ABOUT US

WE ARE THE GRADUATE STUDENTS’ ASSOCIATION OF THE UNIVERSITY OF CALGARY.

We are the official voice of graduate students at the University of Calgary and to all levels of government.

The Graduate Students’ Association of the University of Calgary (GSA) was established in 1967, and has approximately 6,500 members including full-time and part-time Master’s and PhD students. The GSA supports the social, academic, and practical well-being and growth of UCalgary graduate students. The GSA oversees and promotes workshops, special events, the provision of financial aid and support as they progress through their university programs.

The GSA is governed by a five-person Executive board of full-time graduate students – who are then, in turn, responsible to the Graduate Representative Council (GRC) as a governing and policy-developing body. Over time, the GSA has worked to become a key member of the University of Calgary community via ongoing communication and dialogue with university administrators on pertinent issues.

The GSA represents the collective interests, but not individual opinions, of graduate students to governing bodies of the university, all levels of government and the surrounding community of Calgary.

www.gsa.ucalgary.ca
INTRODUCTION

Over the next decade, Alberta’s post-secondary system will need to evolve to meet the needs of a changing economy and job market. However, slumping oil prices and the worldwide pandemic have led to a pinch when it comes to government grants and funding to post-secondary institutions.

Albertans are resilient, are entrepreneurial, and are ready to take up the challenge of preparing Alberta’s graduate students for that changing economy and the careers available after graduation. While in university and receiving their education and conducting research, graduate students must also be prepared in a multi-dimensional way for their careers off-campus.

The Alberta 2030 initiative sets out to transform adult learning in Alberta. Its goals to ensure students have the skills they need, increasing post-secondary access, increasing institutional collaboration, and strengthening relationships with employers are certainly laudable; but these goals cannot be achieved while simultaneously having students continue to bear an increasing financial burden when it comes to education. While universities should be empowered to seek new sources of revenue, increasing rates of tuition and fees at levels above the Consumer Price Index are unsustainable and will exacerbate the existing student debt problem further, especially given Alberta’s reliance on loans rather than grants for students.

The University of Calgary (UCalgary) anticipates significant cuts to its base operating grants. These cuts could be as large as $150 million and this would reduce the UCalgary’s Campus Alberta Grant to 2009 levels. In addition, the Alberta Government has committed to implement performance-based funding which could further download costs on to institutions and, eventually, students.

The GSA advocated for the performance-based funding changes to be postponed due to the COVID-19 pandemic and are pleased to see the Minister of Advanced Education agree. However, the GSA remains concerned about achieving the desired outcomes of Alberta 2030 under a performance-based funding model. The delay is welcome but concerns linger about how UCalgary can adapt to the new measures while simultaneously navigating the pandemic and the major adjustments to teaching and research at UCalgary and institutions across Alberta.

What has become clear since the oil price crash of 2015 and sustained low oil prices since then and now with the pandemic is that diversification of Alberta’s economy is necessary. Alberta’s entrepreneurial attitude is well-suited to this task. The GSA is pleased to see the Government of Alberta make strides in this direction with

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1 Growth Through Focus Presentation. www.ucalgary.ca/president/growth-through-focus
its Investment and Growth Strategy. As the Minister of Advanced Education said “our post-secondary institutions are home to groundbreaking research and new discoveries...[which] have incredible potential to translate into new start-ups and business ventures.”

The GSA agrees that institutions focused on research, such as the University of Calgary, must look at these opportunities as a way to differentiate itself from other institutions but also to commercialize research, discoveries, and ideas. As a result, the GSA’s submission to the Alberta 2030 process focuses largely on diversification and how the Government of Alberta can support graduate students and their research through the Alberta 2030 review and implementation.

The GSA has selected four (4) target areas that Alberta 2030 can address when it comes to supporting economic diversification:

1. Micro-credentials and stackable certificates
2. Commercialization and Entrepreneurship
3. Jobs in the new economy
4. Recruitment and talent acquisition

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The GSA supports exploring micro-credentials and stackable certificates. Micro-credentials can help to answer questions around the future of work and the skills required for jobs that may not exist yet. They are a way to prepare graduates for a new economy. Micro-credentials can be granted to students who gain skills, knowledge, or expertise while working on extra-curricular but post-secondary related projects. Beyond their graduate research and the eventual degree, micro-credentials can be used for prospective employers to see what hard skills a student or new graduate may have.

An experiential learning program operating at McMaster University’s engineering faculty selects students to “propose collaborative solutions to the most complex and pressing problems confronting society.” It identifies pressing global issues and utilizes a local program, Our Future Hamilton, to identify pressing local issues that promote a long-term community vision. This program rewards students who step up and do something useful for the community but it also results in a digital record that identifies the skills the student developed over the course of the program. These can include communication, entrepreneurship, and research as examples. As more and more employers seek a more complete picture of potential new hires and look beyond academic achievement as the main hiring driver, micro-credentials can provide that more well-rounded image and helps to showcase skills that may be missing from an academic transcript.

The University of Calgary includes several academic programs that do a similar form of micro-credentialing known as ‘badging’. These types of programs do recognize skills or achievements but require the creation of a portfolio by the student. Students are able to download a ‘badge certificate’ but these badges do not appear on their transcript alongside their traditional coursework.

Beyond this model where it may be more ‘soft’ skills resulting in credentials, institutions such as the Ontario Institute of Art and Design (OCAD) are offering micro-credentials that can then be stacked as credit towards graduate level degrees. A joint OCAD and Ontario Tech University program could lead to micro-credentials in emerging technology fields such as Virtual Reality Development.

Post-secondary institutions can offer such programs or collaborate with online learning programs like Coursera and Udacity which allow for online learning with credentials or certificates at the end. In fact, many institutions are partnering with online learning websites to design relevant certificate programs or ‘MicroMasters’. In addition, some institutions will accept them as partial or full replacements for admission requirements such as a GRE or even as partial credit towards Master’s

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4 McMaster University Faculty of Engineering. [http://eng.mcmaster.ca/co-op-career/macchangers](http://eng.mcmaster.ca/co-op-career/macchangers)
5 Macleans. April 10, 2019. [www.macleans.ca/education/university-students-can-now-earn-badges-to-recognize-their-merits](www.macleans.ca/education/university-students-can-now-earn-badges-to-recognize-their-merits)
6 Taylor Institute for Teaching and Learning. [https://taylorinstitute.ucalgary.ca/microcredentialing](https://taylorinstitute.ucalgary.ca/microcredentialing)
7 Ontario College of Art and Design. [https://www2.ocadu.ca/news/ocad-university-and-ontario-tech-university-launch-new-partnership%C2%A0](https://www2.ocadu.ca/news/ocad-university-and-ontario-tech-university-launch-new-partnership%C2%A0)
While micro-credentials cannot replace research, they can be used in both research- and course-based graduate programs to provide credit for equivalent skills or knowledge achieved. For those who do take time off of their careers to pursue a Master’s degree, this can mean a degree in less time and the opportunity to get back into the workforce sooner. This may appeal more to course-based Master’s programs but still supports the University of Calgary’s goal to increase graduate students to 10,000 through its Growth through Focus plan.

Stackable certificates can play a role in graduate studies as well. The idea being that students can take relevant post-graduate certificates and a right combination of them would lead to a graduate degree in a particular area. Further, allowing certificates to stack into an eventual degree can bring in new revenue streams into UCalgary. Stackable certificates may appeal to mid-career professionals who would not take years off from their career to upgrade their credentials. Instead, they can take courses and certificates in bite sized chunks while still working, with the eventual goal of a degree in a particular area. This fits with the University of Calgary’s ten-year vision, Growth Through Focus, which sets out a goal to “meet the needs of mid-career professionals looking to upskill and reskill, along with another goal of increasing the number of graduate students.”

However, for potential learners to see the value in micro-credentials their current or prospective employer must recognize these credentials and encourage employees to complete them with rewards such as salary increases and promotions. The bottom line is that workers will complete these programs as long as they can see the benefit to them in their career development.

A common framework, whether provincially or nationally, is needed as well. This will ensure that such credentials are valuable to the employee and the employer. The European Union is leading the way in developing a framework for such credentials and will likely soon set the standard.

By implementing both stackable certificates and micro-credentialing, Alberta’s post-secondary institutions can attract new students and assist in upskilling or reskilling workers for jobs in a new and more diversified economy. These programs will graduate students into the workforce with the skills for jobs in this modern economy.

The GSA recommends that the Government of Alberta:
- Assess the benefit of micro-credentials to help students acquire certain skills beyond the learning and research.
- Explore new models of credentialing that appeal to mid-career professionals.
- Determine where certain skills fit into the economic diversification mandate and encourage universities to offer programs that train students with these skills.
- Encourage universities to implement stackable certificates to encourage mid-career professionals to upgrade their skills for the new economy.

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9 Growth Through Focus. https://ucalgary.ca/president/growth-through-focus
10 Higher Education Strategy Associates. Micro-credentials need to be more than gimmicks https://highered-strategy.com/micro-credentials-need-to-be-more-than-gimmicks/
The Government of Alberta’s economic recovery plan strongly emphasizes the need to diversify our economy. Research universities and graduate students are well-suited and well-placed when it comes to cutting edge research and opportunities. Our institutions and our students need support in order to take these ideas to market or build a company around them. While graduate students and their supervisors are certainly subject matter experts in their field, they may not have the skills to commercialize their research, discovery, or project.

As a result, some groundbreaking research may be utilized elsewhere, outside of Alberta, and the economic opportunity would be lost.

The GSA is pleased to see the investment of more than $200 million “to support and accelerate research, innovation and entrepreneurship through post-secondary institutions” and other areas. However, some funds need to be directed to support graduate students to commercialize their research when necessary. It also should help students acquire the skills to act as entrepreneurs after leaving campus.

The Life Science Innovation Hub (LSI) is an example of this work. The University of Calgary acquired the space for the use of small startups to rent research space and have access to materials that may not otherwise available to a new business. They would be in close-quarters with other similar startups which can foster networking and the sharing of ideas. The University hoped to fill this space by the end of 2021 but it was filled mid-way through 2019 demonstrating the strong interest and need for collaboration in the innovation ecosystem, especially where innovation can be supported by academic institutions with graduate students.

The University of Calgary, through its Growth through Focus plan, has acknowledged the need for transdisciplinary innovation which could provide researchers with the skills they need to commercialize their research or launch a start-up business after their graduation.

This doesn’t just apply to research-based graduate programs but to course-based programs as well including those in the social sciences and humanities. The direct research conducted in some of these programs can be applied in the world of business. The University of Manchester showcases the business start-ups coming out of its humanities programs. Businesses supported by research and courses completed at that university include a business working with oil and gas companies such as British Petroleum (BP) to provide training for senior management on the topic of “changing project management culture in the energy sector.” Commercialization of research and entrepreneurship should not only focus on STEM but on the arts and the humanities as well. Valuable business ideas can come out of both.

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12 University of Manchester. https://humanities.manchester.ac.uk/connect/business-engagement/case-studies
The GSA recommends that the Government of Alberta:

- Assist professors and graduate students to commercialize their research.
- Support graduate students to acquire the skills needed to become a successful entrepreneur.
- Develop a framework with Alberta Innovates to support ideas and inventions of promise developed at post-secondary institutions.

### JOBS IN THE NEW ECONOMY

The GSA is pleased to see the Government of Alberta focus on diversifying the economy. While Alberta will rely for sometime on the energy sector it makes economic sense to explore new sectors such as the high tech sector and renewable energy.

This plan for diversification will not work without investment in ensuring that that post-secondary institutions have the resources needed to train students for the jobs of this new economy. Where micro-credentials and stackable certificates can reskill or upskill mid-career workers into new careers, the more traditional undergraduate and graduate programs need to prepare students for off-campus careers.

Alberta is well-prepared for this already in many ways. Alberta has a young and educated workforce along with the highest post-secondary completion rate in the country. This means that post-secondary institutions can play a leading role in preparing graduates for this new economy. It also means that graduate students are key when it comes to moving into new sectors and diversifying the economy.

Alberta’s first ever agency to attract investment, Invest Alberta, should work closely with post-secondary administrations and student organizations to understand what work is being done in our own backyard that could be used as a tool to attract interested investors and start-ups to set up shop in Alberta and collaborate on those research and commercialization projects.

The GSA recommends that the Government of Alberta:

- Ensure that Invest Alberta is aware of current and promising research projects and can support commercialization of projects beyond the academy.
- Link interested corporations and investors with the University of Calgary and other research universities.
Alberta is a diverse province with 20% of Albertans born outside of Canada. Many Canadians come here for the quality of life and good jobs that have been available in the energy sector. Any diversification plan not only needs to attract investment to Alberta but also needs to attract quality academics and graduate students. The University of Calgary’s Growth through Focus plan intends to expand the number of graduate students from 6,300 to 10,000. Jobs must be available for them upon graduation. After educating more graduate students, it would be a loss to see them leave, taking their ideas, research, and hard work with them.

As mentioned earlier, the University of Calgary will expand to new models of credentialing. The GSA believes strongly that stackable certificates and micro-credentials are part of what needs to be done. There also should be an emphasis on reskilling or upskilling mid-career workers.

If the University of Calgary is to achieve its goal of being a “destination of choice for students around the world” then more is needed than the ideas above. Those ideas will likely increase Canadian or Albertan enrollment but not necessarily draw increases internationally.

In terms of faculty, institutions across Alberta but especially research institutions must offer attractive and competitive compensation packages. Further, compensation for graduate students should be standardized and be competitive across Canada and internationally as well.

In addition, reforms to Alberta’s student aid system could lead to additional talent acquisition among research-focused graduate students. Alberta’s student aid model is focused largely on loans and debt. As far as need or income-based grants and loans go, students in 2018-19 in Alberta received on average $14,000 in student aid, of this approximately $12,000 was in the form of loans. Over the last decade, post-secondary institutions across Canada have relied increasingly on student tuition and fees and less on government support. So while students in Alberta are seeing their tuition increase, institutions are relying more heavily on those revenues and students are heading deeper into debt for their education as a result.

If Alberta is to achieve its goals with Alberta 2030 to ensure students have the tools to solve modern problems of the world then a strong attraction and retention program is needed. This needs to include financial incentives and competitive compensation. Alberta has lots of positives to attract talent: quality of life, a young and educated workforce, an entrepreneurial spirit, but it will need to also ensure that it is financially competitive in the national and global market in which it wants to compete.

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The GSA recommends that the Government of Alberta:
- Ensure that research universities can attract and retain top academic talent from across the world.
- Reform the student aid model to focus on grants and scholarships rather than loans and debt.
- Standardize compensation for graduate students and their research.
- energy.

CONCLUSION

The GSA is hopeful for the Alberta 2030 System Review process. A review of Alberta’s post-secondary system is overdue. However, graduate students remain guarded and concerned around the proposed but postponed outcomes-based funding plan. As far as Alberta 2030, the GSA has selected the above discussed issues as there is a synergy between graduate students, the University of Calgary’s Growth through Focus, and the opportunity of Alberta 2030. The opportunity is that Alberta post-secondary institutions, especially the research universities, can play a starring role in diversifying Alberta’s economy, researching and developing new ideas and products, and supporting the upskilling and reskilling of workers who need to adjust to a new economy.

That work, however, requires support. It requires investment in new programs, supporting existing ones, and ensuring that students, especially graduate students, are given the additional skills they need to succeed beyond the academy.

As Alberta emerges from the oil price and COVID-19 recessions, post-secondary institutions and their communities can play a foundational role in the recovery and working on what’s next for Alberta.

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