

## INTRODUCTION

Bishop's University is one of the oldest universities in Quebec and Canada. Since 1843 the primary mission of the University has been "to provide a sound and liberal education" to its students. With approximately 110 full-time professors and professional librarians, the University offers degrees to nearly 2000 students in the disciplines of arts, business administration, education, humanities, natural sciences, and social sciences. The University has been successful in attracting, educating and training excellent students deeply concerned with the quality of their education; and many of these graduates have gone on to distinguished careers in academia, research, business, government and society more generally.

As a liberal arts institution, Bishop's has always been committed to teaching informed by a solid base in scholarship. Our professoriate has instilled in students over these many years that the engaged citizen of tomorrow is today's student of the arts, sciences and humanities—a task at which Bishop's University excels and to which it applies its concerns for scholarship, creativity and research. This Strategic Research Plan (SRP) of the University is an open statement with regard to this concern. It gives meaning to the values that underlie our long history and it provides direction to the many researchers and scholars who seek guidance in its aims.

The SRP is an open plan to pursue excellence in research and scholarship. Through this plan the Bishop's community recognizes the need to continuously improve on all dimensions of its performance, not the least of which includes a commitment to research and scholarship. The SRP makes it clear that first-rate research will be made possible through doing what is required to: [a] attract and retain the best faculty and [b] build and maintain research links, graduate programs and infrastructures that will facilitate research. It is also felt that these goals of excellence are best achieved by focusing on our areas of research and teaching strength, articulated recently in the formation of our four domains of research excellence — [1] Crossing Borders, [2] Cosmology and Astrophysics, [3] Multi-Scale Climate and Environmental Change, and [4] Psychological Health and Well-being. These areas involve truly interdisciplinary groups of researchers from business administration, education, the social science, humanities and natural sciences coming together to examine problems, conduct research and achieve scholarship which makes contributions rightfully expected by our students, society, and ourselves.

## **OBJECTIVE 1**

### **Integrate research fully into the teaching mission of the institution**

The University is a primarily undergraduate institution. In order to fulfill its mission, it must maximize the potential of, and the possibilities open to, its students after graduation. To an increasing degree this means entry into graduate or professional schools of their choice equipped with the knowledge, skills and aptitudes needed for success. In a knowledge based economy, the creation of new knowledge is itself the primary factor of change even for those whose formal education ends at the Bachelor's level. Thus, the pedagogical mission of the University must be to teach the mastery of a discipline, but also to convey the means necessary for our students to create new knowledge themselves. In a word, an institutional objective consonant with our primary mission is to integrate research capacity into the disciplines and programs in a coherent and effective way. It is also an objective which can be best achieved within the small class environment and the strong faculty-student interaction of our university.

<b>ACTION</b>	<b>TIMELINE</b>
Better integrate faculty research in teaching activities via experiential learning initiatives, upper year seminars, and honours projects	Ongoing
Make research capability an explicit desired outcome of all our programs	2010-12
Seek Foundation monies for the expansion of opportunities for research assistantships for senior students	2010-12

## **OBJECTIVE 2**

### **Develop and Maintain Research Excellence**

The University is committed to strengthening all areas of research and creativity. Since more than 80% of its faculty are in the disciplines of business, education, humanities, and social sciences, the university will be strategically promoting social innovation and research in partnership with the community. However, support of its traditional sectors of excellence in the natural sciences and mathematics will also be a priority. The greater research funding of comparable institutions is usually achieved by the creation of several strong research clusters rather than by excellence across the disciplinary spectrum, and in order to compete we need to do likewise. The most promising areas would be those in which the CFI funds available to Bishop's could be fully utilized. Success in this strategy will have benefits across the disciplines – in better

infrastructure, larger indirect cost grants and higher institutional profile and reputation among both students and the public.

The University has just completed the first phase of this process by identifying and approving four research clusters at Bishop's University:

➤ **Multi-Scale Climate and Environmental Change**

The cluster proposes to study climate change at small, intermediate and large scales and of the many aspects of climate change and its impacts. In particular, they propose to study problems related to the mechanisms of climate change, the impact of climate change (biogeography) and adaptation measures taken towards climate change. It includes professors from the Natural Sciences and Social Sciences, at both junior and senior ranks.

➤ **Crossing Borders**

This cluster proposes to study socially constructed categories and boundaries that mark differences among nationalities, ethno-linguistic communities, genders and social classes---particularly how they are constructed, challenged and transcended; with relevance to our immediate community where possible. The research axes are identity, gender, culture, class, ethnicity and space/geography with researchers and programs identified in each. The group draws upon several researchers in the Humanities (History, Modern Languages, English, Religion, Etudes françaises et québécoises) and Social Sciences (psychology). Members of this group span the full spectrum of junior to senior ranks.

➤ **Cosmology and Astrophysics**

This cluster expresses an interest in the study of gravitational fields applied to cosmology and the study of compact objects in various astronomical contexts, with a focus on topics relating to high-energy astrophysics. This is the smallest cluster with three members in physics and one in mathematics. However, the cluster is comprised of strong researchers in physics with years of demonstrated publications. There is also significant funding attributed to certain members of this group, with one member having held Bishop's only CRC to date. There is also clear evidence of international collaborative work and an established reputation for strong research.

➤ **Psychological Health and Well-being**

This cluster proposes to study the means to ensure that individuals, and the communities that they live in, are healthy, sustainable and vibrant. More specifically, the cluster will focus on psychological health, well-being, and basic psychological processes. It includes professors from the Social Sciences, Natural Sciences, and Business at different stages in their career. The cluster builds on existing research since a number of its members have external funding for projects directly related to its theme and axes, and many have published in peer-reviewed journals on related topics. This cluster is also committed to work in collaboration with the Eastern Townships community, while being active at the national and international level. It is linked to strong teaching programs and could lead to the development of graduate programs.

A proposed cluster centred in Education – **'Powerful Learning and Teaching for a changing world'** has also been identified as emerging and it is hoped that its members will develop their theme further and reapply when the time is right.

By early 2010, the University will have distributed the three Tier II Canada Research Chairs available to it to three of these clusters and will have begun the hiring process. Senate Research Committee has also recommended, and Senate has approved, a process of reporting and evaluation for these clusters.

The University was allocated one Tier I Canada Research Chair which was awarded to Dr. Lorne Nelson in 2002-2009. Dr. Nelson, through the Canada Research Chair in Astrophysics, was able to achieve his research goals at Bishop's University through significant infrastructure support. His appointment also enabled the institution to further develop its new research linkages, and has provided the natural sciences with much-needed research support. His project allowed for the hiring of post-doctoral fellows, utilized graduate and undergraduate students to carry out research functions, and led to formal research alliances with other institutions. As such, this successful model will serve as a cornerstone for future research projects and initiatives at the institution.

ACTION	TIMELINE
Develop the Eastern Townships Research Centre's research activities	Ongoing
Support and further develop the University's research chairs and groups	Ongoing
Support the creation of research groups/centres	Ongoing
Establish a University-wide Visiting Scholars and Post-doctoral Fellows program	2010-2012

**OBJECTIVE 3**  
**Provide more time for faculty research**

Research needs to be integrated more fully into our classes and our programs. Yet it still also requires significant dedicated time for the faculty member. Presently, Bishop's faculty spend a higher proportion of their time on teaching than is the norm at Quebec universities and universities of comparable size elsewhere in Canada. It is therefore difficult to increase the amount of time that faculty can devote directly to research and creativity, without decreasing the time they spend on other critical activities, including teaching and administration. It is recognized in the Canadian academic community that a faculty workload consisting of 40% teaching, 40% research and creativity, and 20% university/community service, is the ideal model. Moving towards this model will be difficult, given undergraduate funding rules. Nonetheless, we must do so gradually and in a creative fashion, by both reducing the administrative and the teaching burden on faculty.

<b>ACTION</b>	<b>TIMELINE</b>
Reduce the number and size of university committees (without reducing the decision making influence of faculty)	2010-2012
Diminish formal Committee/Department work for untenured faculty	2009-12
Implement a University teaching schedule with increased flexibility for the scheduling of courses and the determining of teaching load	F2010 for schedule, Teaching load in period 2010-12
Allow new faculty a significant course reduction (four courses) during their first year	2009-12
Move as far as possible towards a standard teaching load of five courses per year for continuing faculty	2009-12

**OBJECTIVE 4**  
**Strategically recruit faculty with excellent research profiles**

Recruiting and retaining excellent, fully-qualified faculty who are actively engaged in original programs of research and creativity are central to the success and growth of the research profile of the University. Hiring for tenure stream positions should explicitly list as a criterion the possession of an excellent research profile consonant with the level advertised. The aims of strategic recruitment of new faculty are not only to increase the reputation of Bishop's and to increase the external funds for research and creativity received by the University, but also to provide the human resources necessary to support the growth of graduate programs and the increased opportunities for the training of highly-qualified persons.

<b>ACTION</b>	<b>TIMELINE</b>
Prepare a plan for the strategic recruitment of faculty based on excellence in research and creativity (without neglecting teaching acumen) <sup>1</sup>	2010-12
Provide "start-up funding" to support the programs of research and creativity being established by new faculty	By 2012

<sup>1</sup> This should be the responsibility of the Senate Planning Committee.

**OBJECTIVE 5**  
**Increase external funding for research**

The total of grant monies received from the federal and provincial agencies is an area where Bishop's lags behind all other comparable universities. Since all other universities are making concerted efforts to maximize the funds they receive from the tri-councils, it is clear that increasing our relative performance in this area involves a 'moving target'.

<b>ACTION</b>	<b>TIMELINE</b>
Increase both the number of grants and the total funds received from the federal and provincial funding agencies	Ongoing
Develop review panels on a divisional basis for the internal peer review of grant applications	2009-11
Develop research partnerships with public and private sector organizations	Ongoing

**OBJECTIVE 6**  
**Develop existing graduate programs and launch new graduate programs**

Our examination of best practices across Canada leads to the unavoidable conclusion that our lack of vigorous programs of graduate study is an effective barrier to significant improvements in our ability to attract new, top-tier research faculty, to increase the number and size of our external grants for research and creativity, and to our ability to participate in research of direct benefit to the society and cultures in our region. The creation of multidisciplinary programs of graduate study is one means to overcome limitations in numbers. Cooperative ventures with the Université de Sherbrooke or other Québec institutions will also be explored with the goal of creating viable, reputable, graduate programs employing Bishop's strengths to advantage. These graduate programs should be developed in conjunction with the research priorities listed in Objective 2.

<b>ACTION</b>	<b>TIMELINE</b>
Create a Committee on Graduate Studies which would promote, develop and oversee graduate studies <sup>2</sup>	Done
Further develop existing graduate programs in Chemistry, Computer Science, Education, and Physics <sup>2</sup>	Ongoing
Develop newer graduate programs either alone or in conjunction with U de Sherbrooke (History, Mathematics, Philosophy) <sup>2</sup>	Ongoing
Create multidisciplinary graduate programs in the research clusters identified in Objective 2 <sup>2</sup>	2010-12
Build scholarships for graduate students	Ongoing

**OBJECTIVE 7**  
**Develop the University's research infrastructure**

The University does not presently have sufficient space to support growth of its research activities. Additional physical space is a high-priority need to enhance the research environment at Bishop's. Meeting space and offices are required for research groups, visiting scholars, post-doctoral fellows, graduate students, and student research assistants. New space is also needed for new laboratories and studios of various types. Other infrastructure support requirements include space and hardware for video-conferencing, additional computer servers, and other specialized computer hardware, specialized program/software via individual, lab or site licenses, and other resources to allow our researchers to participate in international and national research initiatives. Whether or not a research pavilion is built, the University must begin to allocate the research space it possesses in a manner which is efficient and fair, and which takes into account institutional priorities and needs.

<b>ACTION</b>	<b>TIMELINE</b>
Continue planning for and search funding for a research pavilion	Ongoing
Develop library collections and online services to support new graduate programs	Ongoing
Create a University Research Space Committee to allocate research space on campus on the basis of priority and demonstrated need.	2010-11

<sup>2</sup> Development of graduate programs is an action which must be undertaken in consultation with the Senate Planning Committee.

## OBJECTIVE 8

### Disseminate research results and promote achievements in research and creativity

Many of our professors are involved in multi-institutional research projects that organize their knowledge transfer activities in the big universities and cities. Financial support from Bishop's would bring some of these outreach activities to Bishop's and contribute to its intellectual and cultural vitality, to its greater visibility, and to regional economic development. We also need to act as host for more regional and national scholarly conferences in order to build up networks and in order to raise the research profile of the University.

We must elevate the professorial role of 'researcher and knowledge creator' to give it similar prominence as the role of 'teacher' in our self-understanding of the mission of Bishop's University. We can do this through the public recognition of our top researchers with an annual Research Award; by divisional newsletters and by public functions at which research accomplishments are honoured.

Promotional material is crucial to demonstrate to the general public the quality of a Bishop's education, to broaden awareness and ensure recognition of Bishop's successes, and to get support from the wider community. To this end, we need to develop promotional tools to tell the story of our rising stars.

ACTION	TIMELINE
Support the organization of knowledge transfer activities	Ongoing
Launch a Research and Creativity Award	2010
Design and implement a communication plan for promoting research to the wider community	Ongoing
Seek opportunities for the hosting of conferences – e.g. ACFAS, Sciences-Expo, professional groups, etc.	Ongoing – ACFAS here in 2011

## OBJECTIVE 9

### Further develop the university's research links

At present, Bishop's researchers are involved in formal collaborations with Concordia University, McGill University, UQAM, Université de Sherbrooke, Université de Montreal and the University of Toronto, and, less formally, with academic staff from many other universities around the World.

ACTION	TIMELINE
Encourage the participation of Bishop's researchers in strategic groupings funded by FQRNT and FQRSC	Ongoing
Further expand the University's partnership and collaboration with Quebec and Canadian universities	Ongoing
Develop research collaboration with community organizations, government departments, and private sector organizations	Ongoing
Promote formal affiliations with other institutions of faculty as adjunct professors	Ongoing

### **OUTCOMES AND ASSESSMENT**

The Strategic Research Plan is approved by the two senior bodies of the University, Senate and the Executive Committee of Corporation. It will be reviewed every three years by the Senate Research Committee and recommendations for change passed on to the aforementioned bodies. All stated objectives will be evaluated on an annual basis by the Vice-Principal and, because all components of the plan are integrated with the actions of the Senate Planning Committee and the Senate Research Committee, with the functions of the Development and Research Offices, and with the activities of the Eastern Townships Research Centre and the Dobson-Lagassé Centre for Entrepreneurship, the Vice-Principal will be responsible for institutional coordination.

Approved by Senate on December 7, 2009