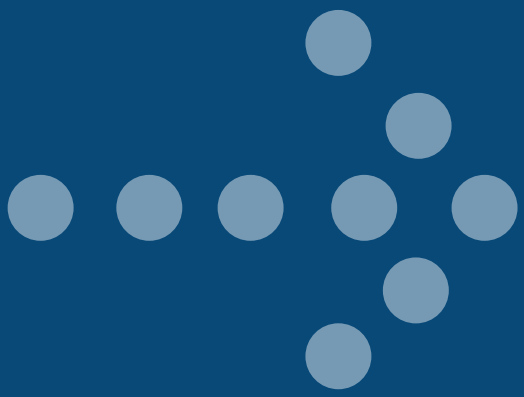
Athabasca University

Comprehensive Institutional Plan 2014–17



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EXECUTIVE SUMMARY

Athabasca University's vision is to be a world-class online university, open to learners regardless of circumstance, internationally recognized for creativity and innovation and partnering with others to create benefits for the world.

Environmental Context

Like other post-secondary institutions, AU faces challenges arising from global demographic and economic shifts and declining public investments. Competition for talent, re-skilling for the digital economy and adapting to workforce mobility affect both post-secondary institutions and the students they serve. These trends have prompted discussions of both sustaining innovations which will enhance services to current markets and disruptive innovations directed at new markets. With its cost effective, flexible delivery and specific focus on adult learners, AU is well positioned to respond to the challenges presented.

Priority Initiatives

AU is guided by the goals of its *Strategic University Plan: 2011-16:* maintaining the university's international leadership in quality open and distance education, ensuring the sustainability and adaptability of the institution, recruiting and retaining excellent employees, promoting excellence in research and building communities. As an open university, AU emphasizes community engagement to support under-represented learners and is dedicated to supporting collaborative opportunities with Campus Alberta partners.

Priority initiatives to support quality and access include the ongoing curriculum renewal process, increased integration of student success services, improvements to the online learning environment, targeted marketing and student recruitment campaigns, and expanding Campus Alberta collaborations. AU continues to develop programs and services to meet the demands of students and employers across Canada and to improve graduate education opportunities.

AU promotes a robust research and innovation culture and is committed to increasing supports to research and scholarship, to developing a strategy to secure sustaining research funding and to fostering provincial, national and international research partnerships and collaborations. The university is also committed to providing the widest possible access to research outputs and promoting the creation and dissemination of knowledge for the benefit of society.

AU has a long history of promoting collaboration, leadership and innovation in the communities it serves, including regional, national and international communities. The university promotes the idea that communities are defined by relationships as well as by geography and is dedicated to working collaboratively with groups and organizations of all types to remove barriers to learning, to promote research and to enrich communities of all types.

Financial Sustainability

The 2014-15 budget of about $131 million shows a small surplus, and similarly modest surpluses are expected in each of the following two years. The budget, which incorporates a number of savings strategies to deal with normal cost pressures, is focused on maintaining excellence in teaching and research, ensuring student access and program affordability, and facilitating continued advancement of AU's information and communication technology infrastructure plan. AU will continue to focus on revenue-generation and on opportunities that will position the university for future growth and development.

Internationalization

The international profiles of all Comprehensive Academic and Research Institutions are developed and facilitated through research networks and international student recruitment. Although provincial perspectives commonly associate international education with importing talent, AU's international initiatives are more oriented to supporting international development through cross-border delivery. AU's priorities with respect to internationalization are to examine how the curriculum can contribute to global citizenship, to increase recruitment activities directed to international students, to expand AU's international leadership role in research into open access and online and distance education, and to foster sustaining relationships with international partners through research and programming opportunities

Capital Plan

AU's comprehensive 10-year capital plan is directed to maintaining the university's leadership position in online and distance education and to enhancing the educational services it provides. To achieve its mandate and support strategic growth, the university must upgrade and expand both its information and communication technology infrastructure and its facilities.

AU depends on ICT infrastructure for the entirety of its operations, so its continued success depends on the innovative use of that technology to create and maintain a rich, flexible learning environment in an increasingly competitive, international online learning marketplace. AU's ICT planning process has culminated in development of a 10-year plan for creation of the Open Learning Environment, an innovative online post-secondary system in which cutting-edge technologies integrate with advanced pedagogical practice to form a supportive, student-centred, world-class learning environment.

Planned capital facility and other projects focus on maintaining and improving existing facilities in Athabasca, creating a long-term plan for development of the university's land holdings (with a view generating revenue and supporting community needs), cutting operating expenses and improving service to students by consolidating AU's distributed Capital Region operations under one roof and creating a dedicated research and learning facility to support the work of the Athabasca River Basin Research Institute.

ACCOUNTABILITY STATEMENT

This Comprehensive Institutional Plan was prepared under the direction of the Governors of Athabasca University, 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 Barry Walker

Barry Walker, FCA
Chair, the Governors of Athabasca University

March 24, 2014

INSTITUTIONAL CONTEXT

Letter of Expectation[1]

The Letter of Expectation between Athabasca University and the Government of Alberta, signed November 7, 2013, outlined expected outcomes for the public post-secondary system as a whole, for Comprehensive Academic and Research Institutions (and other sectors of the system) and for AU in particular. In fulfilling its mandate as a member of the CARI group, AU will continue to contribute to Campus Alberta, enhance learner access and mobility, and support Alberta's social, cultural and economic well-being.

As a CARI university, AU plays a role in leading and transforming society through the preparation of its highly qualified graduates. The university's global outlook supports Alberta's position as an international centre for education and research. AU contributes to cultivating and leveraging partnerships within Campus Alberta and reaches outside the system to play a related role at the national and international level.

As Alberta's premier provider of online and distance education courses, programs and student support services at the post-secondary level, AU is dedicated to the pursuit of knowledge in order to enhance its programs, better educate its students and improve society.

In addition to offering a broad range of high-quality academic programs, AU focuses on meeting the needs of those who face barriers limiting access to and success in university-level study. Throughout Alberta, across Canada and around the world, AU is recognized as a leader in open and distance education, offering integrated approaches to teaching, learning and assessment that are designed for a digital age.

Mandate[2]

Founded in 1970 and operating as a Comprehensive Academic and Research Institution under the authority of the *Alberta Post-secondary Learning Act*, AU is a public, board-governed, open and distance education university which serves students throughout Alberta, across Canada and around the world. Working as a partner within Campus Alberta, AU is committed to collaborating with other key stakeholders to ensure a seamless and responsive advanced education system that provides high-quality learning opportunities in support of lifelong learning.

The university offers a range of courses and programs leading to graduate and undergraduate degrees, certificates and diplomas in the humanities, the social sciences, the sciences, technology, business and the health disciplines.

As an open university, AU seeks to remove barriers to undergraduate and graduate education. It offers flexible enrolment opportunities for learners, regardless of age, gender, culture, income, disability, career and family obligations, geographic location or educational background. As a distance education university, AU provides flexibility for lifelong learners who cannot or choose not to undertake residential post-secondary education. The university offers learners the opportunity to interact with students across Canada and around the world through programs in established and emerging areas as it seeks to meet the needs of career professionals, develop research expertise and create knowledge that fosters a global outlook among its graduates.

AU provides high-quality, interactive learning environments that include a variety of online and other media technologies for individualized and cohort learning. The university's library and tutorial services and extensive student support services that facilitate access and increase learner success are integral aspects of

[1] *Letter of Expectation between the Minister of Alberta Enterprise and Advanced Education (as Representative of the Government of Alberta) and the Board of Governors of Athabasca University (as Representative of Athabasca University)* (2013): http://eae.alberta.ca/media/389921/athabasca-university.pdf.

[2] Approved by the Minister of Advanced Education and Technology, November 17, 2009.

a quality open and distance education system. Similarly, its course designs and technology applications are based on current research in open and distance education, pedagogical advances in lifelong learning and contemporary developments in online learning technologies. The university actively pursues technological innovations that can enhance its teaching, research and administrative functions.

The university provides undergraduate degree completion opportunities for university transfer students and college diploma graduates through credit co-ordination, credit transfer, prior learning assessment and associated forms of learning accreditation. It supports collaborations, such as its degree completion agreements with colleges and partnership with Alberta-North. These collaborations, together with its participation in initiatives such as the Canadian Virtual University, reflect AU's longstanding commitment to adult and lifelong learners, to aboriginal communities, to learners in remote, rural and northern areas, to under-served urban populations and to program students at other universities who seek courses to accelerate degree completion. The university also acquires and maintains accreditation in other Canadian provinces and in appropriate international jurisdictions.

AU pursues and demonstrates excellence in research and scholarship, viewing research as central to the creation and mobilization of knowledge, the enhancement of its programs, the education of its students, the betterment of its community and the development of its faculty and future scholars. Besides its international reputation for research in all aspects of open and distance education and learning technologies innovation, the university is developing notable strength in interdisciplinary research in several areas such as Canadian studies, globalization and cultural studies, indigenous education, space and environmental sciences, project management, and nursing and health management. Aspects of technological change are integral to many of these theme areas. By supporting and conducting research activity in all program areas, AU makes significant contributions to cultural, scientific and professional development in Alberta and beyond.

AU's academic, professional and support staff engage in professional service within the education system at local, provincial, national and international levels. The university encourages its members to serve a wide range of communities through activities such as volunteerism, community based research, involvement in local community organizations and participation in virtual learning communities.

Mission Statement[3]

Athabasca University, Canada's Open University, is dedicated to the removal of barriers that restrict access to and success in university-level study and to increasing equality of educational opportunity for adult learners worldwide. We are committed to excellence in teaching, research and scholarship and to being of service to the general public.

Principles

Adherence to four key principles underlies all of AU's activities:

Excellence We are dedicated to achieving the highest standards in teaching, research, scholarship and student service.

Openness We are committed to our mission of guaranteeing access to post-secondary learning to all who have the ability and desire to learn.

Flexibility We are committed to providing flexible learning opportunities to meet learners' needs.

Innovation We continue to adopt and develop learner-centred, technology based learning models.

3 May 1985; reconfirmed October 2011.

Values

The members of the AU community hold a set of complementary values that are fundamental to the university's identity and operations:

- We value excellence: The search for excellence is the hallmark of all of our endeavours.
- We value learning: Student learning and satisfaction are measures of our success.
- We value scholarly research: We engage in reflective practice through the scholarship of discovery and the scholarship of teaching.
- We value the free exchange of ideas: A respectful climate for open discourse promotes innovation, discovery and social responsibility.
- We value openness and flexibility: Reducing barriers to education enhances access and social equity.
- We value diversity and inclusiveness: Diversity and inclusiveness enhance the quality of learning and of the workplace.
- We value our employees: Their commitment, innovation, creativity and continuous learning contribute to our success.
- We value accountability: We are accountable to our students, to each other and to the public.

COMPREHENSIVE INSTITUTIONAL PLAN DEVELOPMENT

Planning and Assessment Cycle

AU's *Strategic University Plan: 2011-16*, approved by the Board in June 2011, is the foundation document for all university planning. Based on extensive internal and external stakeholder input, that plan gives direction to major academic and research initiatives and community development activities and supports human resources and fiscal policies. The *SUP* identifies strategic objectives, expected outcomes and performance measures relative to each of its five major goals. Those goals, objectives, expected outcomes and performance measures are reflected in the initiatives outlined in this Comprehensive Institutional Plan.

Within the context of ongoing discussions with Alberta Innovation and Advanced Education, developing the Comprehensive Institutional Plan is a component part of a multi-year planning process in which assessment of activities carried out in past years informs planning and resource allocations for subsequent years. Unit and divisional annual reporting deadlines, in the May to July period, coincide with deliberations on the key outcomes to be included in the university's Annual Report. In the early fall, deans and vice-presidents identify priority actions and initiatives for the following year, based largely on this same reported data. These decisions, in turn, inform budget and divisional business planning documents, which are prepared in late October. Consultations with undergraduate and graduate students associations are also carried out in the fall. Each member of the AU executive then consolidates the initiatives from divisional and cross-divisional plans and contributes to an environmental scan. Collation of the materials follows in December, and, after consultation with various groups and the appropriate committees, a draft Comprehensive Institutional Plan is submitted for Board approval in March, after which it is to submitted to Alberta Innovation and Advanced Education.

During the past year, creation of Letters of Expectation (solicited in March and finalized in November 2013) and ongoing Campus Alberta consultations in response to Government of Alberta results-based budgeting initiatives contributed additional dimensions to the established planning cycle. Campus Alberta partners have held discussions on outcomes and indicators, the *Post-secondary Learning Act*, a system funding model, student financial aid and the Alberta Tuition Fee Policy.

AU's declaration of financial stringency for the 2013-14 fiscal year precipitated staff reductions and business unit assessments. The ongoing process of curriculum mapping and alignment has promoted both quality assurance and curriculum renewal and identified new opportunities and potential cost savings. Restructuring in a number of administrative and academic units will continue through 2015-16, with investments directed toward business process improvements and ameliorating pressures associated with enrolment increases.

Internal Consultations

Through its formal governance and committee structures, AU consults regularly with its internal stakeholders on development of the Comprehensive Institutional Plan. The related process of developing the draft Letter of Expectation included open forums, online feedback and meetings with faculty, administrative staff and undergraduate and graduate students associations.

Once prepared, the draft CIP goes through several rounds of review by the Executive Group and senior management. A revised draft is then reviewed by the Academic Planning and Policy Committee of the General Faculties Council, the General Faculties Council, the Board Finance and Property Committee, the Board Academic Affairs Committee and the Board Executive Committee, before being submitted for full Board approval.

External Consultations

AU continues to consult with a wide range of community, business, government and indigenous organizations in the Athabasca, Edmonton and Calgary areas and in northern, rural and remote regions of Alberta.

Ongoing work with a wide variety of stakeholders, including federal, provincial and municipal government departments and agencies, non-governmental organizations, national and international educational and research bodies, board members from K-12 school jurisdictions and school administrators, private companies, professional associations, government-funded and private funding agencies and foundations, and individual donors provided needed information and context that influenced this plan. In particular, extensive discussions with the National Research Council, various Alberta Innovates corporations, local businesses and industries, education providers in the K-12 sector, large companies and small and medium-sized enterprises have helped to indentify innovation opportunities. AU's involvement, as a leading contributor, in national and international dialogues on copyright in the digital environment has also been informative.

External reviewers, members of relevant professional bodies and potential employers are regular contributors to the continuing cycle of program review and assessment. AU staff members also work with corporate and public employers to identify custom training needs and opportunities for student support. Businesses, public agencies and other post-secondary institutions are consulted as a matter of course when new programs are being developed. In developing key elements of the CIP, members of Campus Alberta, eCampusAlberta and other post-secondary institutions were consulted on a range of matters including prospective shared facility arrangements, academic collaboration and credit transfer, joint research initiatives and collaboration on special projects.

ENVIRONMENTAL CONTEXT

With its cost-effective, flexible delivery methods and specific focus on adult learners, AU is well positioned to help Albertans respond to the North America-wide challenges of changing demographics and shrinking public investments. The global economy is undergoing profound changes, as evidenced by altered capital flows, increased worker mobility, the emergence of new economies and the decline of long established ones. These changes provide opportunities for knowledge workers comfortable with advanced technology, but they also bring a high level of uncertainty. Increasing labour competition and the need to re-skill for the digital economy and adapt to workforce mobility, for example, affect both post-secondary institutions and the students they serve, prompting the quest for innovations that will enhance services to existing markets and provide access new ones. Responding to the needs of traditionally underserved populations, in particular, will require dramatically different approaches than those that are offered by conventional, youth-oriented, campus-based post-secondary institutions.

Shifting Demographics

Economist David Foot once claimed that "demographics explain about two-thirds of everything."[4] He also suggested that a feature of successful economies in countries with an older demographic included developing "a highly skilled, technology-based workforce" to enhance the productivity of workers supporting a greater proportion of retirees.[5] More recently, Hans Rosling has deployed animated data visualizations of global population trends to challenge myths about the developing world and to underscore convergences.[6] The rapid global population growth of the second half of the twentieth century is tapering off, and across most of the industrialized world, populations are aging.[7] The median age of G-10 countries ranges from 37.2 to 45.8, while that of countries with the fastest growing economies tends to be lower: Asian, 37.2; Central and South American, 26.7; African, 19 (See Table 1).[8] Economies dependent on population growth are increasingly turning to immigration to meet some of their labour market needs, and post-secondary institutions are recognized for their role in attracting and nurturing talented students from around the globe and encouraging them to remain in host countries. Recently announced federal initiatives underscore the importance of universities in Canada's immigration strategy.[9] AU is already engaged in cross-border delivery of its programs and courses and is continuing to develop relationships in regions where the demand for post-secondary education is growing.

Although Alberta's population is relatively young (median age 36.1) compared to that of other parts of Canada, births accounted for only 26 per cent of 2012-13 provincial population growth (an additional 115,843 people).[10] Immigration and interprovincial migration are expected to continue to add significantly to Alberta's population in the coming decade, and most of this growth is being experienced in urban areas: almost three quarters of the province's 4.7 million residents now live in either the Calgary or Edmonton regions. Population trends in the traditional post-secondary institution attending age group (18 to 34-year-olds) are influenced by both the aging of the millennial cohort (those born between 1980 and 2000, who now

[4] David Foot with Daniel Stoffman. *Boom, Bust and Echo: How to Profit from the Coming Demographic Shift* (Toronto: Macfarlane Walter and Ross, 1996), 2.

[5] Ibid, 208.

[6] *Don't Panic – the Truth About Population*, DVD, directed by Dan Hillman, (Wingspan Productions for BBC, 2013).

[7] United Nations Department of Economic and Social Affairs, Population Division, *Key Findings*, http://www.un.org/esa/ population/publications/longrange/longrangeKeyFind.pdf.

[8] Central Intelligence Agency, *The World Factbook*, "Median Age" (2013): https://www.cia.gov/library/publications/the-world-factbook/fields/2177.html, and The World Bank, *World Development Indicators: Size of the Economy*, http://wdi.worldbank.org/table/1.1#.

[9] Foreign Affairs, Trade and Development Canada, "Harper Government Launches Comprehensive International Education Strategy," (press release) (January 15, 2014). http://www.international.gc.ca/media/comm/news-communiques/2014/01/15a.aspx?lang=eng.

[10] Alberta Innovation and Advanced Education, *Campus Alberta Planning Resource* (2013), 2. http://eae.alberta.ca/post-secondary/policy/capr.aspx.

Table 1: Median Age (2013 est.) and 2012 GDP Growth[11]

G10	Median Age	2012 Growth in GDP (%)
Belgium	42.8	-0.1
Canada	41.5	1.7
France	40.6	-0.0
Germany	45.7	0.7
Italy	44.2	-2.5
Japan	45.8	1.9
Netherlands	41.8	-1.7
Sweden	42.4	1.0
Switzerland	41.8	1.0
United Kingdom	40.3	0.1
United States	37.2	2.8

Regional Growth Leaders	Median Age	2012 Growth in GDP (%)
Asia		
Macau, SAR	37.2	9.9
China	36.3	7.8
Africa		
Sierra Leone	19	15.2
Niger	15	10.8
Central/South America		
Panama	28	10.7
Peru	26.7	6.3

represent more than a third of the Canadian labour force)[12] and the attractiveness of a strong economy. Northern Alberta's young aboriginal population and the concentration of resource extraction activities there suggest that some of the highest rates of provincial population over the next decade will be in the north. These demographic trends will exert pressures on post-secondary institutions as international competition increases for places in highly selective urban institutions, and capacity surpluses increase in other areas.[13]

Uniquely situated as a non-urban university focused on promoting access and success for adult learners, AU is more closely aligned with demographic trends affecting labour market developments than with those associated with the expected cohorts of high-performing high school graduates. AU's flexible online learning model allows people to expand their knowledge without having to leave their home communities or jobs. Access to higher education has been shown to exert an inter-generational impact[14]; thus, a delivery model which is more inclusive of adult learners can be expected to increase participation in the next generation. This same flexibility allows AU to offer degree completion options in partnership with other institutions.

With rolling, open admission making its undergraduate curriculum fully available to students needing to take individual courses to meet program requirements at their home institution, AU effectively relieves critical capacity issues in the Alberta system. Such capacity issues are likely to intensify as participation rates in higher education increase while public investments decline.

Skills for the Twenty-first Century

The literacy, personal management and teamwork skills needed for a productive twenty-first century workforce respond to broad demographic, technological and economic shifts. The number of jobs requiring

[11] Central Intelligence Agency, The World Factbook, "Median Age" (2013): https://www.cia.gov/library/publications/the-world-factbook/fields/2177.html, and The World Bank, *World Development Indicators: Size of the Economy*, http://wdi.worldbank.org/table/1.1#.

[12] Statistics Canada, "Labour Force Survey Estimates (LFS), by Sex and Detailed Age Group" (January 9, 2014). http://www5.statcan.gc.ca/cansim/a05?lang=eng&id=2820002.

[13] *Campus Alberta Planning Resource* (2013) projects a surplus capacity of 4,548 FLE's for 2021, 63.

[14] Ross Finnie and Richard E. Meuller, *The Effects of Family Income, Parental Education and Other Background Factors on Access to Post-Secondary Education in Canada"* (Kingston: Educational Policy Institute, 2008). http://www.yorku.ca/pathways/ literature/Access/MESA_Finnie_Mueller.pdf.

advanced education continues to grow while the number of traditional labour and manufacturing jobs declines. Even those traditional jobs that do remain now frequently require higher levels of education.[15]

The emergence of a post-industrial, knowledge-based economy is evidenced in the increasing proportion of the nation's Gross Domestic Product that is generated by service-providing industries and the corresponding decreasing contribution of goods-producing sectors, especially manufacturing.[16] The information and communication technology sector produced 4.9 per cent of Canada's GDP ($62.7 billion) in 2011, more than double the combined contributions of the agriculture, forestry and fishing sectors (24.7 billion).[17] Between 2001 and 2011, the ICT sector experienced average annual growth of 3.8 per cent compared with 1.9 per cent growth in the overall economy.[18]

The skills needed to succeed in decentralized, distributed and networked work environments go beyond mastering coding and keystrokes. The ability to find, evaluate, use, share and create materials using information technology and the Internet are increasingly taken to be foundational skills.[19] In an era of vast amounts of data, the ability to see patterns and make connections between different disciplinary domains is increasingly important. Awareness of interdisciplinary connections, however, must be rooted in sufficient disciplinary knowledge to equip workers to synthesize and filter meanings. Similarly, cross-cultural communication skills presuppose awareness of cultural norms and behavioural expectations. Expectations of educational attainment have increased, and approaches to content and delivery have become more complex. Education must today meet the challenge of changing student profiles,[20] of re-skilling entire workforces transitioning to knowledge work, and of equipping regional and provincial economies to compete globally.

Questions have been raised about how well the post-secondary system is preparing students to enter and succeed in the post-industrial economy, but headlines about the wide-ranging skills mismatch in Canada are demonstrably overstated.[21] Although there is no doubt that rapid growth in the resource extraction sector in Alberta drives shortages of some specific labour skills, youth unemployment levels and the disappointing economic outcomes of many immigrants should engender skepticism of any claims of general skills shortages.[22] Expectations that public post-secondary institutions should be training students to be plug-and-play technicians to meet short-term labour gaps are clearly misplaced when rapid economic and technological change

10 Jobs that Did Not Exist 10 Years Ago

Social Media/Online Community Manager
Elder-Care Services Co-ordinator
Tele-work Manager Co-ordinator
Sustainability Manager
Education Consultant
Search Engine Optimization Specialist
Medical Biller/Co-ordinator
Online Advertising Manager
Talent Management Co-ordinator
User Experience Manager

[15] McKinsey and Company and the Conference Board, *False Summit*: *The State of Human Capital 2012, Why the Human Capital Function Still Has Far to Go* (New York: The Conference Board, 2012). www.mckinsey.com/~/media/McKinsey/ dotcom/client _service/Organization/PDFs/State_of_human_capital_2012.ashx.

[16] Industry Canada, "Gross Domestic Product: Canadian Economy," *Canadian Industry Statistics*, (December 18, 2013). https://www.ic.gc.ca/app/scr/sbms/sbb/cis/gdp.html?code=11-91&lang=eng#vla2b.

[17] Industry Canada, *Canadian Industry Statistics* (May 2, 2013). https://www.ic.gc.ca/eic/site/cis-sic.nsf/eng/home.

[18] Industry Canada, "Information and Communication Technologies" (July 4, 2012). http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h_it05864.html.

[19] Alberta Education, *Competencies for 21st Century Learning*, http://education.alberta.ca/teachers/aisi/themes/21-century.aspx; North Central Regional Educational Laboratory and the Metiri Group, *Twenty-first Century Skills: Literacy in the Digital Age* (2003), http://pict.sdsu.edu/engauge21st.pdf.

[20] David J. Staley and Dennis A. Trinkle, "The Changing Landscape of Higher Education," *Educause Review Online* (February 7, 2011). http://www.educause.edu/ero/article/changing-landscape-higher-education.

[21] Derek Burleton, Sonya Gulati, Connor McDonald and Sonny Scarfone, *Jobs in Canada: Where, What and for Whom?* (Toronto: TD Economics, 2013). http://www.td.com/document/PDF/economics/special/JobsInCanada.pdf.

[22] Kevin McQuillan, "All the Workers We Need: Debunking Canada's Labour-Shortage Fallacy" (SPP Research Papers 6, May 2013), 16. http://policyschool.ucalgary.ca/sites/default/files/research/mcquillan-labour-shortages-final.pdf.

guarantee that many viable job categories for graduates have yet to be created. Of the 10 jobs that did not exist a decade ago (left), all but one require at least a bachelor's degree, and for two, a master's degree is preferred.[23]

A recent Environics poll of Canadian business leaders, commissioned by the Canadian Education and Research Institute for Counselling, revealed that two issues presenting the greatest challenges are the general state of the economy and the shortage of skilled workers.[24] The employers surveyed were split on how to address the skills gap, with equal numbers suggesting that applicants need to be better prepared and that businesses need to provide more employee training.[25] At the same time, there is little evidence of employers actually investing in skills development: direct learning expenditures have declined from a peak of $1,116 per employee in 1993 to $688 in 2010.[26] If Canada is going to achieve the productivity gains that its public investments in post-secondary education warrant, the firms that are the key benefactors of a knowledgeable workforce should also be investing in talent development. Achieving this balance will become a challenge if educational programs are delivered in ways that compete with rather than complement the labour market. Alberta Innovation and Advanced Education recognizes this challenge, noting that there may be "incompatible trends" between labour market demands and learner behaviours and that if "the labour market continues to draw more working-age Albertans, employers and industry may be forced to play a greater role in contributing to the training and skill development of the workforce."[27]

AU's success in providing relevant curriculum within an open learning environment includes expanding the information literacy and digital management skills of its students, and there is no delay in mobilizing that knowledge and skill as the vast majority of AU students are already active in the workforce. In other words, they are proven employees enhancing their own capacity for productivity while maintaining their ongoing contributions to their employer and the provincial economy. Most of these students work full-time while completing their AU program and can benefit from employer support (e.g., financial support, access to technology, flexible work hours).

Workforce Mobility

Another disincentive for firms to invest in workforce development is the belief that employees will seek employment elsewhere once they have secured additional skills or credentials. A long-term (or even medium-term) view recognizes that contributing to overall productivity benefits all firms as developing and managing talent will become increasingly complex in the coming decades. It is ironic that firms which value the flexibility to quickly downsize or redirect staff complements should simultaneously bemoan a perceived erosion of employee loyalty.

A 2011 international survey of millennial workers found that 54 per cent expected to have two to five employers in their lifetime, and over a quarter expected to have six or more.[28] Only one in five indicated they would like to stay in the same field and progress with one employer over the course of their career. The survey also revealed that a firm's attitude toward corporate social responsibility would be a factor in attracting (and turning away) half of the respondents. A willingness to be flexible in accommodating work-life balance was also a clear priority.

[23] "10 Jobs that Didn't Exist 10 Years Ago," *Kiplinger* (2014). http://www.kiplinger.com/slideshow/business/T012-S001-10-jobs-that-didn-t-exist-ten-years-ago/.

[24] Environics Research Group, *Career Development in the Canadian Workplace: National Business Survey* (2014). http://ceric. ca/files/environics/Environics%20-%20CERIC%20Canadian%20Business%20Survey%20-%20Updated%20report%20-%20Dec .%2020.pdf.

[25] Ibid.

[26] Carrie Lavis, *Learning and Development Outlook 2011: Are Organizations Ready for Learning 2.0* (The Conference Board of Canada, October 2011).

[27] *Campus Alberta Planning Resource* (2013), 23.

[28] PwC Canada, *Millennials at Work: Reshaping the Workplace* (2011). http://www.pwc.com/en_M1/m1/services/consulting/ documents/millennials-at-work.pdf.

Labour force mobility affects not only companies but also countries. In 2012, 19.2 per cent of working-age Albertans were immigrants.[29] With more than two-thirds of the province's projected population growth coming from immigration and interprovincial migration, both corporate and public initiatives for talent acquisition and development must stretch beyond the Alberta's borders. AU's program delivery method offers the advantage of forging connections with learners (and prospective workers) before they arrive in the province. Through its portable, internationally recognized programs and services, AU can ease transitions for those relocating to the province and add to Alberta's attractiveness as a destination.

The university research process is also being transformed by information technology. Fluid interactions in globally networked project teams are increasingly common.[30] Scholarship is also increasingly digital as growing numbers of academics publish in open online journals and participate in social media networks.[31] Research is increasingly tied to innovation and commercialization. In 2012, the Government of Canada signaled a shift to commercially viable research and marketable innovations in its funding allocations.[32] Given its connections to a widely distributed student body and decades of experience in directing research from multiple sites, AU has considerable advantages with respect to these trends. Scholars who are already working in a distributed learning environment can easily adapt to fluid research arrangements with colleagues across the country and around the world. AU provides niche opportunities for seamless knowledge translation and for integrating leading-edge research into its programs and services.

Innovation in Higher Education

> *...the strength of every university is a pattern of innovation that is continuous and focused on the university's unique mission—without undue concern for either tradition or what other institutions are doing.*[33]

In recent years, online education has been depicted as a vastly disruptive innovation in higher education. The common ingredients of a conventional campus, a community of scholars and even courses, are being challenged[34] as rising costs and competition contribute to pressures to unbundle traditional institutions. Post-secondary systems need to find ways to escape the expensive impulses of their constituent members to move up in terms of institutional categories (from college to baccalaureate to medical/doctoral) and institutional rankings (*Maclean's, Times,* Shanghai, etc.). Textbook publishers are now making the case that state supported monopolies on providing and credentialing higher learning should be abandoned.[35] The thinly disguised lobby by for-profit institutions, coupled with the enthusiasms of venture capitalists, are contributing over-heated rhetoric focused on disruptive rather than sustaining innovations.

Massive Open Online Courses exemplify the types of opportunities and risks associated with rapid innovation in higher education. After The *New York Times* declared 2012 the "year of the MOOC,"[36] an innovation that had begun as teacher-led initiative to share disciplinary concepts with a wider audience became vastly

[29] *Campus Alberta Planning Resource* (2013), 6.

[30] Michael Nielsen, "The Future of Science: Building a Better Collective Memory" (blog) (July 17, 2008). http://michael nielsen.org / blog/the-future-of-science-2/.

[31] Martin Weller, *The Digital Scholar: How Technology Is Transforming Scholarly Practice* (London: Bloomsbury Academic, 2011). http://www.bloomsburyacademic.com/view/DigitalScholar_9781849666275/book-ba-9781849666275.xml.

[32] Government of Canada, "Chapter 3.1: Supporting Entrepreneurs, Innovators and World-Class Research," Budget 2012. http://www.budget.gc.ca/2012/plan/chap3-1-eng.html.

[33] Clayton Christensen and Henry J. Eyering, *The Innovative University: Changing the DNA of Higher Education* (San Francisco: Jossey-Bass Higher and Adult Education, 2011).

[34] Randy Bass, "Disrupting Ourselves: The Problem of Learning in Higher Education," *Educause Review* (March/April 2012). https:// net.educause.edu/ir/library/pdf/ERM1221.pdf.

[35] Michael Barber, *An Avalanche is Coming: Higher Education and the Revolution Ahead* (Institute for Public Policy Research, 2013). http://www.ippr.org/images/media/files/publication/2013/04/avalanche-is-coming_Mar2013_10432.pdf.

[36] Laura Pappano, "The Year of the MOOC," *The New York Times* (November 2, 2012). http://www.nytimes.com/2012/11/04/education/edlife/massive-open-online-courses-are-multiplying-at-a-rapid-pace.html?_r=0.

over-hyped. Some MOOC initiatives such as Coursera were expected to generate revenue but needed to be recapitalized.[37] Others, such as MIT and Harvard's edX are more research focused and rely on backing from textbook publishers. A number of other universities worldwide have initiated regional and national alternatives (such as Future Learn in the United Kingdom), but faced with steep development costs and the need for ongoing technical and instructional support in the absence of student fees, all face critical questions with regard to sustainability.

Though the impulse to extend access to educational materials through MOOCs and open educational resources is laudable from a social policy perspective, it is only because of substantial financial support from foundations or sponsoring institutions that access fees can be waived. The benefits derived from early free-access online initiatives does not mean that those initiatives were without costs. Among the second wave of entrants, outsourced content and poor interfaces that are not nested in student support systems have resulted in highly variable quality, which quickly undercuts any planned reputational *freemium* anticipated by the sponsoring institution. The failure to provide effective support systems had predictable consequences. Udacity's founder Sebastian Thrun, for example, has admitted that low completion rates showed that his approach to democratizing education had produced a "lousy product."[38] Udacity's drive for fast solutions tended toward a present and drill delivery model more aligned with corporate training than higher education.[39]

Researchers are now questioning the degree to which MOOCs can help prepare learners to solve, innovate and create. Such questions are common from those unfamiliar with online education, even though it has been repeatedly demonstrated to be an effective learning method. Many studies have concluded that the experience of online learning is comparable to that of classroom learning.[40] Unfortunately, because the over-hyped MOOCs did not charge tuition fees, did not offer support services and did not follow coherent program logic, they have reinforced the idea that distance learning should be vastly less expensive to deliver than campus-based instruction.

In terms of providing access to post-secondary education, MOOCs clearly are not the panacea that some early proponents had hoped for, but they have underscored the multitude of interests that can be accommodated through flexible delivery. The critical question is how to foster quality educational interactions on a large scale. Sustainable innovation may still be achieved incrementally through targeted initiatives, which include rigorous pilot tests similar to those being undertaken through the MOOC Research Initiative Grant Program being led and administered by AU on behalf of the Bill and Melinda Gates Foundation.[41]

Other innovations detailed in last year's Comprehensive Institutional Plan are on a different trajectory. Open educational resources and a number of notable open textbook initiatives[42] are providing students with relief from the rapidly rising costs of textbooks, but these initiatives are also challenged to find sustainable business models. University presses face a similar dilemma as production and distribution costs continue to sky-rocket. Commercial textbook publishers are also issuing some textbooks in digital editions, which provide some cost reductions and a lower environmental footprint. With enhanced search, annotation and citation functions, e-textbooks also offer the promise of research into study-use patterns, thereby allowing

[37] Lauren Hepler, "Coursera Lands $20 Million in New Funding, Despite Online Education Turmoil," *Silicon Valley Business Journal* (November 22, 2013), http://www.bizjournals.com/sanjose/news/2013/11/22/coursera-lands-20-million-in-new.html ?page=all.

[38] Max Chafkin, "Udacity's Sebastian Thrun, Godfather of Free Online Education, Changes Course," *Fast Company* (November 14, 2013). http://www.fastcompany.com/3021473/udacity-sebastian-thrun-uphill-climb.

[39] George Siemens, "The Failure of Udacity," *Elearnspace* (November 15, 2013). http://www.elearnspace.org/blog/2013/11/15/ the-failure-of-udacity/.

[40] Barbara Means et. al., *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies* (Washington, DC: U.S. Department of Education, 2010). http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf.

[41] "AU Partners with Bill and Melinda Gates Foundation to study MOOCs," *Athabasca University News and Events* (July 15, 2013). shttp://www.athabascau.ca/aboutau/news/au-partners-with-bill-and-melinda-gates-foundation-to-study-moocs/

[42] For Example, the BC Campus Open Textbook Project (http://bccampus.ca/open-textbook-project/), Boundless (https://www.boundless.com/textbooks/) and Flatworld Knowledge (http://catalog.flatworldknowledge.com/map).

improvements and customizations. Learning analytics, a rapidly developing research area with potential applications in both textbooks and learning management platforms, seeks to provide both educational institutions and students and with information that will help to improve student retention.[43]

The 2014 edition of the *NMC Horizon Report* identifies the routine use of social media as one trend that will push rapid change in higher education over the next two years.[44] Institutions and students have entered the social media sphere and are creating and sharing content at a phenomenal rate. Social media networks provide many learning opportunities but also pose hazards to personal information security and provide opportunities for cyberbullying. AU researchers have been exploring ways to provide sequestered spaces with social network tools specifically designed for members of the AU community. Other research projects which investments may be able to move into production environments involve e-laboratories and wider applications for e-portfolios.

AU has a proven track-record for educational innovation. Recent international collaborations, including becoming a founding member of OERu, have extended the university's scope. AU is home to a number of leading researchers in open educational resources, mobile learning, learning analytics and design-based pedagogy and is converting many of its largest undergraduate courses to e-textbooks. The commitment to innovation also includes exploring new ways to assist those not well served by traditional campus-based universities to reach their full potential.

Underserved Populations

Alberta's post-secondary participation rate is lower than that of any other Canadian province.[45] Increasing the rate of participation will necessarily include introduction or expansion of non-traditional entry pathways and attention to traditionally under-represented groups. Though nearly 60 per cent of Alberta high school students can be expected to transition to post-secondary institutions within six years of entering Grade 10, percentages for all but one of the northern service regions fall well below that mark (See Table 2).

Table 2: Post-Secondary Participation: Alberta Northern Regions[46]

Service Region	2010-11 Six-Year Transition	2011-12 Six-Year Transition
Grand Prairie	49.4%	51.3%
Keyano	50.2%	54.5%
Lakeland	65.6%	64.7%
Northern Lakes	44.4%	46.1%
Portage	57.2%	56.8%

In Canada, not living within commuting distance of a university is an established factor in preventing prospective students from attending.[47] This reality is confirmed in Alberta where less than 10 per cent of 2012 high school graduates attended a post-secondary institution outside their geographic service region.[48] Lack of community supports and additional travel and relocation expenses are certainly factors in disadvantaging youth from northern and other rural and remote communities. The relatively low standing

[43] UNESCO Institute for Information Technology in Education, *Learning Analytics* (Policy Brief, November 2012). http://iite.unesco.org/pics/publications/en/files/3214711.pdf.

[44] L. Johnson, S. Adams Becker, V. Estrada and A Freeman, *NMC Horizon Report: 2014 Higher Education Edition* (Austin, TX: The New Media Consortium, 2014). http://www.nmc.org/pdf/2014-nmc-horizon-report-he-EN.pdf.

[45] Employment and Social Development Canada, *Learning - University Participation* (February 21, 2014). http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=56.

[46] *Campus Alberta Planning Resource* (2013), 45.

[47] Marc Frenette (2002), "Too Far To Go On? Distance to School and University Participation" (Ottawa: Statistics Canada, 2002) http://www.publications.gc.ca/Collection/Statcan/11F0019MIE/11F0019MIE2002191.pdf.

[48] *Campus Alberta Planning Resource* (2013), 45.

of students from northern school districts on provincial diploma exams[49] and achievement tests[50] may also be a contributing factor.

It has become standard practice to include women in the ranks of those traditionally underserved by post-secondary education, but with a higher proportion of women than men (59 to 41 per cent respectively) enrolled at Alberta's Comprehensive Academic and Research Institutions, such a blanket designation may no longer be appropriate. However, it should be noted that, in Alberta, average earnings for women remain far below those of men of comparable (or lower) educational achievement (See Figure 1).

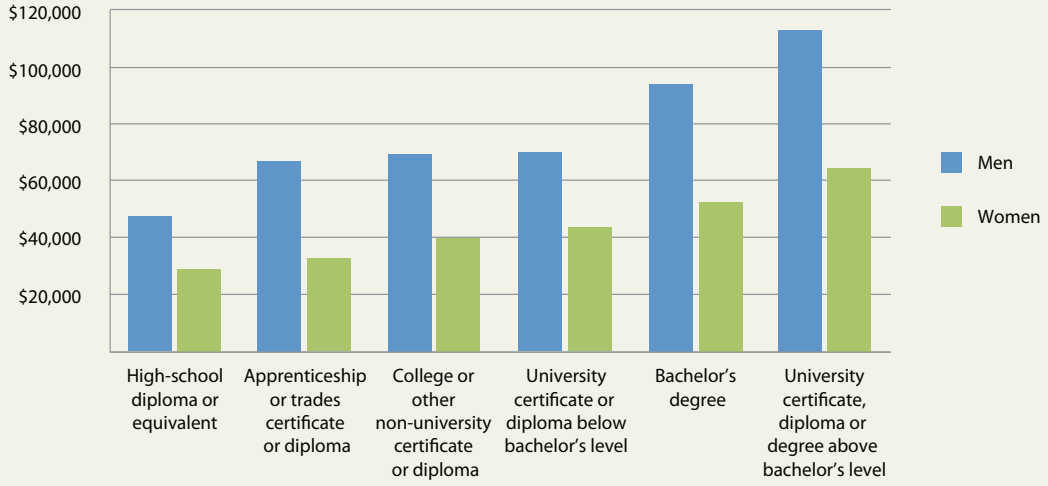

Figure 1: Earnings of Alberta Men and Women by Education Level[51]

Other populations face more direct barriers to attending university and participating in the labour market. Although the proportion of aboriginal Albertans with post-secondary education increased between 2001 and 2006, at 34.3 per cent it is still markedly lower than that of the non-aboriginal population (51.2 per cent). Through collaborative initiatives specifically focused on rural, northern and aboriginal communities, AU strives to increase access for members of these groups (Details are presented in later sections of this planning document).

Similarly, although participation by persons with disabilities has been increasing, members of this group still face significant barriers. Over the past five years, AU has consistently provided educational opportunities for more than a third of students with disabilities enrolled at Alberta's CARI institutions (See Figure 2). Meeting accessibility standards through online delivery has been an area of special interest and research at AU. Other Campus Alberta institutions may be able to benefit from this acquired expertise.

[49] Peter Cowley and Stephen Easton, *Report Card on Alberta's High Schools 2013* (Calgary: The Fraser Institute, 2013). http://alberta.compareschoolrankings.org/pdfs/Fraser_Institute_Report_Card_on_Alberta's_High_Schools_2013.pdf.

[50] David Johnson.C.D., "Alberta's Best Schools - 2013" (C.D. Howe Institute, August 21, 2013). http://www. cdhowe.org/ albertas-best-schools-2013/22531.

[51] Statistics Canada, *2011 Household Survey*. http://www12.statcan.gc.ca/global/URLRedirect. cfm?lang=E&ips=99-014-X2011036.

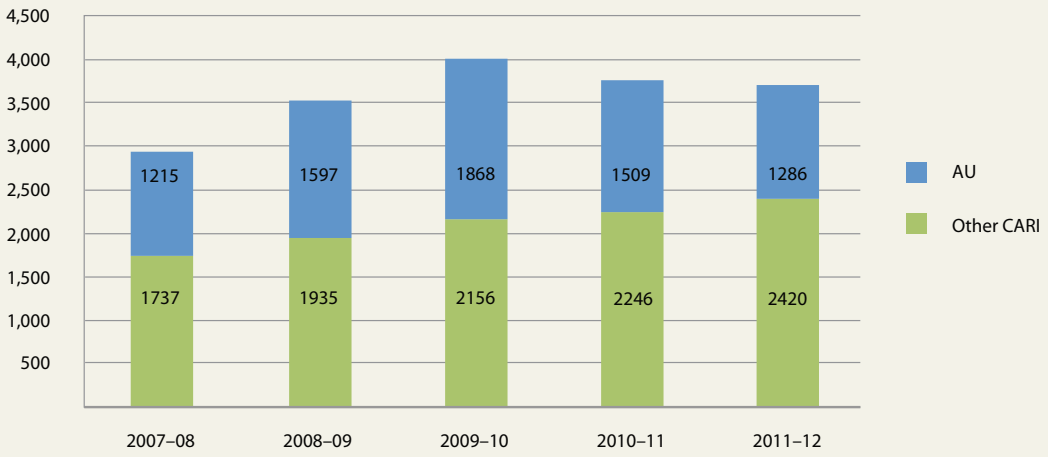

Figure 2: Enrolment at CARI Institutions by Students with Disabilities[52]

AU also has a longstanding commitment to reducing barriers to access and success for adult learners, particularly those prevented by work, family or community responsibilities from participating in on-site programs at residential universities. Other institutions facing declining cohorts of high school graduates may, in the coming years, be forced to consider how they might also contribute to a more inclusive post-secondary system.

AU's Response to Trends

As noted in each subsection above, AU is tracking and responding to prevailing trends in post-secondary education, particularly those which implicate online and distance learning.

In response to global demographic shifts, AU is already engaged in cross-border delivery of its programs and is developing relationships in regions where there is growing demand for post-secondary education.

Its flexible online delivery system also allows AU to respond to critical capacity issues within Alberta. AU's curriculum and delivery methods are particularly well adapted to nurturing and perfecting identified twenty-first century skill sets. Most importantly, students do not have to leave the paid workforce to attend AU, a fact which supports both increased access and the seamless transfer of knowledge and skills to their firms.

AU's large distributed workforce and flexible online learning methods also place it at the forefront of the transition to workforce mobility. With innovation at its core, AU has been monitoring, and in a number of cases leading, initiatives to broaden access and increase retention through open courses, e-textbooks, learning analytics and other initiatives.

Many of AU's innovative approaches to post-secondary learning have been instrumental in permitting it to develop systems to better support those who have been traditionally underserved in higher education, thereby contributing to the realization of the university's mission and vision.

[52] *Campus Alberta Planning Resource* (2013), 95.

GOALS, PRIORITY INITIATIVES, PERFORMANCE MEASURES AND TARGETS

The five goals of AU's *Strategic University Plan: 2011-16* underlie the priorities for the three-year planning period covered by this Comprehensive University Plan (2014-17):

Goal 1 to be the leader in quality open and distance education
Goal 2 to ensure sustainability and foster adaptability
Goal 3 to recruit and retain excellent people
Goal 4 to promote excellence in research
Goal 5 to build communities

AU seeks to leverage its knowledge reserves, research capacity and technological resources to provide the highest quality university-level education to students from all regions and backgrounds. It promotes access to scholarly information through AU Press and supports students with tools and skill development opportunities that are critical to success in the digital age. As a partner in Campus Alberta, AU facilitates seamless transitions through a variety of learner pathways. It works continually to enhance the effectiveness of its Open Learning Environment and the responsiveness of its programming. Investments in the Open Learning Environment benefit other members of Campus Alberta as the services provided can be scaled to address needs at other institutions.

The priority initiatives for the next three years are presented in three sections: "Quality and Access," "Research and Innovation" and "Community Engagement." Each of these sections will begin by contextualizing its subject in terms of government planning priorities and then provide a synopsis of relevant opportunities and challenges, expected outcomes, priority actions and necessary resources. A fourth section will provide a summary of performance measures and targets through which progress will be assessed. These same measures and targets will be addressed in Annual Report for the Year Ended March 31, 2015.

Quality and Access

The Enterprise and Advanced Education Business Plan 2013-16 established six priority initiatives to support the goal that Albertans become engaged in lifelong learning: to engage learners under-represented in the advanced learning system, to enhance learner pathways, to position Campus Alberta for success, to develop strategies to address essential skills gaps, to enhance the advanced learning system environment and to create a seamless learning system by aligning and co-ordinating education, training and learner support policies and programs.[53] AU supports this strategic direction through its open access mandate and its high-quality programs and services.

Challenges and Opportunities

Restricted access, often maintained through strict entrance requirements and high tuition fees, has commonly been accepted as a sign of quality in the higher education system. Distance and online courses continue to be vaguely suspect in many quarters. The recent development of online courses by institutions such as Harvard, MIT and Stanford has done little to change the mind of critics. This year, the Babson Survey Research Group reported that the percentage of academic leaders who believe that learning outcomes in online courses are inferior to those of face-to-face courses had increased for the first time.[54] The same report estimated that one in three higher education students takes at least one online course. However, the evident potential for growth in the online sector is only valuable if those delivering online courses and programs are vigilant about the quality of the instruction and support provided to students.

[53] http://eae.alberta.ca/media/349388/eae2013-16.pdf.

[54] I. Elaine Allen and Jeff Seaman, *Grade Change: Tracking Online Education in the United States* (Oakland, CA: Babson Survey Research Group and Quahog Research Group, LLC, 2014). http://www.onlinelearningsurvey.com/reports/grade change.pdf.

Finding a sustainable model for the post-secondary system is a challenge when individual institutions are competing for students and resources, and particularly when they are faced by structural disincentives to collaborate. As clearly demonstrated in the MOOC experiments, access to content is only one part of successful online delivery. Effective supports, including the logical sequencing of concepts and skill development components of courses and programs, are also necessary.

Maintaining flexible learner pathways is a key strategy for supporting lifelong learning in Alberta. Students registered at other Alberta post-secondary institutions make extensive use of AU's courses and educational services to help them complete their degrees. AU also has an established record of cultivating and maintaining articulation agreements with Alberta colleges (and others across Canada), enabling workers who hold college certificates or diplomas to complete undergraduate degrees while they continue to work. Many other students who were unable to complete college or university programs before entering the workforce also request that AU review their credentials for possible credit. AU's Transfer Credit Services office reviews about 300 transcripts per week. In addition, a growing number of applicants who hold professional designations or have substantial managerial or leadership experience seek to have these evaluated through prior learning assessment and recognition (PLAR).

Because learners use a variety of approaches to enhancing their credentials, AU has structured its programs so that students who enrol in a certificate or diploma program to increase their expertise or qualifications in a certain area can then move easily from that program to a related degree program. This flexibility allows learners to customize their learning according to their needs, but it brings high, up-front, new program development costs which have to be born by the university with relatively little direct investment from the province.

One critical cost driver for AU has been the rapid increase in textbook costs. To shield students from these pressures and to provide a more integrated online experience, the university has entered into agreements with four major publishing houses to provide students with links to e-textbooks from within their AU courses. Special considerations, including the option of downloading materials to mobile devises, have been included in these agreements to accommodate requirements identified by the student members on the project advisory group.

Last year's significant cuts in provincial grant funding resulted in AU declaring financial stringency. Institutional restructuring is ongoing, but progress toward remedying the imbalances created by low levels of public investment in AU has been limited. Fulfillment of the expected outcomes articulated in the 2013 Letter of Expectation between the ministry and AU are wholly contingent upon government funding in support of AU's role and mandate.

Letter of Expectation Outcomes to Promote Quality

AU will continue to contribute to Campus Alberta aims to

- encourage Albertans to be global citizens
- promote socially responsible values and attitudes
- produce a skilled, productive and creative workforce
- promote an entrepreneurial spirit that encourages learners to take risks, to make bold decisions and to explore ideas that challenge the status quo
- demonstrate innovation that supports learner outcomes
- provide learners with an affordable, high-quality advanced learning system that recognizes individual circumstances and rewards excellence

In partnerships with other CARI institutions, AU will

- produce highly-qualified citizens, employees and leaders for all sectors of Alberta society (certificate and diploma recipients, bachelor's, master's and doctoral degree holders, and post-doctoral fellows)
- ensure top quality academic programs through rigorous quality assurance processes anchored in the peer-review process
- enrich undergraduate programs by providing a vibrant and dynamic research environment, ensuring that curricula and student learning are enhanced by leading-edge scholarship
- mentor and train graduate students and post-doctoral fellows to become progressive and adaptable knowledge workers, leaders and entrepreneurial innovators ready to contribute to a globalized, knowledge-based society

In close alignment with its strategic goal of leading quality open and distance learning, AU will

- prepare highly qualified graduates to participate fully in society and the economy as globally aware, ethical and critically reflective citizens
- champion innovations in higher education delivery including open online courses, partnerships for blended delivery, home laboratories and open educational resources
- partner with indigenous communities to deliver responsive academic programming and student support services
- provide a high-quality, interactive learning environment in support of individualized and cohort learning, with course design and instruction and assessment methods based on research and reflective of technological and pedagogical advances
- offer flexible, high-quality professional preparation and graduate programs to academically prepared learners, equipping them to adopt or expand leadership roles in their communities and in the global knowledge economy
- work with government and Campus Alberta partners to identify opportunities and strategies to leverage pedagogy and technology to enhance courses, programs and student support services of benefit to Albertans
- develop strategies to provide leadership in provincial e-learning and to co-ordinate investments for bundling e-learning platforms, supporting course development activities, sustaining training and development laboratories throughout the province
- play a leadership role in Campus Alberta initiatives to improve student access to digital resources at reduced cost through provincial and other initiatives for open journals, digitally enhanced textbooks and an e-book repository

Priority Actions to Promote Quality

In order to provide a superior, interactive and engaging student experience AU will continue to invest in enhancing its online learning environment. Having made significant progress in upgrading its learning management system, the university is building on its experience and research expertise to set the standard for technology enhanced learning and flexible delivery systems. Although there are a number of discrete initiatives the priority actions in strengthening the quality and responsiveness of undergraduate and graduate courses and programs can be grouped as follows:

- **Curriculum Renewal:** This initiative includes the systematic review of programs and individual course audits, examining opportunities for internationalization, integrating new design principles into the course and program revision cycle, extending curriculum mapping to review requirements for currency and coherence and reflecting student achievement through portfolio assessments, integrating open educational resources and archiving courses where appropriate.

- **Integration of Services to Promote Student Success:** Following from a review of the university's service structure, a wide-ranging realignment of resources to reduce duplication and address service gaps is underway. This work includes the process reviews and adjustments for broader implementation of a client relationship management system. A related project following from a review and reconfiguration of library services will include expanding portal resources and links to other support services.
- **Enhancement of the Open Learning Environment:** (See page 45) As elements on the critical path to improving the Open Learning Environment (e.g., DegreeWorks, Moodle 2.2 upgrade, exam harmonization, Gradebook) come to fruition, the next cycle of improvements including the strategic information for learning analytics are being examined. Most critically, the upgrade of the student information system will support better integration of both the client relationship management system and the learning management system and provide opportunities for greater mass personalization of institutional communication to promote student engagement (refined triggers for custom portal displays).
- **Development of E-utility Concepts and Share Service Options with Campus Alberta Partners:** AU's leadership in distance and e-learning research and applications can benefit other post-secondary institutions. Building from its significant contributions to the open source developments of the Moodle learning management system and its growing profile in learning analytics, AU will be extending cloud-based system access points. Joint business planning and system architecture explorations will be undertaken as funding allows.

Resources Needed to Promote Quality

AU is engaged in a broad-scale review and restructuring, based on sound pedagogical principles, of its academic and student support services. Efforts to reduce costs include re-aligning services, reducing the number of courses, increasing the number of online examinations and introducing e-textbooks where pedagogically feasible. Government investment is still needed to upgrade the online learning environment, but it is likely that the solutions developed by AU can be deployed in a shared service model with other Campus Alberta institutions. Support for developing scope and governance templates for shared service opportunities would benefit the system as a whole.

AU was the first Canadian university to be accredited in the United States, through Middle States Commission on Higher Education (one of six U.S. regional accreditation associations). The university will shortly be embarking on an institution-wide self-study as part of the required period review process for that accreditation. The university is also exploring options for collaborate reviews of its professional programs with specialized associations and agencies. These initiatives are in addition to the regular review and renewal processes undertaken by all CARI universities. An important aspect of renewing the curriculum is to refresh existing programs (Appendix A), through a continuing cycle of structured reviews (Appendix B) and to develop new offerings in response to the expansion of knowledge and the demands of the labour market (Appendix C).

AU is also exploring short courses and custom professional offerings to respond to access demands. As an open university, AU places a greater emphasis on access than does its CARI counterparts.

Letter of Expectation Outcomes to Promote Access

The Campus Alberta outcomes affecting access are to

- enhance learner access to advanced educational opportunities
- contribute to and promote lifelong learning in Alberta
- enhance the abilities of learners to move freely, both inside and outside Alberta, in their pursuit of advanced learning opportunities
- provide learners with an affordable, high-quality advanced learning system that recognizes individual circumstances and rewards excellence

As a Comprehensive Academic and Research Institution, AU supports access through efforts to

- provide the knowledgeable and highly-skilled workers vital to Alberta's continued growth and future well-being and sustain their excellence and encourage lifelong learning through a comprehensive range of continuing education and professional development programs and courses
- develop Campus Alberta partnerships, operational efficiencies and a credit transfer system to create an integrated, province-wide network of seamless learner pathways

AU's particular access-related efforts will be to

- provide university-level learning opportunities to prospective learners regardless of their location, age, gender, culture, income, disability and career or family obligations
- promote access to university programs and services to members of groups traditionally underserved by campus-based institutions, including First Nations, Métis and Inuit Peoples, recent immigrants, working adults and residents of northern, rural and remote communities
- in conjunction with the university's Centre for World Indigenous Knowledge and Research, develop and implement an Indigenous Education Plan
- work with public and private sector employers to secure support for adults accessing AU programs and services and assist employed students in the immediate application of acquired knowledge in their workplaces
- provide undergraduate degree completion opportunities and improve completion rates through credit co-ordination, credit transfer, prior learning assessment and recognition, and associated forms of learning accreditation
- work with school districts, high schools and other stakeholders to improve transitions from high school to post-secondary education
- add to system capacity by maintaining highly available, transferable courses that are core to degree completion for students at other Campus Alberta institutions
- seek opportunities to share facilities with other Campus Alberta institutions and participate in system co-ordination efforts to promote a high-quality, accessible, affordable and sustainable post-secondary system
- promote the inclusion of indigenous educational institutions and organizations in Campus Alberta collaborative initiatives

Priority Actions to Promote Access

Quality initiatives outlined above (curriculum renewal, integration of student services and enhancement of the online learning environment) link directly to improving learner access. Additionally, initiatives identified in AU's recently approved Strategic Enrolment Management Plan will take priority in the coming years. These include specific efforts to

- recruit a diverse student body
- strengthen market awareness of the quality of AU programs and courses, provincially, nationally, and internationally
- improve services to students at risk, including first-in-family learners, ESL students, those on financial assistance and those with disabilities
- improve access for First Nations, Métis, Inuit learners and residents of northern, rural and remote communities
- increase the number and value of student scholarships and bursaries
- expand collaborative activities with Campus Alberta and First Nations partner institutions
- build capacity in high demand programs to meet projected needs, including developing short courses and custom professional offerings

Resources Needed to Promote Access

Deficiencies in academic preparedness are common in members of underserved populations. Effective remedial measures often require continued support, which places an additional cost burden on the university. Although AU serves a significant proportion of Alberta's students with disabilities, in particular, the government has provided little direct support to these services. Expanding services for at-risk students is impossible without some recognition of the attendant costs. Similarly, costs associated with on-site delivery of courses at some Campus Alberta partner campuses are no-longer sustainable.

In the past, AU has been able to draw on its reserves to fund development of new programs, but it is no longer in a position to do so. Programs indentified for development priorities in 2013 were the Bachelor of Science in Architecture, the Doctorate in Health Development, the Master of Science in Environmental Science and the Post-Baccalaureate Diploma in Leadership and Management. Architecture programming has been developed with direct support from the Royal Architectural Institute of Canada as the program provides an alterative means of supporting working technicians to transition to a professional architectural designation. The proposed Doctorate in Health Development is designed to address a projected shortage of qualified faculty in nursing and health administration, and the graduate program in environmental science will strengthen a field essential to Alberta resource extraction industries. The demand for business programming remains high, particularly from AU's off-shore partners.

Even with the relatively modest growth projected in this planning cycle (See below), AU will reach the peak physical capacity designated to it in system planning documents. The scalable delivery models of most of the university's undergraduate programs have allowed it to meet the increased demand from Alberta students displaced by recent system contractions, but there are step costs which cannot be absorbed. Critical capacity issues also affect programs with practicum placements (e.g., nursing and counselling psychology), and without additional funding, admissions will have to be restricted. Increasing low-cost local competition and significant regulatory restrictions are giving rise to uncertainty in a number of markets.

Enrolment Plan

AU's new Strategic Enrolment Management Plan was developed through a series of focus group sessions and electronically facilitated discussions with frontline staff, faculty members, students and prospective students. Focused on the entire student life cycle, the plan includes a number of initiatives related to student recruitment, retention and engagement. Challenges arising from having a high proportion of open studies students are being studied.

In projecting enrolment by program band (See Table 3), AU is assuming a relatively stable operating environment, including no new regulations precluding delivery of courses and programs to students in other provinces and some means of addressing marketing pressures associated with having to charge an additional out-of-province levy to undergraduate students. Expansion of graduate programming is necessary to serve the needs of the digital economy and is projected as AU's increasing research profile attracts students from around the world.

A relatively small proportion of AU's students are deemed *international* in terms of the traditional definition of holding student visas. Some of those who are studying on visas are actually full-time students at other institutions and are infilling program requirements with AU courses. More foreign students apply to AU from outside of Canada and do not move here to complete their studies. Those studying from abroad traditionally make up between one and two per cent of the total student population. That percentage may increase to between three and five per cent by 2017 if planned agreements with institutions in China and the Middle East prove successful. As these potential increases are subject to circumstances beyond AU's control at the present time, they have not been included in the projections provided here. As the university has not yet received substantial grant funding in support of these initiatives, they may also face sustainability challenges.

Table 3: Projected AU Enrolment by Program Band

Program Band	2012-13 Actual	2013-14 Estimate	2014-15 Target	2015-16 Target	2016-17 Target
Business	1,108	1,127	1,156	1,178	1,193
Education	208	212	216	223	226
Health Sciences	980	997	998	998	998
Language, Social Sciences, Arts and Humanities*	5,619	5,715	5,824	5,928	5,992
Legal and Security	82	83	84	87	88
Physical, Natural and Applied Sciences	271	276	287	295	302
Total	**8,268**	**8,408**	**8,565**	**8,709**	**8,799**
Growth Rate	5%	1.7%	1.9%	1.7%	1%

*Includes open studies

Research and Innovation

AU's Strategic Research Plan is directed to promoting a robust research and innovation culture, increasing supports to cultivate excellence in research and scholarship, developing a clear and viable strategy to secure sustaining research funding and fostering provincial, national and international research partnerships and collaborations. In addition, AU is committed to providing the widest possible access to research outputs and promoting the creation and dissemination of knowledge for the benefit of society. Initiatives that directly advance the 2012 Alberta Research and Innovation Plan are highlighted below.

Opportunities, Challenges and Strategic Directions

Over the past five years, AU has made significant progress toward achieving its research goals by establishing three centres of excellence (research institutes): the Athabasca River Basin Research Institute, the Technology Enhanced Knowledge Research Institute and the Project Management Research Institute. Establishment of a fourth centre of excellence, the Health Research Institute, is envisioned in the near future, and others, perhaps focused in areas such as the digital humanities or corporate stewardship, are in the early conceptual stages.

Together, ARBRI, TEKRI and PMRI comprise a network of research clusters with strong external links to provincial, national and international researchers and research organizations. This organizational structure allows scarce resources to be optimized and synergies created as a result of collaborations among various clusters and partnerships with external research teams. It also addresses and supports the increasingly interdisciplinary and cross-disciplinary emphasis of provincial and national research and innovation agendas. AU provided initial seed funding to support the creation of the institutes, and researchers affiliated with them have been successful in obtaining additional, internal and external funding in support of their research. Ongoing, sustaining funding is crucial to their continued viability and productivity.

While the research institutes framework concentrates efforts in certain areas, it does not represent the entirety of AU's research capacity. Some researchers choose to maintain a disciplinary focus apart from those of the institutes (e.g., business, education, language, literature, nursing), thereby contributing to the university's research effort in a different but equally valued manner.

The following overview of the work of the three research institutes and that of AU's other researchers illustrates AU's contributions to achievement of the key outcomes identified in the *2012 Alberta Research and*

Innovation Plan, including effective resource and environmental management, broadened economic base and resilient, healthy communities.[55]

The Athabasca River Basin Research Institute

ARBRI has adopted a whole systems approach to river basin research, with an emphasis on interdisciplinarity and intersectoral collaboration. Working with local communities, regional organizations, post-secondary institutions and other stakeholders, and drawing on the natural sciences, social sciences and humanities, the institute aims to provide a richer understanding of life in the basin. Both internal and external researchers and community stakeholders have access to extensive bibliographic databases developed under ARBRI's auspices, including the *Bibliography of the Athabasca River Basin*. Other projects include research on the *aurora borealis*, led by a former Canada Research Chair in space science, instrumentation and networking; a study of capacity building in resource-based communities, funded by the Alberta Rural Development Network; and Phase 2 of the Learning Communities Project (focused on indigenous communities), funded by the Rural Alberta Development Fund. These endeavours, developed in partnership with post-secondary institutions in the region and with eCampusAlberta, are helping to build research capacity and to increase knowledge dissemination in the region and beyond.

Researchers across the university provide expertise directly or indirectly related to ARBRI's work. For example, different projects rely on contributions from sociology (sustainable rural communities), philosophy (ethical decision-making on environmental issues), workplace and community studies, business (leadership and entrepreneurship), science (aurora studies, remote data gathering, glaciation and water levels, mathematical modelling) and indigenous studies (preservation of indigenous languages and traditional knowledge). The involvement of indigenous studies researchers, including AU's Canada Research Chair in traditional knowledge, legal orders and laws, is particularly important since over half of Alberta's aboriginal population lives in the northern half of the province.

AU recently recruited a leading-edge scientist to its Campus Alberta Innovates Program Chair in computational sustainability and environmental analytics and is actively recruiting to a second CAIP Chair in hydroecology and environmental health. Both CAIP chairs will be integrated with ARBRI and will be instrumental in developing and maintaining complex environmental databases related to the Athabasca River Basin and its inhabitants. These will support evidence-based management of land and water use in the area over time.

The Technology Enhanced Knowledge Research Institute

TEKRI hosts a network of clusters that focus on research and development of technologies that enhance the advancement, application and transfer of human knowledge. The institute has seven key areas of research:

- open education
- social computing
- mobile and ubiquitous computing
- semantic technologies
- adaptivity and personalization
- design based research
- learning analytics and knowledge

AU's NSERC/iCORE/Xerox/Markin Industrial Research Chair in personalization and adaptation and its Canada Research Chair in semantic technologies, internationally recognized researchers in their respective fields, contribute to TEKRI's research.

TEKRI's knowledge systems architecture cluster focuses on the development of knowledge architecture, such as taxonomies, open architecture/cloud computing, and the use of data analytics and data visualization to providing real-time data, data schema and visualization essential to the improvement of soft digital technology decision-making cycles. The digital technology innovation cluster focuses on mobile computing,

[55] Alberta Enterprise and Advanced Education (August 2012). http://eae.alberta.ca/media/328784/arip_2012_final %20%20 august.pdf.

localization and geomatics, personalization and adaptivity, adaptive/responsive designs, and soft techniques such as interactive collaborative tools for knowledge building and teamwork. Related research endeavours centre on information systems, applications design and use, analysis and display.

Other TEKRI researchers are working on 3D space, Second Life and simulation applications, virtual media labs and the creation of virtual architecture studios. Some are also examining the possibilities provided by mobile applications in the workplace: in smoking cessation programs, for example, in gathering patient data at hospital bedsides and in teaching technical terminology to non-English speaking professionals in the oil industry.

These initiatives provide fertile ground for research training and mentorship of graduate students and post-doctoral fellows and help sustain and enhance AU's reputation as one of the foremost research centres in the broad areas of knowledge systems and digital technologies innovation. They also benefit other post-secondary institutions by providing platforms for quality virtual learning environments for students in Alberta and beyond. These initiatives further have the potential to generate AU/e-industry partnerships opportunities to commercialize products.

The Project Management Research Institute

PMRI brings together local, national and international organizations, practitioners and researchers interested in project management research. Relying on collaborative research, the institute seeks to advance knowledge and promote knowledge sharing and community building across the sector, particularly as it relates to change management in projects. PMRI's research is focused on

- generating and testing new project management concepts to examine the challenges of managing organization/project boundaries
- infrastructure and mega projects
- information and high intensity technology projects
- social system reform (e.g., health systems)

The dissemination and application of project management research findings to research projects in other areas is a major contribution to the university's research priorities.

Growth in these and other related sectors provide high quality training and future employment opportunities for graduate students and post-doctoral fellows, thereby addressing the need to prepare workers for participation in the knowledge-based economy. If Alberta is to lead the knowledge economy, it needs a research framework that promotes not only the creation of new technologies and applications across all sectors of the economy, but also fosters understanding, knowledge transfer and implementation of such innovations across all sectors of society.

Proposed Health Research Institute

In the near future, the HRI will draw on researchers, university-wide, interested in health-related topics such as nutrition, physical activity, chronic illness (e.g., diabetes, cancer) and uses of mobile technology in the dissemination of public health information. AU's recently appointed Canada Research Chair in health promotion and chronic disease management will help chart the future of this important addition to the university's research network. The institute will contribute significantly to the development of health policy, to advancement of the health curriculum and to health services provided to Alberta communities.

AU is engaged in an international recruitment search to fill its Alberta Innovates – Health Solutions Translational Health Chair in e-health literacy. The chair's research program will focus on improving Albertans' health and quality of life while decreasing long-term health care costs through the digital distribution of health information. Synergies with other internal and external researchers are anticipated. The chair is also expected to provide training opportunities for students and post-doctoral fellows, thereby extending research capacity in this important field.

Applied Research

AU's strengths in applied research and innovation lie in the areas of information and communication technology, educational technology, e-learning, ubiquitous learning, serious gaming, learning analytics and business productivity education. Areas of emerging strength include remote sensing, environmental monitoring and e-health. AU's strong graduate programs provide fertile ground for recruiting and training graduate students to work with industry in these areas.

Considerable progress has been made over the past two years in growing an industry-facing knowledge transfer culture at AU. Indicators of this progress include

- increased awareness among researchers of the opportunities and challenges associated with developing generative, academic-industry partnerships with a view to the commercialization of their research
- increased understanding among potential industry partners (and other stakeholders) of the nature and scope of research being conducted by AU researchers and their students
- increased stakeholder interest in engaging with AU researchers to explore and develop academic-industry partnerships

As a result of the increased emphasis on commercialization, technology transfer and entrepreneurship, several projects involving academic-industry partnerships are in progress or were completed during the past year:

- creation of two start-up companies
- establishment of partnership agreements between AU researchers and Alberta small and medium enterprises to bring specific products to market
- development of partnerships with Alberta small and medium enterprises through which AU researchers worked directly on a research and development project with the enterprise or supervised one or more AU graduate students who did
- evaluation and market assessment of several potential products, some of which are in the middle to late stages of development
- creation of a robust network and related database of potential industry partners in Alberta and beyond

Internal and external funding was secured to further these endeavours, in addition to funding provided by Alberta Innovates – Technology Futures, which was instrumental in forging a partnership with TEC Edmonton to ensure that services such as product and market analysis, business plan development and expert advice regarding intellectual property, licensing and patents were provided to researchers.

Together, these endeavours form a firm foundation on which to build AU's applied research and innovation future. Based on the success achieved to date, this Comprehensive Institutional Plan includes performance indicators related to increasing

- the number of faculty engaged with small and medium enterprises
- the number of sponsored commercialization initiatives
- the number of graduate students working in industry settings.

The focus to date has been primarily on the educational technology industry; however, it will become broader in the upcoming years, embracing other sectors and contributing to a more diversified economic base for Alberta.

AU has recently decided to recruit a Canada Research Chair in community, identity and digital media. This chair will explore how digital media shapes individual and collective identities and their effects on public and civic life. As a result, AU's research capacity in the humanities and social sciences will be strengthened, contributing further to the goal of strengthening individual and community health and resilience.

Dissemination of Research

Athabasca University Press, with its focus on the dissemination of knowledge and research through open access digital journals and monographs and through new media, is essential to the social benefits attributable to research at AU.

Other university initiatives that foster open access publishing include AU Space (for self-archiving of research), other digital repositories, the e-text initiative and the creation and distribution of open educational resources. Initiatives such as these, together with the work of AU's UNESCO/COL/ICDE Chair in Open Educational Resources, will contribute to expansion of the university's international leadership role in research related to open access and to online and distance education. These initiatives have the potential to foster economic growth by providing access to educational materials that enable lifelong learning.

Letter of Expectation Outcomes to Support Research and Innovation

Campus Alberta outcomes related to research and innovation are to

- support a competitive and sustainable economy
- attract international learners, researchers and entrepreneurs
- promote an entrepreneurial spirit that encourages learners to take risks, to make bold decisions and to explore ideas that challenge the status quo

The expectations for CARI institutions are to

- foster and carry out pure research, applied research and creative activities as appropriate at an internationally recognized level of excellence within all major program areas and disseminate research findings, new knowledge, creative works, innovations and inventions for the benefit of society
- contribute to economic growth and an enhanced standard of living, providing a robust return on investment to Alberta through outstanding graduates and creation of innovative spin-off enterprises, increased productivity and commercialization of valuable discoveries and new processes
- partner in social, cultural and economic development and in fostering research, scholarship and creative activities that support leading global enterprises in Alberta and enrich citizenship for all Albertans
- attract and leverage resources and talents through provincial, national and international research partnerships with other academic institutions, businesses, governments and public agencies

Flowing from those in the CARI section, expected outcomes for AU are to

- foster research and creative activity in both pure and applied fields
- promote discovery, invention and social innovation
- disseminate, apply and, where feasible, advance the commercialization of research findings and created works
- expand research networks and collaborations among Campus Alberta faculty members, students, the Government of Alberta and industry to advance the knowledge economy and create societal benefits.

Priority Actions to Support Research and Innovation

Consistent with research goals articulated in the *Strategic University Plan: 2011-16* and obligations established by the Letter of Expectation, AU has identified the following priority actions:

- enhance AU's international reputation for research in key fields
- increase student and post-doctoral fellow involvement in research and innovation initiatives
- continue to strengthen research clusters and institutes by seeking support for additional research chairs
- establish a broad revenue base to support AU's research and innovation agenda
- expand partnerships with key stakeholders to foster research and innovation and support the development of a diversified economy in Alberta

Resources Needed to Support Research and Innovation

AU is committed to supporting the work of its researchers as part of its ongoing efforts to further embed a culture of research and innovation in the university. Through its mentoring program, the university continues to encourage and assist faculty members to formulate ongoing research and funding plans that will, in turn, help to identify the supports needed by individual researchers.

AU researchers' rate of success in securing competitive, external research grants and awards has increased steadily over the past five years. Internal research grants are also available to support, for example, pilot projects or participation of student research assistants in faculty research projects. Seed funding is also available to assist researchers to take advantage of opportunities to engage in research partnerships and collaborations that arise outside normal grant application cycles. Additional funds are available to support the dissemination of research at national and international conferences and to defray the costs of publication in open access journals.

AU is mindful of the need to continue to assess the resource requirements of its researchers and to systematically build a sustainable research enterprise that incorporates diverse sources of both internal and external funding. Of particular concern is the need to address increases in the indirect costs of research and requirements to contribute matching funds to sponsored research projects, be they funded by government or industry. Likewise, facilitating researchers' participation in networked teams requires strategic infrastructure investments to develop and sustain systems to support innovative and productive partnerships and collaborations.

In addition to achieving a general increase in research activity, AU is committed to completing recruitment to its vacant research chairs in 2014 and to increasing the number of research chairs, including endowed research chairs, in the coming years. To do so, the university will engage with government, research sponsors, the private sector and philanthropists on research agendas and partnership opportunities. Research chairs play a vital role in enhancing research and research training and in attracting and retaining exceptional researchers. These benefits, in turn, lead to the development of new areas of research excellence and enhance the learning experiences of students and post-doctoral fellows. Research chairs will lead AU's priority research areas, spearheading interdisciplinary initiatives and generating partnerships between the university and industry in keeping with emerging provincial and national research priorities. As noted above, sustaining funding for AU's research institutes is crucial to their continued success and productivity.

The continuing integration of research into the culture of AU reflects the university's evolution and maturation over the past four decades. Among other important benefits, this culture of research informs teaching, contributes to the professional development of faculty, staff and students, supports a formal and dynamic research enterprise that is evident to external stakeholders and enhances the university's reputation.

Community Engagement

Resilient, healthy communities are a key outcome for the Government of Alberta, and promoting collaboration, leadership and innovation in the communities served by AU is one of the key goals of the university's *Strategic University Plan: 2011-16*.

AU is committed to building relationships with First Nations communities, organizations and students in order to support and facilitate indigenous student success. AU's indigenous studies courses are presented entirely by indigenous elders, subject matter experts and academics, and students registered in them are supported by indigenous tutors. This unique degree of engagement, including respectful engagement with indigenous ways of knowing and measures to support recruitment and retention of indigenous students, assures both students and the community that the university's approach to indigenous education is designed to support student success.

AU's connections with indigenous communities have developed over time through continued close collaboration with various First Nations governing bodies, First Nations college partners and community members. Through the Learning Communities Project and other initiatives, the university strives to support indigenous communities and to encourage and provide opportunities for residents who wish to remain in their home community while completing appropriate, culturally-sensitive education. AU is working with industry and the philanthropic sector to raise awareness and support for these important initiatives. To recruit and retain students from these under-represented communities, AU works with local councils and committees through the Learning Communities Project to help develop community supports, including mentor circles.[56] Staff members from AU's Centre for World Indigenous Knowledge and Research, including elder-in-residence Dr. Maria Campbell, visit indigenous communities to discuss the value of local support with elders and community and educational leaders. This firm community base and the development of mentor circles consistent with indigenous-driven goal setting, pedagogies and educational methods have been vital to the continued success of the Learning Communities Project. Learning opportunities are supported by northern post-secondary partners (Grand Prairie Regional College, Keyano College, Lakeland College, Northern Lakes College and Portage College). These institutions, together with AU and Northern Alberta Institute of Technology are developing an agreement to facilitate collaborative arrangements to improve flexible learner pathways.

AU faculty and staff members continue to participate in and hold leadership roles in the Alberta Rural Development Network and the Alberta Council on Admissions and Transfer. As a member of eCampusAlberta, AU provides hosting services and various workshops for the members. Ongoing discussions, especially with regard to mobilizing cloud based services, have demonstrated that the university is ready to contribute much more. AU has also been working with local school jurisdictions on providing pathways through recognition of advanced placement credit equivalencies. With funding from the Alberta Law Foundation, legal studies faculty have been exploring strategies for increased access to legal services in Alberta, including through the application of e-learning.

Opportunities and Challenges

To allow people everywhere to participate in broader communities, including regional, national and international communities, AU has cultivated the perspective that community is defined not only by geography or shared characteristics but also by relationships. The university has a long-standing practice of building relationships and working collaboratively with Canadian and international universities, colleges, technical institutes, professional associations, employers and other organizations to explore innovative ways to remove barriers to higher learning, engage research teams and create synergies.

Although AU has worked to improve access by facilitating on-site delivery of its programs at other Campus Alberta institutions, registration in some courses and programs has dropped below thresholds which make them viable. AU is exploring options for blended delivery assisted by local facilitators and joint paced online offerings as possible alternatives. Existing funding models represent disincentives to many collaborative arrangements.

Letter of Expectation Outcomes to Promote Community Engagement

The Campus Alberta system will

- lead within communities to enhance cultural awareness and community economic development

CARI's will contribute to Campus Alberta by

- partnering in social, cultural and economic development and fostering research, scholarship and creative activities that support leading global enterprises in Alberta and enrich citizenship for all Albertans

[56] Learning Communities (2011). http://www.learning-communities.ca/.

- attracting and leveraging resources and talents through provincial, national and international research partnerships with other academic institutions, businesses, governments and public agencies
- developing Campus Alberta partnerships, operational efficiencies and a credit transfer system to create an integrated, province-wide network of seamless learner pathways

AU will

- expand research networks and collaborations among Campus Alberta faculty members, students, the Government of Alberta and industry to advance the knowledge economy and create societal benefits

Priority Actions to Promote Community Engagement

In support of the community goals outlined in the *Strategic University Plan: 2011-16* and the Letter of Expectation, AU has identified the following priority actions:

- continue to work with communities, including rural, remote, northern, aboriginal and immigrant communities, to identify needs, find solutions to local problems and enhance community development
- partner with professional associations and employers to develop learning opportunities that allow workers to enhance their education while they work

Resources Needed to Promote Community Engagement

Development and maintenance of strong community partnerships require both time and investments. They are often most effective when they establish their own identities rather than being associated with a dominant institutional brand. The successful Learning Communities Project exemplifies a partnership which places the focus on the participants rather than on the institutions involved. Philanthropic investments have maintained the project to date, but it deserves stable funding. Similarly, Science Outreach – Athabasca has been maintained by donor support but has faced challenges as contributions and grant funding ebbed and flowed. The degree of support that both projects have enjoyed in fundraising campaigns demonstrates how strongly they resonate with community and corporate sponsors.

Individual grants have been instrumental in spurring grassroots financial support for community projects, but funding needs to move to more sustainable levels. Seed money, especially for convening conferences, can be instrumental in establishing the relationships needed to realize opportunities. Policy frameworks and incentive funding are also needed to strengthen opportunities to develop shared services among Campus Alberta partners.

Performances Measures and Targets

Performance measures and targets related to the quality, access and research initiatives outlined above are shown in following pages (Tables 4 to 6). The measures and targets for 2014-17 are consistent with those contained in the *Strategic University Plan: 2011-16 and the Comprehensive Institutional Plan: 2013-16*. As much as possible they have been confined to existing data sources.

Table 4: Quality Performance Measures and Targets

Performance Measures	Class of 2008	Class of 2010	Target 2014	Target 2016
Graduate satisfaction with educational experience as shown on the Alberta Graduate Student Outcomes Survey (next data collection 2014)	95% satisfied or very satisfied	97% satisfied or very satisfied	95%+ satisfied or very satisfied	95%+ satisfied or very satisfied
	-	**Class of 2012**	**Target 2014**	**Target 2016**
Student rating of AU education on the National Survey on Student Engagement (next data collection 2014)	-	85% good or excellent	85%+ good or excellent	85%+ good or excellent
	3-Year Avg. 2009-11	**3-Year Avg. 2010-12**	**Target 2011-13**	**Target 2012-14**
Graduate program students completing six credits in one year (based on enrolled and net started within year)	58%	58%	60%	60%
Undergraduate program students completing six credits in one year (based on enrolled and net started within year)	22%	22%	24%	24%
Undergraduate course completion rate (excluding non-starts)	85%	84%	85%+	85%+
Credentials awarded	1,532	1,642	1,685	1,715

Table 5: Access Performance Measures and Targets

Performance Measures	2010-12 Average	2011-13 Average	2012-14 Target	2013-15 Target
Number of full-load equivalent students	7,883	8,071	8,338	8,486
Aboriginal student enrolment*	1,019	1,095	1,149	1,170
Number of students using services for students with disabilities	1,643	1,538	1,560	1,560
Number of rural and northern students**	5,867	5,887	5,877	5,877
Value of student awards	$1,074,333	$1,104,000	$1,124,292	$1,146,778
Number of students from Alberta colleges and technical institutes enrolled in AU post-diploma programs†	285	258	258	260
Number of active students with addresses outside of Canada	920	906	906	910

* Self-identified at time of admission.
** Based on postal code definitions.
† Includes all Bachelor of Professional Arts, Post-RN Bachelor of Nursing, and post-diploma streams in arts, science and business.

Table 6: Research and Innovation Performance Measures and Targets

Performance Measures	2010-12 3-Year Avg.	2011-13 3-Year Avg.	2012-14 Target	2013-15 Target
Alberta graduate students enrolled in priority research areas*	29%	28%	30%	30%
Number of peer reviewed publications	322	346	388	402
Value of sponsored research income per faculty member with research responsibilities	$26,996	$25,900	$27,176	$27,200
Council grant success rate	27%	27%	29%	29%
Research revenues from tri-council, industry and community sources	$4,659,000	$4,477,000	$4,700,000	$4,730,000
Number of sponsored commercialization initiatives	Under development			

* Includes health disciplines and science and technology.

PLAN FOR FINANCIAL SUSTAINABILITY

The 2014-15 budget shows a small surplus with revenues and expenditures of about $131 million. Modest surpluses are also expected in each of the following two years. These projections exclude consideration of any cost impacts related to the Universities Academic Pension Plan.

The overarching goal of the 2014-15 budget is to focus on maintaining excellence in teaching and research and ensuring student access and program affordability. Most importantly, it allows for the continued advancement of AU's information and communication technology infrastructure plan (See page 44).

The $2 million Infrastructure Maintenance Grant that AU had been receiving from the province to fund information technology capital was reduced by 50 per cent in 2013-14. As a result, there will be a reassignment of net assets to allow the university to continue with planned information technology capital projects in 2014-15.

Capital and IMP contributions from the provincial government will continue to be a critical component in completing AU's transition to a fully online institution. A review of the university's funding model remains critical if AU is to complete this transformation and provide e-learning leadership in Alberta and the rest of the world.

This budget incorporates a number of savings strategies to deal with normal cost pressures. AU will continue with its review of vacant positions to ensure every position is needed. Other strategies for 2014-15 include reviewing and moving to a new learner support model and ongoing restructuring.

AU will continue to focus on revenue-generation and on opportunities that will position the university for future growth and development. The university has been dealing successfully with fiscal challenges and will continue to do so.

AU's balanced and sustainable financial approach will continue to contribute to enhancing the quality of the university's online student learning experience, maximize its resources through administrative efficiencies and create opportunities through links with business and the commercialization of innovation.

Budget Assumptions

The following assumptions are reflected in the 2014-15 operating budget:

- Other than the increase announced on November 16, 2013, there will be no further increases to the base operating grant.
- Infrastructure maintenance funding will not be increased.
- Undergraduate, individualized study course registration will grow by two per cent. Enrolment in graduate programs will grow by three per cent.
- The base Alberta tuition fee will increase by one per cent.
- Salary and benefits costs will increase as stipulated in collective agreements.

Statements of Expected Revenue and Expenses

Table 7: Statement of Operations

For the year ended March 31
(thousands of dollars)

	Budget 2013-14	**Budget 2014-15**	PLAN * 2015-16	PLAN * 2016-17
Revenue				
Government of Alberta grants	$ 41,113	**$ 40,229**	$ 40,097	$ 40,320
Tuition and other student fees	64,523	**67,226**	68,791	70,536
Sales of goods and services	15,785	**16,025**	16,011	16,099
Amortization of deferred capital contributions **	3,736	**3,666**	4,020	3,564
Donations and other grants	878	**1,277**	1,349	1,404
Federal and other government grants	1,141	**1,473**	1,520	1,575
Investment income	1,250	**1,060**	1,061	1,063
	128,426	**130,956**	132,849	134,561
Expenses				
Instruction and non-sponsored research	73,588	**74,976**	75,943	76,795
Academic and student support	14,910	**15,816**	16,020	16,200
Institutional support	11,967	**12,126**	12,282	12,420
Ancillary services	9,377	**8,763**	8,876	8,976
Computing and communication	7,822	**8,614**	8,725	8,823
Facility operations and maintenance	7,813	**6,655**	6,741	6,816
Sponsored research and special purpose	3,731	**3,984**	4,035	4,081
	129,208	**130,934**	132,622	134,110
(Deficiency) excess of revenue over expense	$ (782)	**$ 22**	$ 227	$ 451

* Revenue and Expenditures in these years are preliminary and will be refined in future year budgets.
** Amortization of Deferred Capital Contributions by funding source:

Government of Alberta grants	$ 3,625	**$ 3,576**	$ 3,963	$ 3,510
Federal and other government grants	103	**82**	49	46
Donations and other grants	8	**8**	8	8
Total	$ 3,736	**$ 3,666**	$ 4,020	$ 3,564

Table 8: Expenses by Object

For the year ended March 31
(thousands of dollars)

	Budget 2013-14	**Budget 2014-15**	PLAN 2015-16	PLAN 2016-17
Salaries	$ 70,454	**$ 73,199**	$ $73,795	$ 73,730
Employee benefits	15,948	**15,801**	15,647	15,900
Fees and purchased services	16,022	**16,440**	16,884	18,266
Materials and supplies	10,699	**10,889**	10,626	10,591
Transportation and travel	3,325	**2,865**	2,877	2,915
Communications	2,622	**2,674**	2,679	2,683
Rental and insurance	3,097	**2,870**	2,872	2,875
Amortization of Capital Assets	5,841	**4,996**	6,038	5,896
Scholarships	1,200	**1,200**	1,204	1,254
	$ 129,208	**$ 130,934**	$ 132,622	$ 134,110

Table 9: Statement of Cash Flows

For the year ended March 31
(thousands of dollars)

	BUDGET 2013-14	**BUDGET 2014-15**
OPERATING TRANSACTIONS		
Excess of revenue over expense	$ (782)	$ 22
Add (deduct) non-cash items:		
Amortization of tangible capital assets	5,841	4,996
Amortization of deferred capital contributions	(3,736)	(3,666)
Change in employee future benefit liabilities	782	-
	2,887	1,330
(Increase) decrease in accounts receivable	(27)	(269)
(Increase) decrease in inventories and prepaid expenses	(372)	750
Increase (decrease) in accounts payable and accrued liabilities	506	1,363
Increase (decrease) in deferred revenue	(1,044)	(2,318)
Cash Provided by (Applied to) Operating Transactions	$ 1,168	$ 878
CAPITAL TRANSACTIONS		
Acquisition of tangible capital assets	2,249	(718)
Cash Provided by (Applied to) Capital Transactions	2,249	(718)
INVESTING TRANSACTIONS		
Purchases of investments, net of sales	(641)	(334)
Cash Provided by (Applied to) Investing Transactions	(641)	(334)
FINANCING TRANSACTIONS		
Endowment contributions	50	51
Cash Provided by (Applied to) Financing Transactions	50	51
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	2,826	(123)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR *	3,312	6,156
CASH AND CASH EQUIVALENTS, END OF YEAR	$ 6,138	$ 6,033

* Note: The beginning of year cash and cash equivalents. amount is projected based on forecasted operating results for the previous year. The 2014-15 amount varies from the approved budget amount for 2013-2014 by the variances for 2012-13 and 2013-14.

Tuition

AU's tuition fee projections for 2013-14 to 2016-17 are shown in Table 10 below.

Table 10: Tuition Fee Projections

	2013-14 Actual	**2014-15 Proposed**	2015-16 Plan*	2016-2017 Plan*
Course-Based Fees				
Undergraduate Student Fees				
Course fee (3-credit)	$ 472	**$ 476**	$ 480	$ 484
Percentage change	1.3%	**0.8%**	0.8%	0.8%
Graduate Student Fees **				
Master of Education (Distance Education)				
Course fee	$ 1,350	**$ 1,350**	$ 1,364	$ 1,377
Learning resource fee	$ 160	**$ 160**	$ 160	$ 160
Master of Health Studies and Master of Nursing				
Course fee	$ 1,320	**$ 1,350**	$ 1,364	$ 1,377
Learning resource fee	$ 75	**$ 75**	$ 100	$ 125
Master of Arts (Integrated Studies)				
Course fee	$ 1,320	**$ 1,350**	$ 1,364	$ 1,377
Learning resource fee	$ 160	**$ 160**	$ 160	$ 160
Post-Baccalaureate Diploma in Architecture				
Course fee	$ 1,320	**$ 1,350**	$ 1,364	$ 1,377
Learning resource fee	$ 160	**$ 160**	$ 160	$ 160
Master of Science (Information Systems)				
Course fee	$ 1,320	**$ 1,350**	$ 1,364	$ 1,377
Learning resource fee	$ 160	**$ 160**	$ 160	$ 160
Graduate Diploma in Heritage Resources Management				
Course fee	$ 1,320	**$ 1,350**	$ 1,364	$ 1,377
Learning resource fee	$ 160	**$ 160**	$ 160	$ 160
Post-Baccalaureate Diploma in Legislative Drafting				
Course fee	$ 1,320	**$ 1,350**	$ 1,364	$ 1,377
Learning resource fee	$ 160	**$ 160**	$ 160	$ 160
Program-Based Fees				
Graduate Student Fees**				
Master of Business Administration				
Program tuition	$ 35,140	**$ 35,140**	$ 35,491	$ 35,846
Learning resource fee	$ 9,444	**$ 9,444**	$ 9,444	$ 9,444
Master of Counselling				
Program tuition	$ 22,530	**$ 22,890**	$ 23,119	$ 23,350
Learning resource fee	$ 900	**$ 900**	$ 1,200	$ 1,500
Doctor of Business Administration				
Program tuition	$ 47,355	**$ 48,350**	$ 48,834	$ 49,322
Learning resource fee	$ 5,187	**$ 5,250**	$ 5,250	$ 5,250
Doctor of Education (Distance Education)				
Program tuition	$ 43,210	**$ 43,210**	$ 43,642	$ 44,079
Learning resource fee	$ 1,650	**$ 1,650**	$ 1,650	$ 1,650

* The fee changes are preliminary and will be refined in future year budgets.
** AU Graduate Students Association fee of $13 per credit is over and above the stated graduate program tuition fees.

INTERNATIONALIZATION

Alberta's international strategy, released in 2013 has four objectives:

- diversifying markets to expand the economy
- building Alberta's reputation as a global citizen
- preparing Albertans for success in the global community
- prioritizing government actions to take advantage of international opportunities[57]

Achieving the first three of these objectives will depend to a high degree on establishing and nurturing international relationships. Alberta is working to enhance engagement with and market access to the Middle East and Asia, for example, and to cast off the image of being an environmentally irresponsible oil producing province by stressing education, culture and innovation. International development projects are another means of enhancing the province's reputation.

Success in the global community depends largely on establishing opportunities for cross-cultural dialogue, however, and these can facilitated by interactions with international students and researchers. Hosting international students enriches the educational experience of Albertans, and online delivery of programs provides students with opportunities to interact and form relationships with their peers and academic leaders worldwide. Opportunities for mutually beneficial exchanges are growing in number and becoming increasingly important to institutional reputations.

Opportunities and Challenges

AU is internationally recognized for its research in online and distance education. The university is at the forefront of research in the developing areas of personalization, analytics and mobile computing. AU researchers have been approached to work collaboratively with international colleagues, and students from foreign universities complete internships at AU. As offshore residential institutions seek to expand their program offerings, they have turned to AU to develop joint online programs and research initiatives. These initiatives have included co-development of modules on effective online teaching for the K-to-12 sector in other countries.

Sustaining AU's international standing is integral to maintaining its reputation for quality. To remain at the forefront of new initiatives, the university must have the means to be an active participant in the international arena. Since AU's research and innovation model is to create networked clusters of researchers through which synergies can develop, extensive networking with international researchers is required, but the university also must have the means of sustaining lead researchers to provide the impetus to create and maintain these networks. Links to Alberta, national and international entrepreneurs are important to translating research into viable products.

Foundation funding for joint AU-Qatar University research on mobile English training for the workplace and problem-based learning is one example of how AU is growing international research partnerships, focusing its efforts in the East and Southern Asia and the Middle East. An agreement with the Arab Open University has provided AU with a point of entry for six national markets.

AU is working directly with Beijing Normal University to develop an instructional design program for distance education practitioners which will be offered in Chinese. This project has involved multiple faculty exchanges and AU's hosting of BNU doctoral fellows.

Having internationally recognized ICT scholars has opened doors to research partnerships and student exchanges with institutions in India, Taiwan and Malaysia. The Faculty of Business has a number of partnership arrangements to facilitate residential courses in international business, the most recent additions being with institutions in Brazil, Mexico and Singapore. Since students are typically in managerial

[57] Government of Alberta, *Alberta's International Strategy 2013: Building Markets*. http://international.alberta.ca/documents/ ABInternationalStrategy2013.pdf.

positions with Canadian firms, these opportunities are extremely valuable for initiating viable business connections, just one example of integrating opportunities for cross-cultural interactions within the curriculum.

Though it is common to think of international education as an import activity through which students from other countries are hosted at Canadian post-secondary institutions, the alternative, providing instruction and support to students in their home countries, is much more effective for development focused initiatives. Indeed, it can be argued that recruiting high performing students from other countries with the aim of retaining them in Alberta is antithetical to effective international development. With scholarship support from the Government of Canada and the Commonwealth of Learning, AU is providing an example of this alternative model in the Caribbean, offering the Post-Baccalaureate Diploma in Legislative Drafting Program to students residing there. Financial assistance to offset costs is important for cross-border delivery to parts of the world where paying standard Canadian tuition rates would be prohibitively costly.

A globally competitive market in the cross-border delivery of online education is being constrained by a complex regulatory environment. Regulatory barriers to cross-border delivery have increased over the past few years, with some countries having multiple (sometimes conflicting) regulations at the national and regional or local level. Some jurisdictions do not recognize distance delivery at all. Canadian rules for being a "designated institution" to receive visa students have been designed to exclude AU. Regulations like those requiring individual program approvals for each jurisdiction in which students reside[58] are additional examples of overt protectionism.

Developing and maintaining relationships requires focused attention and reciprocal investments. National mechanisms for communicating quality standards are needed in the globally competitive international student market. Although the demand for higher education is strong and growing in many parts of the world, mechanisms for assuring quality and accountability are relatively immature. Government support would be welcome in this area.

Consistent with its *Strategic University Plan: 2011-16*, AU's priorities with respect to internationalization are to

- internationalize the curriculum to contribute to global citizenship
- increase recruitment activities directed to international students
- expand AU's international leadership role in research in open access and online and distance education
- foster sustaining relationships with international partners through research and programming opportunities[59]

When building links to overseas institutions, Government support can be important to containing risks and covering some types of costs. The funding structure of graduate programs makes them cost-prohibitive in most jurisdictions in which they would represent a benefit from an international development perspective. It is also important for AU to have better arrangements for hosting international graduate students than ad hoc partnerships can provide.

[58] WICHE Cooperative for Educational Technologies, "State and Federal Regulations on State Authorization of Distance Education," *Talking Points* (April 2013), http://wcet.wiche.edu/wcet/docs/talking-points/WCETTalkingPoints-State-Auth-04-08-2013.pdf

[59] *SUP*, 16, 18, 22.

CAPITAL PLAN

With a view to maintaining its leadership position in online and distance education and enhancing the educational services it provides, AU has developed a comprehensive 10-year capital plan, addressing both short- and long-term capital priorities. To achieve its mandate and support strategic growth, the university must upgrade and expand its information and communication technology infrastructure and expand its facilities in Athabasca, the Capital Region and Calgary. Over the next 10 years, AU will require $196 million in strategic capital investments. The university's capital priorities are presented below under two main headings:

- Information and Communication Technology Projects
- Facilities and Other Projects

These sections are further subdivided using the categories established by the Government of Alberta in the Building and Land Information Management System (BLIMS) for one-time or envelope funding of projects:

- Category I: Preservation of Existing Facilities/Capital Assets
- Category II: Expansion or Replacement
- Category III: New Facilities or Systems of Major Economic Benefit to Alberta

Information and Communication Technology Infrastructure Projects

Providing educational services to AU's community of learners depends upon the innovative use of technology to create a rich, flexible learning environment, one that is recognized by AU's peer institutions for its high standards. AU has succeeded in offering value to Alberta's and Canada's learners and has grown dramatically through its ability to leverage the access and new approaches afforded by the Internet.

The key to continued long-term success is investment in the university's ICT infrastructure. AU's fundamental objectives in developing its ICT plan were to create an investment strategy that provides the university with a long-term vision, one which builds upon and enhances the institution's values and strengths, and to design a methodology through which to achieve it.

Through its provincial mandate, renewed in 2009, AU is responsible for leading post-secondary e-learning in Alberta. The proposed investment in ICT infrastructure will support that mandate and facilitate its fulfilment.

AU's Unique Dependence on ICT

AU's dependence on ICT is of a different magnitude to that of traditional, campus-based institutions because university operations rely entirely on an ICT enabled infrastructure. Nearly all AU students interact with the university through the Internet for educational access, learner support services and administrative activities. AU's client-facing operations depend on

- the university website to create awareness and provide information
- online enrolment and course registration services
- online course provision and instruction
- online assessment, including assignment and exam submission
- online student advising and records management services

Indeed, there is no alternative channel through which the university can deliver its services and programs. The nature of its student body and educational delivery mechanisms do not allow AU to substitute a campus building, for example, for its ICT infrastructure. AU's reliance on ICT infrastructure is further demonstrated by

- continuous undergraduate enrolment (Students start programs and courses year round.)
- asynchronous, self-paced study and open course scheduling (Students complete courses on their own schedule and can choose to start any course in any month. All course materials are available online at all times through AU's Open Learning Environment.)

- distributed learning (Students do not receive instruction or course materials at a specific location such as a university campus, allowing them to remain in their home communities and places of employment.)

AU's ICT infrastructure must therefore provide students with continuous and reliable service in support of their academic success.

The Open Learning Environment

The ICT planning process has culminated in the vision of the Open Learning Environment, an innovative online post-secondary system in which cutting-edge technologies integrate with advanced pedagogical practice to form a supportive, student-centred, world-class learning environment. The OLE will encompass all aspects of the student's relationship with AU, from initial advising to lifelong learning and knowledge creation, establishing a new standard in post-secondary education. AU plans to share learning innovations with other members of Campus Alberta, allowing Alberta students to benefit from world-class research into online pedagogy and individualized access to world-class programs and courses.

Through the constant development of the OLE, AU will create a virtual campus that will provide its distributed student body with an outstanding learning experience. AU's ability to tailor course delivery to an individual student's learning preferences will allow many Albertans who would not otherwise have entered a university program to succeed in post-secondary studies.

The articulated vision for AU's OLE is no small undertaking, and its realization will require the collective input and collaboration of all AU stakeholders. To achieve this vision, the university has created pathways to the adoption and use of technology over the next 10 years. Leading with learning and research and complemented by student service and computing infrastructure, AU will be transformed through the adaptation and adoption of information and communication technologies.

The component parts of the plan have been grouped into individualized and self-contained projects (See Table 11). This grouping is not to imply that the parts are separate from one another but simply that their achievement requires them to be divided into projects of manageable scope and size. In addition, a natural sequence of steps emerges in all projects, and the appropriate sequence for realization of the OLE is reflected in the pathways described below. All of these priority ICT projects are in BLIMS Category 1: Preservation of Existing Systems as a failure to upgrade could lead to reliance on unsupported products and unsustainable risks to AU's virtual campus.

1. Administrative Systems Renewal: Phase 1

   AU operates in an environment of fiscal restraint and increasing competition from traditional universities in the delivery of online distance education. Efficient operations and planning will be critical to AU's ability to achieve the goals set forth in its *Strategic University Plan: 2011-16* and ultimately to its ability to provide a flexible, high quality and innovative learning environment. AU's success and rapid growth have surpassed the ability of its administrative information systems to effectively support increasing transactions and to provide information needed for executive planning and reporting. The Administrative Systems Renewal Program (ASRP) was initiated to renew and integrate finance, human resource, payroll and student administrative systems. The program will establish an enterprise-wide platform across these business areas and improve system and service efficiencies.

2. Learning Management System: Phase 1

   A fully integrated Learning Management System (LMS) is needed to transform and personalize the learning experience and to ensure the success of students of varied backgrounds and degrees of preparation, especially for geographically separated students. Through the integration of social networking, online student support services, learning resources, virtual labs and functional enhancements to the LMS, student-centred learning will be transformed. Students, teachers and course administrators

will benefit from receiving timely feedback on learning outcomes, facilitated by online grading of assignments and integrated communication channels. These capabilities will ensure that additional learning resources can be applied as required to support a learner's success. The transition to e-texts will allow students to personalize and tailor their studies based on their individual learning needs.

Table 11: Priority Information Technology Projects

	Fiscal Periods	Invested as of March 2013*	Pending Cost	AU Funding	Government or Other
Administrative Systems Renewal: Phase 1	2014-15	$ 3,925,478	$ 3,224,278	$ 3,224,278	$ -
Learning Management System: Phase 1	2014-15 to 2016-17	2,475,993	3,137,743	2,217,743	920,000
ICT Infrastructure Planning	2015-16 to 2016-17	-	3,004,391	3,004,391	-
Content Management System: Phase 1	2014-15 to 2016-17	1,843,892	1,156,966	606,966	550,000
Smart Identification and Encryption Systems	2014-15 to 2020-21	1,592,763	5,470,863	5,070,863	400,000
Assessment and Exam System	2014-15 to 2016-17	986,429	748,170	748,170	-
Academetrics System	2014-15 to 2018-19	228,114	3,364,474	-	3,364,474
Articulations and Advising System	2014-15 to 2016-17	1,074,700	3,221,748	2,521,748	700,000
Immersive Learning	2014-15		500,000		500,000
Identity Management, Disaster Recovery and Security	2015-16 to 2018-19	-	7,128,466	-	7,128,466
Learning Management System: Phase 2 (E-Portfolios)	2017-18 to 2019-20	-	7,995,469	-	7,995,469
Content Management System: Phase 2 (Learning Objects)	2017-18 to 2018-19	-	1,581,587	-	1,581,587
Administrative Systems Renewal: Phases 2 and 3	2014-15 to 2020-21	-	10,832,277	139,000	10,693,277
Learning Management System: Phase 3	2022-23 to 2023-24	-	7,146,360	-	7,146,360
ICT Infrastructure Renewal		4,083,068	-	-	-
Student Information System Upgrade		3,223,864	-	-	-
Equipment: Hardware Upgrade	2014-15 to 2023-24	387,632	17,971,113	732,000	17,239,113
Equipment: Operating System	2014-15 to 2023-24		6,771,700	60,000	6,711,700
Total		**$ 19,821,933**	**$ 83,255,605**	**$ 18,325,159**	**$ 64,930,446**

* For the fiscal years 2008-09 through 2011-13.

3. ICT Infrastructure Planning

   AU requires a comprehensive inventory and a living architectural design of its ICT and related infrastructure assets across the university. The scale, complexity and diversity of AU's ICT infrastructure requires the acquisition and implementation of Enterprise Architecture (EA) technologies. EA technologies would facilitate mapping of existing strategic and operational processes to the underlying enabling technologies and infrastructural components that support the efficient development and delivery of AU's OLE. Attaining this perspective is critical to establishing standards in an effort to reduce costs and to revealing vulnerabilities or deficiencies in processes, systems and services. Data collected will inform ongoing planning to optimize performance of the OLE and the technology and infrastructure investments required to achieve the desired future state of the EA in support of the university's strategic goals.

4. Content Management System: Phase 1

   As available information expands exponentially, a Content Management System (CMS) is needed to allow learners, instructors and researchers to access the information they need in the format in which they need it. A common taxonomy will ensure a standard content management framework across the university, facilitating efficient storage, searching and retrieval, while providing flexibility in the repurposing of content. Online content development can be streamlined and quality control improved through workflows and templates. The CMS will be the cornerstone for online publishing, and systems throughout AU's OLE will be integrated with the CMS to ensure that the university's intellectual capital is captured and managed effectively.

5. Smart Identification and Encryption System

   A centralized multifactor ID system that provides AU stakeholders with a smart ID card for access to their personalized AU assets will be developed. The smart ID system will allow users to log on to AU's website from any location and gain instant and secure access to AU services. It will also provide a basis for federated access management, a critical enabler for providing learners and researchers with seamless access to external content repositories. The incorporation of data encryption for self-stored data will provide all stakeholders with assurance that the privacy of their personal information will be protected within AU systems.

6. Assessment and Exam System

   With an online assessment and exam system, the efficiency and sustainability of AU's exam administration will be significantly improved. The web enabled system has been designed to move a manually intensive, fractured and paper-based system to one built on an automated digital workflow. This transition will reduce overhead costs per exam delivered and provide a reliable, cost-effective and comprehensive system delivery value to AU students. The new system will be more responsive and user friendly and provide self-serve options for exam scheduling. It will also reduce the cost of writing exams for many students as they will be able to take invigilated exams at home rather than having to travel to exam centres.

7. Academetrics System

   Concurrent with the development of the enhanced LMS, this system will focus on the information generated through the use of learning tools to provide a basis for future development. Using data warehousing and mining, information from the full student life cycle can be synthesized to provide a rich knowledge base that will influence course design, enable customization of the learning experience and help predict future student behaviour. Such evidenced-based research will also actively facilitate support interventions and program planning services that will improve learning outcomes and resource use.

8. Articulations and Advising System

   Constituent management capabilities are essential to tracking learners' interactions with AU throughout their learning life cycle in order to provide timely support services as required to improve learning outcomes, improve recruitment and retention and identify business process or system improvements. Online advising and self-directed help capabilities are required to assist learners in attaining support services, identify different learning opportunities, and select the appropriate learning path based on their needs and learning goals.

9. Immersive Learning

   As a virtual university and an innovator in distance education, AU must be positioned to innovate in online learning by leveraging emergent technologies. The proliferation of virtual reality technologies provides AU with a new medium to explore opportunities for growth by developing virtual spaces for a broad range of administrative and pedagogical applications.

10. Identity Management, Disaster Recovery and Security

    Reliable and continuous access is vital to providing effective online services. In order to guarantee 24/7 systems access to learners, instructors, staff and other stakeholders, AU will provide its services using a geographically distributed clustered and fault tolerant system. A multifactor identity access management system and portable encryption are essential security components requiring upgrades to both hardware and software. To ensure a continuous, uninterrupted teaching and learning environment, an integrated disaster recovery site is planned to encompass both physical and logical security in a flexible robust cloud environment, which will facilitate secure storage and retrieval of all stakeholder information. AU has been working collaboratively with the University of Alberta on disaster recovery and business continuity issues. The U of A, having excess server room capacity, has graciously granted space and resources to AU, and work on a proof-of-concept small deployment of necessary infrastructure and a single web server at the U of A is in progress. Future expansion to a full second server site for AU has been approved in principle. This collaboration has significantly reduced the capital requirements of implementing a second AU site, although the needs are still substantial.

11. Learning Management System: Phase 2 (E-Portfolios)

    The LMS project will incorporate e-portfolios and expanded learning resources. Students will monitor personal growth through the development and retention of their university and lifetime experience in a personally maintained e-portfolio, which will provide lifelong access to their transcripts, assignments, notes, course work and related activities. E-portfolios will be essential for prior learning assessment, career planning and fostering lifetime learning.

12. Content Management System: Phase 2

    Continued refinement of the CMS will include development of learning resources for cross institutional use, enabling the efficient use of knowledge objects. Development of a learning resource repository has long been a university objective, and it is one that will be realized through the use of a CMS. The learning resource repository will support the creation of knowledge objects that can be shared and repurposed. Courses and programs will be able to efficiently share objects and other information assets as appropriate.

13. Administrative Systems Renewal: Phases 2 and 3

    Completion of Administrative Systems Renewal: Phase 1 will renew and integrate finance, human resource, payroll and student administrative systems and establish a university-wide Enterprise Resource Planning (ERP) platform across these business areas and improve system and service efficiencies. However, additional investments are required to develop performance management capabilities that will facilitate the analysis of data aggregated from across these application areas and stored in a data warehouse. In addition, AU's existing electronic groupware (e.g., e-mail, text, calendar) suite is dated and lacks the functionality required to support the administrative and learning needs of students and staff within the OLE. AU will also have to build upon the ERP platform realized upon completion of Administrative Systems Renewal: Phase 1 as a broad range of potential changes to vendors, technologies, regulations or other factors are likely to affect that platform. While AU will strive for continuous improvements to the platform, its size and complexity and a great many system interdependencies complicate the task of making enterprise-wide improvements. This difficulty is further compounded by AU's ongoing reliance on the application suite to perform critical business functions.

14. Learning Management System: Phase 3

    Continued modernization of the LMS as a core component of AU's OLE is critical to sustaining the university's reputation as a leader in online distance education in Alberta and the global community.

Significant investments will be required to acquire, implement or develop new functionality and support the continued transition to mobile learning technologies and e-texts.

15. Equipment: Hardware

    Innovation and ongoing improvement, enabled by enhanced computing performance and machine capability, are constants with ICT equipment. Hardware upgrades bring improved data transmission and application speed, increased storage and functionality, enhanced network integration, greater security and data integrity, and the ability to provide an infrastructure that can support the ongoing needs of the university to provide enhanced learning services. Having an evergreened physical environment underpins all ICT activities and provides AU with the needed operational computing capacity.

16. Equipment: Operating System Upgrade

    Upgrading operating and related systems to advance functionality, maintain compatibility with integrated systems and ensure operational security is an ongoing activity in ICT environments. Major refresh cycles normally occur every three to five years, while point or patch release periods range from weeks to months. Such system upgrades ensure system integrity and enhanced functionality, allowing the university to provide improved services to students and staff and increasing efficiencies in the creation and delivery of online courses and programs. In addition, integration with external systems is a growing requirement in the provision of learning resources, and system currency is essential to such integration.

Facility and Other Projects

Although AU's physical footprint is considerably smaller than that of Alberta's other Comprehensive Academic and Research Institutions, its buildings and associated facilities must be preserved and enhanced. As they form the nucleus from which core administrative, student support and research functions are conducted, these facilities must be flexible and adaptive and accommodate growth.

AU's Athabasca campus, which was constructed in 1983, is increasingly important to the Athabasca community and represents a significant economic benefit to northern Alberta as a whole. Exploring opportunities to optimize revenues from its land holdings and establishing a base for the Athabasca River Basin Research Institute will extend AU's links to Northern Alberta regional development.

Except for the buildings on its Athabasca campus (Main Campus Building, Academic Research Centre) and the nearby Tim Byrne Centre (course materials production facility) and Athabasca University Geophysical Observatory, AU leases all of its facilities, including spaces in Edmonton, St. Albert and Calgary. As leasing costs in major downtown urban centres are expected to rise significantly, securing appropriate university-owned, cost-effective consolidated space to ensure long-term continuity and sustainability of educational services to students is critical.

A Campus Alberta initiative resulted in the relocation of AU's Calgary operations to a new Bow Valley College building in downtown Calgary, and the university believes that a similar initiative in the Greater Edmonton Area would represent a benefit to both AU and prospective partner institutions. Securing a single stand-alone site for the university's now dispersed Capital Region operations or participating with partner institutions in a Campus Alberta project there is a high priority.

If AU is to continue to succeed in the twenty-first century, its facilities must

- enable learning and research
- accommodate growth
- anchor and support the objective scientific study of environmental impacts of oilsands and other resource development in northern Alberta
- be environmentally sustainable
- equip the university to become an integral part of the Athabasca regional economic engine and a contributor to northern Alberta's growing economic clout
- be flexible and adaptive to evolving technology and networking

- provide spaces for collaborative activities and encourage collegiality and interaction
- meet current building code and building systems standards
- provide a hospitable work environment attractive to prospective employees
- promote wellness and social progress within the AU community, the Town and County of Athabasca and the indigenous communities in the surrounding area

In pursuit of these goals, AU has developed a clear vision for steady, sustainable growth over the coming decade, one that requires significant investment in the development of its lands and physical assets and in the creation of essential educational and research facilities. Key planned facility and other capital projects are summarized below (Table 12) in order of priority under their BLIMS category.

Table 12: Priority Facilities and Other Projects*

	Fiscal Periods	Total Cost	AU Funding	Government or Other
Category I: Preservation of Existing Facilities and Systems				
Real Property Asset Management	2014-15 to 2017-18	$ 25,000,000	$ -	$ 25,000,000
Main Campus Building: Major Renovations	2015-16 to 2018-19	12,000,000	-	12,000,000
Library Collection	2014-15 to 2023-24	1,225,000	1,225,000	-
Equipment Renewal	2014-15 to 2023-24	1,775,500	1,775,500	-
Road Surfaces, Geotechnical Surveys, Landscaping and Trail Enhancements	2014-15 to 2017-18	2,600,000	-	2,600,000
Category Total		**42,600,500**	**3,000,500**	**39,600,000**
Category II: Expansion or Replacement Projects				
Integrated Learning Centre	2014-15 to 2016-17	24,000,000	-	24,000,000
Category Total		**24,000,000**	**-**	**24,000,000**
Category III: New Facilities				
Athabasca River Basin Research Institute and Learning Centre	2014-15 to 2018-19	46,525,000	-	46,525,000
Category Total		**46,525,000**	**-**	**46,525,000**
Total		**$ 113,125,500**	**$ 3,000,500**	**$ 110,125,000**

* Government support will be required for alternative financing option. Operational funding will also be requested.

1. Real Property Asset Management

   AU owns real property assets, including about 500 acres of land adjacent to the Athabasca campus. In early 2014, to assist in creating a long-term revenue source for the university, AU issued a Request for Proposals for a property consultant to assist in development of a strategic plan, a master urban development plan and a financial viability plan for development of the university's land. AU has approved $300,000 from its operating budget (to be allocated over the 2014-15 to 2016-17 fiscal years) for this endeavour. The university will also work with the Government of Alberta, the Town of Athabasca, the County of Athabasca and other public institutions to seek opportunities to enhance the development

potential of university land, while promoting and advancing important university and community partnerships. A long-term strategic vision for the development of the university land, together with a detailed feasibility plan, will enable AU to evaluate the prospects of generating revenue from these assets. A comprehensive plan for development of the university's land holdings will be geared to meeting future educational, social and community needs, while properly addressing environmental and technological challenges. Development of the university's land holdings will hopefully attract industry partnerships and spur academic, research and technological innovations, while providing AU with a stable financial endowment income stream. The estimated long-term development costs of the land are based on projected investment in 50 developable acres at $450,000 per acre, plus $2.5 million for planning, design and engineering costs.

2. Main Campus Building Major Renovations

   The main campus building at AU Athabasca is 30 years old. Although occasional repairs and alterations were carried out over the past three decades (AU is currently spending $375,000 to upgrade the building's emergency electrical systems), systems and structures have not been significantly upgraded to accommodate changes in technology, environmental compliance standards, health and safety regulations or the provincial building code. The building needs major systems overhauls and physical upgrades as, over the next 10 years, the rate of significant electrical, mechanical and structural systems failures is expected to increase as systems continue to age. Although functional design and planning have not yet begun, a February 2012 Facility Assessment Report carried out by Francis Ng Architects Ltd. identified a number of items as needing upgrading or replacement and pegged replacement costs at approximately $8,500,000. Although aspects of the structure's physical condition and systems were rated acceptable at the time of the evaluation, the report made clear that significant upgrades are necessary if the building is expected to continue to serve the university and its constituency for decades to come. Since the building was constructed in the early 1980's, environmental sustainability has also become an important goal. Investments in the greening of AU's main campus will contribute to this objective. Functional planning, estimated to cost $500,000, is planned for 2016-17.

3. Library Collection

   Major development of AU's digital repository is planned to increase the depth and breadth of online reference works and on-site collections. This development will include acquisition of a deep archive of online journal back files to meet the digital reference demands of students and to support expansion of master's programs and development of new doctoral programs.

4. Equipment Renewal

   Approximately $1.7 million is proposed for research and other equipment preservation.

5. Road Surfaces, Geotechnical Surveys, Landscaping and Trail Enhancements

   The Athabasca campus, landscaped using local vegetation and incorporating the 10-kilometre Muskeg Creek Trail System, was developed when the main campus building was constructed in the early 1980s. Over the years, the campus and trail system have been used by university staff and visitors, and they have served as a recreational area for the residents of Athabasca and the surrounding area and as an attraction for tourists. High use and the impact of the elements have led to deterioration of the internal roads, trail systems and the surrounding landscaping and vegetation and also created a number of potential safety hazards. The campus grounds, which include internal road and parking surfaces, walking trails and paths, landscaping and the nature trails system requires a major upgrade. Planned improvements include

   - upgrading and renewal of all hard surface walkways, modernization of crosswalks, upgrading of barrier-free curb cuts and ramps to current specifications with replacement of cracked or damaged sections, and refreshment high-traffic walkways
   - addition of proper lighting and campus cameras at key points to enhance security and safety management and to reduce potential for injury and exposure to liability
   - upgrading and renewal of soft landscape trails (shale, turf, boardwalks, timber stairs and timber platforms), particularly timber steps from the Muskeg Creek Trail to major campus buildings, including

pedestrian bridges, ensuring steady, safe and enjoyable climbs, and using techniques and technology that meet contemporary safety standards
- enhancement of soft landscape and vegetation in mature areas (turf, tree beds and shrub beds) and development of appropriate transitions from the natural boreal forest
- development of a paved parking lot for the Academic and Research Centre

The upgraded trails will also provide enhanced recreational amenities to residents of Athabasca and to tourists who visit the area. Improved interpretative plaques and informational systems along the trails will allow users to learn about the historical significance of Athabasca as the gateway to northern exploration and the development of the economic engine of the North, the importance of the boreal forest and its ecosystem, and the sustainable development features of the AU campus. Key aspects of this project are to improve access and to enhance safety in areas where surface deterioration has occurred leading to risks to personal safety and an increase in the incidence of slip and fall accidents.

Geotechnical surveys will be needed in conjunction with development of AU's Land Asset Management Plan, which will lead to diversification of the university's revenue sources and an increase in the productive use of underused lands.

6. Integrated Learning Centre

Projected costs for this infrastructure project consist of $3,000,000 for land, $2,250,000 for planning and design, and $18,750,000 for construction (based on $4,035 per m^2).

The university's AU Edmonton location occupies approximately 2,542 m^2 of space in the Peace Hills Trust Building in downtown Edmonton, and its Centre for Innovative Management occupies approximately 1,022 m^2 in the Grandin Plaza in St. Albert. For the past two years, the university has been exploring options for an AU-owned facility, in St. Albert or elsewhere in the Greater Edmonton Area, which would eliminate ongoing operating lease costs and consolidate all of AU's Capital Region operations in one Integrated Learning Centre. The expected benefits of this project include

- administrative efficiencies in registration, financial and support functions
- improved student access to registration, examination and career counselling services
- enhancement of AU's presence in the Greater Edmonton Area
- increased opportunities for collaboration with Edmonton-based post-secondary institutions on research and teaching
- increased commercialization opportunities for technological research
- improved working environment and support for Edmonton-based AU employees
- elimination of operating expenses attributable to the continually increasing rental rates and location changes associated with occupancy of leased space
- an increase the university's long-term asset base

Functional programming completed in 2009 identified space needs of approximately 3,700 m^2 to accommodate existing operations and staff. An additional 950 m^2 will be required to accommodate expansion of the university's activities in the decades to come. A $100,000 expenditure in fiscal 2014-15 will cover the costs of conceptual planning and some functional programming, with full design, planning applications and construction to follow.

7. Athabasca River Basin Research Institute and Learning Centre

Projected costs for this project break down as follows:

- services, architecture and engineering preparation: $3,825,000
- physical infrastructure: $25,500,000
- knowledge repository: $8,200,000
- exhibits: $9,000,000

AU is situated on the banks of the Athabasca River, the longest river in Alberta and one of the longest in Canada. The river originates on the eastern slopes of the Rocky Mountains and flows northeast, draining an area of approximately 160,000 km^2, flowing through the Athabasca oilsands and the Peace-Athabasca Delta before discharging into Lake Athabasca. Over the past three decades, oilsands development has been a significant driver of the provincial and national economies and has enhanced Canada's position as an

energy source. Recoverable resources are located in northern Alberta, particularly in the Fort McMurray, Wabasca and Athabasca regions. The challenge for all levels of government is to ensure that the oilsands are managed in an environmentally responsible way, and such management, especially with regard to water quality and ecosystem health, depends on the availability of credible monitoring and reliable scientific information.

The Athabasca River Basin Research Institute originated from the desire to bring scientific discipline to the study of issues relating to the environmental impacts of oilsands extraction and economic activities in the Athabasca River Basin. The proposed Athabasca River Basin Research Institute and Learning Centre building will

- facilitate applied research on the Athabasca River and the role it played in the geological formation and human settlement of the region
- serve as a focal point for environmental and ecological research
- serve as a water monitoring research centre
- serve as a base for education about the area and how its environment and economic development can co-exist
- serve as a historical interpretation centre, an archive and a library
- host conferences, conventions, seminars and educational sessions for academic, industry, governmental and aboriginal groups

This project will bring together, in a neutral physical and online environment, leading academics and representatives of industry, government, First Nations Peoples, non-governmental organizations and international stakeholders to explore innovative ways to maintain a healthy economy and environment in the Athabasca River Basin and, by extension, river basins throughout the world. The Athabasca River Basin Research Institute data repository will provide researchers in the environmental sciences with a powerful instrument with which to access and review information about the basin through a single portal. The proposed Athabasca River Basin Research Institute will also offer a unique learning resource for schools and post-secondary students and will provide opportunities for Athabasca River Basin communities to become involved in learning activities and to engage with post-secondary students. The institute's presence on the Internet will attract visitors to the Athabasca region.

Construction of the facility will generate a significant number of construction jobs and a few hundred indirect jobs in the community. The proposed 9,300 m^2 LEED Gold (or potentially LEED Platinum) facility will continue AU's tradition of innovative design.

While AU students will continue to do most of their learning in their home communities, the proposed facility will encourage cyber engagement and host on-site learning opportunities for a week or two at a time. It will also provide a venue in which to showcase the newest online learning strategies and learning hardware. Further, the new facility will provide a space in which the following key outcomes can be realized:

- Grant funded researchers can conduct their research while engaging highly qualified AU graduate students in specific research tasks, a critical outcome if AU is to be successful in the national granting council programs.
- Undergraduate and graduate students in courses related to the Athabasca River Basin can undertake boot camp activities.
- Community members, researchers and students can meet to address issues facing the people and communities of the Athabasca River Basin.
- Stakeholders can engage in dialogue on issues facing the Athabasca River Basin.
- Materials related to studies of the Athabasca River Basin can be made available, both physically and online, to students, researchers and members of the public.

Social benefits of the Athabasca River Basin Research Institute will include the public dissemination of research findings on the Athabasca River Basin, the development of a best practice model of engagement and the rebuilding of the community's image as a steward of natural resources and the environment. Creation of this facility is expected to have a very positive effect on AU's graduate student enrolment and the growing interest in the study of the environmental impact of economic development.

Initiating functional planning, preliminary conceptual design and proper project costing will require an expenditure of $500,000 in fiscal 2014-15. The balance of the planned funding will cover the costs, in the following years, of detailed design, engineering and construction, as well as those of the knowledge repository and appropriate exhibit space.

Projected Capital and ICT Infrastructure Expenditures and Revenue sources

Projected capital and information and communication technology infrastructure expenditures and revenue sources are detailed in the tables below.

Table 13: Summary – Projected Capital and ICT Infrastructure Expenditures and Revenue Sources

For the year ended March 31
(thousands of dollars)

	BUDGET 2014-15	PLAN 2015-16	PLAN 2016-17	TOTAL
CAPITAL AND ICT INFRASTRUCTURE EXPENDITURES				
Buildings, leaseholds and site improvements	$ 800	$ 3,550	$ 41,450	$ 45,800
Information technology	12,767	9,682	7,775	30,224
Equipment	276	50	50	376
Library and art collections	50	125	140	315
	$ 13,893	$ 13,407	$ 49,415	$ 76,715
External Capital contributions				
Provincial and other:				
Building	$ 800	$ 3,550	$ 41,450	$ 45,800
Information technology	6,263	7,009	4,803	18,075
EXPENDITURES, EXTERNALLY FUNDED	$7,063	$ 10,559	$ 46,253	$ 63,875
Internal Capital contributions				
Accumulated Surpluses (amortization)	$ 4,946	$ 2,018	$ 2,333	$ 9,297
Infrastructure Maintenance Program (IMP)	1,884	830	830	$ 3,544
EXPENDITURES, INTERNALLY FUNDED	$ 6,830	$ 2,848	$ 3,163	$ 12,841
	$ 13,893	**$ 13,407**	**$ 49,415**	**$ 76,715**

Table 14: Detail – Projected Capital and ICT Infrastructure Expenditures and Revenue Sources

For the year ended March 31
(thousands of dollars)

	BUDGET 2014-15	PLAN 2015-16	PLAN 2016-17	TOTAL
Buildings, leaseholds and site improvements				
EXTERNALLY FUNDED				
Real property asset management	$ 100	$ 100	$ 12,500	$ 12,700
Main Campus Building major renovations		500	4,500	5,000
Road surfaces, geotechnical surveys, landscaping and trail enhancements	100	450	1,300	1,850
Intergrated Learning Centre - Greater Edmonton	100	2,500	21,400	24,000
Athabasca River Basin Research, Conference, Archival and Interpretive Centre	500		1,750	2,250
Total buildings, leaseholds and site improvements	$ 800	$ 3,550	$ 41,450	$ 45,800
Information Technology - major projects				
EXTERNALLY FUNDED				
Hardware and software	$ 2,743	$ 3,070	$ 2,104	$ 7,916
Computing systems	400	448	307	1,154
Administrative systems	270	302	207	779
Learning and research systems	2,850	3,189	2,186	8,225
	6,263	7,009	4,803	18,075
INTERNALLY FUNDED				
Hardware and software	$ 792	$ 325	$ 362	$ 1,479
Computing systems	-	-	-	0
Administrative systems	3,411	1,402	1,559	6,372
Learning and research systems	2,301	946	1,051	4,298
	$ 6,504	$ 2,673	$ 2,972	$ 12,149
Total hardware and software	$ 12,767	$ 9,682	$ 7,775	$ 30,224
Equipment				
INTERNALLY FUNDED				
Research and other equipment	$ 276	$ 50	$ 50	$ 376
Total equipment	$ 276	$ 50	$ 50	$ 376
Library and art collections				
Library	$ 50	$ 125	$ 140	$ 315
Total library and art collections	$50	$ 125	$ 140	$ 315
TOTAL EXPENDITURES	$ 13,893	$ 13,407	$ 49,415	$ 76,715

Appendix A

AU PROGRAMS

Graduate Programs

AU offers the following nine graduate degrees as well as 12 graduate-level diplomas and certificates:

- Doctor of Education (Distance Education)
- Doctor of Business Administration

- Master of Arts (Integrated Studies)
- Master of Business Administration
- Master of Counselling
- Master of Education (Distance Education)
- Master of Health Studies
- Master of Nursing
- Master of Science (Information Systems)

Undergraduate Programs

In addition to 20 undergraduate certificate and diploma programs, AU offers the following undergraduate degrees, many of which are available through both regular and post-diploma programs:

- Bachelor of Arts, four-year (with a major in anthropology, Canadian studies, English, French, history, humanities, information systems, labour studies, political economy, political science, psychology, sociology or women's and gender studies or a combined major)
- Bachelor of Arts, three-year (general or with a concentration in English, French, history, humanities, information systems, labour studies, political economy, political science, psychology, sociology or women's and gender studies)
- Bachelor of Commerce (general or with a major in accounting, e-commerce or financial services)
- Bachelor of General Studies (in arts and science or applied studies)
- Bachelor of Health Administration
- Bachelor of Human Resources and Labour Relations
- Bachelor of Management, four-year (general or with a major in human resource management, marketing, or indigenous nations and organizations)
- Bachelor of Management, three-year
- Bachelor of Nursing (post LPN or post RN)
- Bachelor of Professional Arts (with a major in communication studies, criminal justice, human services or governance, law and justice)
- Bachelor of Science (general or with a major in human science)
- Bachelor of Science in Computing and Information Systems.

Appendix B

PROGRAM REVIEW CYCLE

This schedule is subject to changes recommended by the Deans and approved by the Office of the Vice-President Academic.

There are four general stages of the program review:

1. research and self-study
2. site visit and receipt of report by external reviewers
3. written response to review and self-study
4. report to the Academic Standards Committee of the General Faculties Council.

Annual updates are provided to the Academic Standards Committee until the next review cycle begins in five to seven years.

Table 1: Program Reviews in Progress

Program	Status of Review
Doctor of Education (Distance Education)*	Self-study in progress
Bachelor of Nursing (Post LPN)**	Self-study in progress
Bachelor of Arts	Self-study in progress
Master of Business Administration	External report June 2013
Master of Counselling	External report September 2013

* Desk review
**Review will be conducted alongside or in lieu of external accreditation requirements.

Table 2: Planned Program Reviews

Program	Start Date	Last Review
Master of Arts (Integrated Studies)	2014-15	2008
Master of Science (Information Systems)	2015-16	2008
Bachelor of General Studies	2015-16	2008
Bachelor of Science in Computing and Information Systems	2016-17	2009
Bachelor of Nursing (Post RN)	2016-17	2011
Master of Education (Distance Education)	2017-18	2011
Bachelor of Science	2021-22	2013
Bachelor of Commerce*	TBD	2008
Bachelor of Management*	TBD	2009
Doctor of Business Administration*†	TBD	2009
Bachelor of Professional Arts (Human Services)**	TBD	2010
Master of Health Studies	TBD	2012
Master of Nursing	TBD	2012
Bachelor of Health Administration	TBD	2012
Bachelor of Professional Arts (Communication Studies)**	TBD	2012
Bachelor of Professional Arts (Governance, Law and Management)**	TBD	-
Bachelor of Professional Arts (Criminal Justice)**	TBD	-

* Review will be conducted alongside or in lieu of external accreditation requirements.
** Aligning into a single review of BPA programs.
† Desk review

Appendix C

PLANNED NEW PROGRAMS

Approved December 2013:

- Post-Baccalaureate Certificate in Information Security

Approved February 2014:

- Bachelor of Science in Architecture

Submitted for targeted investment for enrolment expansion in 2013:

- Doctorate in Health Disciplines
- Master of Science in Environmental Science
- Post-Baccalaureate Diploma in Leadership and Management

Proposals in process with either Campus Alberta Quality Council or Alberta Innovation and Advanced Education:

- Bachelor of Science in Applied Mathematics
- Bachelor of Arts in Educational Studies
- Bachelor of Arts in Philosophy
- Doctorate in Computer Information Systems

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