Athabasca University

Comprehensive Institutional Plan 2013–16
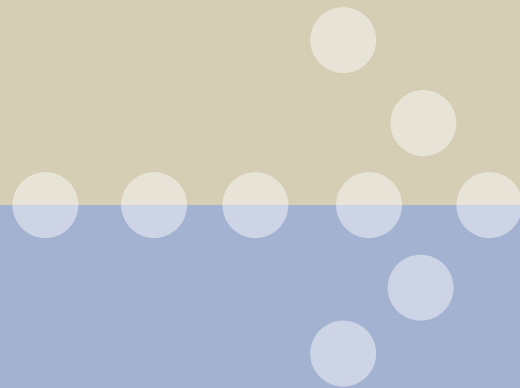
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ACCOUNTABILITY STATEMENT

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

June 7, 2013

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.

As a twenty-first century university using online technologies, AU provides open access to innovative learning opportunities and shares knowledge creation and dissemination with the broader community through its virtual campus. To retain what it has gained through its transformation to an online university, maintain its international reputation, ensure its sustainability and achieve its vision, AU must continue to innovate. By partnering with others, AU collaborates in identifying and developing quality systems and services that benefit learners, promote fiscal prudence, enhance productivity and contribute to Alberta's leadership in the digital knowledge economy.

Rooting its activities in principles of excellence, openness, flexibility and innovation, AU aspires to be the first choice of those seeking an online learning experience.

Environmental Context

Rapid changes in educational and mobile technologies and online learning are signalling changes in higher education. The global economic situation, worker mobility and the evolving nature of knowledge itself pose further challenges. The past year has witnessed major shifts in public education funding in the United States and, more recently, in British Columbia, where the government announced major funding for open educational resources. Recent developments can be grouped into three general categories: those associated with cost reductions (open educational resources, e-textbooks, private sector entrepreneurs, MOOCs), those focused on new forms of education (short courses, accelerated learning, personalized learning, badges) and those emphasizing learner feedback and improved design (learning analytics, authentic assessment, personalized feedback). While it is important to monitor trends and assess their potential (AU researchers are leaders in a number of these areas), the opportunity to develop an integrated system model that shares the results of development and testing through shared services is more likely to benefit the system overall.

Priority Initiatives

In the *Strategic University Plan: 2011-16*, AU articulated a set of goals to guide the university through the four-year planning period. They include maintaining AU's international leadership in quality open and distance education, ensuring the sustainability and adaptability of the university, recruiting and retaining excellent people, promoting excellence in research and building communities.

Since its inauguration in 1970, AU has developed an international reputation for providing quality individualized programming that allows learners to study when and where they can. In recent years, AU has been transitioning from a print-based learning environment to an innovative, open learning environment that personalizes learning to an even higher degree. Learning engagement with working adults who are seeking to enhance their skills, in particular, continues to grow, and 70 per cent of AU's undergraduate program students are the first in their family to seek a university degree.

AU will need to reform the structure of its course and program offerings to meet the needs of knowledge economy workers, who are accustomed to finding information online and who seek learning that addresses their own context. In response to this need, the university has undertaken a major review of courses and programs to ensure that programming is changing to align with learners' expectations. It is also engaged in curriculum mapping, identification of learning outcomes and an

assessment review, all geared to ensure alignment of course and program learning goals. Programs and courses have seven-year review and revision cycles and are updated yearly to maintain currency.

Development of the Open Learning Environment, an integrated software platform that includes learning management, content management, exam harmonization, learning analytics and relationship management systems, is ongoing. All student services, including access to courses and digital resources, are linked through the OLE. The goal is to provide an integrated online system that enables students to obtain information for themselves and access personal assistance when they require it. The integrated configuration will also measure performance against expected timelines and assignment criteria to help students manage their own learning paths more effectively. The OLE provides opportunities for shared service investments, which would allow Campus Alberta students to access learner support tools.

AU continues to support initiatives that encourage and enable participation by students from northern, rural and remote areas, indigenous and immigrant students, and students with disabilities. Many of these endeavours involve Campus Alberta partners and provide enrolment challenges for all concerned.

Through the Learning Communities Project, AU and northern Alberta colleges and band councils co-ordinated their activities to provide a single online resource to indigenous learners in remote and isolated communities. Establishing these partnerships, which are designed to encourage and support local capacity building, has taken time and trust, and it will be important to sustain them.

Critical research on topics such as personalization and adaptivity, digital technology innovation, learning analytics and social software applications, and the use of mobile devices is integral to programming choices and access initiatives and directly supports the university's mission and mandate. AU researchers in environmental management and chronic disease management also contribute to Alberta's research goals. Faculty members working in these and other areas continue to obtain national and international grants to support their work. However, granting agencies increasingly require matching funds and ongoing support for research teams, including post-doctoral fellows and doctoral students. AU must establish sufficient base funds to be able to support this developing research infrastructure.

Working with online learning and knowledge-management (educational technology) companies to extend opportunities for knowledge dissemination and transfer is the focus of innovation activities at AU. Initiatives involving Alberta Innovates corporations, TEC Edmonton and the National Research Council promote co-operation to leverage faculty and graduate student expertise in a variety of areas, including pilot research in application development and deployment with small and medium enterprises.

Capital Plan

Over the past decade AU has transformed itself from an electronically enhanced, print-based university-level distance education provider to an online university offering innovative pre-professional and graduate programs. This transition posed significant challenges, not least of which were the creation of new learning methods, unproven in the sector, and the necessity of implementing new technologies within narrow operating and capital budget constraints.

AU's 10-year Capital and ICT Infrastructure Plan outlines the core initiatives the university is following to achieve its vision of the Open Learning Environment. Over the coming year, the focus will be on improvements to course creation, delivery and assessment systems, expansion of student services and interaction capabilities, upgrading of administrative systems and first steps toward data warehouse and academetrics initiatives.

Many challenges remain as AU continues its transition to a fully digital learning and research environment; nevertheless, the university has not wavered in its commitment to this path. To realize its vision, AU will continue to work with local, national and international partners to develop and adopt the educational technologies needed to create superior and sustainable learning systems.

Consolidated Budget

Prepared under PSAS accounting principles, AU's 2013-14 budget reflects the complete portfolio of restricted and unrestricted funds and includes general operations, research activities, capital projects and ancillary operations. The balanced budget shows revenue and expenditures of $129 million. In the subsequent two years, the university intends to balance the budget or run small surpluses.

AU continues to strive for a balanced approach, maintaining the quality of its course and program offerings and services, maximizing its resources and striving for administrative efficiencies in its efforts to create a more sustainable budget model. Balancing the budget is critical, but capital funding identified in previous budgets is essential to completion of AU's transformation to an online university. Achievement of this goal necessitates a review of the university funding model.

Resource Implications

Resource implications identified in this Comprehensive Institutional Plan include the need to restrict or reduce student enrolment in oversubscribed areas and opportunities for renewal and reconfiguration of program offerings in response to stakeholder interests. Significant capital investments are needed to develop and sustain the online learning environment, which, once complete, may provide service support options for Campus Alberta.

Sustainable government funding in support of learning and research activities continues to be a major budget risk. Other risks to the university's financial position include staff compensation costs outpacing revenue increases, slowing enrolment growth, low investment returns and increased Universities Academic Pension Plan liability. To ensure its long-term sustainability, AU is taking steps to mitigate each of these risks.

EXPECTED OUTCOMES AND PERFORMANCE MEASURES

The table below aligns the planned outcomes and associated performance measures elaborated in this Comprehensive Institutional Plan with the goals of AU's *Strategic University Plan: 2011-16*. Details and three-year targets for each planned outcome are presented on the referenced page(s) of the CIP.

SUP Goal	Expected Outcomes	Performance Measures	Page
To be the leader in quality open and distance education	Improved student success rates	• Percentage of program students who complete six credits a year • Undergraduate course completion rate • Number of degrees awarded	26
	Consistent application of evidence-based practice in pedagogy and curricular development	• Percentage of students satisfied with educational experience • Percentage of students rating education good or excellent	26
	Easy student and researcher access to excellent research and learning resources	• Use of library resources • Value of student awards	22
	Recognition of AU as university of choice for graduate students in key programs	• Percentage of Alberta graduate students enrolled in priority areas	31
	Increased enrolment by members of targeted student groups	• Number of aboriginal students • Number of students using services for students with disabilities • Number of rural and northern students	22
	Recognition of AU researchers as leaders in learning technologies that enhance open access	• Number of invitations to AU faculty members to deliver keynote addresses or presentations about open and distance learning	26
To ensure sustainability and foster adaptability	Revenue increased to or above the level indicated in the annual budget	• Balancing of budget • Value of donations	42
	Development and maintenance of capital infrastructure to permit sustainable growth	• Value of infrastructure grants	42
	Implementation of ICT capital plan	• Capital projects executed	
To recruit and retain excellent people	High employee engagement in terms of university benchmarks	• Percentage of employees proud to work for AU	42
	Implementation of staff development plans, integrated with performance management	• Percentage of staff completing training/credentials	
To promote excellence in research	Increased research activity	• Value of sponsored research income per faculty member • Council grant success rate • Increase in research revenues from tri-council, industry and community sources	31
To build communities	Increased number of partnerships and collaborations	• Number of students from Alberta colleges and technical institutes enrolled in post diploma programs	39
	Increased number of strategic partnerships with business, industry and other stakeholders and increased scope of partnerships	• Number of faculty members engaged with small and medium enterprises • Number of sponsored commercialization initiatives • Number of graduate students working in industry settings	37

INSTITUTIONAL CONTEXT

Mandate[1]

Founded in 1970 and operating as a comprehensive academic and research institution under the authority of the *Alberta Post-secondary Learning Act*, Athabasca University 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, Athabasca University 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, Athabasca University 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, Athabasca University 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.

Athabasca University 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 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 Athabasca University'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.

Athabasca University 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

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

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, Athabasca University makes significant contributions to cultural, scientific and professional development in Alberta and beyond.

Athabasca University'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.

Vision

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 benefit the world.

Mission Statement[2]

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 Athabasca University'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.

Values

The members of the Athabasca University 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.

2   May 1985; reconfirmed October 2011.

- 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

AU's *Strategic University Plan: 2011-16*, approved by the Board in June 2011, is the foundation document for all long- and short-term university planning. Based on extensive internal and external stakeholder input, that plan gives direction to major academic and research initiatives as well as community development activities and human resources and fiscal policies. The document identifies five major university goals:

- to be the leader in quality open and distance education
- to ensure sustainability and foster adaptability
- to recruit and retain excellent people
- to promote excellence in research
- to build communities.

The plan also lists strategic objectives and key expected outcomes and performance measures relative to each major goal. Those goals, objectives, expected outcomes and performance measures are reflected in the initiatives outlined in this Comprehensive Institutional Plan.

Within the larger context of ongoing discussions with Alberta Enterprise and Advanced Education, the process of developing the Comprehensive Institutional Plan is part of a multi-year planning cycle in which assessment of activities carried out in past years informs planning and resource allocations for subsequent years. Yearly reporting deadlines for achievements by units and divisions coincide, in the May to July period, with deliberations on the key measures and operational priorities 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 on this same information. These decisions, in turn, inform budget and divisional business planning documents which are due in late October. Normally about this time, Alberta Enterprise and Advanced Education officials visit to provide an update and overview of ministry priorities and discuss institutional opportunities and challenges. Each member of the executive 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 relevant committees, the draft Comprehensive Institutional Plan is approved by the Board in March, prior to its submission to Alberta Enterprise and Advanced Education.

Normal business planning processes and the usual steps toward CIP development, as outlined above, were significantly modified in 2013 as a result of three government announcements: the seven per cent cut to operating grants contained in the March 7 provincial budget, the blanket system directives outlined in the March 22 draft letter of expectations from Alberta Enterprise and Advanced Education, and the province-wide tuition freeze and directives to Board chairs related to personnel costs announced on April 18.

Internal Consultations

Through its formal governance and committee structures, AU consults regularly with its internal stakeholders on development of the Comprehensive Institutional Plan. Once prepared, the document goes through several rounds of review and feedback from members of the Executive Group and senior management. It then goes to the Academic Planning and Policy Committee of the General Faculties Council and to the Finance and Property Committee, the Academic Affairs Committee and the Executive Committee of the Board before being submitted for full Board approval.

Prior to the budget crisis precipitated by cuts to its operating grants and the province-wide tuition freeze, AU was already attempting to identify administrative efficiencies and to improve responsiveness

to learner needs. In response to a comprehensive institutional self-study carried out as part of the Middle States Commission on Higher Education reaccreditation process and subsequent Review Committee recommendations,[3] AU is undertaking a broad-scale curriculum mapping and alignment project to support its learning outcome assessment plan. This process has informed key academic components of this Comprehensive Institutional Plan, including those related to improving teaching and learning, quality assurance and curriculum renewal.

To support the development of an Enrolment Management Plan, AU engaged in a university-wide consultation on student success and engagement during the fall of 2012. These discussions included all units involved in tutoring, learning support and student services throughout the student lifecycle from potential student to alumni. Outcomes included identifying priorities and specific links between unit activities and strategic objectives under the goals outlined in the *Strategic University Plan: 2011-16* and informing academic and infrastructure components of this Comprehensive Institutional Plan.

Following the government announcements in March and April 2013, faculty, staff and student groups were provided with opportunities to discuss developments in the post-secondary education environment at open town-hall-style meetings. Special meetings of the General Faculties Council and the Board of Governors were also convened to review updates to the draft Comprehensive Institutional Plan which had been approved in principle in March prior to scheduled discussions with Enterprise and Advanced Education officials in May.

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 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.

Members of Campus Alberta, eCampusAlberta and post-secondary institutions were consulted on a range of matters including prospective shared facility arrangements, academic collaborations and credit transfer, shared research initiatives and collaborations on special projects. The Campus Alberta South initiative has provided opportunities for discussion of items of shared interest.

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[3] The year-long self-study was an institution-wide consultative process to review programs and services, governance and support structures, institutional resources and educational outcomes, all in relation to the university's mission and goals. That process was completed in the fall of 2010, and the committee's recommendations on ways to further enhance the university's standing were received in 2011.

ENVIRONMENTAL CONTEXT

The global economy is undergoing profound changes, as evidenced by technological advances, capital flows, globalization, worker mobility, increased employment opportunities in knowledge work, social unrest, the emergence of new economies and the decline of long established economies. Together, these changes reflect a big shift[4] economically and socially, one that is unprecedented in modern times and that has significant implications for corporations, governments and societies worldwide. The pace of change will increase over the next 20 years as megatrends and game changers continue to mature.[5]

The Emergent Need for New Forms of Education

Higher education similarly faces change drivers that are "unprecedented in scope and diversity."[6] While some governments are concerned that the "current system is unsustainable from a financial and quality perspective,"[7] top tier universities that have recognized the scope of required change are calling for rapid responses, citing concerns that incremental change is no longer sufficient.[8] The university sector is preparing for a future in which technology will play a greater role in meeting society's increasingly diverse knowledge needs.

Despite calls for change and predictions of disruption, global enrolment in higher education has continued to expand by an average 4.6 per cent annually, the total student population doubling every 15 years.[9] This trend has accelerated since 2000. Clearly, investing in a post-secondary degree is perceived to offer significant financial rewards to individuals, families and societies,[10] including better access to quality jobs, lower unemployment and breaking the cycle of poverty.[11]

The nature of work is also changing as the economies of developed nations transition to the long-rumoured knowledge economy.[12] The number of jobs requiring advanced education continues to grow while the number of traditional labour and manufacturing jobs declines. Traditional jobs that do remain now frequently require higher levels of education.[13]

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[4] John Hagel III, John Seely Brown, and Duleesha Kulasooriya, *The 2011 Shift Index: Measuring the Forces of Long-term Change* (Deloitte Center for the Edge, 2011). http://www.deloitte.com /assets/Dcom-UnitedStates/Local%20Assets/Documents /us_tmt_2011shiftindex_111011.pdf.

[5] The National Intelligence Council, *Global Trends 2030: Alternative Worlds* (2012). http://www.dni.gov/nic/globaltrends.

[6] Philip G. Altbach, Liz Reisberg, and Laura E. Rumbley, *Trends in Global Higher Education: Tracking an Academic Revolution* (UNESCO World Conference on Higher Education, 2009). http://unesdoc.unesco.org/images/0018/001831/183168e.pdf.

[7] Commission on the Reform of Ontario's Public Services, *Public Services for Ontarians: A Path to Sustainability and Excellence* (2012). http://www.fin.gov.on.ca/en/reformcommission/chapters/ch7.html.

[8] Carol S. Wood, "Rector Dragas' Remarks to VPs and Deans," *UVA Today* (June 10, 2012). http://www.virginia.edu/uvatoday/newsRelease.php?id=18791.

[9] UNESCO Institute for Statistics, *Global Education Digest 2009: Comparing Education Statistics Across the World* (Montreal, 2009). http://unesdoc.unesco.org/images/0018/001832/183249e.pdf.

[10] Craig Alexander and Shahrzad Mobasher Fard, "Post-secondary Education Is the Best Investment You Can Make," *TD Economics* (September 12, 2011). http://www.td.com/document/PDF/economics/special/sf0911_education.pdf.

[11] *The Economics of Higher Education: A Report Prepared by the Department of the Treasury with the Department of Education* (Washington, 2012). http://www.treasury.gov/connect/blog/Documents/20121212_Economics%20of%20Higher%20Ed_vFINAL.pdf .

[12] Susan Lund, James Manyika, and Sree Ramaswamy, "Preparing for a New Era of Work," *McKinsey Quarterly* (November 2012). https://www.mckinseyquarterly.com/Economic_Studies/Productivity_Performance/Preparing_for_a_new_era_of_knowledge-work_3034.

[13] 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 (2012). www.mckinsey.com/~/media/McKinsey/dotcom/client_service/Organization/PDFs/State_of_human_capital_2012.ashx.

The centrality of higher education in preparing people for knowledge work is not in question. Higher education plays a critical role in revitalizing regional economies through research and knowledge growth and by preparing individuals and companies for innovation.[14] For university leaders, the challenge is to develop and articulate a vision of education that meets the needs of a dynamic global marketplace and economies rooted in intellectual work rather than traditional labour. In particular, universities must recognize that the changing nature of the economy demands new approaches to servicing a diversified student population. Education is no longer a four-year, one-time event that prepares students for the workforce. Education today must meet the challenge of changing student profiles,[15] reskilling entire workforces transitioning to knowledge work, and equipping regional and provincial economies to compete globally.

Whether or not, as has been suggested, the Internet and emerging technologies completely reshape higher education,[16] it is clear that the changing nature of knowledge creation and dissemination through advances in communication technologies, coupled with changes in student demographics, changes in the workforce and the transition to knowledge work will strongly influence future directions. Provincial organizations such as the Higher Education Quality Council of Ontario have recognized the need for substantive change.[17] As a result of its early investments in online and distance learning and supporting technologies, Alberta is well positioned to meet the needs of this diversified learner market.

The Global Growth of Online Learning

Online education has long been validated as an effective method of learning, and it has experienced exponential growth over the past decade.[18] Numerous studies have concluded that the experience of learning online is comparable to in-class learning.[19] The significant growth in online learning[20] is expected to increase: the global post-secondary sector is expected to grow at a rate of eight per cent annually between 2012 and 2017, while online education is predicted to grow at a rate in excess of 30 per cent annually during the same period.[21] College and university leaders are predicting a dramatic increase in student numbers in the next 10 years.[22]

Despite the growth of the online learning market and research validating the effectiveness of online learning, it has not been widely adopted by mainstream post-secondary institutions until recently. Online learning expert Tony Bates sees the current shift to adoption as being driven by a combination of factors including increasing student dissatisfaction with large first- and second-year courses, university board demands for greater productivity and greater use of the Internet by faculty members.[23]

[14] David F. Shaffer and David J. Wright, *A New Paradigm for Economic Development: How Higher Education Institutions Are Working to Revitalize Their Regional and State Economies* (Albany, NY: The Nelson A. Rockefeller Institute of Government, 2010). http://www.rockinst.org/pdf/education/2010-03-18-A_New_Paradigm.pdf.

[15] 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.

[16] Nathan Harden, "The End of the University as We Know It," *The American Interest* (January/February 2013). http://the-american-interest.com/article.cfm?piece=1352.

[17] *Annual Report 2011-12*. http://www.heqco.ca/SiteCollectionDocuments/HEQCOAR12_EN_web.pdf.

[18] Greg Toppo and Christopher Schnaars, "Online Education Degrees Skyrocket," *USA Today News* (August, 7 2012). http://usatoday30.usatoday.com/news/education/story/2012-08-07/online-teaching-degrees/56849026/1.

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

[20] I. Elaine Allen and Jeff Seaman, *Going the Distance: Online Education in the United States, 2011* (Babson Park, MA, Babson Survey Research Group and Quahog Research Group, 2011). http://www.onlinelearningsurvey.com/reports/goingthedistance. pdf.

[21] GSV, EDU, *Education Sector Factbook 2012*. http://gsvadvisors.com/wordpress/wp-content/uploads/2012/04/GSV-EDU-Factbook-Apr-13-2012.pdf.

[22] Kim Parker, Amanda Lenhart, and Kathleen Moore, *The Digital Revolution and Higher Education: College Presidents, Public Differ on Value of Online Learning* (Pew Research Centre, 2011). http://pewsocialtrends.org/files/2011/08/online-learning.pdf.

[23] "Outlook for Online Learning in 2013: Online Learning Comes of Age," *Online Learning and Distance Education Resources* (January 6, 2013). http://www.tonybates.ca/2013/01/06/outlook-for-online-learning-in-2013/.

Prominent Trends in Online Learning

Among the multiple developments in online education, new technologies and mobile learning, distinct trends are emerging.

Open Educational Resources: Open educational resources reflect the maturation of a trend that began in the late 1990s, largely an educational application of the principles of open source software under the share system of Creative Commons. OERs can include course content, tutorials, videos, textbooks and other resources, which universities share openly for the benefit of society and learners. British Columbia led the first major Canadian open textbook initiative.[24]

E-textbooks: E-textbooks, or e-texts, are digital versions of textbooks. They include both course books, written by faculty members and published online under Creative Commons and available for free (essentially OERs), and electronic textbooks prepared by commercial publishers and sold online. E-texts are an increasingly popular alternative to printed texts as they offer not only reduced costs and a smaller environmental footprint but, more importantly, learning features such as search, bookmarking, annotating, excerpting and citing functions. Commercial e-texts are often linked to online digital laboratory and assessment sites that provide further learning resources. In addition, e-texts enable the study of students' pattern-of-use and comparative analysis of learning performance. Future directions include building on the capabilities of e-book readers to enhance the learning experience through customization, integration, collaboration and social networking.

Learning Analytics and Big Data: Learning analytics is concerned with collecting and analyzing data generated through the learning process for the purpose of assisting students and instructors to optimize student learning. The learning analytics research community is developing rapidly. Big data has tended to focus on institutional issues, using early warning systems, predictive models and advanced analytics to increase student retention, improve decision-making and increase organizational efficiency.[25]

Massive Open Online Courses: In 2011, as elite universities started experimenting with online educational models, a significant transition in public perception emerged: online and blended learning are now perceived as the future of learning. Since the fall of 2011, prominent public and private universities around the world have embraced online learning, mainly through a particular type of course, sometimes referred to as a massive open online course, or MOOC. The trend toward development of such courses became significant over the past year, with the *New York Times* declaring 2012 the "year of the MOOC."[26] Some MOOC initiatives such as Coursera are expected to generate revenue for universities. Others, such as MIT and Harvard's edX, are expected to provide traditional universities with research in teaching and learning online. A number of universities around the world have joined Coursera or initiated regional and national alternatives (such as Future Learn in the United Kingdom). In the United States, open online courses have raised public discussion of post-secondary education to a level not seen since the introduction of the GI Bill in the 1940s.[27] The impact of MOOCs is uncertain, but early indications are that they will influence universities to move online, reduce tuition

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[24] "B.C. to Lead Canada in Offering Students Free, Open Textbooks" (British Columbia Ministry of Advanced Education and Technology Press Release, October 16, 2012). http://www2.news.gov.bc.ca/news_releases_2009-2013/2012AEIT0010-001581.htm.

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

[26] 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.

[27] Lev Gonick, "The Year Ahead in IT, 2013," *Inside Higher Ed* (January 3, 2013). http://www.insidehighered.com/views/2013/01/03/predictions-about-higher-ed-technology-2013-essay.

and increase experimentation.[28] However, low completion rates underscore the fact that economic models of outsourced content do not provide sustainable student support systems and that variable quality can rapidly undercut any reputational freemium benefits to institutions.

Start-ups and Entrepreneurship: Corporate higher education activity is growing, with increased capital flows into educational start-up companies[29] as investors see opportunities in new technological approaches to teaching and learning. Investors, aware of the impact that technology has had on newspapers, music and movies, recognize similar opportunities in education's "Internet moment."[30] Cities like Chicago and New York have created education start-up spaces that include hundreds of companies driven by hundreds of millions of dollars in regional economic investment.[31] Traditional universities that failed to develop capacity for teaching and learning with technology over the past decade are now contributing to the growth of commercial activity in higher education as they attempt to buy capacity through partnerships with commercial enterprises such as Pearson PLC. Companies such as Embanet and 2U are working with universities to develop entire online programs.

Short Courses: Increasingly, people are choosing learning experiences that come in smaller and smaller packages: chunks, modules and other short courses. Whether they are offered by employers, publishers, communities of interest or more traditional education providers, these mini, just-in-time learning experiences offer great potential to raise the knowledge or skill set of sections of the population that are not likely to participate in a traditional post-secondary course or program. Producers of the materials for such courses range from academic publishers to fashion houses, and their goal is often to learn more about their customers and engage them at a learning level through a high-quality learning product. Pearson PLC has gone further, not only running courses but also providing assessment services.[32]

Alternative Assessment and Evaluation Models: One aspect of learning analytics is to provide students with regular, real-time feedback on their activities. This form of self-assessment helps develop self-regulation skills through which students can monitor and change their own activities to enhance their performance. Opportunities for students to test themselves and estimate their likely exam score and other gaming strategies are being added to courses to encourage student retention. Through OERs, MOOCs, short courses and online learning, students encounter learning content and resources from multiple institutions, but many of these provide no opportunity for formal assessment. Universities are searching for alternative assessment and evaluation models, particularly for models that enable personalized learning based on knowledge that students already possess.[33] Badges[34] offer another means of acknowledging skills and achievements acquired outside the formal system: learners can develop a portfolio of badges to provide a picture of their skills and competencies. There is a need to aggregate, assess and certify learning gained through these various means to provide recognition for cumulative learning.

[28] John Daniel "Making Sense of MOOCs: Musings in a Maze of Myth, Paradox and Possibility," *Online Learning and Distance Education Resources* (September 25, 2012). http://www.tonybates.ca/wp-content/uploads/Making-Sense-of-MOOCs.pdf.

[29] Deborah H. Quazzo, Michael Cohn, Jason Horne, and Michael Moe, *Fall of the Wall: Capital Flows to Education Innovation* (Chicago, GSV Advisors, July 2012). http://gsvadvisors.com/wordpress/wp-content/themes/gsvadvisors/GSV Advisors_Fall of the Wall_2012-06-28.pdf.

[30] Nick DeSantis, "A Boom Time for Education Start-Ups," *The Chronicle of Higher Education* (March 18 2012). https://chronicle.com/article/A-Boom-Time-for-Education/131229/.

[31] Christopher Nyren, "Educelerate: Chicago's Central Role in EdTech Innovation," *Edreach* (November 29, 2012).http://edreach.us/2012/11/29/educelerate-chicagos-central-role-in-edtech-innovation/.

[32] Mike Sharples et al., *Innovating Pedagogy 2012: Exploring New Forms of Teaching, Learning and Assessment to Guide Educators and Policy Makers* (Milton Keynes, UK: The Open University, 2012). http://www.open.ac.uk/personalpages/mike.sharples/Reports/Innovating_Pedagogy_report_July_2012.pdf.

[33] U.S. Department of Education, Office of Educational Technology, *Expanding Evidence Approaches for Learning in a Digital World* (2013). http://www.ed.gov/edblogs/technology/files/2013/02/Expanding-Evidence-Approaches.pdf.

[34] Peer 2 Peer University, *Get Feedback on a Project You Love.* http://badges.p2pu.org.

Social Media and Mobile Learning: Social media and networked technologies are prominent means of discourse, interaction and learning. The popularity of tools such as Facebook and Twitter has generated interest in how these tools can be used in education.[35] YouTube has attracted wide interest because of its ability to transmit videos to illustrate specific topics. Mobile learning, which began on a variety of dedicated portable tools such as e-readers, has been challenged by the ubiquity of the iPhone and similar mobile devices, which amalgamate many computer capabilities.

Distributed and Online Research and Innovation: Over the past decade, much of the attention on technology in education has been focused on teaching and learning. Understanding the effect of technology on research methods and processes is now emerging as a focus. The future of science is expected to be online, distributed and digital, enabling researchers from around the world to connect and collaborate.[36] Scholarship is also increasingly digital as growing numbers of academics publish in open online journals and participate in social media networks.[37] 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.[38]

Shared Services: In response to the costs of moving into the online world, a growing trend has been to participate in a shared services model through which partners share administrative and upkeep costs for services from an external provider while accessing their own variant from an icloud. The services might range from 24/seven tech support to student support, hosting the learning management system, or course design or assessment services. Internal provision of services, a model through which services are shared among peers, allows for fewer concerns about change management and cultural norms, whereas complete divesting can lead to a decline in development and a lowering of internal competencies, a concern should one subsequently want to move more activities in-house. In a competitive global market, individual development of high-quality services that remain integrated yet continually innovate to meet market demand is a complex and challenging assignment. Co-operation that enables shared services and reduces individual costs provides the opportunity to benefit from system-wide developments and to participate in a more integrated economic model while retaining individual quality and service effectiveness.

Both K-12 and higher education in Alberta have been affected by the global trends described above, a point that was made clear at the OER workshop co-sponsored by AU, Alberta Enterprise and Advanced Education and eCampusAlberta in December 2012. Individual examples include emergent talks about shared resources with BCcampus, the University of Alberta's movement late last year to MOOCs and the ongoing pressure across Campus Alberta to increase access to technologies and other learning resources. Other provincial factors that have or are about to shape AU's environment include

- the new directions and emphases resulting from the 2012 election
- Alberta Enterprise and Advanced Education's efforts to integrate enterprise into core activities and programs
- the move to results-based budgeting

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[35] Frank Rennie and Robin Mason, *E-Learning and Social Networking Handbook: Resources for Higher Education* (Abingdon, UK: Routledge, 2008).

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

[37] 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.

[38] 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.

- the recent fiscal pressures caused by the drop in gas and oil revenues
- the ongoing workforce challenges associated with a low unemployment rate[39]

Athabasca University's Position Relative to Trends in Online Learning

The potential value of the trends outlined above has to be assessed relative to a particular institutional context. AU's faculty is deeply involved in many of these trends, a number being at the forefront of developments in specific areas. Their research provides the university with valuable information and opportunities to test possibilities. AU believes that while it is important to focus on the essentials of quality, program options and cost, it must remain very aware of these initiatives and assess their possible benefits to the university and its students.

Continued emphasis on online education by campus-based institutions is expected to challenge AU's traditional market of visiting undergraduate students, but in line with Canadian demographic trends, AU is well placed to respond to the growing numbers of employed part-time learners who are seeking a variety of learning options and paths to help them meet their learning and career goals. In responding to these learners, AU will need to remain closely connected to developments in educational technologies, online learning, professional learning and knowledge economy requirements so as to continue to provide opportunities that best meet the demand for increasingly flexible, modular, personalized learning options.

Relationship to Alberta Strategic Documents

The following four provincial strategic documents have influenced AU's ongoing work and university planning.

The 2012-15 Government of Alberta Strategic Plan[40]: The plan focuses on communities and families, Alberta's economic future and resource stewardship. Particular areas of relevance to AU include Goal 3: Healthy Albertans (nursing and health promotion); Goal 4: Invest in Learning (academic and research programs, including research and development and through partnerships in aboriginal communities); Goal 6: Innovative and Responsible Resource Development (Athabasca River Basin Research Institute); and Goal 7: Build Relationships and Markets (EdInnovation Conference and related initiatives).

The Advanced Education and Technology Business Plan 2012-15[41]: This plan provides direction for AU primarily in the following areas:

- Goal 1 focuses on multi-institutional initiatives, quality assurance, community linkages and initiatives associated with innovative programs, services and technology. AU strives, in particular, to help Campus Alberta achieve student satisfaction targets.
- Goal 2 references a growing area of interest for AU as the university seeks to cultivate a culture of innovation, support the development and adoption of technology platforms, and build internal and external knowledge transfer and commercialization capacity. The university aspires to find more ways to contribute to the ministry's graduate student, research revenue, and research and development investment metrics.

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[39] Alberta Enterprise and Advanced Education. *Campus Alberta Planning Resource*. http://www.eae.alberta.ca/capr.

[40] Government of Alberta, *Budget 2012: Investing in People: Government Strategic Plan*. http://finance.alberta.ca/publications/budget/budget2012/goa-business-plan.pdf.

[41] http://finance.alberta.ca/publications/budget/budget2012/advanced-education-technology.pdf.

- Goal 3 of the plan focuses on a traditional area of strength for AU, one in which the university would welcome the opportunity to support emergent province-wide initiatives in First Nations, Métis and Inuit attainment, enhancing learner pathways and the creation of a seamless learning system. AU can help achieve participation, completion and cost satisfaction performance outcomes.

The 2012 Alberta Research and Innovation Plan[42]: Strategy 1: Building Research Capacity, Strategy 2: Focusing on Target Areas, and Strategy 3: Developing a Dynamic and Aligned Learning and Research and Innovation System are all central to AU objectives. The university looks forward to further strengthening its capacity to support Alberta's highly qualified personnel and research infrastructure needs and to partner with Alberta Enterprise and Advanced Education, Alberta Innovates Technology Futures and other innovation organizations to support strategic research investment, knowledge transfer and commercialization in areas of strength including productivity, project management, health, information and communication technology and education technologies. AU is working collaboratively with TEC Edmonton, the National Research Council and others to enhance collaboration, optimize resources and foster entrepreneurialism both at the university and across the province.

The 2012 Campus Alberta Planning Resource[43]: The three priority directions: (1) support Alberta's economic and social progress so we can reach our full potential, (2) focus on outcomes and (3) enhance system collaboration and partnerships are all integral to AU's goals. The university supports the strategic focus on expanding the culture of entrepreneurship and productivity through technological change and innovation, as reflected in this Comprehensive Institutional Plan. AU also seeks to work with Alberta Enterprise and Advanced Education, its post-secondary partners and business and industry to help close the participation gap for under-represented groups in post-secondary education and to provide flexible learning opportunities which engage part-time learners and help them succeed.

Together with the themes articulated in AU's *Comprehensive Institutional Plan: 2012-15* (innovation, reducing barriers and moving into a digital age), the global and Alberta changes and pressures identified above have already played a key role in shaping AU and will continue to do so. Through existing and planned initiatives and collaborations, AU looks forward to contributing, with the Government of Alberta, Alberta Innovates and Campus Alberta, to these important developments.

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[42] Provided to the university in August 2012.

[43] http://www.eae.alberta.ca/capr.

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 (2013-16):

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's leadership in quality open and distance education is recognized nationally and internationally. The university aspires to leverage its knowledge reserves, research capacity and technological resources to offer relevant post-secondary education of the highest quality, to provide access to students from all regions and backgrounds, to promote open access to scholarly information and to support the development of tools and skills critical to success in the digital environment. As a Campus Alberta partner, AU seeks to facilitate opportunities for students eager to complete their post-secondary learning while living in their home community and attending local colleges or universities. By further developing its online learning environment, engaging in pure and applied research and promoting innovation, AU will continue to contribute to maintenance of Alberta's place at the forefront of the new learning revolution.

Based on the overall goal of enhancing not only access but also success, academic initiatives involve providing authentic learning experiences and learning resources that actively engage learners and allow them to build on their personal experience to increase their knowledge and acquire and demonstrate their skills competence. The success of these initiatives depends on

- continuously upgrading learning technologies and developing and adopting new learning technologies that enhance open learning environments
- continuously improving the quality and responsiveness of undergraduate and graduate courses and programs
- meeting the part-time learner needs of adult workers through individualized student support services

Research is fundamental to AU's identity and integrity. The university is recognized globally for its leadership in open and distance education research, and its reputation for research in other academic areas is growing steadily. Enhancing AU's research profile is essential to attracting students, especially to graduate programs, and broadening the pool of highly qualified personnel with affiliations to Alberta. Supporting a robust and supportive research culture includes balancing a full range of disciplinary, dissemination and instructional initiatives fostered in a climate of academic freedom. Interdisciplinary approaches and partnerships within and outside the academy foster creativity and innovation. Research in the social sciences and humanities is vital to understanding and sustaining an engaged citizenry ready to respond creatively to a new economy and its unforeseen disruptions.

Research and development activities link closely with institutional research directions and a network of clusters involving researchers, their students and small and medium enterprises, each focused on activities which can assist companies resolve issues, test products and develop prototypes. The overall goal is to lead and contribute to development of an educational technology sector in Alberta. One element of this goal is the development of a research and innovation system that networks graduate and undergraduate students with start-up and established companies to provide problem-solving and

resource solutions through the activities of faculty members who are acknowledged research leaders in online learning environments. Such an ecosystem of educational technology companies with a shared interest in creating innovative products will in turn sustain AU's own competitive edge.

Quality is found not only in innovative programs that meet learners' needs and attract employers' attention but also in an integrated and sophisticated online environment that provides learners with ready responses to their information needs and includes specially designed learning resources that sustain their learning while providing access to digital knowledge media and the research opportunities created by AU faculty and students, often in co-operation with business and industry partners. It is this integration of information, research opportunities and resources that helps sustain AU's outstanding reputation in online education.

These goals and priorities are elaborated below under the headings of Access, Quality, Research, Innovation, Community and Sustainability. Performance measures and targets are presented in a table at the beginning of each section, and priority actions are listed and investments and opportunities discussed at the conclusion of each subsection. Progress with the priority actions will represent a non-quantitative measure through which the university can assess achievement of broader strategic goals. Results will be provided in the university's Annual Report.

Access

Goal	To reduce barriers to learning by providing access to innovative and efficient learner-centred online learning opportunities		
Performance Measures	**2010-12*** **Average**	**2011-13*** **Projected**	**2012-14*** **Target**
Number of full-load equivalent students	7,943	8,045	8,204
Aboriginal student enrolment	1,019	1,095	1,149
Number of students using services for students with disabilities	1,643	1,538	1,560
Number of rural and northern students	5,867	5,887	5,877
Value of student awards	$1,074,333	$1,104,000	$1,124,292
Use of library resources	14,968,195	17,205,351	18,460,232

*Three-year rolling averages

Access to learning is a core value at AU, integral to the university's mission to reduce barriers to learning for students from all areas and backgrounds. AU seeks to further increase participation rates, particularly for aboriginal students and those living in northern, rural and remote areas.

Access is incomplete, however, if students new to post-secondary education or those without local support lack appropriate assistance with their academic endeavours. Such students are often the first in their family to seek a degree and may require additional assistance in understanding post-secondary requirements. The concept of access must include a focus on success. Through AU's undergraduate learning model, each student is assigned a tutor, a person responsible for providing course-related academic advice and encouragement by phone or online. Students can also access a variety of online services including an online orientation program, AskAU (an automated question-and-answer service) and DegreeWorks (a comprehensive academic advising and degree audit tool) and can get in-person assistance through the Information Centre, the IT Help Desk, the Faculty of Business Administrative Services Centre, Indigenous Student Support and Advising Services. All of these services are focused on helping students find timely answers to their questions, on meeting their learning needs as they arise and on encouraging them to take ownership of their educational portfolio.
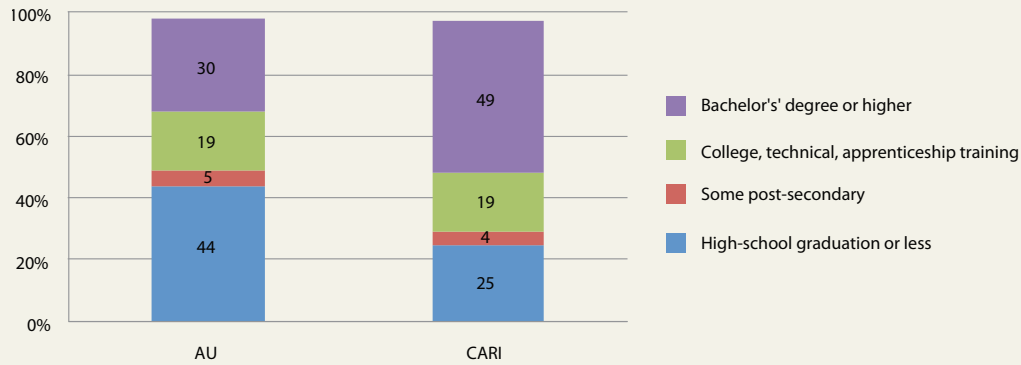
Figure 1   Parental education of 2009-10 graduates

Another way in which AU increases access is by providing pathways to learning through assessment of prior learning for credit. Well established processes for consolidation of credits from multiple institutions and relatively low residency requirements provide learners with seamless pathways to degree completion. AU is an active partner in the Alberta Council on Admissions and Transfer system, receiving 823 transfer students from other six-sector institutions[44] in the past year. In addition, AU maintains over 300 articulation agreements with colleges across Canada, enabling workers who have previously obtained 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 seek to have their credentials reviewed for possible credit. AU's transfer assessment service reviews approximately 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 reviewed and recognized through prior learning assessment (PLAR). Last year, 42 full-load equivalents were granted through PLAR to 61 students in a range of programs.[45]

Because learners use different approaches to earning a further credential, AU has structured its programs so that students who enrol in individual certificate and diploma programs to increase their expertise in certain areas can move easily from those programs to full degree programs. This flexibility allows learners to customize their learning according to their individual needs.

Enrolment Plan

AU expects its enrolment to remain stable, growing by one to two per cent annually, reflecting general population demographics and the impact of the global economy in Canada. Alberta resident enrolment is predicted to grow at a slightly higher rate of 2.3 per cent per year.

The key assumptions underlying enrolment projections are that no new regulatory barriers to operations will arise in areas where AU serves students and that AU's relative price point will not become a competitive disadvantage. The online learning environment is becoming increasingly competitive. For example, public institutions in other provinces receive grant subsidies for all of their students, regardless of location, while AU must charge differential fees for its undergraduate courses.

Growth is expected in areas where new credentials and partnership arrangements are beginning. The following table below shows projected enrolment growth by program band.

[44] *ACAT Transfer Pattern Report* (Fall, 2011) 11. This count is low due to the methodology used. Many students who seek transfer credit after beginning their AU studies are not counted.

[45] One hundred and five students submitted portfolios for assessment through PLAR, but some course start dates precluded credits from being counted as FLEs in the year in which the portfolios were assessed.

Program Band	2011-12 Actual	2012-13 Estimate	2013-14 Target	2014-15 Target	2015-16 Target
Business	1051	1038	1056	1072	1083
Education	155	186	189	195	200
Health Sciences	885	898	893	893	893
Language, Social Sciences, Arts and Humanities*	5487	5644	5752	5866	5978
Legal and Security	78	72	73	75	76
Physical, Natural and Applied Sciences	218	225	235	249	260
Total	7874	8063	8199	8350	8489
Growth		2.4%	1.7%	1.8%	1.7%

*Includes open studies

The majority of AU's undergraduate students are either visiting students, who are enrolled in a program at another university and taking one or two courses to fill a gap or accelerate completion of their program, non-program students, who are taking a course for interest or utility, or students taking courses to satisfy program entry requirements. Regulatory changes or restrictions placed on transfers at other institutions can affect enrolment at AU with little or no warning.

Undergraduate program students often receive transfer credit for previously completed academic work (individual courses or completed diploma or certificate programs) when they enrol in an AU program. Over 83 per cent of AU undergraduate program students are employed, and 78 per cent support other family members. Although these students register as program students, their course taking behavior is similar to that of single course takers in that they adapt their program to the realities of their lives, registering, on average, for 2.5 courses per year. This attendance pattern extends students' need for course and program advising. Ready advice about courses and programs and ongoing encouragement are essential to help them achieve their educational goals.
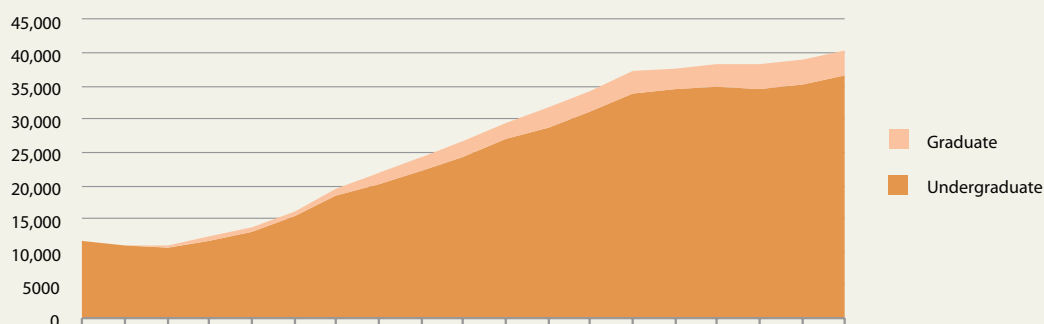
Figure 2: Number of AU students 1993-94 to 2011-12

AU continues to experience a higher rate of growth in graduate program enrolment as the imperative for continuous professional learning becomes embedded in workforce expectations with the transition to a knowledge economy. Continuing pressure on staffing for health programs is likely to force some restrictions on student admissions.

Priority Actions

- Improve readiness of student advising through adoption of appropriate technologies to integrate student information services.
- Continue to develop and implement components of the Open Learning Environment; specifically, continue work on upgrades to the student information system and install a student relationship

management system that will better integrate student information, enabling staff to provide more appropriate and timely student services.

- Monitor student enquiry data to continuously improve self-service information and functions.
- Improve services to students at risk, including first-in-family learners, ESL students, those on financial assistance and those with learning disabilities, and develop processes for creating additional supports for at-risk students.
- Ensure effective and efficient prior learning assessment processes.
- Evaluate and improve recruitment activities.
- Evaluate the Interprovincial Recruitment Project.
- Increase the number and value of student scholarships and bursaries.
- Improve awareness of the student award program.
- Explore recruitment strategies for international students through joint degree programs.
- Explore dual-designated course opportunities with rural and northern schools.
- Increase participation rates of aboriginal learners and those from northern, rural and remote communities.
- Explore further expansion of recruitment and retention strategies for aboriginal students through the Campus Alberta liaison and the Learning Communities Project.
- Develop agreements with other Campus Alberta partners to enable students to remain at partner locations while completing an AU degree.
- Ensure opportunities for graduate students to participate in conferences and professional development activities.
- Increase graduate student awareness of research opportunities.

Investments and Opportunities

Even with relatively modest growth over the planning cycle, AU will approach the maximum physical capacity designated in system planning documents and needs to prepare for that eventuality. Programs with extensive supervisory or clinical/practicum placement requirements and those that are operating over capacity will need adjustments. Without additional funding, for example, the number of spaces in the post-LPN Bachelor of Nursing program will have to be reduced by at least 20 per cent.

Funding for scholarships and bursaries has been increased through targeted fundraising in the Open Our World Campaign, the university's first major fundraising campaign. The renewed Student Awards Plan established additional targets and awareness campaign goals. Completion of capital projects supporting the Open Learning Environment will facilitate other targeted learner support services improvements.

In fulfilling its mission to remove barriers, AU must address problems associated with declining readiness for academic study. Low information literacy, underdeveloped analytic thinking skills, and literacy and communication issues can be remediated through modular learning units (mini-u modules). This approach is based on providing an array of one-credit modules with clearly defined objectives, self-service exercises and quizzes, and strategically placed instructor interventions. Deficiencies in academic preparedness are now being addressed through a variety of online supports, including the Write Site and the Math Site, but adding depth and coherence through a dedicated student success centre, one which draws from academics across all disciplines, is highly desirable. The mini-u will also represent an opportunity for research into the effects of focused academic skills development on student retention.

In recognition of growing competitive pressures and an uncertain regulatory environment, AU is undertaking an extensive analysis of its brand and market position. Greater emphasis will be placed on the value propositions for the university of the future in upcoming social media campaigns. Students and alumni will be acting as influencers and ambassadors for the university.

Quality

Goal	To provide a quality online learning experience		
Performance Measures	**Class of 2008**	**Class of 2010**	**Target 2014**
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
	-	**Class of 2012**	**Target 2013**
Students rating of AU education on the National Survey on Student Engagement (next data collection 2013)	-	85% good or excellent	85%+ good or excellent
	3-Year Avg. 2009-11	**3-Year Avg. 2010-12**	**Target 2011-13**
Graduate program students completing six credits in one year (based on enrolled and net started within year)	58%	58%	60%
Undergraduate program students completing six credits in one year (based on enrolled and net started within year)	22%	22%	24%
Undergraduate course completion rate (excluding non-starts)	85%	84%	85%+
Credentials awarded (baseline excludes BN at Mount Royal)	1532	1642	1685
Number of keynote and invited presentations about online and distance learning by AU faculty	N/A	N/A	Confirm baseline data

Because AU recognizes the importance of safeguarding its reputation for quality, it has undertaken a complete review of its courses and programs to ensure that they are coherent, current and aligned with changing student needs. This process includes a range of activities at faculty and departmental levels involving courses about to go into revision. Low enrolment courses and those programs or specializations which have produced few graduates are being assessed for closure. The program review process also emphasizes program relevancy and the development of new programs for which there is growing student and employer interest. By renewing and combining existing materials it may be possible to address emerging needs.

Existing Programs

A list of AU's programs is presented in Appendix A. All academic programs are regularly reviewed to assure academic quality and alignment with AU's mission and to focus resources where they are needed. A chart showing the program review cycle and the programs now undergoing review is presented in Appendix B.

A major focus at the present time is curriculum mapping. This exercise entails the review of program learning outcomes, the delineation of links between core and elective course outcomes, and the relationship between course assignments and relevant course and program goals. Reviewing the logical sequencing of the curriculum and adjusting program regulations will also improve the self-service functionality of the recently implemented academic advising tool DegreeWorks. As part of this initiative, faculty members are reviewing their assessments for format, currency, accuracy and relevance. This activity is related to the exam harmonization project, which is designed to put all assessments online and provide an automated process for student exam booking, retrieval and marking. The larger goal of all these initiatives is to provide a richer and more robust learning environment.

As all courses transition to an online format, the need for an online (as distinct from a print–based) learning design for AU courses has become a subject of discussion. A set of principles has been

delineated and the Academic Learning Environment Committee of the General Faculties Council is exploring this topic.

In recent years, a series of initiatives such as EduSource, the Digital Reading Room, the E-Learning Accelerator and a broad range of activities carried out through the Course Digitization Project and the Open Knowledge Environment Project were used to integrate ICTs into the teaching and learning environment. In continuation of this strategy, AU will now proceed to the provision of e-texts, when available, for all required course textbooks. This initiative will advance the university's commitment to being an online university and offering enhanced access and flexible, quality learning. The transition from printed textbooks to e-texts will offer a number of advantages including greater integration of online course materials with a single access point, better responsiveness to the needs of students with accessibility challenges and reduced delivery and infrastructure costs.

Priority Actions

- Maintain and enhance accreditation standing.
- Complete the curriculum mapping project.
- Review all core and required course outcomes for currency and coherence.
- Review all course assignments and update them as required.
- Complete scheduled program reviews and course audits.
- Close courses and programs in accordance with outcomes of course and program review.
- Complete a course design policy reflective of AU's online delivery methods.
- Integrate new course design principles in the revision of all existing courses and the development of new ones.
- Use open educational resources wherever possible.
- Add other media components as appropriate to clarify concepts, aid in self-assessment and enhance interaction and discussion.
- Review the provision of learning resources to ensure that students have access to the most up-to-date materials in a digital format.
- Negotiate e-text agreements.

Investments and Opportunities

The curriculum review and renewal processes are expected to reduce some of the indirect costs related to maintaining a constantly available inventory of over 800 courses. The move to e-texts represents an opportunity to improve service to students while reducing the delivery and infrastructure costs associated with warehousing printed materials.

The Open Textbook initiative at AU Press is another initiative which could help reduce textbook costs. By taking advantage of the expertise and teaching experience of AU professors and course writers, AU can develop excellent textbooks that both align better with its curriculum and broaden access to students. Increasing the availability of Open Textbooks represents an opportunity for collaboration and future savings across Alberta's post-secondary system.

Commercial opportunities for learning objects specially designed for mobile devices can be explored with the educational technology sector.

New Programs

As a comprehensive academic and research institution, AU is committed to providing its students with a rich academic environment through its established courses and programs. At the same time, however,

the university continues to transform itself by developing new programs and courses in response to the demonstrated educational needs of Albertans and the desire to develop new markets. Planned new programs are outlined in Appendix C.

Many of these programs have been planned in collaboration with industry sector partners and will lead directly to enhanced skills and improved employment opportunities. Others reach out to the members of groups under-represented in post-secondary education. All are designed to support learners by creating learning communities, helping more people access advanced education and providing needed program options for high needs professions. The curriculum mapping initiative has identified areas in which existing courses can be grouped to form interim and professional development credentials or niche market specialization or majors. A number of the new program proposals pending approval represent realignment of existing resources to improve the visibility of program options to students and their employers.

AU is committed to providing additional laddering opportunities to increase transfer options for students at Campus Alberta institutions. At the same time, aware of the cost implications of new programs, the university has worked across faculties to encourage collaboration in program design, enriching disciplinary knowledge through interdisciplinary and cross-disciplinary contributions.

Priority Actions

- Consult with stakeholders on responsive programming that meets student needs.
- Work with regional co-ordinating colleges to help provide relevant programming in their respective areas.
- Identify further opportunities for laddering and collaboration.
- Expand professional learning opportunities in response to stakeholder demand.
- Seek alternative funding options for new programs.
- Support interfaculty discussions on program collaborations.

Investments and Opportunities

The proposed doctoral programs in the priority areas of health and technology respond to well established needs. For example, the demographics of nursing faculties across the country indicate that a critical shortage of qualified replacement faculty members will arise in the near future. Program options that do not require candidates to leave their current employment to enhance their research expertise can mitigate capacity issues in the field. The opportunity for direct knowledge transfer for doctoral candidates in computing and information systems will equally benefit both the researchers themselves and the companies that employ them. The average annual cost per full-load equivalent Alberta doctoral student is approximately $45,000, and while students and their employers can be expected to contribute to these costs, these programs cannot be launched without ongoing financial support.

Opportunities to expand professional development and public interest course offerings are numerous. Possible initiatives range from green computing for managers, mobile computing, technology in the classroom and using analytic tools to museum studies and creative writing. AU is actively leveraging its program and delivery expertise and collaborative relationships to establish new niche programming, the grants and private donations that have supported course development and virtual studios for the architecture program being one example. Other synergies are being explored with the Faculty of Business and the Western Hockey League.

In keeping with its commitment to work with employers to provide flexible learning opportunities to employees in Alberta and across Canada, AU has signed a memorandum of understanding with a major

national retail corporation. AU serves a growing number of corporate partners, providing both credit and non credit opportunities to those already in the workforce. Having programs designed to meet the needs of particular employers or professional groups significantly delayed by multiple regulatory and approval processes is a critical reputational risk for AU, especially when the client is investing in program development.

The Learning Environment

AU's Open Learning Environment is integral to the provision of quality learning opportunities. Five projects directed to enhancing the OLE are underway:

- transfer of all courseware to Moodle 2.2
- implementation of the Alfresco content management system, which will enhance the university's ability to make content changes effectively and accurately
- the Exam Harmonization Project, designed to provide students with better exam services and to greatly reduce marking time
- implementation of a client relationship management system, an administrative system that will assist staff by enabling integrated management of student information
- implementation of a grade-book system, which will better integrate student grades with the student record system.

These administrative systems improvements are essential to the continued development of an innovative learning experience for students.

At the same time, AU continues to develop online learning models that incorporate e-texts and OERs, involve more social media and video components, include more interaction and discussion through formats such as webinars, and are learner activity oriented. Design principles for such courses are interactive with the capabilities of the underlying ICT architecture, so stronger synergies, more creative options and greater efficiencies can be realized.

Building on assessment results and engagement with stakeholders, the Library of the Future Initiative is taking stock of possibilities for future library operations and functions and the future role of the library in the academy. Technology development, opportunities for collaboration, support for research and scholarship, integration of information literacy in courses and programs, managing physical and digital collections, and being a portal to resources are aspects of future library services that are being explored, as are links with other academic support services.

Strategic Information for Learning Analytics is another initiative associated with implementation of the student system upgrades. It is being designed to enable students to monitor their learning progress and support faculty members in their efforts to improve their courses.

Priority Actions

- Complete the OLE enhancement projects.
- Establish a vision for the library of the future.
- Complete the Moodle 2.2 Project.
- Transfer of all active courses to Moodle 2.2.
- Complete and implement the Grade-book Project.
- Complete Phase 2 of the Exam Harmonization Project.
- Transfer all existing online exams to the new delivery system.
- Transition 30 per cent of AU's paper-based exams to online delivery.
- Initiate the Data Warehouse Project.

Investments and Opportunities

Development of the underlying learning infrastructure, the student system upgrade and activities associated with learning design and development will continue. In each case, business process reviews are identifying ways to increase efficiencies and improve student success. Some of these developments may provide service opportunities of value to other Campus Alberta institutions.

Learner Engagement

AU considers student success to be as important as access, and AU students face many challenges. Many of them are part-time learners, juggling work, study and family commitments, and maintaining their commitment to their academic goals requires that their engagement with the university be strong. A superior, interactive experience throughout the learner lifecycle is required to maintain that level of engagement.

The Enrolment Management Committee was created in 2008 to identify and address concerns affecting enrolment and quality of the student experience. Immediate challenges were addressed first, after which the committee focused on facilitating system and process remedies, enhancing retention activities and supports, studying existing markets and the development of new ones, and monitoring the success of measures adopted.

In the fall of 2012, through a university-wide consultation process, all university activities related to the student lifecycle were realigned in terms of the goals of the *Strategic University Plan: 2011-16*. A cross-faculty committee has also been tasked with exploring course-related student engagement issues. Enhancement of student engagement, including improvements and additions to supports for at-risk and first-time students will continue to be a focus.

AU has initiated a three-year project to upgrade its student management system to improve timely information access and information quality. A degree audit system now provides students and advisors with more control over degree planning. The forthcoming implementation of a relationship management system will help improve student access to information from a variety of student information sources and help staff better address student requests.

Priority Actions

- Implement activities to enhance engagement and retention of students.
- Follow-up on evaluation of the orientation course.
- Consider course-related engagement strategies recommended by the cross-faculty committee for implementation.
- Implement activities to support at-risk and first-time learners.
- Enhance the online course evaluation system through the addition of conditional access and communication triggers within Moodle courses.
- Develop relevant indigenous-knowledge-based courses in the major disciplinary areas.
- Implement the relationship management system.

Investments and Opportunities

The Students First Initiative will review and assess the full suite of support services in order to focus resources to meet critical support needs. The goals of the project are to strengthen student services by sharing knowledge, processes and procedures across all AU student service units, by addressing service gaps and by eliminating duplications. The project will include a thorough review of the entire service structure, adjustments to that structure as needed and investments in the capital infrastructure to support relationship management initiatives.

Enhancing the open availability of self-assessment tools and learner support modules on writing skills (including the mobile applications for English as an additional language practice), mathematics preparation (self-testing and remediation examples) and information literacy are significant shared service opportunities. Sustaining a pool of shared online resources for Campus Alberta students will require joint investments in the future.

Research

Goal	To support excellence in research			
Performance Measures		**2010-12 3-Year Avg.**	**2011-13 Projected**	**2012-14 Target**
Alberta graduate students enrolled in priority research areas*		29%	28%	30%
Value of sponsored research income per faculty member with research responsibilities		$26,996	$25,900	$27,176
Council grant success rate		27%	27%	29%
Research revenues from tri-council, industry and community sources		$4,659,000	$4,477,000	$4,700,000

*Bio solutions, energy and environment, health, technology

Research is fundamental to AU's identity and integrity. The university is recognized globally for its leadership in open and distance education, and its international reputation for research in other select areas is growing steadily. The *Strategic University Plan: 2011-16* sets out three strategic research objectives:

- to provide appropriate support for faculty, staff and student research and scholarship
- to enhance AU's international reputation in key research disciplines, particularly technologically enhanced online and distance education
- to promote and expand the transfer of research findings for the benefit of students, society and the economy

Faculty-led research is integral to the creation of knowledge and its dissemination as a component of the learning process. AU values the creation of knowledge through individual scholarship and recognizes the value of individual contributors to its reputation as a research institution. Because AU has a small faculty base for its student population, it has chosen to cluster its institutional research goals in areas that best align with its mandate and priorities and to co-ordinate with the designated research areas identified by Alberta Enterprise and Advanced Education in its *Alberta Research and Innovation Plan*.[46] In addition, through careful delineation of those priorities, AU seeks to inform and contribute to Alberta's research priorities.

Institutional Research Priorities

Research interests at AU reflect the major disciplinary divisions of the university: online learning, humanities and social sciences, health disciplines, science and technology, and business. In delineating its institutional research goals, the university has focused particularly on educational technologies in knowledge creation, adaptation, dissemination and acquisition and on their application in the fields of environmental monitoring and health literacy.

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[46] (2012). http://eae.alberta.ca/media/328784/arip_2012_final%20-%20august.pdf.

AU has created three research institutes to provide leadership in these priority research areas and to help seed interdisciplinary developments reflective of provincial and national priorities. Research networks are the norm at AU and are increasingly central to grant allocations from funding agencies. Collaborative research projects involving participants outside the university can also enhance in-house expertise.

Each research institute represents a network of research clusters, with each cluster focused on a specific research topic but connected through strong external links to provincial, national and international researchers who are working on related topics. Synergies can be obtained not only from collaborations among the clusters within an institute but, as importantly, through membership in external research teams.

In addition, several Canada Research Chairs have been appointed, and increased research capacity has been developed university-wide as the number of academic researchers receiving national or international funding has grown. The allocation of CAIP chairs with a focus on water and land-use activities and more recently a CAIHS Chair on consumer health informatics and, in particular, digital literacy continue to strengthen the research capacity of the research institutes.

AU provided seed funding for the institutes and supports the work of individual researchers through small internal grants competitions and matching grants funding. The number of researchers successful in obtaining external funding has grown. The university assists researchers in the development of funding proposals through the Research Centre.

The Technology Enhanced Knowledge Research Institute

TEKRI represents an expansion of AU's primary research focus on e-learning and open and distance education to include an interest in underlying knowledge systems and digital technologies. The institute includes two main research clusters:

- The 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 provide real-time data, data schema and visualization essential to improving soft digital technology decision making cycles.

- The digital technology innovation cluster includes work on mobile computing, localization and geomatics, personalization and adaptivity, adaptive/responsive designs and interactive collaborative tools for knowledge building and team work.

Other research clusters are involved in related work in information systems, applications design and use, and analysis and display. One cluster is focused on virtual laboratories, including work on 3D space, Second Life applications, virtual media labs and federally-funded architecture studios. Another is examining possibilities provided by mobile applications in the workplace. Other researchers focus on the use of mobile technologies in the development of alternative virtual environments for knowledge acquisition and dissemination.

Together, these initiatives not only sustain AU's standing as a leading centre of research in knowledge systems and digital technologies innovation but also directly benefit other Alberta post-secondary institutions by providing platforms for quality virtual learning environments for students. As TEKRI researchers are drawn from all the faculties of the university, the institute has great potential to respond to the increasingly interdisciplinary demands of provincial and national research agendas.

The Athabasca River Basin Research Institute

ARBRI has adopted a whole systems approach to river basin research with an emphasis on interdisciplinarity. ARBRI contributes to the environmental sustainability of a unique river basin by pursuing two primary goals: exploring and studying the river basin itself and increasing the knowledge of local communities about their stewardship of the basin environment.

Working with local communities, stakeholder post-secondary institutions and regional organizations, ARBRI's aim is to create a repository of information, rooted in the natural and social sciences and the humanities, to serve as a resource for researchers and to provide community members with a richer understanding of basin life. Two Canada Research Chairs are connected with the institute, and AU is in the process of hiring two Campus Alberta Innovates Chairs with a focus on the environment (water health and land-use monitoring). The institute has three main research clusters:

- The geophysical cluster is dedicated to exploration of the effects of the a*urora borealis*, in co-operation with colleagues at the University of Calgary and the University of California, Berkeley.

- The community capacity building cluster includes the Learning Communities Project, the Indigenous Communities Team, the information repository group (an interdisciplinary team of bibliographic researchers drawn from across the university), a Canada Research Chair whose research is focused on indigenous legal and traditional knowledge, a social sciences led group focused on creating awareness of environmental issues in local communities through local events, and the Science Outreach – Athabasca, which is focused on involving young people in science.

- The environmental management cluster emphasizes river basin modelling, computational analysis and environmental sustainability.

ARBRI also draws upon researchers from across the university, including 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 (legal and traditional knowledge). The involvement of indigenous researchers is particularly important as over 50 per cent of Alberta's aboriginal population lives in the northern half of the province.

The planned addition of two Campus Alberta Innovates Program Research Chairs in environmental management will enrich the work of the institute and help link it to that of other researchers at the University of Lethbridge, the University of Calgary and the University of Alberta as well as to local and international communities.

The Project Management Research Institute

PMRI brings together local, national and international organizations, practitioners and researchers with an interest in project management. Relying on collaborative research, the institute seeks to advance knowledge in the field and to promote knowledge sharing and community building across the sector, particularly as it relates to change management. The institute'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 in the oil and gas sector
- information and high technology projects
- social system reform (e.g., health systems)

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

The Health Research Group

This newly formed research group focuses on health promotion and behaviour, mental health, aspects of living well with chronic illness, the impact of technology on the provision of health care and promoting health education. The health promotion and behaviour team has links with colleagues at the University of Alberta, the University of Lethbridge and Dalhousie University as well as with international researchers.

The addition of a Campus Alberta Innovates Chair in consumer health informatics will increase the focus on the impact of digital media on the provision of health care and represents a key opportunity for direct knowledge transfer to improve health literacy.

Student Research

Nurturing research capacity among senior undergraduate and graduate students is essential to the encouragement of innovative thinking. By providing students with additional research opportunities, AU will increase their awareness of the role of research in the world and allow them to develop not only research expertise but critical, analytical and speculative skills. This increased capacity building will enhance their ability to contribute to the development of new knowledge and to society generally. In addition, because many of AU's program students are already in the workplace, they are in a position to link their research and professional activities to the benefit of both industry and themselves.

The research institutes support the education of graduate students by providing opportunities for research training. At the same time, graduate student researchers are crucial to the development of the research institutes. The current doctoral programs in business and distance education and the planned doctorate in information systems are integral to development of TEKRI, while master's programs in environmental science, environmental studies and applied mathematics are essential to ARBRI's sustained development. Graduate students in business can take courses from PMRI researchers and work on project management topics as their capstone research. Research and education in health disciplines is a growth area for AU and is related to the planned development of a PhD in health disciplines.

Priority Actions

- Increase opportunities for student involvement in research.
- Encourage faculty to involve AU students in research as part of their studies.
- Seek research agency recognition of the benefits of research scholarships for part-time students.
- Involve graduate student associations in promoting research opportunities for part-time students.
- Ensure effective and responsive research administration, providing timely service to researchers and internal and external stakeholders.
- Continue to improve processes for preparation of research grant applications.
- Ensure institutional processes for ethics reviews meet the highest standards.
- Review institutional research policies and procedures.
- Ensure support for the development of new programs which aid the research enterprise.
- Continue to seek capital funding for ICT research infrastructure.
- Continue to allocate CRC opportunities across disciplines.

Investment and Opportunities

AU has been steadily increasing its research productivity; however, the increase in the number of grant applications and awards has significant short- and long-term budgetary implications. While there are

provisions for the recovery of some of the indirect costs of research funded by the national research councils, this is not the case with most other external funding agencies. A related concern is the university's capacity to respond to demands from granting agencies and research sponsors for matching funds or in-kind contributions (i.e., human and material resources). While it is sometimes possible to secure material resources (e.g., server space), human resources are becoming increasingly scarce, given current workloads and staff shortages across the university. Other than fundraising, income from which may or may not be adaptable to specific research needs, the university has access to no mechanism for securing matching funds.

AU needs to develop sufficient budget flexibility to be able to respond to matching requirements. The university is examining ways to leverage some of its research infrastructure to provide services to other researchers and companies; for example, access to the science laboratory for short-term projects, especially those related to water quality and the security of the Athabasca River Basin. Opportunities to extend research networks while potentially offsetting some operating costs are also worth exploring.

While AU's Capital Plan supports institutional research activities through ongoing and planned expansion of the university's information and communication technology infrastructure, other planned research initiatives depend heavily on securing sustainable ICT infrastructure funding. This need is fundamental to the development of all computing-based research endeavours.

Internationalization

AU is internationally recognized for its research in online and distance education. Faculty members are often called upon to present keynote addresses at conferences and symposia, and experts in the field frequently visit the Athabasca campus.

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 colleagues elsewhere, and students from other universities complete internships at AU. As international residential institutions seek to expand their offerings, they have turned to AU to develop with them joint online programs and research initiatives.

Sustaining AU's international reputation is integral to its reputation for quality. To remain at the forefront of new initiatives in the field, the university must have the means to participate internationally. Extensive networking is required since AU's research and innovation model is to create networked clusters of researchers through which synergies can develop, but AU also must have lead researchers to provide the energy to create and maintain these networks and links with local entrepreneurs so that research can be translated into viable products.

Priority Actions

- Foster sustaining relationships with international partners through research and programming opportunities.
- Continue to participate in international initiatives in areas such as systems architecture, analytics and mobile computing.
- Endeavour to secure private sector funding to support international initiatives.
- Establish a co-ordinated approach to international relationships for training and development.
- Continue to use AU's leadership in the International Council for Open and Distance Education (ICDE) to promote partnerships with member institutions.

Investments and Opportunities

Ensuring quality and retaining AU's international reputation are critical factors in establishing international initiatives. For that reason a greater focus is being placed on supporting research faculty connections. AU is exploring course licensing options, joint partnership agreements and collaborative research with foreign entities.

Foundation funding for joint research with Qatar University on mobile English training for the workplace and on problem-based learning is one example of how AU is growing its international research partnerships, focusing its efforts in the East and Southern Asia and the Middle East.

AU is working directly with Beijing Normal University to develop an instructional design program that will be offered in Chinese for distance education practitioners. This project has involved multiple faculty exchanges, and AU is now hosting a BNU doctoral fellow.

As a development initiative, AU has been working with members of the Nepalese diaspora to develop an Open University of Nepal. AU has been providing information about distance education and contributing to the development of funding proposals from national and international agencies.

AU has been exploring opportunities to assist with hosting international graduate students and post-doctoral fellows with Campus Alberta partners, but establishing framework agreements has proved challenging. Solid partnerships require the development of trust and sharing. They also require funding, which can pose challenges for AU. It is disappointing to lose opportunities to participate in international research projects that could open doors to additional research and development or programming opportunities.

Alignment with Alberta's Research Priorities

The alignment between AU's information and communication technology related research interests and expertise and the target areas of Alberta's information and communication technology strategy is particularly close: analytics and visualization, geomatics, wireless systems, informatics, collaboration tools, information and communication technology infrastructure, imaging, digital media and process optimization. Discussions continue with industry and government to explore growth in these and related sectors in alignment with the goals set out in the *Alberta Research and Innovation Plan* and other Government of Alberta plans, such as *Alberta's Action Plan: Bringing Technology to Market* and the Alberta Innovates strategic priorities. These plans highlight the need to advance the knowledge-based economy in order to increase productivity, spur technology adoption, advance research and development, encourage innovation and entrepreneurship and achieve other key objectives. The Alberta Innovates documents, in particular, stress the importance of facilitating knowledge and skills transfer among the various partners.

If Alberta is to lead the knowledge economy, it needs a research framework that promotes not only the creation of new technologies and applications in all economic sectors but also increased understanding, knowledge transfer and implementation of those innovations society-wide. AU is already engaged in strategic research in support of these goals and looks forward to partnering with government and the private sector to expand its efforts across the innovation spectrum.

Alberta's full potential can best be realized if research and innovation include investigation of the broad spectrum of knowledge creation, acquisition, adaptation and dissemination, including the potential of analytics and visualization for extracting and displaying useful information and the use of the latest mobile devices (smart phones, iPads, Android tablets, etc.) and collaborative applications. At AU, a Canada Research Chair and an industry chair and their teams are conducting internationally recognized

research in these areas, and the university is building relationships with small and medium technology enterprises to support the further development of a provincial network to fill system gaps and foster product research and development.

AU shares the Government of Alberta's view that the world economy is changing to one based on the production, management and transmission of knowledge rather than of physical products. Knowledge industries already produce the most economic benefits and the most jobs. AU further recognizes that the emergent economy is strongly interdisciplinary, involving not only economists, computer scientists, health professionals and hard scientists but also social scientists and arts professionals. Society must recognize that the rules and practices that once determined success in the industrial economy have to be adapted or changed because knowledge resources rather than physical goods are now the economic foundation of the global economy.

AU supports the three strategies identified in the *Alberta Research and Innovation Plan*. Building and sustaining core infrastructure to provide "a base from which researchers can address questions of importance"[47] has been an ongoing priority in ICT. As a world leader in technology enhanced knowledge research, AU is committed to working with the province and with private sector partners to support this transformation.

Equally, the development of an integrated learning, research and innovation system that links tomorrow's entrepreneurs and today's start-ups with established companies and acknowledged research leaders to create virtual learning communities enables rapid knowledge transfer and dissemination and provides contexts for knowledge creation that closely link problem-solving and resource solutions. Such a culture supports the acquisition of business knowledge in an environment that fosters productivity and innovation and promotes the benefits of situated learning.

AU is innovative in continually seeking new and better approaches to knowledge acquisition and new ways to motivate learning through leading developments in the digital revolution. These innovations will stimulate development of a knowledge economy in Alberta and provide virtual learning environments that meet the needs of contemporary users, when and where they need them, through alternative technologies. These developments require a sustainable research portfolio that is focused not only on improving knowledge acquisition but on the architecture which will provide options for users and opportunities for interactive industries to create commercial adaptations and seek further innovative solutions.

Innovation

Goal	To encourage innovation to help sustain AU developments and foster entrepreneurship in Alberta		
Performance Measures		**2012-13**	**2013-14 Target**
Number of faculty members engaged with small and medium enterprises		Under development	Establish baseline
Number of sponsored commercialization initiatives		Under development	Establish baseline
Number of graduate students working in industry settings		Under development	Establish baseline

AU's innovation goal is to work within an ecosystem of online learning and knowledge-management (educational technology) companies that are interested in creating innovative products that will in turn sustain the university's own competitive edge. To help realize this goal, AU seeks to lead and contribute to an Alberta educational technology that will extend opportunities for AU researchers to

47 Ibid, 5.

connect with small and medium enterprises to further the dissemination and transfer of knowledge, enhance organizational productivity and performance through the use of learning and knowledge management technologies, and create opportunities for AU students to work with start-up enterprises and established companies to develop their capacity for creativity and entrepreneurship. Over the past year, AU has undertaken several initiatives to increase its emphasis on research and development and innovation and realize these goals, including partnerships with Alberta Innovates corporations, government, TEC Edmonton and the National Research Council.

The challenge is to find acceptance of an innovative approach to university-government-private-public partnerships that will empower small and medium (or large) enterprises and user groups (K-12 and post-secondary institutions and human resources departments in particular) and fill a gap in provincial learning and economic diversification systems. Co-operation on the development of such environments is integral to achieving the goals of Campus Alberta.

AU is working with industry, K-12 and post-secondary users to build awareness of the potential of educational technology in Alberta and of the options and approaches it affords. The opportunities to increase operational productivity and efficiencies and to achieve knowledge and skill outcomes are considerable. These approaches will better enable employers (including the provincial public service through results-based budgeting) to meet their objectives and assist formal education providers to increase their attainment and assessment capabilities.

AU is partnering with educational technology companies of all sizes to identify and support their research and development needs. Faculty and graduate student expertise is being leveraged to support research and development initiatives and product development in a variety of areas. In addition, AU's administrative ICT team can, where appropriate and supported, collaborate with educational technology companies to improve and validate their products.

Over the last two years, AU has been evolving into a more entrepreneurial university, both in terms of developing supports for graduate students and in terms of faculty awareness of the potential for commercialization and research and development knowledge transfer. AU graduate students can learn and carry out research in-situ by developing skills and transferring knowledge, innovation and entrepreneurship through their work in professional contexts, providing the university can build support capacity in that area. AU's partnership with TEC Edmonton is an important step in that direction and has opened many doors in knowledge management systems and a variety of other areas that the university would like to pursue.

AU is also exploring opportunities in analytics, performance and related areas, where opportunities exist to leverage capacity to support modelling, research and development, and other research related partnerships. One aspect of such relationships involves providing relevant and timely courses and certificate programs that satisfy industry's interest in topics such as cloud computing, information and communication technology management, and other aspects of business, computing science and other disciplines. By working in these areas, the university can help create an innovative digital culture in Alberta.

AU's ability to track and influence innovation trends in knowledge transfer, educational technology and related areas is aided by its distributed workforce and student body, its natural connections (through its students) with industry, its strengths in digital knowledge acquisition and transfer, and its participation in natural university/industry partnerships with the educational technology sector.

Priority Actions

- Foster dialogue with stakeholders (large users, small and medium enterprises, and large EdTech companies) on educational technology and productivity and learning outcome gains.
- Work with provincial and federal research and innovation support organizations and ministries to advance and achieve ICT investments and increase educational technology prioritization and impact and raise awareness of its potential to increase Alberta's competitiveness.
- Advocate for changes to current industrial apprenticeship and research-based graduate programs that focus exclusively on full-time students.
- Support undergraduate and graduate students who undertake research in their local communities as a means of innovation, knowledge dissemination and entrepreneurship.
- Expand partnerships with government, local and national partners, federal research and commercialization agencies, and large and small industrial partners to support the development of a diversified knowledge economy in Alberta through the use of educational technologies.
- Complete AU's pilot research app development partnership program with local companies and bring lessons learned to post-secondary and other partners.

Investments and Opportunities

Although AU researchers have greatly benefitted from the support services available within the Campus Alberta system, most of the internal administrative assistance and co-ordination has been of an *ad hoc* nature.

External funding sources for project seed funds and contracted specialists are being sought, but ongoing administrative supports will also be necessary.

Community

Goal: To promote collaboration and foster leadership in the communities AU serves and to build mutually beneficial partnerships with a variety of groups and communities			
Performance Measure	**2010-12 3-Year Avg.**	**2011-13 Projected**	**2012-14 Target**
Number of students from Alberta colleges and technical institutes enrolled in AU post-diploma programs	263	258	258

Collaborations and Partnerships

AU continues to promote collaboration and foster leadership as it strives to build mutually beneficial partnerships with groups and communities throughout Alberta and around the globe. The university's goal is to work with others to expand research knowledge and learning opportunities for groups and communities.

The university has an established record of cultivating and maintaining partnerships with other Campus Alberta institutions to enhance degree-completion opportunities and to help meet local learning needs within communities. Students registered at other Alberta post-secondary institutions make extensive use of AU's courses and educational services to help them complete their degrees. In 2011-12, for example, 2,886 students from Alberta's other universities took AU courses for degree completion at their home institution. To create pathways to degree completion for students who hold college diplomas, AU has entered into more than 300 agreements and partnerships with colleges and technical institutes in Alberta, across Canada and abroad.

AU continues to work with its Campus Alberta partners and nationally to identify opportunities that will provide collaborative programming to assist students, meet institutional needs and increase efficiencies. In 2012-13, 400 AU students were participating in collaborative programs, taking portions of their programs in classrooms at community colleges and other Alberta institutions as shown below:

Campus Alberta Partner	Programs	2012 -13 Active Students*
Grand Prairie Regional College	Bachelor of Management Bachelor of Commerce Bachelor of Arts (Psychology)	110
Lakeland College	Bachelor of Management Bachelor of Commerce	39
Lethbridge College	Bachelor of Management Bachelor of Professional Arts (HSRV, CMNS, CRJS)	57
Grant MacEwan University	Bachelor of Professional Arts (CRJS)	62
Medicine Hat College	Bachelor of Management Bachelor of Commerce Bachelor of Professional Arts (HSRV, CMNS, CRJS)	48
Blue Quills First Nations College	Bachelor of General Studies	44
Yellowhead Tribal College	Bachelor of Arts Bachelor of General Studies	40

*Includes open studies and qualifying students

However, low enrolment and cost containment pressures dictate that more of these opportunities will be online rather that in local classrooms.

AU also partners with a variety of other organizations to enhance learning and community development opportunities. The Athabasca River Basin Research Institute (See page 33), an interdisciplinary research centre, is carrying out a number of community sustainability research projects with strong community consultation and service components in Northern Alberta. Science Outreach – Athabasca, which is affiliated with ARBRI, engages community members of all ages and encourages greater science awareness and literacy and increased knowledge and stewardship of local environments. Science Outreach has entered into partnerships with environmental agencies and holds public dialogues on environmental matters pertaining to the Athabasca River Basin.

AU's links with indigenous communities have developed over time through continued close collaboration with band councils and cultural college partners. The university aims to support communities and encourage students so that those who wish to do so can remain in their home community while completing appropriate, culturally-sensitive education. To recruit and retain students from these under-represented communities, AU works with local councils to help develop community supports, including mentor circles. AU's Elder-in-Residence, Dr. Maria Campbell, has visited indigenous communities to discuss the value of local support with band chiefs and elders.

The Centre for World Indigenous Knowledge and Research also liaises with indigenous students and provides an aboriginal support service for those who contact them. In conjunction with the Faculty of Business, CWIKR offers a Bachelor of Management degree with a major in indigenous nations and organizations. The program is intended to cultivate academic skills that will support economic growth and sustainability in indigenous communities. CWIKR also offers individual courses that help teacher candidates and practicing teachers better understand the culture, beliefs and histories of indigenous students.
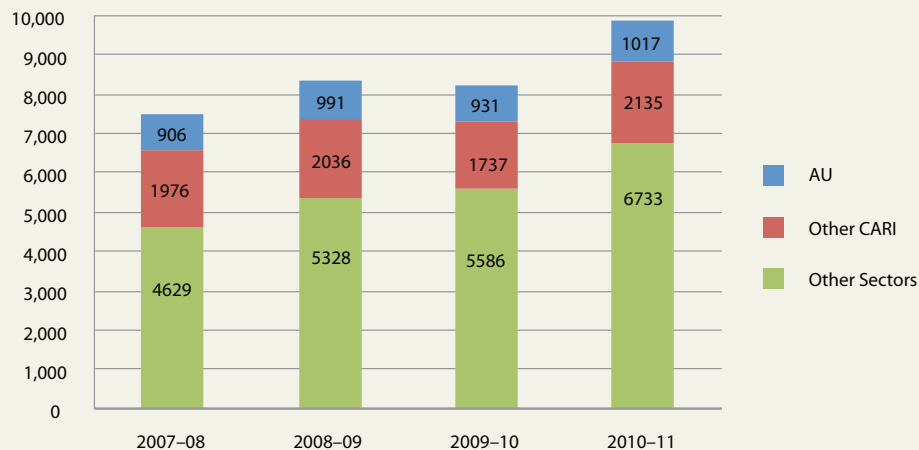
Figure 3: Aboriginal student enrolment per Campus Alberta Planning Resource

The Learning Communities Project (Phase 2) is a significant AU-led initiative which involves collaboration with northern post-secondary institutions, treaty chiefs, educational co-ordinators and local band councils. The project aims to assist rural and remote northern Alberta aboriginal communities to create a viable future for themselves through developing their capacity to initiate, foster and support learning opportunities. Using a grassroots approach, the project encourages learning awareness, with the long-term goal of building sustainability in 23 northern Alberta First Nations and Métis communities. The project has been successful to date, with students from the communities enrolled in a variety of post-secondary institutions, but it will need sustaining funding to provide the long-term support essential for capacity building.

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. AU has 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.

The Campus Alberta South Partnership, involving AU, Bow Valley College, Olds College and the University of Lethbridge, will see the four institutions sharing facilities on Bow Valley's downtown Calgary campus beginning this year. This arrangement will provide Calgary area learners with access to a range of post-secondary options and learning services in a single convenient location.

As environmental and socio-economic challenges continue to transcend borders, community is also developed in a global sense through dispersed knowledge and social networks. To allow individuals anywhere to become participants in larger national and international communities, AU has cultivated the perspective that community is defined not only by geography or shared characteristics but also by relationships within a group. 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. Most recently the university has focused on creating research and development communities with a focus on educational technologies.

Priority Actions

- Increase collaboration with Campus Alberta partners to reduce barriers to learning.
- Work with peers to create course opportunities that benefit students while easing space and timetabling pressures.

- Work with communities to build mutually beneficial partnerships to address local needs.
- Promote scientific literacy and awareness of environmental and scientific issues pertaining to communities.
- Continue Virtual Writer in Residence Program.
- Complete Phase 2 of the Learning Communities Project and seek sustainability funding for the project's long-term support.
- Continue to support collaborative activities with the aboriginal colleges.
- Work with northern colleges to develop sustained online and local support for students.
- Develop and deliver joint programs with international partners.
- Work with employers to enhance opportunities for workers to pursue post-secondary studies while they remain in the workforce.

Investments and Opportunities

AU is committed to increasing educational opportunities for Albertans through a collaborative post-secondary system. Over the years, transfer agreements and joint programming have helped to advance this goal. Unfortunately, lack of support for such partnership programs has made them unsustainable, given the additional costs associated with them. Indeed, it often has appeared easier to gain funding to duplicate services or curriculum than to collaborate.

The Learning Communities Project will seek foundation or private donor support to continue its promotion of improved learner transitions in rural, remote and aboriginal communities.

The seemingly intractable issue of low high-school completion, with only 80 per cent of Alberta students graduating within five years of entering Grade 10,[48] is of interest to AU researchers. Discussions are underway with the Alberta Distance Learning Centre and the Royal Institute of Technology in Stockholm, Sweden, to establish a research institute on questions of student retention in K-12 and post-secondary education. The working group has initiated discussions with key researchers and agencies around the globe and funding opportunities are being sought.

AU is one of the many partners involved in a Rural Alberta Development Fund's Unleashing Local Capital Initiative to foster grassroots financial innovation to sustain such communities as Crowsnest, Fahler and Vegreville. The online modules being developed will be made available to other communities.

Sustainability

Goal: To secure and steward the resources needed to meet AU's mandate and foster innovation and adaptability in a healthy workplace	
Performance Measures	**Target**
Budget	No planned draw on reserves
Revenue from donations	Meet $30 million campaign goal
Implementation of capital infrastructure plans	Plans implemented, subject to funding
Rate of employee satisfaction	More than 80% proud to work for AU
Number of employees with active development plans	Establish baseline

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[48] Government of Alberta, Education, "Student Learning Opportunities," (May 2012). http://ideas.education.alberta.ca/media/64561/__filedev_rsd_rob_units_zone_services_system_assurance_accountability_pillar_umbraco_2012_may_2012_05high_school_completion_rate.pdf.

AU will continue to focus resources to ensure achievement of its goals. This effort includes building and securing sustainable institutional funding in support of the university's mandate and reviewing and realigning business processes, programs and course delivery, and student service support models. Previous analysis has demonstrated that AU offers highly cost-effective program and service delivery, its average cost per full-load equivalent being significantly lower than that of other Comprehensive Academic and Research Institutions.
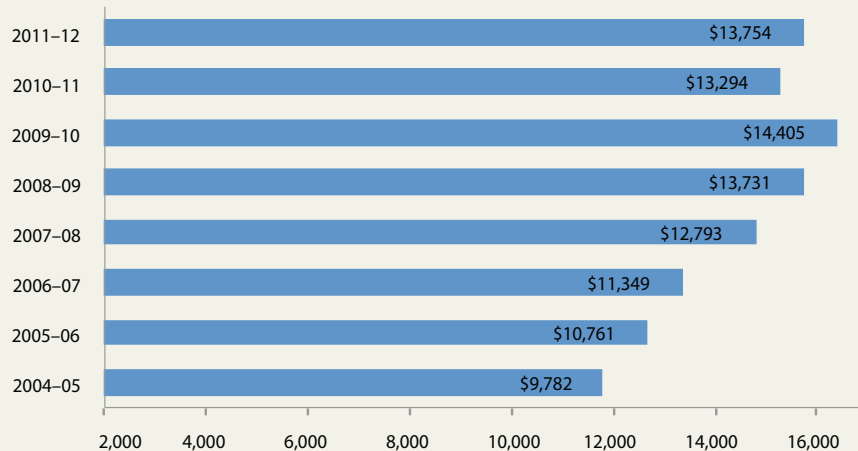
Figure 4: Cost per full-load equivalent student

The coming year will represent a pilot test for a responsibility centre approach to resource allocation, aligned with the decanal administrative structures established in 2008. Like all of AU's planning initiatives, the budget development process is a highly consultative one, informed by assessments of results from previous years. In elaborating its planning framework, AU is also implementing a risk management approach to better inform decision making. Significantly, AU's information and communication technology is recognized through both the Capital Plan and the ICT Strategic Plan as part of a wider information and communication technology planning framework.

Through co-ordinated fund development initiatives, AU seeks to increase corporate, individual, foundation and other not-for-profit donations in support of university priorities. The Open Our World Campaign has raised the university's profile and provided avenues through which to engage and expand a community of supporters. This success includes increased engagement of alumni as volunteers and ambassadors for AU.

Enhancement of the information technology infrastructure to integrate finance, procurement, human resources, payroll and student information systems is necessary to improve processes and operations across the university. To support systems integration and improve consistency in reporting, Data Security and Integrity Standard Guidelines are being implemented.

AU's full policy and procedure framework is subject to rolling reviews, and adjustments are being made to better reflect the university's governance and administrative structures. To improve policy and procedures understanding and compliance, training materials are being developed for employees.

In response to the budget cuts announced in March, AU has undertaken measures to reduce salary and benefit costs. Thirty-five employees participated in a career transition program and an additional 44 received lay-off notices. These reductions are in addition to vacancies frozen in previous years. Business continuity planning has identified areas with significant service capacity issues, and new positions will be configured to meet those needs. Additional savings are being projected from service restructuring.

Sustainability also extends to AU's responsibility as a steward of the environment. The university's commitments to the Green Building Council of Canada LEED standards for new buildings and to maintaining those buildings in environmentally responsible ways demonstrate that this responsibility is taken seriously. To reduce the carbon footprint created by university business travel, an evaluation of staff transportation needs will be undertaken and adjustments made to the fleet vehicle pool.

Priority Actions

- Restructure administrative, student and academic services as indicated by business continuity planning.
- Initiate an assessment of the responsibility centre resource allocation model.
- Complete the Open Our World Campaign, meeting or exceeding its $30 million fundraising goal.
- Approve the ICT Planning Framework and metrics.
- Make available updated staff handbooks for Occupational Health and Safety, Hiring Guidelines and Performance Management.
- Improve supervisor training initiatives.
- Apply green housekeeping methodologies to janitorial specifications for all AU facilities.
- Evaluate staff transportation service needs.
- Implement the Main Campus Redevelopment Plan.

Investments and Opportunities

AU does not collect revenue from parking, residences, book stores, sports programs or cafeterias, nor does it have access to a large corporate donation base. Other institutions can increase income from these revenue sources at a rate that is greater than CPI and use the revenue to offset their overhead.

A significant number of AU graduate programs were established without provincial grant funding, and their cost responsive budget models depend on flexibility in fee structuring. Grants for other programs, established under the Enrolment Planning Envelope, were extinguished before enrolment reached a projected steady rate. However, the province has capped tuition fees for all of these programs, which are core to AU's mandate and identity as one of Alberta's four Comprehensive Academic Research Institutions. The ongoing Open Our World Campaign provides opportunities to increase scholarship and bursary opportunities for graduate students and support for chairs in disciplines with high student demand but low grant support.

A number of systems initiatives are being implemented to reduce costs and improve data security. Voice-over-Internet-protocol phones are being provided to the home-office portion of the work force to reduce costs and improve call tracking as the university prepares for a more robust relationship management system. Desktop virtualization offers improved data security while reducing the operational need to maintain and evergreen personal computers. Collaborations through the Alberta Association in Higher Education for Information Technology are also providing opportunities to explore shared services and to contain costs through increased purchasing power.

CAPITAL PRIORITIES

AU responds to the educational needs of diverse and dispersed learners who are seeking alternatives to residential universities. To fulfil its mandate and support strategic growth, the university must upgrade and expand its information and communication technology infrastructure and renew its facilities in Athabasca, the Capital Region and Calgary. The university's capital projects are presented in two categories, ICT and facilities, and are further subdivided according to the Government of Alberta Building and Land Information Management System (BLIMS) categories:

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

Progress on previously approved projects and projects being funded from institutional resources are presented at the end of this section.

Information and Communication Technology Infrastructure

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 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 reaffirm that mandate and guarantee 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

AU's online interface provides students with a great degree of flexibility. This unique university-student relationship is characterized by

- continuous undergraduate enrolment (Students enrol in programs and start 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 at any time; 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 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. It is AU's intention 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. The 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. 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 I: Preservation of Existing Systems, as a failure to upgrade could lead to reliance on unsupported products and unsustainable risks to AU's virtual campus. Improved responsiveness, operational efficiencies and data security and integrity are expected outcomes of these projects.

Priority Information Technology Projects	Fiscal Periods	Invested as of March 2012	Pending Cost	AU Funding	Government or Other
Category I Preservation of Existing Systems					
Learning Management System Phase 1	2013-14 to 2015-16	$ 2,266,882	$ 2,980,703	$ 1,402,783	$ 1,577,920
Content Management System Phase 1	2013-14 to 2015-16	1,550,310	2,871,849	1,397,405	1,474,444
Smart Identification and Encryption Systems	2013-14 to 2020-21	1,445,781	2,480,792	830,792	1,650,000
Assessment and Exam System	2013-14 to 2015-16	786,297	1,139,800	1,139,800	-
Academetrics System	2013-14 to 2018-19	228,114	6,075,433	252,940	5,822,493
Administrative Systems Renewal	2013-14 to 2014-15	2,072,789	3,278,097	2,281,132	996,965
Student Information System Upgrade Phase 1	2013-14	3,183,273	310,061	310,061	-
Articulations and Advising System	2013-14 to 2015-16	938,126	1,995,285	954,085	1,041,200
ICT Disaster Recovery and Risk Mitigation	2015-16 to 2018-19	-	11,500,000	-	11,500,000
Learning Management System Phase 2: E-Portfolios	2016-17 to 2019-20	-	8,000,000	-	8,000,000
Student Information System Upgrade Phase 2	2015-16 to 2018-19	-	3,900,000	-	3,900,000
Content Management System Phase 2: Learning Objects	2015-16 to 2018-19	-	2,550,000	-	2,550,000
Equipment: Hardware Upgrade	2013-14 to 2022-23	103,747	16,017,010	16,017,010	-
Equipment: Operating System	2013-14 to 2022-23	3,645,705	9,241,901	9,241,901	-
Total		**$ 16,221,024**	**$ 72,340,931**	**$ 34,827,909**	**$ 38,513,022**

1. Learning Management System Phase 1

    A fully integrated learning management system is needed to transform and personalize the learning experience and to ensure the success of students of varied backgrounds and degrees of preparation. Student-centred learning will be enhanced with customized advising and study tips, virtual classrooms, online grading of assignments and real-time, online examinations. Student histories and performance records will be assembled in a data warehouse, and data mining algorithms and tools will be developed to inform the customization of learning activities and programs. The LMS will also incorporate social networking capabilities that will aid the creation of virtual learning communities, providing a rich collaborative environment for geographically separated students.

2. Content Management System Phase 1

    As available information expands exponentially, a content management system is needed to allow learners, instructors and researchers to access relevant learning resources, student records, library reference collections and other widely available information in an integrated repository and in the format needed. A data dictionary will ensure common usage of terms across the institution. Full-text searching and effective tagging will enable efficient retrieval, analysis and repurposing of content. Full library access to alumni is also contemplated. The creation, storage and distribution of courses to the LMS for access by students will enable the provision of online courses. Integrated workflow

tools to facilitate more efficient content management will include a copyright database, a course tracking module and complete course lifecycle workflow management capability.

3. 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 to facilitating 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.

4. Assessment and Exam System

With an efficient 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 manual, fractured and paper-based system to one built on an automated digital workflow. This transition will reduce per-exam overhead costs 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. This benefit may represent a consulting or shared service opportunity for Campus Alberta.

5. Academetrics System

Concurrent with the development of the enhanced learning management system, this project 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 facilitate support interventions and program planning services that will improve learning outcomes and resource use.

6. Administrative Systems Renewal

AU operates in an environment of fiscal restraint and increasing competition in online education from traditional universities. Efficient operations and planning will be critical to the university's ability to achieve the goals of the *Strategic University Plan: 2011-16* and ultimately to its ability to provide a flexible, high quality and innovative learning environment. Because of rapid growth, AU's administrative information systems are increasingly unable to effectively support transactions, provide information for executive planning and reporting, and provide the tools needed for program and project costing. The Administrative Systems Renewal Project was initiated to provide an integrated administrative information system and process solution: to provide timely and accurate information for management decision making, to improve responsiveness and to meet the diverse needs of the university community. The scope of the project includes financial services, human resources, payroll, materials management (purchasing), copyright management, research grants, alumni management and donations.

7. Student Information System Upgrade Phase 1

   Modernization of the student information system is needed to allow students in all undergraduate and graduate programs and courses to access end-to-end web services and to ensure effective integration with the Alberta Post-secondary Application System. Self-service capabilities will include a paperless registration process, flexible start and end dates for courses, choice in learning resource components (e.g., just-in-time printing, online, multimedia), instructional options (e.g., group, one-on-one and blended tutor facilitation), tutor load planning and monitoring and student personal information updates. In addition, the student relationship system will incorporate web, email, phone, mobile and surface mail contacts. Fee options will be provided, and student accounts, loans and scholarships will be web-enabled and simplified.

8. Articulations and Advising System

   Students will be able to self-articulate their transcripts using AU's automated articulation application. In conjunction with the Alberta Post-secondary Application System, students will be able to automatically enter their transcript information from another post-secondary institution and have the AU system provide immediate credit transfer and articulation to any AU program. Ongoing articulation of inter-institutional credit transfers will be undertaken to create an articulation database that is regularly refreshed. Online advising and self-directed help will assist learners to make appropriate course and program choices and identify mobility opportunities, and they will make learning pathways more visible.

9. ICT Disaster Recovery and Risk Mitigation

   Reliable and continuous access is vital to providing effective online services. In order to guarantee 24/seven 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 for implementing a second AU site, although the needs are still substantial.

10. Learning Management System: E-Portfolios

    The learning management system 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.

11. Student Information System Upgrade Phase 2

The ongoing requirement to remain current will require renewed investment in the student information system. Expanding functionalities and integration requirements will address the ongoing need to provide a flexible real-time response to student and inter-institutional requests. Enhanced functionality will include an expanded database, increasing self-serve options to students and improved interoperability with the learning management system to provide ongoing learner program support. The outcome will be a system that builds on the transactional information and uses it synergistically within AU's OLE to provide a real-time responsive learner support system.

12. Content Management System Phase 2: Learning Objects

Continued refinement of the content management system will include the development of learning resources for cross institutional use, enabling the efficient use of knowledge objects. The 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 for multiple uses. Courses and programs will be able to efficiently share objects and other information assets as appropriate.

13. Equipment: Hardware

ICT equipment undergoes continuous innovation and improvement enabled by constant development of enhanced computing performance and machine capability. The ability to upgrade hardware brings improved data transmission, software application speed, increased storage, greater 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 the university with the computational ability to operate.

14. Equipment: Operating System

Upgrading operating 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.

ICT Associated Risks

To continue to provide high-quality post-secondary learning opportunities, AU must continually reinvest in its core course and student services delivery infrastructure. ICT is the university's capital: its classrooms, meeting rooms, communication channels, knowledge repositories and workspaces. At AU, physical space is supplanted by virtual space, proximity by bandwidth and immediacy by asynchronicity. Indeed, there is no alternative channel through which the university can deliver its services and programs. AU cannot substitute a campus building for its ICT infrastructure as the nature of the student body and educational delivery mechanisms do not allow it.

Risks associated with ICT performance are therefore more significant for AU than for campus-based institutions. A recently completed ICT risk review identified 16 major risks including

- reputational loss associated with AU's OLE being perceived as outdated or insufficient
- loss of ability to provide student services due to failure of ICT infrastructure systems
- breaches of security, resulting in a violation of regulatory and legislative requirements
- loss of systems integrity or inconsistent availability of or access to systems affecting services to faculty, staff and students (AU's ICT operations need to be sufficiently robust to consistently serve all parts of the university community.)
- integrated dependencies in an increasingly complex online network as third party service providers, publishers, government services and other agencies form components of the OLE ecosystem

These risks are subject to change in nature or degree as they are largely dependent on forces outside AU's direct control. Being an online university places AU in a higher risk category both because of its degree of dependency and because of the frequency and speed of change in the virtual world. Effective management of these risks is a constant in decision-making related to information and communication infrastructure and activities.

Facility and Other Projects

Although AU's physical footprint is considerably smaller than that of Alberta's other Comprehensive Academic 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. Construction of the Academic and Research Centre, the first major facilities project undertaken by AU since the Athabasca campus was created, was completed in 2011-12.

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 and the nearby Tim Byrne Centre (course materials production facility) and Athabasca University Geophysical Observatory, AU leases all of its facilities, including all space in the Greater Edmonton Area and in Calgary. As continuation of leasing is expected to become increasingly costly, securing appropriate university-owned, cost-effective space to ensure long-term continuity and sustainability of educational services to students is critical. Consolidating the university's now dispersed operations in the Greater Edmonton Area is a high priority.

Key planned facility and other capital projects are summarized below in order of priority under their BLIMS category.

Priority Facility and Other Projects	Fiscal Periods	Total Cost	AU Funding	Government or Other
Category I: Preservation of Existing Facilities and Systems				
Real Property Asset Management	2013-14 to 2014-15	$ 200,000	$ –	$ 200,000
Main Campus Building: Major Renovations	2016-17 to 2019-20	36,000,000	–	36,000,000
Library Collection	2013-14 to 2022-23	1,130,000	1,130,000	–
Equipment Renewal	2013-14 to 2022-23	1,889,000	1,610,000	279,000
Road Surfaces, Geotechnical Surveys, Landscaping and Trail Enhancements	2014-15 to 2015-16	1,650,000	–	1,650,000
Category Total		**40,869,000**	**2,740,000**	**38,129,000**
Category II: Expansion or Replacement Projects				
Integrated Learning Centre	2013-14 to 2016-17	30,000,000	–	30,000,000
Category Total		**30,000,000**	**–**	**30,000,000**
Category III: New Facilities				
Athabasca River Basin Research Institute and Learning Centre	2014-15 to 2017-18	47,700,000	–	47,700,000
Category Total		**47,700,000**	**–**	**47,700,000**
Total		**$ 118,569,000**	**$ 2,740,000**	**$ 115,829,000**

Category I: Preservation of Existing Facilities and Systems

1. Real Property Asset Management

    AU owns real property assets, including approximately 540 acres of land adjacent to its Athabasca campus. In the fall of 2012, the university issued a Request for Information, Real Property Asset Management (2012-0197) to solicit information on successful strategies and best practices used by other similarly situated entities on real estate planning, development and management. This information will assist the university to complete a comprehensive long-term strategic land and real property development and management plan.

    The $200,000 expenditure will be allocated over fiscal 2013-14 and 2014-15 and will allow AU to carry out the strategic planning and conceptual process for these land development activities and to apply for the land use redesignation and subdivision permits which will eventually be required to develop these lands to their optimal revenue generating and functional uses. A long-term strategic vision for the development of these lands will benefit the university, in terms of generating revenue from them, and the surrounding community. Any decision on development of the lands will be part of a comprehensive plan geared to meeting future educational, social, environmental and technological challenges.

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, systems and structures have not been significantly upgraded to accommodate changes in technology, environmental compliance, health and safety regulations or changes to 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. 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. 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. Digital Repository

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 all students and to support expansion of master's programs and development of new doctoral programs.

4. Equipment Renewal

Approximately $1.9 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 trail system and surrounding vegetation and also created a number of potential safety hazards. Due to this natural deterioration, and also to incorporate the recently completed Academic and Research Centre and planned future developments into the landscaping plan, the landscaping and trails system require 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 rail and support structures and lighting 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, 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 in close proximity to 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.

Category II: Expansion or Replacement Projects

1. Integrated Learning Centre (Greater Capital Region)

   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 in the university's long-term asset base

   Functional programming completed in 2009 identified space needs of approximately 4,500 m^2 to accommodate existing operations and staff. An additional 2,900 m^2 will be required to accommodate expansion of the university's activities in the decades to come. A $100,000 expenditure in fiscal 2013-14 will cover the costs of conceptual planning and some functional programming, with full design, planning applications and construction to follow. The proposed university-owned building, whether it is a new or a converted structure, would be expected to meet LEED Silver sustainability standards.

   It is important for the university to start planning and making progress on this project, as it could take four to five years (by which time existing leases will be due for renewal) from conception to occupancy.

Category III: New Facilities of Major Economic Benefit to Alberta

1. Athabasca River Basin Research Institute

    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 building contemplated to house the institute, a 9,300 m^2 LEED Gold (or potentially LEED Platinum) facility, will continue AU's tradition of innovative design and will

    -   serve as a focal point for environmental and ecological research
    -   serve as a water monitoring research centre
    -   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 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 would 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 ARBRI 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 facility will also offer a unique learning resource for schools and post-secondary students, provide opportunities for Athabasca River Basin communities to become involved in learning activities and to engage with post-secondary students, and attract visitors to the Athabasca region.

    Key outcomes from the new facility will be to provide a location in which

    -   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 experiences
    -   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 ARBRI will include public dissemination of research findings on the Athabasca River Basin, development of a best practices model of engagement and rebuilding 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 environmental impact of economic development.

Progress on Approved and Separately Funded Projects

Calgary Leased Space Replacement

The Campus Alberta development of the Bow Valley College South Campus is nearing completion. Beginning in 2013, AU will occupy 970 m^2 (half of the sixth floor) of space in the new building.

The preliminary estimated cost of site improvements is $1.74 million ($1.6 million is covered by Bow Valley College through the provincial grant and $140,000 is to be paid by AU). If Alberta Enterprise and Advanced Education does not provide lights-on funding to BVC, AU's annual operating costs will be approximately $80,000, but this cost will represent a saving over current lease commitments.

Population projections for the Calgary region forecast continuing growth (a 6.2 per cent increase in 18-to-34-year-olds during the next decade), and a shortage of university capacity is projected (~5,000 FLEs). AU will be in a position to ameliorate this situation through alternative delivery options and blended learning opportunities.

Projected Capital and Information and Communication Technology Infrastructure Expenditures and Revenue Sources

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

Summary – Projected Expenditures and Revenue Sources

For the year ended March 31
(thousands of dollars)

	BUDGET 2013-14	PLAN 2014-15	PLAN 2015-16	TOTAL
CAPITAL AND ICT INFRASTRUCTURE EXPENDITURES				
Buildings, leaseholds and site improvements	$ 200	$ 3,425	$ 27,025	$ 30,650
Information technology	10,590	8,451	11,100	30,141
Equipment	96	253	50	399
Library and art collections	50	50	125	225
	$ 10,936	$ 12,179	$ 38,300	$ 61,415
External Capital Contributions (Provincial and other)				
Building	$ 200	$ 3,425	$ 27,025	$ 30,650
Information technology	5,410	5,301	7,747	18,458
Equipment	61	218	-	279
EXPENDITURES, EXTERNALLY FUNDED	5,671	8,944	34,772	49,387
Internal Capital contributions				
Reserves (amortization)	2,416	1,895	2,189	6,500
Infrastructure Maintenance Program (IMP)	2,849	1,340	1,340	5,529
EXPENDITURES, INTERNALLY FUNDED	5,265	3,235	3,529	12,029
	$ 10,936	$ 12,179	$ 38,300	$ 61,415

Detail – Projected Expenditures and Revenue Sources

For the year ended March 31
(thousands of dollars)

	BUDGET 2013-14	PLAN 2014-15	PLAN 2015-16	TOTAL
Buildings, leaseholds and site improvements				
EXTERNALLY FUNDED				
Land Development Planning	$ 100	$ 100	$ -	$ 200
Intergrated Learning Centre - Greater Edmonton	100	2,000	10,000	12,100
Athabasca River Basin Research, Conference, Archival and Interpretive Centre		500	16,200	16,700
Road surfaces, geotechnical surveys, landscaping and trail enhancements		825	825	1,650
Total buildings, leaseholds and site improvements	200	3,425	27,025	30,650
Information technology: major projects				
EXTERNALLY FUNDED				
Hardware and Software	2,390	1,958	2,617	6,965
Computing systems	250	250	334	834
Administrative systems	-	-	0	0
Learning and research systems	2,770	3,093	4,796	10,659
	5,410	5,301	7,747	18,458
INTERNALLY FUNDED				
Hardware and software	1,125	1,686	1,487	4,298
Computing systems	72	258	329	659
Administrative systems	2,146	1,133	1,444	4,723
Learning and research systems	1,837	73	93	2,003
	5,180	3,150	3,353	11,683
Total hardware and software	**10,590**	**8,451**	**11,100**	**30,141**
Equipment				
EXTERNALLY FUNDED				
Research equipment and software	61	218	-	279
	61	218	-	279
INTERNALLY FUNDED				
Vehicles	-	-	-	-
Research Equipment	35	35	50	120
	35	35	50	120
Total equipment	**96**	**253**	**50**	**399**
Library and art collections				
Library	50	50	125	225
Total library and art collections	50	50	125	225
TOTAL EXPENDITURES	**$ 10,936**	**$ 12,179**	**$ 38,300**	**$ 61,415**

FINANCIAL AND BUDGET INFORMATION

Prepared under Public Sector Accounting Standards, AU's operating budget reflects the complete portfolio of restricted and unrestricted funds and includes general operations, research activities and ancillary operations.

The 2013-14 budget is balanced, showing revenue and expenditures of $128 million. In the coming two years the university intends not only to balance the budget but to contribute modest amounts to its reserves. This excludes any costs or surpluses relating to the Universities Academic Pension Plan.

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 for increased revenues through links with business and the commercialization of innovation.

The university will begin to modestly rebuild its reserves to increase its future capacity to partner with government and business. However, capital and IMP contributions from the provincial government, identified in previous budgets, 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 leadership to the online academic world.

Statements of Revenue and Expenses

Statement of Operations

For the year ended March 31
(thousands of dollars)

	BUDGET 2012–13	BUDGET 2013–14	Plan* 2014–15	Plan* 2015–16
Revenue				
Government of Alberta grants	$ 43,405	$ 41,113	$ 40,469	$ 39,823
Tuition and other student fees	63,731	64,523	66,329	67,763
Sales of goods and services	15,921	15,785	15,627	15,723
Amortization of deferred capital contributions **	3,439	3,736	4,185	4,488
Donations and other grants	2,438	878	882	886
Federal and other government grants	1,716	1,141	1,154	1,159
Investment income	1,161	1,250	1,200	1,200
	131,811	128,426	129,846	131,042
Expenses				
Instruction and non-sponsored research	71,850	73,588	74,236	73,548
Academic and student Support	16,284	14,910	15,149	15,274
Institutional support	12,491	11,967	12,159	12,259
Ancillary services	9,268	9,377	9,527	9,606
Computing and communication	8,757	7,822	7,947	8,013
Facility operations and maintenance	7,874	7,813	7,938	8,004
Sponsored research and special purpose	6,317	3,731	3,791	3,822
	132,841	129,208	130,747	130,527
Expenses in excess of revenue including pension liability adjustment	$ (1,030)	$ (782)	$ (901)	$ 515
Pension Liability Adjustment				
Universities Academic Pension Plan**	152	782	556	n/a
Expenses in excess of revenue not including pension liability adjustment	$ (878)	$ -	$ (345)	$ 515

*   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	$ 3,288	$ 3,625	$ 4,090	$ 4,427
Federal and other government grants	134	103	87	53
Donations and other grants	17	8	8	8
Total	$ 3,439	$ 3,736	$ 4,185	$ 4,488

*** Included in expense catergories above.

Expenses by Object

For the year ended March 31
(thousands of dollars)

	BUDGET 2012–13	BUDGET 2013–14	Plan 2014–15	Plan 2015–16
Salaries	$ 70,252	$ 70,454	$ 72,063	$ 72,107
Employee benefits	16,602	15,948	15,835	15,283
Fees and purchased services	18,813	16,022	15,669	14,777
Materials and supplies	10,884	10,699	10,597	11,022
Transportation and travel	4,185	3,325	3,395	3,429
Communications	2,700	2,622	2,675	2,755
Rental and insurance	3,069	3,097	3,159	3,190
Amortization of Capital Assets	5,287	5,841	6,080	6,677
Scholarships	1,049	1,200	1,275	1,288
	$ 132,841	$129,208	$130,747	$130,527

Statement of Cash Flows

For the year ended March 31
(thousands of dollars)

	BUDGET 2012–13	BUDGET 2013–14
OPERATING TRANSACTIONS		
Excess of expense over revenue	$ (1,030)	$ (782)
Add (deduct) non-cash items:		
Amortization of tangible capital assets	5,287	5,841
Amortization of deferred capital contributions	(3,439)	(3,736)
(Gain) loss on disposal of tangible capital assets		
Change in employee future benefit liabilities	152	782
Total non-cash items	2,000	2,887
(Increase) decrease in accounts receivable	(120)	(27)
(Increase) decrease in inventories and prepaid expenses	(743)	(372)
Increase (decrease) in accounts payable and accrued liabilities	(456)	506
Increase (decrease) in deferred revenue	1,533	(1,044)
Cash Provided by (Applied to) Operating Transactions	1,184	1,168
CAPITAL TRANSACTIONS		
Acquisition of tangible capital assets	315	2,249
Cash Provided by (Applied to) Capital Transactions	315	2,249
INVESTING TRANSACTIONS		
Purchases of investments, net of sales	(475)	(641)
Cash Provided by (Applied to) Investing Transactions	(475)	(641)
FINANCING TRANSACTIONS		
Endowment contributions	2,029	50
Cash Provided by (Applied to) Financing Transactions	2,029	50
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	3,053	2,826
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR *	4,132	3,312
CASH AND CASH EQUIVALENTS, END OF YEAR	$ 7,185	$ 6,138

* Note: The beginning of year cash and short-term investments amount is projected based on forecasted operating results for the previous year. The 2013-14 amount varies from the approved budget amount for 2012-2013 by the variances for 2011-12 and 2012-13.

Tuition

AU's tuition fee projections for 2012-13 to 2015-16 are as follows:

	2012–13 Actual	2013–14 Proposed	2014–15 Plan*	2015–16 Plan*	
Course-Based Fees					
Undergraduate Student Fees					
Course fee (3-credit)	$ 472	$ **472**	$ 476	$ 480	
Percentage change	1.3%	**0.0%**	0.8%	0.8%	
Graduate Student Fees **					
Master of Education (Distance Education)					
Course fee	$ 1,350	$ **1,350**	$ 1,350	$ 1,350	
Learning Resource Fee	$ 160	$ **160**	$ 160	$ 160	
Master of Health Studies and Master of Nursing					
Course fee	$ 1,320	$ **1,320**	$ 1,330	$ 1,340	
Learning Resource Fee	$ 50	$ **75**	$ 100	$ 125	
Master of Arts (Integrated Studies)					
Course fee	$ 1,320	$ **1,320**	$ 1,330	$ 1,340	
Learning Resource Fee	$ 160	$ **160**	$ 160	$ 160	
Post-Baccalaureate Diploma in Architecture					
Course fee	$ 1,320	$ **1,320**	$ 1,330	$ 1,340	
Learning Resource Fee	$ 160	$ **160**	$ 160	$ 160	
Master of Science (Information Systems)					
Course fee	$ 1,320	$ **1,320**	$ 1,330	$ 1,340	
Learning Resource Fee	$ 160	$ **160**	$ 160	$ 160	
Graduate Diploma Heritage Resources Management					
Course fee	$ 1,320	$ **1,320**	$ 1,330	$ 1,340	
Learning Resource Fee	$ 160	$ **160**	$ 160	$ 160	
Post-Baccalaureate Diploma in Legislative Drafting					
Course fee	$ 1,320	$ **1,320**	$ 1,330	$ 1,340	
Learning Resource Fee	$ 160	$ **160**	$ 160	$ 160	
Program-Based Fees					
Graduate Student Fees **					
Master of Business Administration					
Program tuition	$ 35,140	$ **35,140**	$ 35,140	$ 35,140	
Learning Resource Fee	$ 9,360	$ **9,444**	$ 9,444	$ 9,444	
Doctor of Business Administration					
Program tuition	$ 47,355	$ **47,355**	$ 47,355	$ 47,355	
Learning Resource Fee	$ 5,145	$ **5,187**	$ 5,187	$ 5,187	
Doctor of Education (Distance Education)					
Program tuition	$ 43,210	$ **43,210**	$ 43,642	$ 44,127	
Learning Resource Fee	$ 1,650	$ **1,650**	$ 1,650	$1,650	
Master of Counselling					
Program tuition	$ 22,530	$ **22,530**	$ 22,755	$ 22,983	
Learning Resource Fee	$ 600	$ **900**	$ 1,200	$ 1,500	

* The fee changes are preliminary and will be refined in future year budgets.
** The $13 per credit AU Graduate Students' Association fee ($12 per credit in 2012-13) is over and above the graduate program tuition fees stated above.

REQUIRED RESOURCES AND RISK MITIGATION

Resource Requirements

Access and Enrolment Plan

AU is approaching the maximum enrolment capacity for its physical infrastructure as stipulated in the Campus Alberta Planning Resource. Staffing and clinical placement shortages will require enrolment to be scaled back in some areas.

Opportunities to create professional development and public interest offerings from elements of the current curriculum are numerous. Other initiatives will require seed money for the preparation of business plans or grant applications.

Quality

Curriculum review and renewal processes are underway to address some of the indirect costs of maintaining a constantly available inventory of over 800 courses. Systematic reviews of low enrolment courses due for major revisions will be undertaken in the coming years with a view to closing those not needed to meet core requirements in established or anticipated programs.

The transition to e-texts will bring about both service improvements and potential savings. The Students' First Initiative provides similar opportunities for leveraging development in the online learning environment with refocused service reviews.

AU is seeking support for chairs in targeted areas and shared services opportunities with Campus Alberta and other organizations.

Research

Increases in the number of research grants and awards are markers of AU's success. Funding for the indirect costs of research and addressing matching contribution requirements are becoming significant challenges.

Innovation

Contributing to the development of an Alberta educational technology for knowledge transfer and commercialization projects represents an exciting opportunity for the province's future in the digital economy. Establishing a sustained initiative will require seed money and administrative assistance.

Community

AU is committed to a high level of collaboration and community support. However, the additional resource requirements of partnership programs make them unsustainable in the present environment. Initiatives like the Learning Communities Project, retention studies and local capital development would benefit from targeted funding envelopes.

Sustainability

The new budget model provides incentives for innovation and for delegating authority and accountability to the appropriate staff level. Numerous elements in this plan are dependent on

investments in AU's information technology infrastructure. With more shared services models, those investments could be leveraged to assist other Campus Alberta institutions.

Financial Risk Mitigation

A number of risks to the university's financial health have been identified:

Rank	Key Risk	Risk Level
1	Failure to develop new revenue sources	Moderate/High
2	Failure to develop new revenue sources	High
3	Slowing enrolment growth	Moderate/High
4	Frozen or reduced provincial funding	High
5	Low investment returns	Moderate
6	Increasing liability for the Universities Academic Pension Plan	Moderate

AU is taking steps to manage each of these risks to ensure long term sustainability. The university continues to monitor its risk management plan and undertake regular risk assessment reviews to maintain awareness of resource requirements and risk implications.

1. Failure to develop new revenue sources

   Developing new revenue sources is a key component of AU's sustainability plan. The university must pursue targeted learning opportunities with businesses, governments and international interests. The university is developing opportunities with learning industries through the Faculty of Science, with international distance universities, with sports organizations, with the federal government and with major Canadian businesses. These will increasingly become the foundations of growth, but regulatory burdens could limit the university's ability to respond to market demands in Alberta and other jurisdictions. There will also be a focus on research institutes in health, in information technology and in regional ecology. Plans for these have been outlined throughout this document. A business plan will be developed for each at the appropriate time.

   Donor development and fundraising will remain an integral component of helping the university meet its goals as identified in the *Strategic University Plan: 2011-16*.

   AU will be developing a real property management plan to determine the revenue potential of its land and capital holdings.

2. Staff compensation cost increases outpacing revenue increases

   Salary and benefits expenses amount to 67 per cent of AU's total costs. For a number of years, cost-of-living and merit increases have outpaced revenue growth. The university will be working with unions and other staff groups as it undertakes a review of its staff compensation packages and service delivery model. The steps that have recently been taken to reduce staffing costs have also created business continuity risks.

3. Slowing enrolment growth

   Variability and unpredictability in enrolment pose critical risks. AU uses sophisticated statistical methods for projecting enrolment; however, as good as they are, in the last few years, they have

been plus or minus two per cent. Student fees represent AU's largest source of revenue. Given that in-province fee increases are capped by the provincial government, it is essential that the university seek continuous growth in national and international enrolment to help keep pace with the cost of inflation.

Enrolment is continuously tracked against target and monitored by the Enrolment Management Committee. Fluctuations in enrolment are partially offset by savings in course delivery expenses. Marketing and alternate delivery formats are also a focus. Courses outside of Alberta are not regulated; however, they are subject to market realities. AU faces increasing competition from subsidized providers operating in other provinces and may lose its market share in some areas. Establishment of an enrolment reserve, a fund into which fee revenues in excess of projections can be deposited to be drawn upon in years during which enrolment is soft, is being seriously considered.

4. Frozen or reduced provincial funding

    A one per cent decrease to AU's base operating grant amounts to approximately $370,000, a significant amount given that AU does not have alternate sources of revenue such as parking, bookstores or student residences.

    Various revenue generating scenarios have been mapped out, including further restructuring, a business process review and alternate service deliveries. Shared service provision provides opportunities for cost containment across the post-secondary system. For example, the proof of concept exploration for disaster recovery services housed at the University of Alberta appears highly cost effective. However, a sustainable future will involve developing other sources of revenues from the commercialization of information technology and industry and community learning partnerships.

5. Low investment returns

    AU must continually track the investment markets, its investment returns and the associated risks. Both are monitored by a professional investment manager reporting to an Investment Advisory Group that regularly provides updates and recommendations to the Board of Governors. Market changes are addressed through reviews of the target portfolio mix, the appropriate benchmarks and the policy limits within the investment policy.

6. Increasing liability for the Universities Academic Pension Plan

    AU is a member of the University Academic Pension Plan. As at March 31, 2013, the unfunded liability of the UAPP was $23.8 million, of which $19 million was recorded as a liability in AU's financial statements and $4.8 million was deferred over the remaining service life of the employee group under Public Sector Accounting Standards. There are only two major sources of income: investment returns and employer/employee contributions. AU will continue to work with other stakeholders on the sustainability of the plan.

Given the uncertainties of the global economy and the present fiscal context, in which expenditures are increasing more rapidly than revenues, the university is realigning its budget model to enhance its sustainability so that it can achieve its goals.

APPENDIX A

Existing 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

The following chart shows recently completed, in-progress and upcoming external reviews. An overview of the procedures for reviews is available online (http://ovpa.athabascau.ca/program-review/program-review.php). The review process itself is subject to audit by the Campus Alberta Quality Council.

Recent Program Reviews	
Bachelor of Professional Arts (Human Services)	2009
Bachelor of Management	2009
Bachelor of Science in Computing and Information Systems	2009
Doctor of Education (Distance Education) [desk review]	2010
Bachelor of Nursing	2011
Bachelor of Human Resources and Labour Relations	2011
Master of Education (Distance Education)	2011
Master of Health Studies	2012
Master of Nursing	2012
Program Reviews in Progress	
Bachelor of Health Administration	2012-13
Bachelor of Science	2012-13
Bachelor of Professional Arts (Governance, Law and Management)	2012-13
Bachelor of Professional Arts (Criminal Justice)	2012-13
Bachelor of Arts	2012-13
Master of Business Administration	2013-14
Master of Counselling	2013-14
Scheduled Program Reviews	
Doctor of Business Administration	2014-15
Doctor of Education (Distance Education)	2014-15

APPENDIX C

Planned New Programs

Planned new programs are at various stages of development and some are dependent on external funding. The following proposed programs have been submitted to Alberta Enterprise and Advanced Education:

PhD specialization in health disciplines

BA major/concentration in philosophy
   major/concentration in education studies

B.Sc. major in architecture
   major in applied mathematics

University certificate in game development and programming

Development of the following programs is underway, but progress is dependent on the availability of funding:

PhD specialization in computing and information systems

M.Sc. specializations in environmental sciences
   specialization in learning technologies

MA specialization in psychology

BA major/concentration in environmental studies,
   major/concentration in Kainai studies (with Red Crow Community College)
   major/concentration in northern studies
   major/concentration in indigenous studies

Post-baccalaureate certificate in information technology security
Post-baccalaureate certificate in data analytics
Post-baccalaureate certificate in health informatics

Language preservation programs: Cree, Blackfoot and Michif (in collaboration with Red Crow Community College, Maskwachees Cultural College and First Nations Tribal Councils)

APPENDIX D

Summary of Initiatives and Opportunities

Initiative or Opportunity	Saving	Revenue Generating	Investment	Page
Plan reductions in programs with extensive supervisory/ clinical requirements	✓			25
Learner support improvements	✓		✓	25
Academic readiness mini-university modules		✓		25
Brand and marketing position renewal			✓	25
Social media: student/alumni ambassadors		✓		25
Curriculum renewal/realignment of outcomes	✓	✓		27
E-texts	✓			27
Open textbooks			✓	27
Doctoral programs in health and technology			✓	28
Professional development courses: business residential/ electives		✓		28
Professional development certificate: green computing		✓		28
Professional development certificate: mobile computing/apps lab		✓		28
Professional development certificate: technology in the classroom		✓		28
Professional development certificate: data analytic tools		✓		28
Professional development certificate: creative writing		✓		28
Architecture student options			✓	28
WHL and business programming		✓		28
Library of the future			✓	29
Moodle development			✓	29
Grade-book	✓			29
Exam harmonization	✓			29
Data warehouse/learning analytics infrastructure			✓	29
Service provision to Campus Alberta for online courses	✓	✓		30
Students first: service review and realignment	✓			30
Transfer and joint programs Campus Alberta	✓	✓		31
Increase recovery of indirect costs of research	✓			34
Seed funding for researchers/institutes			✓	35
Rentals of science labs		✓		35

Initiative or Opportunity	Saving	Revenue Generating	Investment	Page
Pursuing grant opportunities for research chairs/institutes		✓		35
Leveraging individual faculty/research interests to build international connections and portfolio			✓	36
Professional development in instructional design with BNU		✓		36
Joint Research with Qatar University in mobile English language training and active learning		✓	✓	36
Expertise provided to Open University of Nepal			✓	36
Analytics and visualization collaborative applications			✓	38
Learning Communities Project extension grant application		✓		42
Rural development local capital initiative modules		✓		42
Student retention research group grant application		✓		42
Assessment of unfunded graduate programs under TFP	✓	✓		42
Commercialization of learning objects/tools		✓		42
Responsibility for centre budgeting	✓			44
VOIP phones	✓			44
Desktop virtualization	✓			44
Campus Alberta Shared IT opportunities (e.g., AAHEIT)	✓	✓		44
Business process reviews (ASRP)	✓			44
Transportation needs study	✓			44

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