



FACULTY OF
**AGRICULTURAL, LIFE &
ENVIRONMENTAL SCIENCES**

UNIVERSITY OF ALBERTA



Dare
to Make a World of
Difference!

**Academic Plan Submission
May 31, 2006**

Faculty of Agriculture, Forestry, and Home Economics **Academic Plan Submission**

I. Introduction

The Faculty of Agriculture, Forestry and Home Economics (AFHE) continues to meet the rapidly evolving challenges of achieving economic, social, and environmental sustainability at regional, national and international scales. A key objective in the Faculty is to appropriately link science, policy and practice in comprehensive sustainable solutions. This emerging “post-normal science” has been termed Sustainability Science and is recognized as the distinctive focus of our Faculty. The concept is operationalized through four central themes:

- Healthy Human Environments
- Sustainable Land, Forests and Water Management
- Growing the Bioproducts Industry
- Global Food Systems

Our Faculty is about connections, specifically, connecting:

- Science, policy and practice
- Learning, discovery, innovation, and citizenship
- Undergraduates, graduates, scholars and practitioners
- Disciplines, academic units, agencies and business
- Urban, rural, aboriginal and northern communities

Our academic plan is aligned with the University Academic Strategy with its emphasis on enrichment of:

- Undergraduate/graduate student experience
- Interdisciplinary collaboration
- Community engagement
- International engagement

Our Faculty embraces the vision President Samarasekera has articulated in “Dare to Discover: A Vision for a Great University”. Our success will be built upon the four cornerstones outlined in the document, “Talented People; Learning, Discovery, and Citizenship; Connecting Communities; and Organization and Support”.

AFHE truly is the responsive, problem-solving faculty at the University of Alberta, with our focus on science and social science and their applications, connected and relevant to the needs of various resource sectors. The Faculty of AFHE educates its students to take science through to policy and finally to implementation.

II. Four Central Faculty themes

Over the past year AFHE has engaged in a planning process under the direction of Dean Kennelly. The objective of this process was to review the Faculty’s teaching and research strengths and to refresh the Faculty’s strategic plan. During this process the Faculty developed four key faculty themes that focus our teaching, research and community service. These themes allow us to transcend

departmental boundaries, leverage interdisciplinary opportunities, and take advantage of the research breadth within the faculty.

Healthy Human Environments

This theme is focused on people and their environments, spanning the continuum from personal to global. The research will foster nutritional health and provide tools to build healthy, safe and rewarding environments for human activities. The “environments” considered will extend from the personal (clothing and individual health and well-being), interpersonal, physical, to the community environments of cities, towns and rural communities.

The general theme of this research initiative will be improving the understanding of relationships and actions that affect the nature, quality and well being of people’s lives. This includes examining the nature and determinants of individual and group behavior; the importance of wider social and environmental contexts of such behavior, and actions that encourage individual, group and community well-being. Examples include:

- Exploring how material goods relate to creativity, personal security and social behavior
- Improving interpersonal, family and community relationships
- Exploring consumer behavior in relation to new goods and consumer risk
- Improving nutrition to prevent and treat disease, improve child development and address Aboriginal health issues
- Exploring relationships among nutrition, aging and disease to improve quality of later life

This research initiative is central to social and health policy analysis and development (including safety standards). Furthermore, it will improve evaluation of programs, policies and procedures intended to assess priorities, generate strategies, and undertake actions to achieve specific social and health goals.

Sustainable Land, Forest and Water Management

This theme focuses on science-based management of land, forest and water resources to foster their wise and sustainable use. It addresses the management of natural capital – critical ecosystem services that provide clean water and air, productive soils, diverse biota and some measure of resistance to biological invasions and diseases. Intensive agriculture, forestry and resource extraction activities, in little-understood combinations, already affect land and water resources in Western Canada. In addition, climate change scenarios for the Eastern Slopes and Boreal Plain predict warmer conditions and recurrent drought that might adversely affect agricultural and forest populations adapted to current growing conditions. These changes will affect the ecological and economical viability of primary resource industries and threaten the many communities that rely on them. These limits will constrain opportunities for economic growth in Alberta in the absence of careful planning and management.

The Faculty of AFHE is well suited to lead a multidisciplinary program that addresses the sustainability of land, forest and water resources in the boreal, parkland, prairies and foothills ecosystems of Alberta. To achieve effective management of physical and biological resources, economic and social aspects of land use must be carefully integrated. This initiative operationalizes the concept of ecosystem health and probes the linkages of biodiversity, ecosystem services and human well-being in agricultural, forestry, industrial, urban and protected landscapes. It explores technical and policy solutions that will ensure wise and sustainable use of renewable resources in the face of climate change and increased demand.

Research will pursue the discovery and selection of new species or genotypes that are able to thrive in warmer and drier climates, and withstand higher frequencies of fire, insect and disease infestations. Research guides development of resilient multi-scale management systems that ensure sustained flows of products and healthy ecosystems. In addition to defining necessary actions, the initiative explores the economic incentives and institutional and policy instruments vital to achieving desired outcomes.

Growing the Bio-products Industry

This theme addresses new bio-based economic opportunities that are emerging rapidly in agri-food, forest products, energy, environment, chemicals, plastics and healthcare. These opportunities are driven by intense economic and environmental pressures to find renewable sources of feedstock to replace those traditionally derived from petroleum. Convergence of new knowledge and technologies from scientific discovery will allow for chemical replacements for a range of applications, such as plastics, lubricants, high-value and commodity chemicals, solvents, cosmetics and detergents, and, to a lesser extent, actual fuel replacement. This will in turn provide opportunities to create jobs and sustainable economic growth, especially in rural communities, through value-added processing.

Bio-based products and processes are leading the way to this new industrial revolution. All carbon-based structural materials (plastics, foams, coating, adhesives, lubricants, etc.) owe their properties to long arrays of carbon-carbon bonds. The challenge is whether long carbon arrays, which spring from the world's depleting store of ancient hydrocarbons, can be substituted with sustainable agricultural sources. Alberta, second only to Ontario among Canada's agriculture producers, has tremendous opportunity to research, develop and commercialize these bio-products and technologies.

The Faculty of AFHE will provide the direction in capitalizing on Alberta's existing capabilities in this area, acquiring key expertise through collaboration with provincial, national and international partners, and leading research and technology transfer activities. The Faculty will focus on the following five broad product areas that the province through the Alberta Agriculture Research Institute has identified as key areas with significant market opportunities: 1) bio-plastics, 2) bio-composites, 3) bio-lubricants, 4) cosmetics and personal care products and 5)

bio-energy. Some examples of bio-products include plastics made from oilseeds; high-value and commodity chemicals from oilseeds and starch seeds; panel-boards and a variety of building products from non-wood fibers such as straw; bio-fuels such as ethanol; and electricity from biomass, utilizing wood wastes to generate heat and thereby electricity.

Enhancing Global Food Systems

This theme addresses the critical need to enhance development of the agricultural and food industries in commercially competitive and sustainable ways. The aim is to overcome the limitations imposed on western agriculture through its traditional focus on commodity livestock and grain industries and lack of significant investment in value-added industries.

To ensure a competitive and effective food system, research is necessary on all aspects of the food system from production agriculture, agricultural policy, food science (value-added), food production, market structure and performance, nutrition and health promotion, food service industry behavior, consumer behavior and buying practices, international trade, marketing promotion and advertising and agricultural communities to environmentally-sustainable agriculture. Within Alberta, the nature of the food system has traditionally focused on commodity livestock and grain industries without significant value-added industries. Recent provincial government initiatives focus on significant growth in value-added activities within Alberta. The research programs at the Faculty of AFHE will provide the basis for enhancing the food system within Alberta and encouraging the further development of the agricultural and food industries in successful and sustainable ways. The strength of the Faculty in this area stems from a diverse range of agricultural, food, and social scientists who bring complementary research skills to bear on improving the entire food system.

The research initiatives addressing Global Food Systems align with national and provincial priorities articulated in the Alberta Life Sciences Strategy and the Strategic Agriculture and Food Research and Development Plan for Alberta. The Government of Alberta is committed to expanding its value-added agriculture industry to \$20 billion by 2010.

III. Initiatives related to enrichment of the AFHE Undergraduate and graduate student experience

Undergraduate Student Experience

Our Faculty is committed to improving the undergraduate experience and has strongly endorsed the principles suggested in the senate task force on Student Engagement. In follow-up to the report "Student Engagement: A Shared Responsibility" our faculty held two interactive sessions for students, faculty and staff to discuss the undergraduate experience and to solicit suggestions as to how AFHE could improve that experience. Some of the initiatives that follow were developed in response to the feedback received.

Disciplinary diversity is a strength of AFHE. This strength is multiplied by the diversity of our undergraduate students. In AFHE, 10 undergraduate programs are home to students who are keenly interested in life of constituents of rural and urban addresses, and in some instances, in Aboriginal and other ethno-cultural groups. We are initiating agreements with select colleges in Alberta to optimally deliver high quality learning opportunities in a Campus Alberta manner. We also partner with natural resource management, agriculture and food, health and social agencies to deliver high quality learning experiences across the curriculum. Our instructors have embraced innovation in learning, and the teaching “bar” is being raised each year. Here are the key Faculty initiatives aimed at enriching the undergraduate experience.

- 1) We will establish “cornerstone” courses at the start of programs. These courses will initiate students down career paths, focusing on networking, communications and inquiry. These courses will be taught by our most engaging instructors with input from our best graduate students. Real-world problems in the disciplines will anchor the first-year programs. Functional cohorts of students will be formed in cornerstone courses and will continue through to the final capstone course.
- 2) AFHE will appoint an International Advisor to provide high quality service to international students, as well as assisting our students in participating in international exchanges/experiences.
- 3) We will increase the offerings of AFHE courses in first year of programs in order to address the fact that many new students do not feel part of the faculty until third or fourth year.

Graduate Student Experience

The Faculty of AFHE has strong and effective graduate programs and boasts a long record of outstanding graduates who excel as managers, problem-solvers, systems-thinkers and scholars. We aim to inspire graduate students to engage seriously in scholarship so that they can bring commitment to learning, thoughtful philosophy and professional ethics to their lives. Our programs have long had an international flavor because of the practical nature and resulting high appeal of our various programs to students from abroad and the dedication to such work by AFHE staff. Presently, 29% of our graduate students are international students. Thus, we already have excellent international contacts and reputation and are poised to connect further with the world. With new investment and support from the central administration, AFHE graduate programs will come to stand comfortably among the world’s leading programs fostering innovative management of land and natural resources and the ability to design and build complementary social and economic policies and infrastructure. Here are the key initiatives aimed at enriching the graduate student experience.

- 1) We will develop new course-based masters programs with other units on campus. We have a goal of 50 students enrolled in five years. Programs may include veterinary public health, risk management, aging, and community studies.
- 2) Continuing Education (CE) has been identified as a high priority area, but it receives little attention at this time. The interdisciplinary nature of our Faculty and our strong links with industry and government provide fertile ground for the development of distance delivery of CE programs to all regions of Alberta, and

beyond. We will seek resources within the university and from government and industry to develop these programs.

- 3) We will develop closer links with provincial and federal governments and their agencies, through guest lectures/seminars and joint projects and utilize those relationships to enhance graduate teaching and research. This exposure will allow graduate students to develop valuable contacts and networks.
- 4) At the Faculty level we will encourage international experience among students by establishing endowments that will provide opportunities for students to travel and work internationally as part of their graduate experience, and by encouraging all of our laboratories to bring excellent international students to Edmonton.

IV. Integration of teaching, research, scholarship and creative activities

AFHE has long embraced the integration of teaching and research in our undergraduate programs, and we are proud to support this growing campus-wide initiative. Our popular Animal Science 200 course which features “There’s a Heifer in Your Tank” - illustrates that integration. Students investigate specific agriculture-related problems and make a public presentation on their findings. This course is an example of how creativity and the integration of teaching and research, can energize a course and create a wonderful learning opportunity, and help the university provide high quality community service.

Key Initiatives:

- 1) Develop an undergraduate honors thesis program that will integrate teaching and research and provide more challenge for advanced students.
- 2) Every student in the Faculty will be provided at least one experiential learning opportunity. These will be offered through community-based projects in a capstone course or through practica, internships, or student exchanges. These experiential learning opportunities will give students unique opportunities to apply what they learn in the classroom to real-world problems.
- 3) We will double the number of students participating in international exchanges through the provision of financial and other support.
- 4) Engage industry, government, community organizations and alumni in lectures and class projects in order to provide real-life examples to students.
- 5) Celebrating the successful integration of teaching and research will be a key strategy used to bring about change in the academic culture. For example, an undergraduate research celebration to recognize students who have integrated research into their learning and those faculty that have supported them.

V. Fostering interdisciplinary collaboration

AFHE is arguably the most diverse faculty on campus. We have science, economics, art, and the humanities all within a single faculty. This allows for tremendous opportunities for interdisciplinary work within our faculty and allows us to contribute to many interdisciplinary projects outside of our faculty. This breadth allows us to address real world problems as we go from science to economics and social impacts, and then to policy development and implementation.

Key initiatives:

- 1) The recently launched Alberta Veterinary Research Institute (AVRI) integrates the wealth of activity within the University (AFHE, Science, Medicine and

- Dentistry and School of Public Health) and government agencies in terms of animal, public and environmental health. Research addresses food safety, disease surveillance and their complex relationships to climate change, environmental fragmentation, vector redistributions and movement of people, animals and products. Initial partners include our broad base of University of Alberta researchers, AAFRD, Provincial Laboratory for Public Health (PLPH) in Edmonton; and Alberta Sustainable Resource Development. Future partners would include provincial or western partnerships involving the University of Calgary and the Western College of Veterinary Medicine (WCVM) and companion institutes and centers such as the Veterinary Infectious Diseases Organization (VIDO) in Saskatoon and the Alberta Prion Research Institute.
- 2) The Alberta Institute of Human Nutrition (AIHN) is an interdisciplinary effort between AFHE, Faculty of Medicine and Dentistry, and the new School of Public Health. The AIHN aims to focus research and teaching in the areas of dietary disease prevention and nutrition therapy. This institute will work closely with the University and Capital Health in forming the partnership embodied in the Edmonton Clinic. Through the Edmonton Clinic the AIHN can take further steps towards the integration of teaching and research to benefit the community. This will become a dynamic community health initiative.
 - 3) Working with the Canadian Circumpolar Institute, our Faculty will help fulfill the University's commitment as a member of the University of the Arctic and extend the sphere of research and development to environmental and social impact assessment, community nutrition, food security, and ecosystem health.
 - 4) We propose the establishment of a rural institute that would be based at the Augustana Faculty, built on a core partnership between the two Faculties and open to researchers in every Faculty, to focus and champion rural research and lead the University's participation in a province-wide Rural Development Network.
 - 5) The Material culture institute is a proposed institute in AFHE in collaboration with the Faculty of Arts that will position the University of Alberta as the single most important centre for material culture study and research in Canada. The Institute will focus teaching and research, enhance scholarship and bring profile to resources and collections on campus from a material culture perspective. It will build collaborative linkages between the Departments of Human Ecology, Sociology, Classics, Anthropology, Art History, Drama, Native Studies and Museums and Collections on campus and in the broader community with the Royal Alberta Museum, the Edmonton Art Gallery, the Alberta Crafts Council, the Ukrainian Cultural Heritage Village, Fort Edmonton, and internationally.

VI. Aboriginal, northern and rural engagement

The Faculty of AFHE has a lengthy history of research and community service in food and fiber production, resource management, health and economic development that make it uniquely qualified to enhance the University of Alberta northern, rural and Aboriginal engagement strategies. Currently, research in Northern, Aboriginal and rural communities is an important feature of the National Centre of Excellence in Sustainable Forest Management, an important outlet for forest, soil and ecological science, and social science research and graduate student training for AFHE. In a similar vein there is significant ongoing research on resource management issues and climate change both from physical and biological science perspectives as well as social science perspectives (federal

Biocap programs, provincial funding, PFRA). These interdisciplinary research programs inform and enhance undergraduate training in agriculture, forestry, environment and conservation sciences, in combined degrees with Native Studies and the Faculte St Jean and the proposed joint degree in environmental studies with the Faculty of Arts. Access to course material and faculty with significant interests in these areas enhance other Faculty degree offerings such as agriculture and forestry business management and give these programs a dramatically different focus than similar degrees offered at other tertiary institutions. Additional research focus areas within the Faculty such as risk communication, traditional knowledge and resource management strategies and community and individual health determinants are all growth areas leading to increased course offerings, enhanced teaching focus on northern, Aboriginal and rural communities and highly qualified graduates at undergraduate and graduate levels.

Key Initiatives:

- 1) Increase the accessibility of our programs through partnering with other institutions. This “Campus Alberta” initiative will allow prospective students to enter programs and begin working towards their U of A degree while in their own communities. This will allow us to better engage rural, northern and Aboriginal communities in our programs.
- 2) Offer lifelong learning through professional programs that are flexible and accessible. The specific training offered within the Faculty and the association with professional organizations positions us well to provide advanced programs. This program could utilize distance-learning opportunities to allow professionals with established careers and/or families to participate. Advanced programs/training could be offered in forestry, dietetics, community studies, and food safety, among others.
- 3) University of the Arctic – Northern Engagement. Core courses in Circumpolar Studies are offered by member institutions of the University of the Arctic. Through our joint undergraduate degree programs, specifically the BSc ENCS/Native Studies and new BA Environmental Studies, we will provide transfer credit and facilitate completion of university degrees. Our staff will develop and contribute enrichment courses in areas such as community nutrition, food security and ecohealth. We will encourage participation in the University of the Arctic’s North2North program for student mobility.
- 4) Develop community-based masters programs that engage rural and Aboriginal communities. Students could do most of their program in a particular community addressing specific problems. This would benefit the student and would build bridges with communities.

VII. Urban and Civic Engagement

The Faculty of AFHE is effective in strengthening the economic, cultural, and social fabric of the city and region through its valuable contribution to training students to become active and engaged citizens. In fact, we teach civic engagement from a much more global or world-view perspective with the aim of creating vibrant, sustainable communities. Many of our graduates go on to work in the service/social sectors and thereby contribute to the health and well-being of individuals and communities on local, national, and global levels. Graduates are often involved in areas of management, policy development, and policy decision making. They also work as entrepreneurs, and in government agencies and non-government organizations. Through their diverse activities AFHE students and

graduates make effective contributions to the cultural and creative dynamism of cities, provinces and countries.

Key Initiatives:

- 1) Increase the number of practicum or work experience programs in the community of students
- 2) Continue to pursue opportunities as a faculty for community outreach. Currently AFHE is involved in several community social programs. AFHE will continue to contribute to social programs that benefit the community. New opportunities include community nutrition through the Edmonton Clinic, ongoing public lectures like the ones hosted this year on genetically modified foods and Alberta's water crisis.
- 3) Connect faculty experts with communities to help address specific problems. For example, Dr. Lori Harach's research on crystal meth could provide valuable insight to families and communities dealing with this issue.

VIII. International engagement

- 1) Continue to build on relationships with post-secondary institutions in other countries. The faculty has formal agreements and activity with China, Mexico, Norway, and Germany.
- 2) Expand our participation in Studies in Africa and field courses in such destinations as Cuba, Costa Rica, Britain and Arctic Canada.
- 3) Leverage UAI efforts in international engagement.
- 4) Increase support for international students and international exchanges.

IX. Collaborations

AFHE strives to achieve the aims that 1) science is more than invention, 2) science and policy must be closely linked, 3) causes and solutions for local problems will increasingly be determined by global forces, and 4) proactive strategies must replace reactive tactics at all levels from public policy to enterprise management. Our strategy to achieve these aims have been through the integration of physical, biological and social sciences focused on issues of sustainable development within collaborative and creative multidisciplinary and interdisciplinary environments within and outside the University of Alberta for meeting regional, national and global challenges. The following are examples of collaborative linkages forged throughout our programs with partners inside and outside the university.

1) The Institute for Forest Opportunities Research (IFOR), a cooperative effort with the Canadian Forest Service. It marks our first strategic step in addressing the management of natural capital, critical ecosystem services that provide clean water and air, productive soils, diverse biota, and some measure of resistance to invasions and diseases. This initiative operationalizes the concept of ecosystem health and probes the linkages of biodiversity, ecosystem services and human well-being in agricultural, forestry, industrial, urban, and protected landscapes. It explores technical and policy solutions that will ensure wise and sustainable use of renewable resources in the face of climate change and increased demand.

2) Institute for Food and Agricultural Sciences, Alberta (IFASA). The vibrancy of today's agriculture and agri-food markets and changes in consumer expectations put new

demands on Alberta's agriculture and agri-food industries. When consumer preferences change, producers and processors must be ready to respond. The Alberta Government has recognized the urgency to prepare our industry to meet the new challenges of today's modern markets. After a consultation with industry and other stakeholders, the Alberta Government set an agriculture industry target of \$20 billion of value added and \$10 billion of primary production on a sustainable basis to be reached by the year 2010. In March 2003, the Government endorsed an R&D strategy to meet the challenges of reaching the industry targets and in 2004, committed 65 million dollars as an initial investment in research and development in areas of high strategic importance to the future of Alberta's agri-food industries. In response to the new strategic directions, in May 2003, the Institute for Food and Agricultural Sciences, Alberta (IFASA) was created. IFASA builds the frame work to coordinate resources and to ensure effective collaborative efforts of multidisciplinary teams from our faculty with those of Alberta Agriculture, Food and Rural development, Alberta Research Council, Agri-Food and Agriculture Canada, Olds College and industry. IFASA is thus an agriculture and agri-food institute for research, technology development and commercialization, learning and knowledge transfer that adds to Alberta's economic, social and environmental well-being and delivers high-impact research and development programs in areas of strategic importance to Alberta's agri-food industries. Four of the seven program areas are in Value-Added Products (Bioproducts, Food, food ingredients and fermentation products, Health and Wellness products and Value Added meats). The remaining three programs are in Sustainable Production Systems (Environment, nutrient management, Feed grain quality and supply and Bovine Genomics)

3) Feed Science and Technology Institute. Alberta recognizes the critical economic role of feed, which links the crop and livestock industries and supports the \$4 billion Alberta livestock industry. As such, IFASA, AAFRD, CIGI (Canadian International Grain Institute, Winnipeg, MB; a non-profit corporation with the Canadian Wheat Board) and the University of Saskatchewan have recognized the need to create a national Feed Technology Centre, to be a recognized leader in the discovery and application of innovative technologies in the areas of feed evaluation, processing and safety, enhancing the value of feedstuffs and increasing the competitiveness of the crop, feed, and livestock industries

4) The recently launched Alberta Veterinary Research Institute (AVRI) integrates the wealth of activity within the University and government agencies in terms of animal, public, and environmental health. Research addresses food safety, disease surveillance, and their complex relationships to climate change, environmental fragmentation, vector redistributions, and movement of people, animals, and products. Initial partners include AAFRD, Provincial Laboratory for Public Health, and Alberta Sustainable Resource Development. Future partners would include University of Calgary, Western College of Veterinary Medicine, and other institutes.

5) A recent initiative involves collaboration in Families First Edmonton with CIHR, the City of Edmonton, Edmonton Aboriginal Urban Affairs Committee, Alberta Children's Services, Alberta Health and Wellness, Alberta Mental Health, Capital Health, Edmonton and area CFS Authority, Edmonton Community Foundation, Quality of Life Commission, United Way, Stollery Foundation, and CUP.

6) Other collaborations and partnerships include those with numerous provincial agencies, boards, provincially-led networks, federal and industry associations. Examples include, Alberta Forest Research Institute (AFRI), Alberta Sustainable Resource Development (ASRD), The Sustainable Forestry Management Network (SFMN), Alberta Forest Genetic Resources Network, Oilsands Reclamation Research Network, Centre for Enhanced Forestry Management, Sustainable Forest Management NCE, The Mixed Wood Management Association, Dairy Research & Technology Research, Meat Safety and Processing Research, Poultry Research, Beef Research & Technology, Swine Research & Technology, Agricultural Genomics and Proteomics Centre and The Alberta Lipid Utilization Program

X. Undergraduate students, graduate students, and post-doc fellows.

Resulting from collaborations, AFHE is on the verge of substantive growth in terms of academic positions and research capacity. These new faculty positions will supervise graduate students, therefore we project an accelerated growth in our graduate student body; graduate enrollment will be an increasing percentage of our total enrollment.

	FTEs Base Year	FTEs 2010 Projection
Undergraduate Students	1457	2200
Graduate Students	322	592
Post-Doctoral Fellows	24	39

Undergraduate Student base year data from AFHE: Student Services Office

Graduate Student and Post-Doctoral Fellow base year data from University Strategic Analysis Office

XI. Staffing levels

	FTE's Base Year	FTE's 2010 Projection
Academic Staff		
Faculty	108	195
Faculty Service Officers	4	8
Post Doctoral Fellows	24	39
Research Associates	41	67
Professors Emeriti/Adjunct	43	61
Sessional Instructors	8	11
Administrative Professional Officers	19	25
Support Staff		
Administrative/Clerical	64	90
Technical	66	98
TOTAL	377	594

XII. Faculty Infrastructure Needs

The substantial growth in external funding experienced by the Faculty of AFHE in recent years will accelerate in the years ahead due to partnerships such as IFASA, IFOR, AVRI, and others. This growth in external funding has placed tremendous pressure on our aging and fragmented laboratories and our dwindling land base, the latter being eroded through competing developments at South Campus and Ellerslie. Access to state-of-the-art laboratories and crop and livestock facilities are central to the future growth and success of AFHE. Thus the Faculty has identified a new faculty building as its highest priority and the business plan for the facility is in the final stages of completion. A Task Force that includes our IFASA partners (AAFRD and AAFC) is also developing a long-range plan that will outline the Faculty's land base needs to support projected growth in research and academic programs.

XIII. Faculty campaign priorities

Philanthropic dollars will be an important source of funding as we implement our academic plan. As we have seen time and time again, these dollars can in turn be leveraged for further support.

Our Faculty campaign priorities will be driven from this academic plan. Specifically, our focus on achieving economic, social, and environmental sustainability through our four major faculty themes: healthy human environments, sustainable land forest and water management, growing the bio-products industry, and global food systems. This Faculty covers a tremendous range of disciplines but remains a problem-solving faculty that takes things from science to policy development through to implementation. The Faculty is committed to raising philanthropic dollars in order to be successful in implementing this plan.

Our philanthropic support will be focused in these major categories: students, faculty and research, and facilities. Although short-term funding is helpful, the focus will be on building the Faculty endowment in order to build long-term capacity growth that will provide stability to our Faculty and the University. The Faculty will be creative in funding endowments and will leverage philanthropic gifts to maximize their impact. Provincial matching dollars made available through the Access to the Future Fund will be important to this.

Students

Undergraduate and graduate awards - The Faculty will continue to place a high priority in establishing scholarships and awards in support of students. The focus will continue to be endowments.

International awards and exchanges - The Faculty will focus on establishing student support for undergraduate and graduate students pursuing international exchanges and awards that help attract international students to study at the University.

Experiential learning - Another distinct focus will be on awards and program support that provide students experiential learning opportunities and opportunities to integrate teaching and research. This may be an internship program or a community work experience opportunity but the objective will be to support students in getting these formative experiences.

Integration of teaching and research – This could fall under students or the faculty research category. Funds in this priority could go to students in support of research projects, traveling for conferences or presentations at the undergraduate level. Funds could also support faculty in the development of novel and effective strategies to functionally integrate teaching and research.

Faculty and research

Chairs and professorships – The Faculty is expecting tremendous growth in academic positions through its collaborations with government and industry, but their remains a number of strategic positions that will require philanthropic support.

- Chair (Professorship) in Policy and Aging
- Chair (Professorship) in Protective Clothing
- Chair (Professorship) in Child and Youth Studies
- Chair in Forest Management *
- Chair in Forest Engineering *
- Chair in Forest Mensuration/Biometrics *
- Chair (Professorship) Solid Wood Science *
- Chair (Professorship) Wood Fiber *
- Chair (Professorship) Forest Economics *
- Chair in Forestry (research focus to be determined) *
- Chair (Professorship) in Oil Sites Reclamation and Remediation
- Chair (Professorship) Health and Food Policy
- Chair (Professorship) Risk Management
- Chair (professorship) Rural Sociology
- Chair (Professorship) related to Alberta Veterinary Research Institute
- Chair (Professorship) in Dietary Prevention and Nutrition Therapy

* The asterisk indicates forestry-related positions that are part of a current proposal being discussed by an anonymous donor.

Facilities

New Faculty Building – Although in the early planning stages, a new faculty building is a high priority. There is a current space shortage and additional space is required for anticipated growth.

Agri-Food Discovery Place – The Faculty is in the final stages of fundraising for this facility.

Devonian Botanic Garden Building – This facility will allow the Devonian Botanic Garden to better serve the Faculty and the community. As a LEED gold standard building, this facility with model sustainable energy technologies and will model the Faculty's commitment to sustainability. Partners such as the DBG Friends and the DBG Crafters Association are actively raising funds to support this project.

XIV. In conclusion

In "Dare to Discover: A Vision for a Great University", the University's vision is anchored on four cornerstones (Talented people; Learning, discovery, and

citizenship; Connecting communities; and Organization and support) that provide the foundation for a great university. In this academic plan, the Faculty of AFHE has outlined a series of initiatives that will attract and retain outstanding students and staff and further strengthen its already great graduate student component. It will serve Albertans in the natural resource, social and human science professions by facilitating entry into professional programs and establishing a framework for continuing professional development. It will improve its proven access for rural students, and will work to attract Aboriginal, international, and non-traditional students to its programs. The Faculty will build upon its strong foundation in learning, discovery, and citizenship through initiatives that enhance student experiences, and further strengthen our traditional links between research and public policy.

The Faculty prides itself on the strength and diversity of its partnerships with provincial and federal agencies, businesses and industries, NGOs, and a wide range of individuals in the agriculture-food and natural resource sectors. These relationships, although constantly cultivated and nurtured, will receive further attention as we work to engage our partners and alumni in programs that keep them connected to the UofA throughout their lives and careers.