public Health		147	30	177	-	222	61	283
Science	5,488	517	563	6,568	5,549	722	813	7,084
Open Studies	543		-	543	543	-	-	543
				-				
Total FLEs	26,287	3,992	2,727	33,006	26,628	5,015	3,860	35,503
<i>to target</i>					341	1,023	1,133	2,497
<i>change from last year actuals to actuals</i>					(600)	83	300	(217)

\* The targets for Engineering UG and Rehabilitation Medicine were changed effective 2014-15 to include newly funded enhanced enrolment FLEs.

\*\*Medicine and Nursing UG targets include FLEs funded by one-time Health Funding that will expire in 2015-16, therefore their targets decrease in 2016-17

\*\*\* Saint-Jean Undergraduate target and actual numbers include Career Preparation students enrolled in CCA

	UNDERGRAD	GRADUATE	TOTAL	UNDERGRAD	GRADUATE	TOTAL
International Enrolment	3,943	2,016	5,959	3,584	3,500	7,084
	15%	30%	18%	13.46%	39.44%	19.95%

**Note:** The International enrolment numbers provided here are also included in the overall enrolment numbers provided above.

	2015-16 TARGET				2015-16 ESTIMATED ACTUALS			
	UNDERGRAD	GRADUATE MASTERS	GRADUATE DOCTORAL	TOTAL	UNDERGRAD	GRADUATE MASTERS	GRADUATE DOCTORAL	TOTAL
ALES	1,227	225	215	1,667	1,224	396	326	1,946
Arts	4,871	393	449	5,713	4,760	402	513	5,675
Augustana	899	-	-	899	895	-	-	895
Business	1,786	234	60	2,080	1,777	452	58	2,287
Education	2,551	409	349	3,309	2,518	455	319	3,292
Engineering*	4,180	708	612	5,500	4,180	751	924	5,855
Extension	-	30	-	30	-	34	-	34
Law	525	4	8	537	549	6	9	564
Medicine & Dentistry**	1,045	259	279	1,583	1,075	359	443	1,877
Native Studies	130	8	-	138	112	18	-	130
Nursing**	1,384	84	84	1,552	1,478	54	76	1,608
Pharmacy	467	15	31	513	482	30	40	552
Physical Education & Recreation	800	55	56	911	808	78	68	954
Rehabilitation Medicine*	-	835	32	867	3	868	52	923
Saint-Jean***	544	28	-	572	515	20	-	535
School of Public Health	-	147	30	177	-	190	68	258
Science	5,488	517	563	6,568	5,295	683	712	6,690
Open Studies	543	-	-	543	568	-	-	568
								-
Total FLEs	26,440	3,951	2,768	33,159	26,239	4,796	3,608	34,643
<i>to target</i>					<i>(201)</i>	<i>845</i>	<i>840</i>	<i>1,484</i>
<i>change from last year actuals to actuals</i>					<i>(389)</i>	<i>(219)</i>	<i>(252)</i>	<i>(860)</i>
					<i>-1.46%</i>	<i>-4.37%</i>	<i>-6.53%</i>	<i>-2.42%</i>

\* The targets for Engineering UG and Rehabilitation Medicine were changed effective 2014-15 to include newly funded enhanced enrolment FLEs.

\*\*Medicine and Nursing UG targets include FLEs funded by one-time Health Funding that will expire in 2015-16, therefore their targets decrease in 2016-17

\*\*\* Saint-Jean Undergraduate target and actual numbers include Career Preparation students enrolled in CCA

	UNDERGRAD	GRADUATE	TOTAL	UNDERGRAD	GRADUATE	TOTAL
International Enrolment	3,966	2,016	5,982	3,538	3,145	6,683
	15%	30%	18%	13.48%	37.42%	19.29%

Note: The International enrolment numbers provided here are also included in the overall enrolment numbers provided above.

	2016-17 TARGET				2017-18 TARGET			
	UNDERGRAD	GRADUATE MASTERS	GRADUATE DOCTORAL	TOTAL	UNDERGRAD	GRADUATE MASTERS	GRADUATE DOCTORAL	TOTAL
ALES	1,227	225	215	1,667	1,227	225	215	1,667
Arts	4,871	393	449	5,713	4,871	393	449	5,713
Augustana	899	-	-	899	899	-	-	899
Business	1,786	234	60	2,080	1,786	234	60	2,080
Education	2,551	409	349	3,309	2,551	409	349	3,309
Engineering*	4,340	708	612	5,660	4,500	708	612	5,820
Extension		30	-	30		30	-	30
Law	525	4	8	537	525	4	8	537
Medicine & Dentistry**	1,040	259	279	1,578	1,040	259	279	1,578
Native Studies	130	8	-	138	130	8	-	138
Nursing**	1,354	84	84	1,522	1,354	84	84	1,522
Pharmacy	467	15	31	513	467	15	31	513
Physical Education & Recreation	800	55	56	911	800	55	56	911
Rehabilitation Medicine*		835	32	867		835	32	867
Saint-Jean***	544	28	-	572	544	28	-	572
School of Public Health		147	30	177		147	30	177
Science	5,488	517	563	6,568	5,488	517	563	6,568
Open Studies	543		-	543	543		-	543
				-				-
<b>Total FLEs</b>	<b>26,565</b>	<b>3,951</b>	<b>2,768</b>	<b>33,284</b>	<b>26,725</b>	<b>3,951</b>	<b>2,768</b>	<b>33,444</b>

\* The targets for Engineering UG and Rehabilitation Medicine were changed effective 2014-15 to include newly funded enhanced enrolment FLEs.

\*\*Medicine and Nursing UG targets include FLEs funded by one-time Health Funding that will expire in 2015-16, therefore their targets decrease in 2016-17

\*\*\* Saint-Jean Undergraduate target and actual numbers include Career Preparation students enrolled in CCA

	UNDERGRAD	GRADUATE	TOTAL	UNDERGRAD	GRADUATE	TOTAL
International Enrolment	3,985	2,016	6,000	4,009	2,016	6,024
	15%	30%	18%	15%	30%	18%

Note: The International enrolment numbers provided here are also included in the overall enrolment numbers provided above.

	2018-19 TARGET			TOTAL
	UNDERGRAD	GRADUATE MASTERS	GRADUATE DOCTORAL	
ALES	1,227	225	215	1,667
Arts	4,871	393	449	5,713
Augustana	899	-	-	899
Business	1,786	234	60	2,080
Education	2,551	409	349	3,309
Engineering*	4,500	708	612	5,820
Extension		30	-	30
Law	525	4	8	537
Medicine & Dentistry**	1,040	259	279	1,578
Native Studies	130	8	-	138
Nursing**	1,354	84	84	1,522
Pharmacy	467	15	31	513
Physical Education & Recreation	800	55	56	911
Rehabilitation Medicine*		835	32	867
Saint-Jean***	544	28	-	572
School of Public Health		147	30	177
Science	5,488	517	563	6,568
Open Studies	543		-	543
				-
<b>Total FLEs</b>	<b>26,725</b>	<b>3,951</b>	<b>2,768</b>	<b>33,444</b>

\* The targets for Engineering UG and Rehabilitation Medicine were changed effective 2014-15 to include newly funded enhanced enrolment FLEs.

\*\*Medicine and Nursing UG targets include FLEs funded by one-time Health Funding that will expire in 2015-16, therefore their targets decrease in 2016-17

\*\*\* Saint-Jean Undergraduate target and actual numbers include Career Preparation students enrolled in CCA

	UNDERGRAD	GRADUATE	TOTAL
International Enrolment	4,009	2,016	6,024
	15%	30%	18%

**Note:** The International enrolment numbers provided here are also included in the overall enrolment numbers provided above.

## ENROLMENT PLAN AND PROPOSED PROGRAMMING CHANGES

### STUDENT RETENTION AND COMPLETION

Students arrive on our campuses differently prepared to face the challenges and to make full use of the opportunities of post-secondary education. We must provide relevant services and supports for building strong campus communities that aid our students' transition to university learning so they flourish as thinkers and problem-solvers. These include:

- bridging or transition year programs for Indigenous and international populations that respect different demographic characteristics and ways of knowing and, for example, address preparation gaps in writing
- transition supports for first-generation (or "first in family") university students, such as study skills and other supports for academic success
- support for social connections on campus, such as strong student groups, social and cultural opportunities, and extracurricular programming
- expanding rural access and supports to ensure success, such as distance access to North Campus tutors and library materials
- distance opportunities to engage with North Campus classes, effectively increasing course availability for general-population courses as well as very specialized courses to students on other U of A campuses, distance learners, and students at other post-secondaries to enhance program depth and flexibility

### STUDENT EXPERIENCE

Investing in wellness and mental health services and supports allows a preventive approach to increasingly common difficulties experienced by students. Creating an inclusive and welcoming campus environment that supports student mental health and wellness requires an institution-wide, community-based approach and a strong central network of supports and services that has multiple points of entry for students, including:

- counselling and clinical services designed to be as accessible to all students, staff, and faculty
- the Community Social Work Team, the first of its kind in North America, which provides a variety of programming and tools designed to reduce loneliness and isolation to students of all ages, groups, backgrounds, and income levels
- enhancing mental health literacy, including expanding online access to information and resources for underserved student populations
- implementing a Campus Wellness Initiative that goes beyond the absence of illness and negativity and facilitates flourishing in the U of A context
- upgrading the physical plant for an accessible and welcoming campus for students with physical disabilities

- well-designed and vibrant student residences to raise student retention and completion rates, provide a more pronounced sense of belonging to their social environments, and encourage greater participation in other extracurricular campus activities that further enhance the student experience
- purpose-built student residences for early-year students
- institution-wide attention to safe campuses as free as possible from harassment and other negative social encounters, along with a strong focus on prevention and brisk response to violations of safety and dignity of all members of the university community
- overall attention to the strength and positivity of the campus community including diverse and inclusive student groups, activities, study spaces, and early provision of preventative measures to assure student confidence and success before severe problems are encountered

### INCREASING NATIONAL RECRUITMENT OF UNDERGRADUATES

Between 2006–2007 and 2015–2016, total undergraduate student enrolment at the U of A decreased marginally (by 0.6 per cent) compared with graduate enrolment, which has increased significantly over the same period. A national recruitment strategy for the U of A has the potential to diversify our undergraduate student body, broadening perspectives on national and global issues, increasing cross-national understanding, and improving communication skills. The majority of our undergraduates (e.g., 73 per cent in Fall 2015) come from Alberta, leaving room to recruit students from across Canada and around the world.

### QUALITY DEGREE PROGRAMS

The U of A offers foundational and relevant programs with the goal to educate every student as an engaged and informed citizen and lifelong learner, whether as a highly skilled professional, a scholar, an artist, or a scientist. We provide a sophisticated layering of credentials through programming designed to meet the needs of all learners seeking baccalaureate credentials and higher, through to the highest professional and scientific designations. Employers consistently report that the knowledge and skills gained through high-quality liberal arts education, though not directed to any particular profession, most effectively prepare students to tackle complex challenges with critical thinking skills, creativity, and cultural sensitivity.

Alongside traditional degree programs there is growing interest in, and need for, joint degrees, interdisciplinary programs, and cross-disciplinary embedded certificates. New programs and content captures and models diversity not only in content, but also in approach to studying problems and implementing solutions. New approaches to higher education include regular evaluation of programs, allowing for refreshing and phasing out of programs not sufficiently responsive to current educational, economic, and scientific needs alongside the development of new ones.

Opportunities for enhanced learning and skill development, including experiential and co-operative learning, community service-learning, internships, and our suite of international opportunities, such as the School in Cortona and the e3 program in Berlin, Brazil, and Washington, fuse academic pursuit with real-life experience and help students to expand and enhance cross-cultural communication and competency as they prepare to work in an increasingly diverse and international workplace.

- The U of A endeavours to increase the proportion of students involved in experiential learning through the development of alternative course delivery formats, as well as increasing partnerships with diverse communities.
- In 2013–2014, approximately three per cent of all U of A students participated in experiences abroad, marginally above the average for Canadian universities (2.6 per cent). Though increasing, this rate remains well below that of other OECD countries. The U of A endeavours to increase the proportion of students enriched by international experiences by expanding study abroad and foreign exchange programs, allowing for appreciation of what it's like to experience internationality and diversity at home and abroad, through sharing and discovery.
- The U of A has specified learner outcomes related to leadership, citizenship, and general workforce preparedness, including ethical responsibility, creativity, and confidence planned to be achieved through traditional scholarship as well as engagement with communities, industries, not-for-profits, and other organizations; international experiences; and more basic things such as communication skills, presentation skills, critical thinking and problem-solving skills, and social skills. Faculties are supporting the breadth of such outcomes by focusing on their own strengths.

### **CONTINUING EDUCATION/PROFESSIONAL EDUCATION**

Learning and professional development is now a lifelong expectation. Highly skilled professionals return to the university to explore newly created knowledge and cutting-edge practice, and to increase technical knowledge. Increasing numbers of people seek flexible, accessible opportunities throughout their careers to attend courses and programs of interest, extend professional credentials, increase technical knowledge and expertise, and prepare for career transitions.

Advanced professional degrees are increasingly in demand to fill important knowledge gaps created by the combination of shifts in industry practices, shifts in professional education, and shifts in expectations regarding credentials and social and environmental responsibility. What was previously achieved with an undergraduate degree and 20 years of experience is now achieved with a graduate designation (typically master's level), whether or not it is taken immediately following completion of the undergraduate credential. Furthermore, there is both economic impact and industry capital in having high-quality advanced professional degrees delivered at a price consistent with market value. Underpricing professional credentials creates reputational risk regarding the quality of the programming. In this domain, the price tag signals the peers (that is, the competitive frame). Elite programming such as the MBA, MEng, Law (JD), PT, OT, MPH, and MD fill critical roles in the health, social, and economic fabric of the province and the country. Such designations compete on a global stage with the best in the world including Stanford, Oxford, National University of Singapore, University of Melbourne, Osaka University,

University of Sheffield, and the University of Illinois and University of California groups, as well as our Canadian peers, the universities of Toronto and British Columbia, where the quality of the program is frequently judged by its price tag. The U of A has several such programs and is actively developing such programs and competing for students and reputational advantage. North American students now shop for such programs on the global market. In the fast-changing knowledge economy, there is a growing marketplace for top professional post-graduate opportunities.

- Highly skilled professionals return to the university to increase technical knowledge (e.g., master's degrees in public health, community management, recreation, and community development).
- The Faculty of Graduate Studies and Research professional development program advances research and develops professional skills and qualities sought by employers, making the U of A's graduate students competitive in the global market for traditional educational positions (e.g., professors), industry positions (e.g., industrial research and development) and within communities (e.g., government officials).

### **ACCESSIBLE, FLEXIBLE, FOCUSED EDUCATION DELIVERED IN DIVERSE AND NOVEL WAYS**

The U of A strives to support diverse learning pathways to ensure that a broad range of students' objectives and contributions to the knowledge and general economy are provided. Reaching these goals requires updates to key IT infrastructure and the expansion of the Centre for Teaching and Learning to support the professoriate in the use of e-learning delivery. Creative scheduling that provides more accessibility to a diverse student population and makes better overall use of facilities year-round will also be explored.



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# APPENDIX C: RESEARCH, APPLIED RESEARCH, AND SCHOLARLY ACTIVITIES

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**A**s a comprehensive research-intensive university, the University of Alberta holds a primary responsibility for research and innovation in programming, and in training future researchers and innovators across disciplines and all levels of study. Ground breaking research focuses on redefining the social, cultural, environmental, and technological contexts that we will need in the future. For example, teacher education must evolve to address new demands in schools where increased population diversity, as well as shifts in employment and industry, are influencing both what and how we teach our children. Similar demographic changes are influencing the delivery of health care and health information. Increased use and fast-paced changes in communications technology are influencing how people access, consume, and critically examine information—all skills that university graduates need.

The U of A continues to build and support collaborative research capacity to produce leading-edge research on critical issues that confront humanity. Bringing together areas of identified research strength that contribute to interdisciplinary, multidisciplinary, and cross-disciplinary projects and approaches, collaborative research tackles the many urgent social, technological, and economic problems we face now and in future. For example, fast changes in the energy sector including global competition, changes in fossil fuel extraction and expectations about environmental stewardship, increased expectations for alternative sources of energy, and increased demands for technically prepared workers and greater diversity in the workforce at all layers of the industry must be taken up in research, discovery, and evaluation.

### **RESEARCH QUALITY AND IMPACT: AWARDS, RECOGNITION, MEASURES**

Over the last decade, U of A researchers have attracted total sponsored research funding in excess of \$4.6 billion, putting the U of A fourth among Canada's research-intensive universities. On an annual basis, sponsored research funding has averaged more than \$400 million per year, with a peak value of \$536 million in 2010–2011. In both 2009–2010 and 2012–2013 (the most recent years in which complete data are available), the U of A ranked third in the U15 for sponsored research income per full-time teaching faculty. U of A research also ranked third among U15 peers in numbers of publications and fifth in number of citations from 2010–2014.

Past provincial investment has ensured that the University of Alberta has been able to build prominent international collaborations, make significant contributions to areas of fundamental importance to Albertans (including energy and the environment, health, and economic diversification), and to recruit and train the innovative leaders of tomorrow. Additional support would enable the U of A to better leverage provincial funding to attract greater external investment from the public and private sector, including participation in prominent federal funding programs such as the Canada First Research Excellence Fund (CFREF), and foster long-term cycles of significant re-investment in Alberta.

Aside from the critical role that a robust research-intensive institution plays in the social, economic and cultural well-being of Alberta, the importance of sponsored research to the institution is that it effectively enhances the overall operating budget of the university. It provides support for research projects that otherwise would not be possible, including providing training and financial support for graduate students, as well as jobs for research coordinators, technicians, and other services.

However, a strong research enterprise also places a burden on the university, because research funding covers only a portion of the costs. Without indirect costs of research being paid adequately, the research enterprise suffers and this affects all activities.

## RESEARCH RESOURCES

Core facilities are a natural requirement of the university's diverse research and training programs. Excellent core facilities contribute to determining the quality and the functionality of Alberta's overall research and innovation capacity. Core facilities support discovery, and the translational and pre-commercialization research activities that are vital to our institutional strength, and also support the translation of research discoveries to end-user groups and communities. The U of A's research partners include the Helmholtz Association of German Research Centres, Tsinghua University, the World Universities Network (WUN), the Canadian Glycomics Network, and many others.

## GLOBAL ENGAGEMENT

Global engagement is vital to high-quality research efforts. The development of multinational or global research networks expands institutional capacity to address complex global issues in a more robust and efficient way. Creative solutions to complex problems can be readily shared across communities and nations through collaborations with other academic organizations, businesses and industry, non-profits, and government agencies. The U of A seeks an investment to sustain and advance strategic international partnerships of direct benefit to Alberta that will:

- foster the global exchange of talent and expertise
- increase exposure to a diversity of thinking on global issues
- enhance access to a wider variety of research infrastructure, knowledge, resources, state-of-the-art equipment, and advanced techniques

The Office of the Vice-president of Research advocates for and supports the U of A's global research endeavours. Significant international research collaborations also emerge and are sustained at the unit, program, and faculty level. The following is a selection of international research activities overseen by the Office of the VPR.

### *SPECIFICS*

- Germany: \$3 million per year for five years to continue collaboration with the Helmholtz Association and the numerous partnerships this collaboration fosters.
- China: \$3 million per year for five years to foster linkages with Tsinghua University, one of the world's leading universities with particular expertise in the areas of energy and environment.
- France: \$1 million per year for five years to foster the France-Alberta Science and Technology Initiative (FAST).

*ACTIVITIES RELATED TO THE UNIVERSITY'S PRIORITY COUNTRIES***China**

- Tsinghua University - SCENEREI (Sino-Canada Energy and Environment Research and Education Initiative): Funding was secured from the provincial government and leveraged through the faculties of engineering, science, and business. With these funds, 24 joint research projects with collaborators in China are currently funded until January 31, 2017.
- MOST (Ministry of Science and Technology): A proposal to Alberta Innovation and Advanced Education for an additional \$500,000 grant to pursue activities with China under the Joint Research Labs program was approved, and the U of A was awarded the funding in March 2015. Some joint China-U of A projects have been identified and formal proposals for funding are pending.

**Germany**

- Helmholtz-Alberta Initiative (HAI): A five-year extension of the memorandum of understanding in HAI between the Helmholtz Association and the U of A was signed in September 2014. Areas of research focus in HAI include:
  - o Energy and Environment (HAI-E&E)
  - o Infectious Disease (HAI-IDR)
  - o Neurodegenerative Disease (HAI-NDR)
  - o Diabetes
- Fraunhofer: A Memorandum of Agreement (MOA) was established between the Fraunhofer Institute for Process Engineering and Packaging (IVV) and the Fraunhofer Institute for Environmental, Safety, and Energy Technology (UMSICHT) together with the U of A,
  - o A Fraunhofer-Alberta Collaborative Workshop on the Fraunhofer-Alberta biobattery project was held with representatives from organizations such as the Government of Alberta (Ministry for Economic Development and Trade), the three Alberta Innovates corporations (AI-EES, AI-Bio and AI-TF), the City of Edmonton, Alberta Municipalities, and industry.
- Leibniz: Initiatives between the Leibniz Association and the U of A in the areas of digital humanities (e.g., Science 2.0 and Citizen Sciences) and digital education are under development.
- DAAD (German Academic Exchange Service) and a delegation of presidents of German universities and DAAD North America visited the U of A on May 3–4, 2015, with the aim of boosting further development of Canadian-German science relations.

*ACTIVITIES RELATED TO OTHER COUNTRIES***France**

- FAST! (France-Alberta Science and Technology Initiative): The Office of the VPR, through the HAI team, worked closely with University of Alberta International and the French Embassy to facilitate a panel discussion on campus Oct. 29, 2015, with a focus on climate change and energy transition. The event was part of a series of French Ameri-Can Climate Talks (FACTS) across Canada and the United States in preparation for the UN-led COP21 climate conference that took place in Paris in December 2015.
- INRA (French National Institute for Agriculture Research): A workshop on France/U of A Food and Agriculture Research and Innovation was held in Edmonton Nov. 4–5, 2015. The event included more than 30 participants from Alberta Innovates - Bio Solutions; the Faculty of ALES; Alberta Agriculture and Forestry; Alberta Economic Development and Trade; the Consulate General of France Office in Vancouver; MITACS; and INRA. This introductory gathering led to discussions about student exchanges and possible joint application to NSERC/ANR (French National Research Agency) on meat quality and safety.

**Mexico**

- SENER (Mexican Ministry of Energy): Provost and Vice-president (Academic) Steven Dew signed a letter of intent Dec. 4, 2015, with SENER. The Agreement focuses on facilitating work on hydrocarbons, and it is anticipated that this new collaboration will stimulate the exchange of graduate students and professors working on topics of mutual interest, and possibly lead to joint certificate or master's programs.

**India**

- IC-IMPACTS (India-Canada Centre for Innovative Multidisciplinary Partnerships to Accelerate Community Transformation and Sustainability): Now in its third year of operation, IC-IMPACTS continues to focus on change for local communities in both India and Canada. It currently has 158 researchers involved, is training 327 highly qualified personnel (HQP), and has funded 29 research projects. The IC-IMPACTS innovative Summer Institute is an annual program that equips Canadian and Indian graduate students with skills in research, innovation, commercialization, and leadership. The 2016 Summer Institute will be held in Edmonton from May 29 to June 3, 2016, and will focus on nanotechnology in the areas of infrastructure, water, and health.

**Other**

- Worldwide Universities Network (WUN): The U of A joined this network of 18 research-intensive institutions across Europe, North America, Africa, Asia, and Oceania in 2008. WUN creates opportunities for international collaboration and gives the U of A an international voice in terms of its research strengths and contributions.

## RESEARCH EXCELLENCE

As one of Canada's excelling research-intensive institutions, the U of A leads the province in world-class research outcomes and student experiences that drive innovation and enhance social, cultural, and economic development. The university offers research and doctoral programs across seven thematic areas: humanities and fine arts, social structure and systems, science and technology, energy, environment, food and bio-resources, and health and wellness. This full spectrum of inquiry positions the U of A's academy and its graduates to make the comprehensive contributions towards scientific, social, and cultural innovations needed to support the goals Alberta has set for itself: effective resource and environmental management, a broadened economic base, and resilient and healthy individuals and communities. Research must be recognized as an important career path in itself that supports these provincial aspirations.

## ENSURING FUTURE FACULTY EXCELLENCE

The U of A is home to 2,071 full-time faculty members (358 assistant, 745 associate, 968 full) and 926 contract academic staff. Over the history of the university, their distinctions have been many, including 41 3M National Teaching fellows, 60 members of the Order of Canada, 138 fellows of the Royal Society of Canada (including three members of the newly formed RSC College of New Scholars, Artists, and Scientists), 20 members of the Alberta Order of Excellence, and 11 winners of the Queen Elizabeth II Diamond Jubilee Medal.

These successes demonstrate that U of A faculty excel in their work, yet there are demographic challenges on the horizon. Since the end of mandatory retirement in 2007, followed more recently by a series of base budget cuts, the average age of a professor at the U of A has risen from, 47.5 to 49.9 years (currently 48.9 for women and 50.4 for men). The number of assistant professors has dropped nearly 40 per cent since 2009–2010, largely due to budget cuts impairing hiring; conversely, the number of full and associate professors has steadily increased, reflecting the natural career progression of successful scholars and scientists in the university environment. Since 2006–2007, the number of contract academic staff has also been growing proportionately with the overall number of faculty members, reflecting the need to continue to offer classes beyond the capacity of the professoriate.

## RENEWING OUR FACULTY

The lack of new assistant professors puts research capacity and the quality of student educational experiences at risk. Without renewal, the U of A will have a reduced capacity to develop early-career leaders who will explore emerging fields, embrace new pedagogical methods, and sustain our overall research productivity. Renewing the professoriate is now urgent. The U of A has a strategy for achieving 40 new assistant professors over the next 18 to 24 months, pending expected budget stability. An optimal ratio is about 60 per cent assistant and associate professors, and about 40 per cent full professors. This is due to the desirable reality that professors will fulfil their careers at the university. Professors are with us for 20 to 30 years after promotion. Assistant professors must achieve promotion in no more than seven years, and most associate professors achieve promotion in about five years. Thus, less time is spent in the first two ranks (about 10–12 years), with the large majority of time in the senior rank (about 20 to 30 years in a substantial career).

The U of A must also bridge a critical gender gap in the professoriate, particularly in the most senior ranks. Despite long-term efforts to achieve gender balance in the academy, male faculty members currently outnumber female faculty nearly two to one.

Finally, the U of A must strive to increase the representation of Indigenous scholars in the professoriate. Presently, they comprise only one per cent of the professoriate, whereas the population level of Indigenous people is about seven per cent. It must be acknowledged that Indigenous people achieve higher education at the rate of about 12 per cent, only about half the rate among the general population (about 23 per cent). The U of A, in partnership with other post-secondaries, must simultaneously address this education gap and the professoriate gap, in full recognition that success in the latter will have profound effects on the former. The U of A must partner with other Western Canadian institutions to increase the number of PhD-level Indigenous scholars to even create enough trained scholars to take up positions in universities.

## BALANCE OF PROFESSORS, POST-DOCTORAL FELLOWS, GRADUATE STUDENTS AND UNDERGRADUATE STUDENTS

In 2015–2016, the U of A was home to 36,817 students (29,625 undergraduate and 7,204 graduate). We are home to 2,071 full-time faculty members, approximately 600 post-doctoral fellows, and 926 contract academic staff. Maintaining the right balance among professors, post-doctoral fellows, graduate, and undergraduate students is critical to the university's ability to offer access to a world-class education and an environment that nurtures and supports the full educational and career life cycle of all U of A members.

## GRADUATE EDUCATION AND POST-DOCTORAL FELLOWS

Over 200 graduate programs, attended by 7,204 graduate students and nearly 600 post-doctoral trainees, are all intricately entwined with the U of A's learning, teaching, and discovery mandate. Individuals educated to the PhD level enable large-scale, visionary, and sometimes risky research agendas. They drive innovation and research in and out of university settings, including industrial, community, and social settings. They are key to shifting Alberta to a learning-based society that welcomes intellectual and economic diversity.

The Faculty of Graduate Studies and Research Professional Development program advances research and develops professional skills and qualities sought by employers, making the U of A's graduate students competitive in the global market for traditional educational positions (e.g., professors), industry positions (e.g., industrial research and development) and within communities (e.g., government officials).

The post-doctoral complement is critical to Alberta's research capacity and impact, yet receives no provincial support. Post-doctoral fellows are essential to our role as a global partner of choice for international research consortia and training programs with top-tier collaborators. An expanded and diverse community of post-doctoral fellows will contribute to U of A capacity to discover novel solutions to complex social, cultural, and economic challenges. The cost of a post-doctoral fellow stipend is approximately \$50,000 per annum. Cohort targets will be determined in response to the U of A strategic plan. This does not include the training component (i.e., the same level of expenditure as graduate students who are funded on a per capita basis).



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## **APPENDIX D: COMMUNITY OUTREACH AND UNDER- REPRESENTED LEARNERS**

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In 2015–2016, half of all undergraduates at the University of Alberta came from outside Edmonton. In the Fall of 2015, 73 per cent of all undergraduates at the U of A came from schools within Alberta, mostly from the cities of Edmonton, Calgary, and Red Deer. By increasing enrolment of under-represented students from Indigenous, rural, Francophone, and northern communities, the U of A can help to build creative, innovative, flexible, and sustainable communities across the entire province, as communities' capacity to tackle complex social, economic, and technological challenges is enhanced by educational attainments. Partnerships are needed that increase the probability that graduates will return to or newly join communities outside the major centres. Programs in the Faculty of Medicine and Dentistry have successfully placed medical professionals in such communities using practicum placement opportunities to introduce non-rural students to these communities. Such community capacity building will encourage more highly trained people to choose to join those communities.

### INDIGENOUS LEARNERS

Indigenous students continue to be substantially under-represented in any student population. Self-identified Indigenous enrolment at the U of A is 3.6 per cent in 2015–2016. Augustana Campus boasts seven per cent Indigenous enrolment, highlighting the importance of diverse learning opportunities within the U of A context. Augustana offers a smaller, rural-based context that can be more comfortable for Indigenous learners from small communities themselves. The university houses the only Faculty of Native Studies in Canada, established in 2006. Student-focused and research-intensive, the faculty is ideally positioned to offer Indigenous students more tailored versions of the services, academic support, social and recreational opportunities, and community life that the university offers more generally.

Indigenous students continue to be under-represented in Alberta's higher education institutions, with only 48.4 per cent of Indigenous Albertans who live off-reserve obtaining post-secondary qualifications, compared with 62.8 per cent of non-Indigenous Albertans. The university is committed to closing this education gap in pursuit of a more prosperous, socially inclusive, and equitable society. The post-secondary sector is vital to providing future generations of Albertans with the knowledge and tools to be actors of positive change in their communities.

## INDIGENOUS INITIATIVES IN A TIME OF RECONCILIATION

As Alberta's largest post-secondary institution, the U of A has both the capacity and capability to influence the knowledge base of the next generation of Albertans, and consequently, has an important role to play in the reconciliation process. With the only stand-alone Faculty of Native Studies in Canada, the university is well positioned to become an exemplar in the following areas:

- Indigenize university curricula (research-based curricula that increase student exposure to the histories, cultures, beliefs, and present realities of the Indigenous peoples of Canada, and that recognize Indigenous ways of knowing and validity as acceptable methodologies).
- Indigenize campuses—with a focus on acceptance, inclusion, and respect.
- Enhance Indigenous education leadership through targets for faculty hiring and undergraduate and graduate enrolment.
- Create and foster spaces for intercultural exchange, enhancing supports to Indigenous students to ensure their success:
  - o Maskwa House of Learning
  - o Facilitating drawing on the expertise of Elders and Knowledge Holders
  - o Increase the numbers of Indigenous people in the professoriate
  - o Expand existing First Nations language programs such as CILLDI in the Faculty of Arts
- Create and support transition support programs:
  - o Reconcile differences in secondary education on reserves versus off reserves.
  - o Support non-traditional learners in achieving secondary leaving certificates as well as creating post-secondary learning opportunities.
  - o Create programming that embraces non-traditional learners who are perhaps coming to post-secondary education later in life, who are dealing with challenging family circumstances, or who are themselves bridges to education in their communities—taking back their experiences and supporting other learners to participate.

## FRENCH-LANGUAGE LEARNERS

The U of A also boasts the only Francophone faculty in Western Canada: Campus Saint-Jean (CSJ). With increased diversity of the student population, CSJ is poised to support francophone students, professoriate level scholarship, and language diversity, particularly as an emphasis on international recruitment increases. The Francophone community in Alberta is very strong, and there is a need to serve unilingual members of that community as well as to support a national commitment to language diversity.

## COMMUNITY ENGAGEMENT

The U of A has a particular responsibility and strong commitment to engaging with and supporting communities, both near and far, across the province and around the world. Aside from the deep and ongoing interactions with communities that take place as part of the institution's far-reaching academic and research endeavours, the University of Alberta has specific plans to develop programs (such as post-graduate professional certifications and distance certificates) and spaces (such as the Galleria and the Twin Arenas) to further engage with communities from a capacity-building standpoint (enhanced professional credentials), as well as from an enrichment and engagement standpoint (music, art and design, and sports).

Developing engaging and inviting programs, general and targeted toward specific groups and audiences, as well as developing buildings and spaces that are welcoming to the broader community, will facilitate the fostering of stronger community-university relationships. The university currently has a wide variety of programming, awards and initiatives that actively engage the public to serve specific needs and to shape the institution's outreach. The focus on community engagement has only strengthened over recent years with the institution expressly articulating goals and plans meant to guide and further this effort.

Some examples of ongoing community engagement include the following:

- The Community Connections Awards (Community Scholar Award, Community Leader Award, UAlberta Advocate Award) recognize individuals or teams of community members, faculty, staff, students, or post-doctoral fellows who embody the spirit of the U of A's promise, "Uplifting the Whole People." The awards honour the positive impact of nominees on communities near and far, as well as their impact on the university. Award winners may be distinguished through such community service activities as public speaking, volunteer work, school visits, or other substantial community service work. These awards are presented and celebrated annually by University Relations. Award recipients have included:
  - o Community Scholar Award - Candace Nykiforuk: Candace Nykiforuk is committed to community-engaged scholarship in public health and builds and nurtures strong collaborations with local, provincial, and national partners, making key contributions to the health of our communities. Her "Community Health and the Built Environment" suite of projects explores how changing the built environment influences healthy decisions. From walking paths with benches for seniors to rest on in Bonnyville, to no-fee summer programming for children in St. Paul, Candace's work shows how small changes can have a tremendous impact on our health. Candace is a co-founder and current co-lead for the Alberta Policy Coalition for Chronic Disease Prevention, a group of 17 organizations that work together to advocate for healthy policy changes in Alberta.
  - o UAlberta Advocate Award - Ms. Renée Vaugeois is a University of Alberta political science graduate and serves as executive director of the John Humphrey Centre for Peace and Human Rights. She has helped launch a number of human rights initiatives at the community level, including the U of A's Peace and Post Conflict Studies Certificate program. As well, through her work with the United Nations, Development Program, Edmonton was the first community in North America whose citizens pledged to promote Edmonton as a human rights city. Vaugeois has spearheaded projects such as the Ainembabazi Children's Project, the Ignite Change Now! Global Youth Assembly, and "Get Out and Stay Out" a two-day event held in conjunction with the Kule Institute for Advanced Study, connecting the U of A and its students with the global community.
- To advance rural community engagement, in 2013 the U of A began the Advancing Alberta Initiative, an outreach campaign targeted towards rural Alberta and intended to demonstrate the relevance, value and impact of post-secondary education and the university on the quality of life and economic well-being of rural communities while soliciting direct feedback from the community. To date, the tours have seen senior administration meet with members of the public, elected and unelected officials and community and business leaders representing a variety of stakeholder groups in their own communities. The tours have offered a means by which these areas can communicate their key priorities to the university in order to seek practical, local solutions to local challenges.

- In 2015, the University of Alberta created the Speakers' Bureau, a web portal which aims to connect the wider public with some of the many public intellectuals, policy advisers and thought leaders among the U of A's scholars and researchers. The Speakers' Bureau strives to connect these academic resources with community audiences with a desire to learn about research and initiatives, and their impact and relevance to everyday life. Communities have direct access to U of A experts on a wide variety of topical subjects.
- The university engages community leaders in events for the campus community and the public on a regular and ongoing basis. Recent examples include:
  - o the 10th Annual Hurtig Lecture on Cities and the Future of Canada, held Oct. 21, 2015. Mayors Don Iveson and Naheed Nenshi spoke on the future of Canadian cities.
  - o the 2nd Annual Olivieri Lectureship on Medical Ethics, held Jan. 8, 2015. Professor Timothy Caulfield of the Faculty of Law and School of Public Health presented: "When Celebrity Culture and Science Clash: The Distortion of Independent Research." The lectureship is sponsored by the Harry Crowe Foundation with the support of AASUA and the U of A.
  - o the J. G. O'Donoghue Memorial Lecture. Jason Clay, senior vice-president of the World Wildlife Fund, delivered a lecture entitled, "Saving Biodiversity by Promoting More Sustainable Food Production" for the ALES Centennial Lecture Series.
  - o the Fifth Annual Student Sustainability Summit, hosted from Jan. 24–26, 2015, at the U of A. This conference strives to provide students with the tools and resources needed to accomplish sustainable change by providing opportunities to develop relevant leadership and employability skills.
- University researchers and administrators serve the community by working closely with government and stakeholder groups to contribute to societal issues and policy outcomes:
  - o Joseph Doucet, Jeffrey Bisanz, and Louis Francescutti have all served on various committees including the task force for EndPoverty Edmonton, a strategy launched in September 2015 to end poverty in Edmonton in a generation.
  - o Education Minister David Eggen has announced new guidelines for educators to support and protect LGBTQ students. Kris Wells of the U of A's Institute for Sexual Minority Studies and Services helped develop the guidelines.
  - o Tracy Bear has been involved with Status of Women ministry consultations, as well as the Walking With Our Sisters project.
  - o Native studies/arts professor Tanya Harnett is working on a project with the Royal Alberta Museum involving Indigenous exhibit design.
  - o Frank Tough of the Faculty of Native Studies has presented to bodies such as the Senate Committee on Aboriginal Peoples on the question of the legal and political recognition of Métis identity.
  - o Karen Pheasant, a PhD candidate in the Faculty of Education, works with Edmonton Public School Board "West 6" schools as a cultural consultant. These are schools with a high Indigenous population.
  - o Premier Rachel Notley named Joseph Doucet, dean of the U of A's Alberta School of Business, as chair of the Premier's Advisory Committee on the Economy.
  - o Premier Rachel Notley named energy economist Andrew Leach chair of the Alberta Climate Change Advisory Panel to lead a comprehensive, consultative review of the provincial climate change policy.

Another important part of community engagement includes the internal function of all aspects of good governance so as to ensure transparency, formalized decision-making, appropriate control and most importantly, accountability to the people the institution serves. The University of Alberta remains deeply committed to good governance practices and this is a central consideration of the institutional strategic planning process currently underway.

### ALUMNI EVENTS AND VOLUNTEERISM

To build connections with students and engage 267,000 living U of A graduates (75 per cent of which live in Alberta and 50 per cent in Edmonton), the Office of Alumni Relations orchestrates student outreach, alumni special events, educational programs featuring U of A research, and volunteer opportunities. In 2014–2015:

- Alumni engagement programs connected with 46,420 participants (17,278 students and 29,142 alumni and friends).
- Regional alumni chapter programs engaged 3,896 participants in Alberta communities and in key regional markets such as Toronto, Vancouver, Victoria, Hong Kong, and the Bay Area in California.
- More than 1,000 alumni volunteers were involved in supporting community and university-based projects.
- In the last five years, outreach has increased by 125 per cent through events and programs.

### CO-OP EDUCATION

In the current academic year, approximately 2,500 undergraduate students at the U of A have participated in for-credit co-operative education and internship programs. Students from the Faculties of Agriculture, Life and Environmental Sciences, Arts, Business, Engineering and Science have spent time working in industries, NGOs, and governmental organizations related to their fields of study. In the faculties of Business and Engineering, 20 per cent and 42 per cent of students (respectively) participated in co-operative education.



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# APPENDIX E: INTERNATIONALIZATION

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The University of Alberta's international collaborations create exceptional learning, discovery, citizenship, and innovation opportunities to advance the institutional vision of being one of the world's top publicly funded institutions for the benefit of our students and the province.

## GLOBAL ENGAGEMENT

U of A programs enhance perspectives on challenging global issues and promote cross-cultural understanding and communication skills. These experiences equip students with the necessary knowledge and skills to be successful in an increasingly global environment. Some of our student-centred initiatives, which promote global engagement, include:

- increased experiential, internship, and co-op experiences in international settings. Examples include the e3 program in Berlin, Brazil, and Washington, as well as other educational and research abroad programs in more than 60 countries.
- increased opportunities for U of A students to participate in shorter-duration international experiences, either as an integral component of academic courses or independently. Examples include the Alternative Reading Week program in the Faculty of ALES.

## RESEARCH

The U of Alberta is a research-intensive institution with research output that is recognized globally in diverse disciplines. Through active, collaborative research with teams from all over the world, professors advance knowledge, education, and pedagogy in their respective disciplines. Global research engagement has many benefits to the U of A and the province, including leveraging funding resources from other parts of the globe to address challenges that affect everyone, including Albertans. It also allows for the exchange of researchers at various stages in their career (e.g., professors, post-doctoral fellows, graduate students, and undergraduate students) to spend time at the U of A and allows our own researchers to travel to collaborating institutions. The U of A will continue to engage in high-quality, multidisciplinary, multinational research projects in many parts of the globe, including:

- continuing efforts to establish new partnerships in strategic areas
- strengthening existing strategic international partnerships with India, China, Germany, the United States, and Brazil
- fostering new, multi-disciplinary, multi-national research projects in diverse disciplines with partner institutions from other countries
- Leveraging international funding agencies (e.g., the Gates Foundation) to secure resources to tackle emerging problems in regions of interest. The U of A has the critical mass of excellent researchers in many disciplines to achieve this objective

Investment in post-secondary to pursue international research partnerships is a cost-effective pathway to attracting external revenue streams.

## DIVERSITY

The presence of international students and foreign-trained experts broadens the perspective, impact, and relevance of the U of A's teaching, research, creative activities, and community service work. International students who are educated at the U of A and remain in Alberta provide the province with additional highly skilled, innovative, and entrepreneurial professionals. They also bring cultural diversity together with global connections, insights, and alternative perspectives on issues and challenges that better position the university, businesses, and the province. Their contributions to the province advance the profile of Alberta, its expertise, and its opportunities on the global scale. The recruitment of exceptional undergraduate and graduate students from targeted highly ranked foreign institutions advances the university's academic enterprise and objectives. In 2015–2016, approximately 14 per cent of our undergraduate population and 35 per cent of our graduate population were international students. However, the U of A is currently reliant on a relatively small number of sources for international students. To continue to increase diversity, the university will:

- diversify the international student body by establishing partnerships with highly reputed institutions in target countries
- explore opportunities for creating joint degree programs at the undergraduate and graduate levels, where possible, with highly ranked institutions outside of Canada
- provide incentives to attract excellent students from targeted institutions





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# APPENDIX F: CAPITAL PLAN

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Post-secondary education in the 21st century is highly competitive. The vitality, vibrancy, and sustainability of the University of Alberta's multi-campus educational and research ecosystem can only be maintained through well-supported, well-planned strategic repurposing and renewal of its existing facilities and the construction of new ones. As the university changes, space must transform to meet new needs and requirements.

Underpinning all University of Alberta strategic capital and planning priorities is a commitment to overarching principles and values:

**Accessibility**

- The U of A's Capital Plan is developed to support the aforementioned aspirations through thoughtful, culturally sensitive public spaces as well as supportive student communities that afford a transformative student experience. The U of A is committed to developing and delivering programs that are accessible for all learners, be they from Alberta, elsewhere in Canada, or abroad.

**Affordability**

- By coupling renewal and backfill projects, the U of A provides a best-value model for creating projects that look forward to our future operational and academic needs at a reduced capital cost. However, strategic investment in infrastructure and buildings remains vital in maintaining the delivery of superior academic programs.

**Quality**

- High-quality academic programs require well-maintained and thoughtfully repurposed spaces that facilitate program delivery. The university has the opportunity to sustainably maintain and, where appropriate, repurpose aging assets and infrastructure as new funding is made available.

**Partnering**

- Pursue partnering opportunities with third parties to leverage funding and ensure optimum utilization.

# LONG RANGE PLANNING, KEY FOCUS AREAS, AND CAPITAL PLANNING CONSIDERATIONS

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## Long Range Planning

### BACKGROUND

As in previous years, the following Capital Plan endeavours to take a balanced approach in identifying the University of Alberta's planning, engineering, and construction needs. As we look forward, long-term (25-year outlook) strategic planning will guide five-year capital plans and will be based on key requirements of a research-intensive university with five separate and distinct campuses while considering the age of infrastructure, asset inventory, and the provincial economy.

### KEY ISSUES

- The U of A is required to maintain some of the oldest publicly funded infrastructure in the province.
- The U of A is a research-intensive institution and requires facilities that support current and future research activities.
- Without long range planning, publicly funded post-secondary institutions will continue to struggle as the governments that fund them find their budgets stretched.

### MONITORING AND LONG-TERM PLANNING ACTIVITIES

- Identify risks over time to prime infrastructure required to support research, teaching, learning, and evolving student requirements, including the requirements of historically under-represented groups.
- Identify opportunities for the development of supportive student housing that offers programs aligned with key university priorities.
- Assemble required resources including government funding, monetization of assets, partnerships, leverage, P3s, borrowing, etc., to achieve high-priority goals.
- Communicate to all stakeholders the physical infrastructure requirements of a top-tier university.

## INITIATIVES

- Update Long Range Development Plans as required.
- Develop business cases that, among other things, articulate strategic alignment of capital projects.
- Ensure planning for utility capacity is updated and current for all campuses.
- Produce and routinely update 10-year preservation and deferred maintenance strategic plans.
- Develop implementation strategies for the first five-year plan (2015–2020) arising from A Strategy for Student Housing: 2015–2040.

## INSTITUTIONAL GOALS

The university's highest project priorities have been identified as requiring additional funding support from the Alberta government (see tables 7, 8, 9, and 10). These projects support and are strategically linked to Comprehensive Institutional Plan goals and their associated initiatives:

- Faculty Renewal
- Student Experience
- Teaching and Learning
- Research Excellence
- Community Engagement

## CAPITAL NEED PRIORITIES SUPPORTING INSTITUTIONAL GOALS

Critical projects, as identified to the Government of Alberta in the Capital Needs Briefing (August 4, 2015), are further refined to the following groups:

- New (or replacement) projects (See table 7)
- Expansion projects (see table 8)
- Preservation projects (> \$5 million) (See tables 9 and 10)
- Minor preservation projects (< \$5 million) (See tables 9 and 10)
- IT deferred maintenance
- Health and Safety
- Building system renewals

## OUR FOUR AREAS OF FOCUS:

- 1. Functional renewal and reduction in deferred maintenance liability:** Preserve existing physical assets by addressing deferred maintenance and functional renewal that acknowledges the changes in research and teaching requirements. This will be done in a manner that increases energy efficiency and, where possible, adds assets to the institutional renewable energy inventory. This program will play a critical role in meeting space utilization requirements, attracting staff and students, supporting the pedagogical needs of tomorrow's learners, and reducing the energy footprint of the university.
- 2. Envelope funding for pre-design services:** Target planning dollars for priority projects, thereby ensuring well-defined project scope and budget accuracy.
- 3. Student housing:** Provide purpose-built, supportive student housing for up to 25 per cent of full-time enrolment to keep pace with U15 peers, enhance completion rates, and ensure accessibility for rural and under-represented Albertan students as well as international students.
- 4. New space:** Strategically plan and construct critical new facilities, respecting the varied needs of the university's five distinct campuses as they each serve unique and separate constituencies.

Due to continuous review of budgets and scopes, project cost estimates are updated regularly. Estimates have been adjusted to align with current market conditions and take into account the university's and government's experience of the current construction costs and projected market escalation.

## FOCUS AREA 1: FUNCTIONAL RENEWAL AND REDUCTION IN DEFERRED MAINTENANCE LIABILITY

### *BACKGROUND AND CURRENT STATUS*

Recent investment in new facilities has created an opportunity to creatively address physical and functional renewal of our buildings. Many older facilities were not designed to accommodate the functional and operational requirements of current and future faculty and students (Faculty Renewal and Student Experience). Combining functional and physical renewal projects through backfill projects provides a best-value model for capital projects, minimizing the need for new buildings while facilitating the needs of tomorrow's learners and researchers, all at a significantly reduced capital cost.

To capitalize on these opportunities, adequate Infrastructure Maintenance Program (IMP) funding is critical. Where possible, this funding continues to be leveraged in partnership with other internal and external funders. The university's deferred maintenance liability cannot be significantly reduced unless an increase in annual grant funding or one-time funding is received.

Institutional deferred maintenance liability identifies condition-related deficiencies recommended for remediation within five years under a series of events that are established by the provincial government. The estimated total (as of March 31, 2015) recognized deferred maintenance on supported and unsupported university facilities is \$749.2 million for supported facilities and \$116.1 million for unsupported (ancillary) facilities. In supported facilities, 88.5 per cent of

the deferred maintenance occurs in facilities over 40 years of age. Similarly, in unsupported facilities, 89 per cent of the deferred maintenance liability occurs in facilities more than 40 years old. Historically, government has acknowledged a one-year deferred maintenance value. The university supports moving to a longer term view (five and ten years) providing a more strategic overview of the liability and facilitating alignment with investments in research and teaching technologies.

Of the \$749.2 million in recognized deferred maintenance for supported facilities, 53 per cent is associated with science lab facilities and 32 per cent with office and classroom facilities. These facilities are critical to program delivery and research for the U of A.

There are more deferred maintenance costs than reported, because many costly building upgrades dealing with changes in code, hazardous material removal, functional renewal, barrier-free access, indoor air quality, and various energy and operational efficiencies are not currently recognized by government in the deferred maintenance tracking tool.

The university manages a portfolio of facilities totalling 1.8 million gross square metres over more than 500 buildings, of which 50 per cent are more than 40 years old and 80 per cent are more than 20 years old. As part of reporting to government, we also report on our buildings' Facility Condition Index (FCI). Approximately 17 of our buildings have an FCI over 30, with Dentistry/Pharmacy being the highest at 66, with a higher score indicating worse condition.

With aging facilities, major system failures or life safety items arise on an emergency basis and must be addressed. Due to a number of major failures over the past three to four years, the university has advised government that adjustments may be required to the three-year rolling IMP plan. A recent example is the 2015 notification of serious concerns of failure with an electrical vault serving Chemistry West. Failure of this vault will result in the loss of the facility for teaching and research. The university continues to proactively monitor and coordinate with government on growing pressures in order to maintain access and minimize the risk of being required to shut down teaching, learning, and research space.

Without supplementary, one-time grants for large, high-priority projects, renewals such as Cameron Library and Butterdome exterior skin replacements or the renewal of the Medical Sciences and Clinical Sciences buildings will have to be deferred to future years. Fifty-four per cent of deferred maintenance occurs in facilities that are mission-critical to program delivery and research for the U of A. This is a significant number that will at some point have an impact on program delivery. Focus on reduction of deferred maintenance for science lab and classroom facilities needs to be a priority to support program delivery and faculty renewal.

Tables 9 and 10 itemize the U of A's highest priorities for "Preservation" and "Renewal".

### *OBJECTIVES*

- Maximize opportunities to identify and proactively address deferred maintenance and functional renewal through joint renewal and repurposing projects for existing building inventory that would also look at energy reductions and the move to renewable energy on an opportunity basis.
- Ensure stable, long-term funding for deferred maintenance, and work with government to develop funding strategies that could support increased funding on the order of \$25 million to \$35 million annually.
- Support the academic and research goals of the institution and maximize use and life of existing infrastructure, by ensuring that space is functional for current and future learning and research.
- Continue to maintain the condition and functionality of the university's physical assets, which plays a critical role in our ability to attract, support, and retain the best students, faculty, and staff.
- Reduce the risk of building system failures that could affect life safety or result in building closures.
- Maintain the reliability of the university's utility plant through focused investment in the functional renewal that deals with both deferred maintenance and increased efficiency with new technology.

### *INITIATIVES FOR RENEWAL AND MAINTENANCE*

- Three-year Infrastructure Maintenance Program expenditure plans: This initiative was adopted by the university in 2004 and was formalized with a request by government for an initial submission in 2008. The rolling three-year plan has been part of the university's annual reporting to government and is carried as a financial update in our quarterly reports to provide timely progress reports on the use of grants.
- Benchmarking With other Canadian universities: This initiative began in 2005 and was updated in 2010–2011 and again in 2014–2015. For the next update, the university will be working through Sightlines on a benchmarking initiative for deferred maintenance to North American peer research institutions.
- Heating plant expansion and renewal/electrical utility system expansion: The university will seek government funding to ensure the continued supply of reliable services to our campus and surrounding government buildings served by our central plant. The possibility of leveraging this investment with additional institutional borrowing to install a new co-generation unit that could produce both steam and power simultaneously will also be examined. This project would reduce the campus's overall carbon footprint, reduce our demand on the Alberta grid system, and increase our capacity to produce reliable power. In addition to this, the North Campus electrical utility system requires an expansion to incorporate the addition of future large buildings (i.e., Translational Lab, Walter C. Mackenzie hospital expansion, Cross Cancer Institute expansion).
- South Campus infrastructure: New infrastructure to support the development of the northeast sector of South Campus include deep sewer, water supply, road lighting, and specific improvements to support the siting of community complexes on campus.

### *EMERGING ISSUES AND STRATEGIES*

- **Sustainability:** Through recommissioning and sequenced renewal of targeted buildings that are functional and structurally sound, the university can reduce the carbon footprint and specific energy requirements of older assets. The potential social, environmental, and economic benefits can be dramatic.
- **Optimizing use of energy and space:** Operational initiatives that are under-way at the University of Alberta that are significant in terms of addressing reduction of greenhouse gas emissions, energy utilization in research facilities, and improvement of space utilization include:
  - o optimization of air flows for research labs to reduce exhaust and supply air deliveries. Typically an average fume hood uses three to four times the energy of an average home. With the number of high-intensity research and teaching facilities on campus, addressing fume hood energy consumption is a significant opportunity. New technology from Aircuity is in the process of being deployed in all active teaching and research facilities that have fume hoods. The initial launch of the program is \$4 million with an anticipated payback of approximately five years through utility savings.
  - o an on-going program for the installation of people counters for classroom spaces. This program provides three levels of benefits. First, the people counter data are used for feedback on ventilation control to supply only the quantity of air equal to the occupant load for energy savings. The second benefit is that tracking the use data allows for maximum space utilization of our facilities and allows for re-deployment of cleaning staff to other functions. The third benefit is that a full data set for utilization of classroom spaces, once compiled, will allow for a determination on shutting down of spaces for summer months, re-programming of spaces or targeted renewals to allow for increased utilization.
- **Increased liability:** Current and previous IMP funding levels alone do not provide adequate funds to address current and trending levels of deferred maintenance.
- **Operational continuity:** An inability to maintain the operations, functionality, and utilization of capital assets places the institution at risk of negatively affecting current and future research, teaching, and learning.
- **Reduce capital requirements:** Renewal and repurposing of target buildings that are functional and structurally sound results in lower overall capital costs compared with the cost of a new building on a green field site.
- **Space utilization:** The university is reviewing space use to determine how underused space could provide cost-effective swing space during renewal or repurposing projects, and is also exploring opportunities for consolidation, repurposing, and enhancing support of teaching and research.
- **Renewal and repurposing:** Adequate funding for repurposing space in key older buildings is still a challenge. Deferred maintenance is an ongoing issue, but when renewal projects are coupled with modernization projects, the entire functionality of the building is upgraded to meet the needs of today's learners, teachers, and researchers.

## FOCUS AREA 2: ENVELOPE FUNDING FOR PRE-DESIGN SERVICES

### *BACKGROUND AND CURRENT STATUS*

Prior to entering design phases for a capital project, certain services, beyond the capacity of the institution's staff, must be procured to clarify needs such as general and functional space programming, outlining scope and size, identifying solution alternatives, selecting the preferred solution, and determining a relatively firm cost. When dealing with existing facilities, it is imperative to understand the facility's constraints within which the project team must work.

In addition, services of external professionals are often required to assist with significant initiatives, such as studies and master plans to clearly define objectives, future use, and adjacency issues. Past project experience has reinforced the value of preliminary engineering efforts, resulting in projects being delivered on time and on budget.

The traditional funding model sees projects initiated once full funding is secured. Projects generally take three to five years to deliver, depending on scale and complexity. Recently, the university has had significant success using partnerships to deliver its capital priorities, resulting in reduced capital requirements compared with the more traditional approach. To effectively develop and explore partnership opportunities, significant up-front work is required to properly scope, budget, and vet potential projects. The university is seeking pre-design funding to create an inventory of projects ready to move forward as new capital funding and partnership opportunities become available.

Pre-design services must provide a clear tie between campus development and the immediate and long-term strategic vision of the institution. The university understands that approval of pre-design does not constitute approval for, or promise of, future capital funding for a specific project. However, by being ready as funding becomes available, the university can potentially save millions of dollars in inflationary costs that might be incurred if construction is delayed.

There are a number of cases in which pre-design has aided the university to actively engage and leverage partnership funding opportunities. For example taking a staged approach with the Li Ka Shing Centre for Health Research Innovation and the Katz Group Centre for Pharmacy and Health Research buildings allowed for a proactive and quick response to the demands of the federal KIP program. Currently, the Devonian Education and Learning Centre (schematic design), the Maskwa House of Learning (schematic design) and Dentistry/Pharmacy building redevelopment (design development to core and shell) have all benefited from pre-design, resulting in a refined budgeting process in establishing capital requirements.

## *OBJECTIVES*

- In the short term, seek funding for pre-design services related to strategic priorities and major opportunities, or mandate both, to provide greater scope and budget certainty and to enable responses to new funding in a timely manner. As greater levels of funding become available, seek a long-term funding envelope program that would include government contributions through capital grants as well as partnered contributions from internal sources where possible.
- Provide strong and clear campus planning documents that are rooted in leading urban design and sustainability principles. The plans will seek to provide necessary direction, ensuring academic program needs of the university are met, with careful consideration to the expressed interests of the surrounding neighbourhoods.
- Reduce the university's reliance on expensive, long-term commercial leasing with better pre-design planning that anticipates the university's quickly increasing space needs.

## *INITIATIVES FOR ENVELOPE FUNDING AND PRE-DESIGN*

**Funding for Pre-design Services:** Recently, a letter was submitted to government outlining the importance of pre-design funding in the current economy. The letter outlined two potential approaches to pre-design funds. The first was a list of projects and estimated design costs per project, with funds proposed to be disbursed over three fiscal years. The second approach was to work with government to establish an annual funding allowance, which suggested an annual planning envelope in the range of \$2 million to \$3 million.

**Project Readiness and Responsiveness:** Within this framework, projects yet to be approved would be partially advanced prior to project approval. Taking this action provides significant benefits: better-defined project scopes and budgets provide a higher level of program and cost certainty. It also facilitates a quantitative and qualitative approach in matching the project with the most appropriate delivery model, whether a traditional design bid build or a more entrepreneurial P3 approach. Lastly, it positions the institution and government to respond quickly to the ever-changing construction marketplace and new potential funding programs.

## *EMERGING ISSUES*

- **Backfill planning and repurposing:** With the completion of a number of new buildings, there is an opportunity to leverage renewal with redevelopment. Given the goals and aspirations outlined in the CIP and the existing deferred maintenance associated with these buildings, a number of factors require consideration in assessing the residual capacity resulting from new construction. Up-front planning will enable the university to create a renewal and repurposing plan to ensure today's assets can deliver tomorrow's programs, as identified in the respective general space programs for the various faculties and administrative units, in the most sustainable way.
- **Increased research intensity:** As a research-intensive institution, the U of A is faced with a growing need to convert administrative and undergraduate space to accommodate growth in graduate, doctoral, and post-doctoral programs. These research programs require significantly more physical space and infrastructure than the university's aging inventory can accommodate. Advance planning is essential to determine how to best renew and repurpose these areas to maximize utilization without significantly and negatively affecting undergraduate space.

- Increasing area of aging infrastructure: Although new construction has accommodated the planned growth of the institution, the university must continue to respond to its learning goals. There are a number of targeted buildings for which planning work must be completed:
  - o the Medical Sciences Building
  - o the Clinical Sciences Building
  - o the Augustana Science Building
  - o the South Academic Building (formerly Civil\Electrical Engineering Building)
  - o the Mechanical Engineering Building
- Advanced pre-design funding for condition concept studies and reports would provide the opportunity to responsibly accommodate future growth, while aligning with the expectations of government.
- Campus planning and community expectations: The university continually engages its neighbours and stakeholders in the planning and design of its campuses as they develop. Communities increasingly demand that the university's planning documents be detailed enough that they are fully aware of the impacts of development. Critical to meeting these expectations is our ability to continue to work alongside these communities and ensure that the consultation process is maintained through the development of sector plans, as well as project-specific siting, pre-design, and preliminary design efforts.
  - o The Long Range Development Plan (LRDP) needs to be updated to reflect new lands acquired, such as:
    - Enterprise Square
    - St. Albert Research Station
    - Devonian Botanic Garden
    - Augustana Land Bank
    - Kinsella Ranch
    - Mattheis Ranch

Given the recent amendments to our North and South campuses, the university will be working to repackage its LRDP document so that each of our five geographically distinct campuses will have individual plans that properly reflect the unique and varied programming and community considerations associated with these campuses.

### **FOCUS AREA 3: STUDENT HOUSING**

#### *BACKGROUND*

The U of A continues to respond to pressures for additional student residences. Research indicates that the quality of housing facilities and academic programs correlate with academic performance and the success of students. These facilities are also a component of the university's ability to attract and retain students, faculty, and staff. The university aims to provide purpose-built housing for up to 25 per cent of full-time students, which is in line with peer institutions.

To fulfil the objectives of the university's White Paper on Student Housing, the Academic Plan, and the priorities of the Government of Alberta, the university plans to increase on-campus, purpose-built, supportive, and accessible housing, to answer an increasing need to integrate

support programs and academic learning space into student housing. This will meet the needs of targeted groups such as graduate, rural, Indigenous, and international students. Faculty, staff, and mature students with families are also increasingly seeking housing options at the university, and must be included in current planning.

### *OBJECTIVES*

- Use the findings and recommendations contained in the U of A's strategic planning document *A Strategy for Student Housing, 2015–2040* (June 2015), to provide the context of further discussion and planning concerning housing on campus.
- Continue working with the Ministry of Advanced Education, other ministries, and stakeholders to develop creative housing solutions that are sustainable and meet the goals of the university, students, and their families.
- Emphasize the importance of funding for residential program space that supports the academic mission and student success.

### *INITIATIVES FOR STUDENT HOUSING*

- *A Strategy for Student Housing, 2015–2040*: This study presents a road map with respect to how residences might develop in the future, including the types of programs and activities that should occur in support of the development of the whole person. The university will be using this document as a guide in planning and developing additional space to provide opportunities and access to rural, Indigenous, under-represented, and international students, as well as students with families.

#### **PHASE 1**

- o Lister Hall Tower #5: 520 bed spaces for first-year students
- o East Campus Village 9: 300 bed spaces for upper-year students
- o Augustana Campus: The university will continue to enhance student experiences at Augustana by planning new student residences and developing modernization plans for current communities.
- **Condition and functionality:** The university does not receive targeted deferred maintenance funding for student residences. Student residences have high infrastructure needs, compounded by the university's inability to recover the current backlog costs of maintenance or modernization via rental revenues. In 2010–2011, the university began reviewing strategies that would help build a reserve fund for maintenance and renewal of student residences (*Residence Services Capital Reserve Strategy, June 2010*), and our newest student housing complexes have building reserves integrated into the rental rates. Changing student demographics and requirements, as well as improved understanding of program delivery, are driving the need for modernization in several of our older student residence communities. The university will continue to work with government to identify one-time and continuing deferred maintenance funding for student housing to prevent closure of much-needed residence spaces.
- **Partners:** The university will continue to meet with private-sector developers to explore viable options to achieve our residence and housing targets.
- **Property taxes:** The university will continue to discuss means of eliminating municipal property tax assessments on student housing, thereby directing more funds to critical deferred maintenance.

- **Lights-on funding for academic program areas within residences:** In some student housing communities, especially in first- and second-year residences, as much as 20 to 35 per cent of the gross area is being used to provide space that accommodates co-curricular programming, study halls, and other student support services. If these spaces did not exist in residences, there would be pressure to provide these spaces elsewhere on campus. The university will continue to work with government to find ways to acknowledge these aspects of student development and discuss ways to bring lights-on funding to academic program areas in residence spaces.
- **Capacity:** The university is exploring strategies to add student residence capacity on its campuses, as well as to provide workforce housing options on the West 240 lands on South Campus and Michener Park.
- **Michener Park redevelopment:** Available and supportive family housing is essential for recruiting and retaining graduate students and post-doctoral fellows. Ancillary Services has undertaken community and business planning with a view to advancing this important project. The first phase of this project will result in an approximate doubling of our current married-student housing units and the creation of a community that can seamlessly integrate with the surrounding communities. This project will also serve to eliminate the existing deferred maintenance liability at the Michener Park site.

#### **FOCUS AREA 4: NEW SPACE**

##### *BACKGROUND*

Between the 2011 opening of the Edmonton Clinic Health Academy and the opening of the Donadeo Innovation Centre for Engineering, the university, with the support of government, has added approximately 150,000 square metres of new and expanded space, most of which has already been accounted for in approved program expansions. As the university continues to take a measured response to growth, there is still a need for strategic construction of critical new facilities. It is also important to recognize that the needs of the U of A's five campuses vary, each serving unique and separate constituencies within Alberta.

The university has identified a number of new expansion projects critical to its mission, vision, reputation, and global competitiveness. Some of the highest-priority projects include:

- an integrated innovation centre housing provincial testing labs, private diagnostics facilities, and translational labs for the university
- Research and Collection Resource Facility (RCRF) formerly known as the Book and Records Depository (BARD)
- a new School of Music and Art & Design facility within the Faculty of Arts
- Maskwa House of Learning
- the backfill requirements for the Engineering precinct
- a new Twin Arenas with extended Faculty of Physical Education and Recreation programming functions and community use
- a metabolic unit replacement on South Campus
- a building expansion to accommodate science programs on Augustana Campus and Campus Saint-Jean
- a new Alberta School of Business building to accommodate growth within the faculty

Tables 7 and 8 itemize the University's highest priorities for "New Capital" and "Expansion".

### *OBJECTIVES*

- Outline the capital needs of the institution in order to deliver the vision and programs included within this Comprehensive Institutional Plan. Space must not only provide simple access, but also ensure that the entire educational and life experience of students is supported.
- Confirm the state of the current inventory of academic support facilities. Identify adequacy, appropriateness, and availability of the facilities and engage government in discussions to outline the importance of these facilities and remediate identified shortfalls in these integrated program areas.

### *INITIATIVES FOR NEW SPACE*

- Priority setting: Continue to work with government to align priorities for new capital and partnerships.
- Strategic advance planning: Continue to work on advance planning of high-priority projects so they are in a state of readiness once new capital funding becomes available.
- Partnerships: Continue to explore partnerships through donations, and alternate financing and project delivery models, to leverage any available funding and reduce initial capital investment and increase community use

### *EMERGING ISSUES*

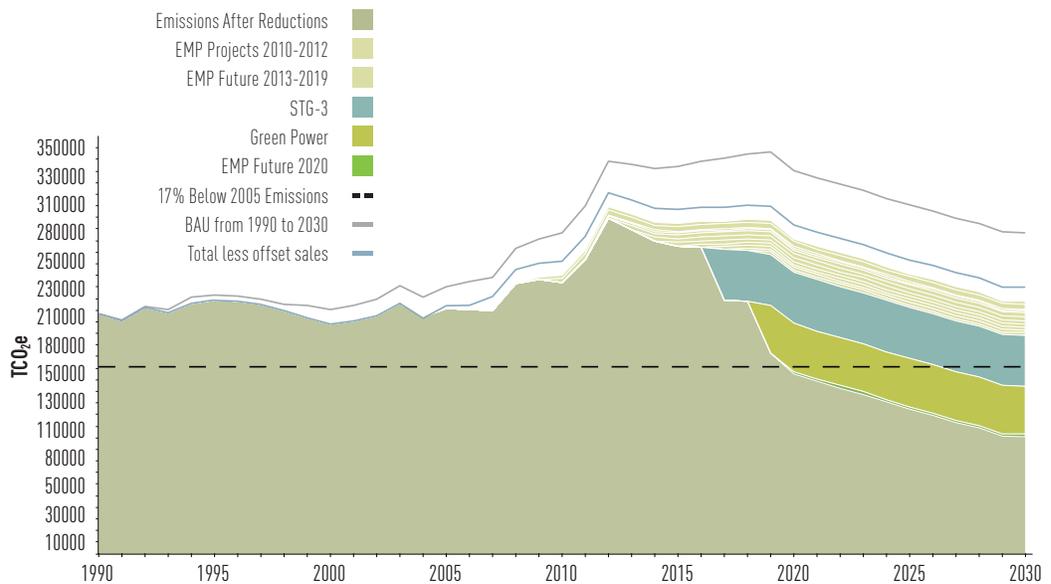
- Provincial and global economies: Currently the key issue affecting new space and corresponding capital is continued economic uncertainty and volatility. The university needs to continue to work with government to develop strategies that maximize and leverage limited government resources.
- Lack of adequate academic support space: Over the past 10 years, there has been a concentrated focus on funding projects that lead directly to much-needed increases in access. This has now put a strain on our academic support spaces, which have not grown proportionally with increases in enrolment.

# HIGHLIGHTS OF 2015–2016

## INITIATIVES

- Energy Management Program: Given the success of the University of Alberta’s energy management program (EMP), the university initiated a new round of energy projects for campus facilities. As in previous years, the next generation of the EMP is financed through borrowing and paid back through resulting energy savings. The accumulated impact of our ongoing and significant investment in energy initiatives has aided in reducing greenhouse gas emissions and lowering operating costs, adding renewable energy to plant capacity and has contributed significantly in a partnership approach to the reduction of deferred maintenance liability.

**FIGURE 3** IMPACT OF ENERGY MANAGEMENT PLAN MEASURES ON CO2 EMISSIONS, 1990-2030



- Sustainability: Under the leadership of the Office of Sustainability, the U of A’s commitment to sustainability is articulated in the Sustainability Commitment and Guiding Principles (endorsed by the Board of Governors in 2008) and the institutional Sustainability Plan 2016–2020 (currently in its second draft with finalization pending in 2016). The university measures, tracks, and reports on performance using the Sustainability Tracking, Assessment & Rating System (STARST<sup>™</sup>). The university achieved a Gold rating in 2014 (up from a Silver rating in 2012) by increasing efforts across four categories: academics, engagement, operations, and planning and administration.

- **Utilities:** The U of A's District Energy Plan has three primary focuses going forward. The first is replacing aging 50-plus-year-old electrical infrastructure in the heating plant while simultaneously providing a reliable supply of steam and power to the greater campus area. This was started in 2014 and will be a seven- to 10-year project. This project is entirely funded through utilities reserves, which reflect our market activities. The second focus is on ensuring reliability of steam supply. Fifty per cent of our steam supply capacity is more than 45 years old. In an innovative and financially viable approach, the university is proposing to produce power for more reliability and at lower prices, and steam to replace aging boiler capacity by installing a gas fired co-gen turbine (TG3). We are seeking approximately 50 per cent of the project funding (\$40 million) from government to support the university and other public sector stakeholders, with the balance funded from reserves. The final focus is the future expansion of the electrical utility system to facilitate the connection of new facilities (e.g., Translational Lab) to the U of A's District Energy System.
- **Student housing:** The university presented to the Board of Governors A Strategy for Student Housing, 2015–2040. Embedded in the strategy are two five-year implementation plans. The first plan is being implemented and will deliver up to 820 new bed spaces on the Edmonton campus in 2018, as well as potential residence development at Augustana.
- **Formation of the University of Alberta Property Trust Inc.:** This wholly-owned subsidiary of the University of Alberta acts as trustee to manage and develop university-owned lands and to raise dedicated, permanent funding to support the core mission of the university. The development of designated lands can contribute to the demand for high-quality, residential, mixed-use in-fill developments, of vibrant, livable communities on the university and in the city's core.

## GOVERNMENT OF ALBERTA FUNDING

Current funding levels of the Infrastructure Maintenance Program (IMP) grant, together with recent one-time project transfers, has until now allowed the university to maintain its trend in reducing its deferred maintenance liability. However, reductions to the base IMP grant have caused a setback over the longer term. Restoration of IMP funding to 2011–2012 levels is critical for preventing increases in our deferred maintenance liability and reducing the risk of catastrophic failure of some building systems. The university has a number of "shovel ready" deferred maintenance projects that could quickly be put in place with increases to base IMP funding and additional one-time grants for large renewal projects. Projects that have been identified have designs complete; will address maintenance backlog, health and safety, and optimize the use of existing infrastructure.

- **Preservation projects:** Projects funded and undertaken in recent years have resulted in reductions in the Facility Condition Index (FCI) of some facilities.
- **Renewal and backfill projects:** Prudent project management of capital projects has resulted in positive project variances. These variances have been re-directed to existing facilities to address renewal and backfill needs. A number of repurposing and renewal projects have been identified in close collaboration with government and are being completed.

## ONGOING PARTNERSHIPS WITH COMMUNITIES, POST-SECONDARY INSTITUTIONS, AND PRIVATE ORGANIZATIONS

- Canada Foundation for Innovation (CFI) contributions: Over the last 10 years, the university has received approximately \$150 million from CFI for major infrastructure purchases, including equipment, renovation, and new construction. This funding has directly leveraged approximately \$225 million from other sources, including the province of Alberta, corporate partners, and other funding agencies.
- TEC Edmonton: TEC Edmonton has provided tremendous growth and program opportunities for all partners; recently rated one of the top incubators operating in North America. TEC Edmonton has indicated a desire and need to expand within Enterprise Square and is currently seeking funding for this work.
- Islamic Garden: In June 2009, His Highness the Aga Khan announced plans to create a traditional Islamic garden within the university's Devonian Botanic Garden in recognition of the growing partnership between the university and the Aga Khan University. Design is advancing to facilitate the proposed garden and building infrastructure and will be construction-ready in 2016. The Ecological Learning Centre is a critical piece of garden infrastructure that is intended to integrate this and other gardens within the Devonian Botanical Garden site, providing learning and research space, community outreach programs, and visitor and tourism support. Designs have commenced related to site infrastructure based on current Government of Alberta support.
- The Galleria project (E-DACC): This proposed project continues to progress and we look forward to government's commitment. Proposed new infrastructure for the departments of music, and art & design would satisfy their enrolment and program requirements. The Galleria is an innovative collaboration involving private philanthropy, corporate investment, and public funding involving all orders of government in a lease-to-own initiative.
- Translational labs: Alberta is reviewing its diagnostic lab strategy, including the consolidation of provincial labs for northern Alberta. There is significant value to be realized through the development of an integrated lab facility that combines diagnostic lab functions with research/translational labs to encourage lab bench research to be utilized to develop faster, more accurate, and less expensive testing procedures. The integrated facility will provide opportunities not only to advance research, but also to provide the training environment for our future lab technicians through the creation of a new centre of excellence for the city, the province and the country.
- U of A District Energy System: The university's District Energy System provides substantial savings in utility costs not only to the university, but also to other taxpayer-funded institutions in the greater campus area (GCA), such as the hospitals, the Jubilee Auditorium, Canadian Blood Services, Alberta government facilities, etc. The university's District Energy System returned a portion of its reserves back to the partners in the GCA to mitigate the effects of provincial budget cuts. This occurred over 2014–2015 and amounted to a ten per cent reduction of utility costs for system users. Over the last five years, the university's purchase prices for natural gas and power have been the lowest amongst the major post-secondary institutions in Alberta, averaging 25 per cent less for natural gas and 28 per cent less for power. The substantial savings generated from our activities in Alberta's deregulated energy markets enable all of our customers to pursue more efficiently their core missions of teaching, research, and medical services. Students in residence on North Campus also benefit from the lower utility costs. Additional benefits for all customers are the

high reliability of services obtained and lower environmental impact due to efficiencies in operating large central facilities.

- U of A utility group: The university's utility group provides expertise in utility matters to smaller institutions and partners, such as Lakeland College and the Downtown Arts District initiative.
- South Campus Arena Development: The university and the City of Edmonton have recently executed a Memorandum of Understanding to investigate and develop a new Twin Arenas facility that would meet common community and programming objectives supported by sound business case profiles and a rigorous community consultation process while addressing deferred maintenance liabilities.

### MAJOR FUNDED CAPITAL PROJECTS UNDERWAY

- Student housing: Residence projects underway add a total of 962 beds to our inventory and will increase the university's ability to provide housing to 18.1 per cent of full-time students. These new residences will provide housing for faculty cohorts, and support the university's goal of providing purpose-built housing for up to 25 per cent of its full-time student population. Residences are being developed through debt financing by the institution.
  - o Peter Lougheed Hall: This residence expansion project will add 142 beds to our on-campus housing inventory. The new residence will support the Peter Lougheed Leadership College, part of the larger Peter Lougheed Leadership Initiative between the U of A and The Banff Centre, focused on leadership development of undergraduate students.
  - o East Campus Village 9: This facility will accommodate up to 300 upper-year undergraduate students in four and six bedroom apartments. This new community features fitness, social, study, project, and amenity spaces designed to enhance the student experience.
  - o Lister Hall Tower 5: This new community will accommodate up to 520 students (based on double occupancy) in a modern, dormitory-style community designed to enhance the experience of students in their first year. This project is key to delivering on the university's new initiative regarding first-year housing guarantees for all students admitted to the university for the first time.
- Research and Collection Resource Facility (RCRF): This records repository project involves construction of a purpose-built facility of approximately 3,437 gross square metres to house 5.1 million volumes (anticipated requirement to 2035) on South Campus with easy access. The new facility will include all required environmental and retrieval systems expected in a modern records depository and will be expandable to accommodate future needs. It will provide outstanding opportunities for increased student access to archives and for expanded academic initiatives. Institution debt funding is being provided.
- Devonian Garden infrastructure: In collaboration with the proposed Islamic Garden capital program, the gardens' current aged and missing infrastructure (roads, gas, power, and sewer) will be upgraded to a standard to facilitate the planned development and increased visitorship to the garden.

## ADDITIONAL CAPITAL PLANNING CONSIDERATIONS

### FINANCIAL STRATEGIES TO SUPPORT CAPITAL

There is a significant need for long-term funding certainty to facilitate institutional initiatives. Though there will likely always be a need for traditional provincial investment through one-time grants, the university is committed to seeking other opportunities and avenues that minimize this dependency:

- **Borrowing:** It is critically important that the university work with government and its financial entities to develop alternative financial models that address current fiscal constraints within government. Borrowing is part of planning and building an internationally recognized research-intensive institution that will attract the best and the brightest faculty and students in the years to come.
- **Alternative financing arrangements:** Along with pursuing innovative partnerships for property development, the university also looks for alternative financing arrangements where feasible and advantageous. Increasingly, the funding of projects in this plan will reflect the partnerships noted above and will include funds from multiple sources. Donations, as well as partner contributions including lease-to-own options, will be sought and used to complete needed facilities. Leasing options will also be considered to lessen the demand for capital funding. The university will continue to seek ways to involve the private sector in the repair, development, and operation of new and existing housing inventory.
- **Partnership development:** Opportunities to develop partnerships could allow the university to leverage funding and develop its physical resources in a cost-effective manner. While partnerships present a major opportunity for the university to develop its physical resources in an innovative and cost effective manner, they also present greater challenges to the institution. First, the institution, along with government as its primary funding partner, must work within current public policy. Second, the university must carefully weigh the advantages apparent in a partnership arrangement against the potential loss of control over the future of its resources.

## OTHER INFLUENCES AND CHALLENGES

Operating costs for high-intensity research facilities may still be greater than the funding provided through base operating grants. The university must carefully monitor actual costs in these facilities to determine whether a significant shortfall continues and report to government accordingly.

While the university appreciates and acknowledges the government's efforts to provide lights-on funding for new infrastructure, failure to provide funding that bridges the difference between the lower historic funding and today's funding requirements has resulted in a significant operational shortfall to the institution. This has affected overall operational service levels across our campus for existing facilities. As buildings are repurposed to accommodate additional research-intensive programming, there is also a need to review operating costs and associated funding requests for differential lights-on funding to accommodate program change within a building.

The lack of available and affordable child-care options on campus is becoming a deterrent not only to the recruitment of staff and faculty, but also to the attraction and retention of graduate students and students from historically under-represented groups, such as Indigenous people.

For new construction provided through Government of Alberta grants, there is a requirement to achieve the LEED® Silver certification level. The U of A is fully committed to sustainable construction and operations and designs to critical sustainability principles in its projects. We continue to engage government on the most economical means of validating building designs and operations in the interest of meeting sustainability goals. The university is also actively pursuing alternative, cost-effective strategies to provide equal or greater certification levels at a lower cost. Consideration for alternate certification systems allowing for more prudent application of grant funds must be considered.

The age of U of A facilities presents a challenge because required use and function may not match in the spaces that are available. Renewal of aged facilities is required to deal with functional issues and provide more appropriate space.

With the development of a land trust, the university may be able to monetize land assets to support its core academic and research needs.

**TABLE 8** HIGHEST NEW CAPITAL PRIORITIES (LISTED IN ORDER OF INSTITUTIONAL PRIORITY)

PROJECT	DESCRIPTION/SCOPE	NEW SPACE & RENO. (M2)	ESTIMATED COST	TIMELINES	STRATEGIC ALIGNMENT	FUNDING SOURCE	FUNDING SOURCE (NON-GOVERNMENTAL)
Galleria	Development of space that would house the Department of Music and the Department of Art & Design in partnership with a private sector developer. The budget represents the potential equity required within the partnership arrangement.	32,500	\$175M	2019	Community Engagement - P1, E01, PM1 Infrastructure - P4, E04, PM4	Philanthropy and Government Support	
Maskwa House of Learning	Centre focused on Indigenous students, faculty and staff to serve as a community gathering place that embraces and provides an inclusive and supportive learning environment. Project will be aligned with current Education Tower location and will be aligned with the building's current infrastructure and program areas. The university has secured a donation of \$1M to initiate the project.	2,500	\$30M	2018	Faculty Renewal - P4, E02, PM4 Student Experience - P5, E03, PM3	Philanthropy and Government Support	\$1M
Translational Lab - The Edmonton Clinic Diagnostic Centre	Addition of one floor to the AHS proposed Diagnostic Centre to house its lab services provider.	7,990	\$60M	2020	Faculty Renewal - P4, E02, PM1 Community Engagement - P1, E03, PM1	Government Support	
Twin Arenas South Campus	The Twin Arenas Project is part of the long range plan of moving all varsity programs to South Campus and having these buildings serve not just the university, but the community at large. This facility will provide needed space for our hockey, wrestling and golf program and will provide needed administrative, learning, and research space associated with our varsity programs. This facilitates the replacement and relocation of our aging and antiquated metabolic facility.	14,954	\$81 M	2019	Community Engagement - P1, E03, PM1	Partnership, Philanthropy, Borrowing and Government Support (from all three orders).	

PROJECT	DESCRIPTION/SCOPE	NEW SPACE & RENO. (M2)	ESTIMATED COST	TIMELINES	STRATEGIC ALIGNMENT	FUNDING SOURCE	FUNDING SOURCE (NON-GOVERNMENTAL)
Alberta School of Business – New Facility	Development of a building for the School of Business in a partnered opportunity with private sector. A building for the School of Business would facilitate accommodation of the backfill requirements of the social sciences and support their growth needs. The social sciences are currently experiencing significant shortfall of space.	27,900	\$185M	2020	Infrastructure - P4, E04, PM2	Philanthropy and Government Support	
South Campus Basic Infrastructure	New infrastructure to support the development of the NE sector of South Campus – deep sewer, water supply, road lighting, and improvements specifically to support the siting of community complexes on campus.	N/A	\$15.6M	2018	Infrastructure - P1, E01, PM1	Government Support	
Development of South Campus Infrastructure - Utilities/ District Energy Plant	Installation of a district energy system, incorporating a combined heat and power plant (CHP) to service the developments on South Campus. The new system will be modelled after the North Campus system that has proven to be successful in terms of energy efficiency, reduction in GHG emissions, and energy cost reduction. It will include a full range of utility services including power, steam, chilled water, domestic water, compressed air, and storm and sanitary services. The system will be designed to follow the growth of South Campus and to accommodate green technologies as they become economically viable.	N/A	\$132.2M	2021	Infrastructure - P1, E01, PM1	Government Support and Partnership and Business Case	

**TABLE 9** HIGHEST EXPANSION PRIORITIES (LISTED IN ORDER OF INSTITUTIONAL PRIORITY)

PROJECT	DESCRIPTION/SCOPE	NEW SPACE & RENOV. (M <sup>2</sup> )	ESTIMATED COST	TIMELINES	STRATEGIC ALIGNMENT	FUNDING SOURCE
Augustana Science Labs Expansion and Renewal and Classroom Building Upgrade	Increased capacity/ accessibility and deferred maintenance - Expansion and renovation of the existing building and infrastructure to meet the needs of the student enrolment and science program requirements. This is coupled with the need to repurpose the old library space to classrooms with the completion of the Library/Forum project (phased)	6,592	\$90M Work can be Phased	2020	Faculty Renewal - P4, E02, PM1, Teaching and Learning - P1, E01, PM	Government Support
Campus Saint-Jean Science Building	Increased capacity/ accessibility and deferred maintenance - Expansion and renovation of existing facility to meet the needs related to differential program enrolment throughout the entire campus, the creation of new programs and partnerships with other faculties, and dedicated research space, which will allow opportunities for reuse within the backfill area. The university is targeting an additional \$10M in federal support. Total project estimate is \$46.4M (phased)	5,319	\$40M Work can be Phased	2020	Community Engagement - P3, E03, PM1	Government Support
NREF Backfill	Conversion of floors to wet lab, conversion of fume hoods and base building system upgrades	N/A	\$38M	2018	Infrastructure - P4, E04, PM4	Government Support
Science Backfill	Deferred maintenance and increased capacity/ accessibility - Various backfill renewal and repurposing of space as a result of the completion of CCIS (BioSci, Earth Sciences, Chemistry, South Academic Building)	N/A	\$21.1M	2020	Research Excellence - P2, E02, PM3	Government Support
ECERF Backfill	Conversion of floors for Nano Engineering, BioMed Engineering, and NanoBioengineering, and new ventilation system. Conversion of floors to accommodate dry labs for Electrical and Computer Engineering	N/A	\$25M	2018	Infrastructure - P4, E04, PM4	Government Support
Mechanical Engineering	Replacement and higher- density development, reduction in deferred maintenance	N/A	\$75M	2020	Infrastructure - P2, E04, PM2	Government Support
North Campus Electrical Utility System Expansion	The North Campus electrical utility system requires an expansion to incorporate the addition of future precinct large building additions (AHS, UA, CC)	N/A	\$20M	2020	Infrastructure - P1, E01, PM1	Government Support

**TABLE 10** HIGHEST PRESERVATION PRIORITIES (LISTED IN ORDER OF INSTITUTIONAL PRIORITY)

PROJECT	DESCRIPTION/SCOPE	ESTIMATED COST	TIMELINES	STRATEGIC ALIGNMENT	FUNDING SOURCE
Chemical and Materials Engineering Building – Renewal (Phase 2) (R)	Deferred Maintenance / Increased capacity- Renewal and repurposing of the building to provide needed wet lab space for Engineering and address building envelope and operational issues. Phase 2 is the continuation of the project and would fully renew the existing building. Due to the critical need for this space, the Faculty of Engineering is providing bridge financing of \$5M toward Phase 2 of the renewal in advance of government funding.	\$22.1M	2020	Research Excellence - P2, E02, PM3	Government of Alberta \$58.7M
Turbine Generator 3	Reliability/Reduction of GHG emissions/ Energy cost reduction - Project intent is to install a gas turbine - generator and heat recovery steam boiler that will generate 25 MW of power and 70,000 kg/hr of high-pressure steam. Power and steam will increase the reliability of the fleet and provide energy cost reduction for the U of A and campus partners including the University Hospital, Cross Cancer Institute, Canadian Blood Services, and the Jubilee Auditorium. Maximum efficiency will be achieved through the units co-generation cycle. Power generated through the new unit will reduce GHG emissions by 40 per cent when compared with conventional power production.	\$89.2M TPC	2020	Infrastructure - P1, E01, PM1	Government of Alberta \$47.5M (53.3 per cent) Utilities (Borrowed): \$41.7M (46.7 per cent)
Dentistry/ Pharmacy	Deferred Maintenance/ Increased capacity and accessibility - Functional renewal of the building now that the Edmonton Clinic Health Academy is complete and faculties have relocated. The existing building, constructed in 1921, has a high deferred maintenance liability and must be completely retrofitted before new tenants can be moved in. This project restores and reuses historically significant building to the campus, allows for greater administrative efficiencies with the co-locating of many of our central services, reducing demand for outside leases, and most importantly builds a new front door for our campus to the community of prospective students, current students, and alumni. The university is also preparing a phasing plan that, while increasing the costs, will allow for the project to continue advancing as funding becomes available.	\$270M -- can be addressed in four to five phases of work of approximately \$50 M per phase	Pre-design and budgeting complete. Engineering for Phase 1 underway. Phase 1 - 2017 Phase 2 - 2018 Complete project 2020	Supports All Goals	Government of Alberta - \$270M - to be phased over a four to five year construction period.

PROJECT	DESCRIPTION/SCOPE	ESTIMATED COST	TIMELINES	STRATEGIC ALIGNMENT	FUNDING SOURCE
MSB	Phase 1: Deferred Maintenance/ Increased capacity and accessibility -- Select building renewal and repurposing/backfill to occur once the Edmonton Clinic Health Academy is complete. Phase 2: Deferred Maintenance/ Increased capacity and accessibility - Full facility renewal program and backfill.	\$30M	2018	Infrastructure - P2, E02, PM2	Government Support
CSB	Phase 1: Deferred Maintenance/ Increased capacity -- Building renewal and backfill with the completion of Edmonton Clinic Health Academy is complete. Focus is for renewal and repurposing. The project would be approached in three phases of renewal of the tower. Phase 1 is for design and building prep for phased renewal. Phase 2: Deferred Maintenance/ Increased capacity -- Building renewal and backfill with the completion of Edmonton Clinic Health Academy is complete. Focus is for renewal and repurposing. Phase 2 would accommodate 1/3 of the project and allow for decanting of remaining tower.	\$11.8	2018	Infrastructure - P2, E02, PM2	Government Support
Universiade Pavilion	Deferred Maintenance/ Increased capacity/Addresses climate change - Renewal of building envelope to replace failing panels.	\$16M	2017 Concept design and community engagement is complete	Teaching and Learning - P1, E02	Government Support

**TABLE 11** HIGHEST RENEWAL PRIORITIES (LISTED IN ORDER OF INSTITUTIONAL PRIORITY)

PROJECT	DESCRIPTION/SCOPE	ESTIMATED COST	TIMELINES	STRATEGIC ALIGNMENT	FUNDING SOURCE
Chemistry Electrical Vaults	Condition of the primary switchgear is very poor and requires replacement. Review of all electrical rooms on campus has identified that the electrical service for this facility is at capacity, is the highest priority for replacement and now presents a life safety risk for maintenance activities. Additionally there is no standby power source for the building life safety systems. The project has been elevated to a top priority with the Government of Alberta and has a high risk.	\$11.6M	Design 2016 Construction 2017	Infrastructure - P1, E01, PM1	Government Support
CMEB Envelope and Elevator	CMEB is a facility that has been going through a phased renewal program. This project will address renewal of elevators, window replacement and upgrade of exterior doors.	\$7M	2017	Infrastructure - P1, E01, PM1	Government Support
Chemistry West – Floor Renewal	Deferred Maintenance/Increased capacity and accessibility – As the base building upgrade and renewal work is now completed, the delivery model for the remaining fit-outs can be accommodated as smaller phases of work.	\$4M	2017	Infrastructure - G9	Government Support
Cameron Library Envelope	Marble exterior panels are falling off of the north face of Cameron Library. Replacement of the panel system to match the south face (which had a similar issue) is required.	\$3.6M	2017	Infrastructure - P1, E01, PM1	Partner with Energy Management Program \$1M EMP \$2.6M Government of Alberta
General Elevator Program	Renewal program for aged elevator controls, drives and cabs, and single bottom hydraulic cylinder elevators on a campus wide basis. The university has to commence a program for renewal of elevator assets as we are experiencing failures with many of the older units. There are 12 single bottom hydraulic elevators on campus requiring upgrades. Failures in facilities with single elevators may result in loss of access to facilities by mobility impaired staff. Failures will have a direct impact on ability to move people in larger multi-story facilities.	\$8.5M	2016 through 2019	Infrastructure - P1, E01, PM1	Government Support
Agriculture Forestry Lab	Deferred Maintenance/ Increased capacity - Upgrade base building infrastructure to allow for full functional renewal of laboratory spaces. This will permit increased program use in the facility.	\$3.4M	2016	Research Excellence - P2, E02, PM3	Government Support



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# APPENDIX G: INFORMATION TECHNOLOGY

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### IT SUPPORT FOR RESEARCH

The 2016–2018 priority for research is local data storage. This is an intermediate use-case between the active storage associated with high-performance computing facilities like WestGrid, and the long-term archival storage proposed by Research Data Canada. Many researchers require a place to store large amounts of data (tens to hundreds of terabytes) while it is still needed for ongoing research. That is the purpose of our proposed six-petabytes local data store.

The funding source is the Campus Alberta Grant, at an approximate cost of \$600,000.

### IT SUPPORT FOR ACCESS

Access priorities for 2016–2018 are improved processes for undergraduate admissions, and better management of graduate student scholarships and awards. Both initiatives will have IT components. These have been estimated at:

- \$3 million for undergraduate admissions, expended as \$1 million per year for three years, and
- \$1 million for graduate student scholarships and awards, expended in one year

Together, these two projects will require \$2 million in 2016–2017. Both will draw their funding from the Campus Alberta Grant.

### IT SUPPORT FOR TEACHING AND LEARNING

IT infrastructure support is needed to achieve the teaching and learning goals of the institution. Primarily, this includes greater capacity to use digital learning technologies to enhance learning experiences on a university campus as well as from a distance. To achieve these goals, classrooms must be modified to have greater access to broadband wireless to allow for using digital and Internet resources. Current wireless capacity does not permit an entire class of students (up to several hundred) to simultaneously access digital resources (such as digital learning modules, video segments, or interactive learning objects) or Internet resources (such as websites that support statistical analysis). Additionally, live-streaming capabilities are required to enable distance learners to access classes offered on a campus. Furthermore, better integration within Campus Alberta would be permitted by facilitating students at other institutions outside Edmonton to engage with U of A classes to enrich their learning experience, to offer collaborative programming (e.g., the Aboriginal Teacher Education Program offered by the Faculty of Education), or to offer distance learning (e.g., the Canmore learning sites that engage with North Campus physical therapy courses through digital communications technology).

### IT SUPPORT FOR EFFICIENCY AND SUSTAINABILITY

IT infrastructure has evolved impressively and now allows for much more efficient methods of undertaking traditionally cumbersome processes at the university (such as annual reporting by staff and units on their productivity) and data capture; for better monitoring of student enrolment and progress, research funding, professor- and unit-level productivity; and for better information sharing regarding research findings.

Over the next three years, the U of A will be focusing on establishing greater efficiency and sustainability of processes across the institution.





*“uplifting the whole people”*

— HENRY MARSHALL TORY, FOUNDING PRESIDENT, 1908

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