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### <u>The Issues</u>

The rapid growth in the number of graduate students in the past fifteen years has revealed a disjunction between the academic preparation and training received by the graduate students and postdoctoral fellows in many fields, and the provincial, national, and global economy which they join on graduation. Only a relatively small number of graduate students and postdoctoral fellows have the opportunity to become (tenured) university professors (the Canadian university system alone awards around 6,000 doctoral degrees a year, while Service Canada's estimate of the annual number of vacancies for tenure-track university professors in Canada is around 500).

Graduate students and postdoctoral fellows have the potential to enter the job market with the most extensive combination of disciplinary and non-disciplinary knowledge and skills of anyone graduating from the post-secondary sector, although many struggle to bridge the gap between the university and a career.

There is a definite interest on the part of the Alberta Government in this aspect of the graduate student's education. On March 10, 2015, the University received, "funding of up to \$2,150,000 a year for three years to be used for the pilot project ... provided to support initiatives for graduate education skills development and entrepreneurship activities." See **Appendix 1** for details of the reporting required by the Government, and **Appendix 2** for the original proposal that was submitted to the Government in September 2014.

Further, whatever the true nature and extent of Canada's "skills gap" may be, employers do not always see the skills they require in the graduate students and postdoctoral fellows. At the same time, graduate students and postdoctoral fellows do not always recognize the full range of career opportunities available to them, from the public sector to business to industry to the non-profit sector, or the relationship between their skills and the full range of careers available to them.

Taking <u>Professional Development</u> for graduate students and postdoctoral fellows to mean the process by which graduate students and postdoctoral fellows acquire "*skills that complement the disciplinary knowledge and disciplinary technical skills that remain the most important aspects of any graduate training*", there has been global recognition that successful graduate programs must deal with the issue of helping the transition of their graduate students and postdoctoral fellows into all sectors of work including academia, whether as employees or as entrepreneurs. There is definite interest on the part of our graduate students in professional development (**Appendix 1**).

Professional development in graduate education is fast becoming the decisive factor in attracting and recruiting top graduate students, and the major Canadian and international universities have active and growing programs offering training in these complementary skills.

Our coherent professional development strategy gives the University of Alberta an opportunity to differentiate itself from other institutions by providing graduate students and postdoctoral fellows an avenue that is designed and implemented collectively with employers and other external stakeholders.

In developing the strategic plan, it has to be remembered that most graduate students and postdoctoral fellows acquire many non-disciplinary skills (e.g., team work or research management skills) as part of their academic work. An important element of professional development is therefore equipping students to demonstrate these skills effectively to prospective employers.

Many programs at the University of Alberta already do a significant amount of work in the area of providing their own graduate students and postdoctoral fellows with suitable PD offerings, ranging from workshops and lectures to internships and job placements. Many others, however, do not. The academic culture of certain programs, departments, and disciplines also discourages the graduate students and postdoctoral fellows from participating in professional development activities to any significant extent.

The University community has to deal with some tacit but false assumptions, such as:

- Graduate students and postdoctoral fellows will pick up all the non-disciplinary skills necessary for success in the job market through passive learning.
- Any career other than that of a tenured university professor is non-traditional, and so unusual in some way.
- Non-disciplinary skills are only relevant to non-professorial careers.
- No graduate student or postdoctoral fellow can find the time for professional development without either jeopardizing their academic work or adding significantly to the completion time of their degree.

Finally, we recognize that there must be ample communication and consultation among all the parties with an interest in careers for graduate students and postdoctoral fellows. There must be active and ongoing collaboration among the various stakeholders for the professional development strategy to succeed.

The FGSR created the Professional Development Advisory Board (PDAB) in November 2013 by bringing together internal and external stakeholders to examine the issues relevant to careers for graduate students and postdoctoral fellows, and to develop a strategic plan for PD at the UAlberta **(Appendix 2).** The PDAB looked at a vast array of background information before finalizing its report. This report is recommended by the PDAB to the University community as our Professional Development Strategic Plan.



### The Principles

The PD Advisory Board has identified a number of principles that are meant to guide the strategic plan and its recommendations.

- University of Alberta strives to provide graduate students and postdoctoral fellows with excellent opportunities for the development of their professional skills, regardless of the career they choose to pursue.
- The University of Alberta PD program should attempt to ensure that all graduate students and postdoctoral fellows have access to a broad range of career planning tools and PD opportunities, aimed at both academic and non-academic careers.
- The University of Alberta PD program should involve internal (graduate students and postdoctoral fellows, professors, departments, other central units including FGSR, VP-Research, Alumni Relations, CaPS, etc.) and external stakeholders (alumni and employers) in its design, implementation, and assessment.
- 4. PD offerings should attempt to provide those skills and competencies that are not necessarily developed by the academic program of study, but have been identified by the employers and the University community as being important (through consultation with stakeholders, and current research).
- 5. The University recognizes that economic innovation and entrepreneurship is an essential part of its PD strategy. Entrepreneurship can be defined as the creation and implementation of innovative ideas to help solve economic problems and/or social concerns through enterprise creation, new modes of organization, or improved product development.
- 6. The university-wide PD program should support and complement all the excellent career planning and PD offerings already in place, and should aim to ensure that similar opportunities exist for those graduate students and postdoctoral fellows who currently lack such access.
- 7. The University of Alberta supports the explicit linking of PD with academic programs, wherever appropriate.
- 8. To the extent possible, PD offerings should be developed and offered in partnership with provincial and national partners, to extend reach and build upon existing strengths, experiences, and relationships.



### **Recommendations**

The implementation plan for each recommendation is in the next section. Although individual timelines depend on the specific recommendation, ideally all the recommendations should be implemented by the time the next UAlberta Academic Plan is in place.

### Develop structures for continued PD planning and implementation

R1. Establish the Professional Development Advisory Board as an oversight committee for the professional development activities offered to the University of Alberta graduate students and postdoctoral fellows.

R2. Create a Professional Development Implementation Group (PDIG) responsible for the implementation of the recommendations below.

## Promote and facilitate professional development planning by individual graduate students and postdoctoral fellows.

R3. Develop and adopt an Individual Development Plan (IDP) template. The IDP is a career and skills planning document that allows graduate students and postdoctoral fellows to start thinking about their future careers in an organized way, and to plan their participation in PD in conjunction with their academic work.

R4. Develop a mechanism by which graduate students and postdoctoral fellows can record their PD activities.

R5. Develop a pool of mentors, as required by the IDP mechanism.

### PD offerings

R6. Introduce policy requiring that every graduate student participate in a minimum amount of PD.

R7. Determine a set of core PD topics that cover the most important PD skills and competencies.

R8. Develop those PD offerings that have been deemed necessary but are not already available.

R9. Become a partner in various networks of PD initiatives, to expand the range of PD offerings for our graduate students and postdoctoral fellows.

R10. Determine the feasibility, and utility, of developing a mechanism by which PD activity can be formally recognized by the University of Alberta in a form that is useful to employers.

R11. Develop the FGSR website as the central gateway to the PD opportunities and planning tools available to our graduate students and postdoctoral fellows.

R12. Ensure that comprehensive career planning resources are available to which graduate students and postdoctoral fellows can be referred by their supervisors and departments.

R13. Identify and support existing internship, co-op, and placement opportunities for graduate students and postdoctoral fellows, and support the creation of new ones.

R14. Develop a set of resources for graduate programs that are interested in linking PD with their academic programming.

### Develop effective communication mechanisms with the relevant constituencies

R15. Articulate and demonstrate the value of a graduate degree or postdoctoral training in relation to the qualities the employers require, and ensure that graduate students and postdoctoral fellows can communicate these values clearly.

R16. Articulate the value of mentoring to University of Alberta faculty members and other mentors. (For Example: alumni, community members, etc.)

R17. Work with Alumni Relations to publicize the variety of successful alumni careers through channels such as video vignettes, award ceremonies, invited presentations, workshops, etc.

R18. Engage employers, for example through suitable awards, in recognizing the accomplishments and contributions of those of their employees who have graduate degrees.

### Entrepreneurship

The plan envisaged here speaks to a change at University of Alberta so as to sustain and grow an interdisciplinary culture of entrepreneurship and innovation on campus that leads to entrepreneurship leadership, human capital development, economic growth and social benefits within and outside Alberta. Thus, the proposed pathway (s) are for graduate students and postdoctoral fellows across campus interested in professional development based on Business and Social Innovation and Entrepreneurship, and whose Faculties may not have a PD program to meet their needs.

R19. Create an infrastructure for continuous support of Business Innovation & Entrepreneurship.



### **Current Implementation Details**

11. <u>Professional Development Advisory Board:</u> Terms of reference will be developed for approval by the Advisory Board before the end of the Winter Term, 2015.

12. <u>Professional Development Implementation Group</u>: The PD Implementation Group has been formed. It will be approved formally by the Advisory Board at its next meeting. The PDIG is not necessarily a subset of the Advisory Board, but has its membership based on expertise in the particular initiatives being implemented. Support for the PDIG will be provided by the FGSR. Please find attached the membership list for PDIG. (Appendix 4)

I3. <u>IDP Plan:</u> A sample template has been developed and is included as **Appendix 5** to this document. A small pilot project started in late February 2015 to finalize the IDP template. Costs of further development will be borne by FGSR.

I4. <u>Recording Mechanism</u>: The simplest mechanism would be to make this record part of the IDP. The PD Implementation Group has reviewed the pros and cons of using the IDP versus creating an independent mechanism. A preference would be to provide a combination of options for the diverse student population to report their activities in a Co-curricular Transcipt and an IDP. The PDIG will report on this matter.

I5. <u>Mentors:</u> Work with the academic community, Alumni Relations, the Senate, and employers, to develop a pool of IDP mentors for graduate students and postdoctoral fellows. A full implementation of the IDP mechanism would require thousands of IDP mentors.

I6. **Policy Development:** Policy requiring mandatory IDP and a minimum of eight hours of PD training was approved by the FGSR Council on April 29, 2015, and will continue through formal governance prior to inclusion in the 2016-2017 Calendar. Both graduate programs and individual students can, on formal approval, be exempted from the requirements.

17. **PD Topics:** The PD Implementation Group selected the 7 Attributes and Competencies outlined by the UAlberta Committee on the Learning Environment as the basis of skills and competencies required for all career pursuits. The development of these qualities can be achieved through courses and workshops, research, volunteerism, internships and employment. The seven attributes and competencies are outlined in the IDP, and a self-evaluation will assist students to recognize their individual areas of strengths and areas to improve.

18. <u>PD Offerings</u>: With nearly 500 postings to the FGSR Professional Development list-serve, there are many opportunities for graduate students to develop their professional skills (Please see **Appendix 6** for a current list.) A communication plan and clearer outline of how the sessions can assist students in developing specific skills and competencies is required. This would also assist in identifying areas of training that are lacking on campus.

19. <u>PD Partnerships:</u> One such network is MyGradSkills.ca developed by a consortium of Ontario universities. University of Alberta is the first university outside of Ontario to join. Participation in this network will give all of our graduate students and postdoctoral fellows access to all the offerings on this site. Students who complete MyGradSkills modules receive certificates of completion. The annual cost of \$15,000 will be borne by FGSR. We will assess the level of utilization of this resource by our graduate students and postdoctoral fellows annually. Please see **Appendix 7** for a list of the current modules.

110. **PD Recognition Mechanism:** The FGSR will organize the discussion with employers and HR professionals to make this determination. If deemed useful and necessary, then the instrument would be developed and approved in the usual way.

I11. **FGSR Website:** The new FGSR website was launched December 1, 2014. This recommendation is the primary item for phase two of the FGSR website development.

112. <u>Career Planning Resources:</u> This will likely mean salary and support for one or more dedicated individuals. The FGSR, the GSA, the PDFA, and CAPS will work together on a plan. CAPS is developing a, "Natural Career Advisor," training module that can also provide academics with general tools for advising their students. Funding will be provided by the FGSR.

113. Work Experience Opportunities: To be introduced on a large scale, this will require one or more dedicated individuals as the point(s) of contact for employers. Costs include salary and support for these individuals, plus whatever matching internship funding the graduate students and postdoctoral fellows require. Pilot projects are under discussion. This is the most expensive recommendation to implement on a large scale.

114. <u>Linking PD with Academic Programs:</u> Run one or two pilot projects to understand the basic issues involved, and develop the resources as needed.

115. <u>Communicating the Value of Graduate Education</u>: The PD Implementation Group suggested that several strategies are employed to assist graduate students and postdoctoral fellows with the value of their degree. This could range from posting examples of statements from students from various disciplines on the FGSR website to developing workshops for students to learn how to clearly articulate their skills to developing more relationship building opportunities among graduate students and employers. A collaboration of graduate students, postdoctoral fellows, academics and employers to develop and review these communications would be critical. Samples of student statements of the value of a graduate degree are included.

116. <u>Communicating the Value of Mentoring</u>: The PD Implementation Group recommends that a communication of the benefits of mentoring be developed by seeking input from stakeholders currently invested in mentorship for graduate students, such as alumni, academics, CAPS, Undergraduate Research Initiative, AIHS, MBA Mentoring, CTL, FGSR, MITACS, TEC Edmonton, Startup Edmonton. There are a variety of mentoring models such as one-on-one to panel discussion formats. The communication developed for UAlberta faculty members and mentors may need to address the benefits of mentoring in these varied formats.

117. **PD Success Stories:** Alumni Relations and the FGSR to plan and coordinate the activities. The cost is minimal and will be borne by the FGSR.

118. <u>Employer Engagement</u>: Begin with a pilot project with select employers of graduate students and postdoctoral fellows, including University of Alberta itself. The cost is minimal and will be borne by the FGSR.

119. <u>Business Innovation & Entrepreneurship:</u> Introduce a Comprehensive Business Innovation & Entrepreneurship Program: The implementation steps indicated in **Appendix 8** can be independent of each other although some of them are interconnected. The basic steps are

- The introduction of a fundamental/introductory course.
- The introduction of a Certificate in Innovation and Entrepreneurship.
- Develop a career services solution.
- Supplement Entrepreneurial experiences.

It is proposed that resources for information sharing with students, and selection criteria for participants be developed before the end of June, 2015. The full program can be launched as early as fall, 2015. Please note that the Alberta School of Business has capacity to serve graduate students from all faculties across campus and engage them, but resources will be needed to support developing appropriate infrastructure and scaling existing offerings. In addition, the Alberta School of Business has already begun to develop relationships with some faculties (e.g., Science and Arts) to engage their students on such programmatic outreach and delivery.

## **Appendices**

# **Appendix 1**

Reporting required by the Government of Alberta

### ALBERTA INNOVATION AND ADVANCED EDUCATION GRANT AGREEMENT

### **SCHEDULE C - REPORTS**

- C.1 Reports Format All reports must contain the information and be in a format specified by or acceptable to the Minister.
- C.2 Reporting Compliance The Recipient must comply with all reporting requirements under this Schedule C. In cases where the Recipient is found to be in non-compliance with Schedule C requirements, the Recipient will be deemed to have committed an event of default as defined in section 10.2 and the remedies in section 10.3 shall apply.
- C.3 Progress Reports In consideration of the Minister providing the Grant, the Recipient shall provide Progress Reports by the submission deadlines set out in the schedule below. Each Progress Report shall include:
  - (a) information on, and assessment of, the progress of the Project, within the designated reporting period, measured against the actions set out in the Proposal; and
  - (b) an acceptable financial statement accounting for all Project revenues and expenditures, including all interest and other income earned from investments of the Grant Proceeds and a statement of the amount of unexpended Grant Proceeds. Progress Reports without a financial statement will be considered incomplete and will not be accepted.

The Recipient shall submit Progress Reports according to the following schedule:

Period (1) Date of execution to March 31, 2016	<b>Submission Deadline</b> July 31, 2016
(2) April 1, 2016 to March 31, 2017	July 31, 2017

- C.4 Final Financial and Summary Report In consideration of the Minister providing the Grant, no later than July 31, 2018 the Recipient shall provide a final report including the following:
  - (a) an acceptable financial statement accounting for all Project revenues and expenditures, including all interest and other income earned from investments of the Grant Proceeds;
  - (b) a concise summary of what the Project achieved as outlined in the attached Reporting Expectations document, which includes participant numbers and evidence upon which to determine merit of potential ongoing funding; and
  - (c) an acknowledgement signed by a senior financial official of the Recipient that the money provided under this Agreement was used for the purpose of the Project.
- C.5 Other Reports During the Term and for a period of five (5) years afterwards, the Recipient must provide such additional follow-up information as the Minister may reasonably request for the purpose of evaluating the Project.

### Reporting Expectations: "A Vision for Innovation in Alberta: Excellence and Transformative Talent" Pilot Project

### Purpose of Metrics:

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- 1) To demonstrate progress towards advancing vision and achieving objectives
- 2) To provide data and evidence upon which to demonstrate merit in ongoing funding upon successful completion of 3 year pilot
- 3) To refine and improve objectives and strategies for future initiatives based on evaluation data

### Quantitative Metrics:

- 1. Participation numbers
  - a) Number of domestic student participants (categorized by specific initiatives)
  - b) Number of international student participants(categorized by specific initiatives)
  - c) Number of domestic student completions (categorized by specific initiatives)
  - d) Number of international student completions (categorized by specific initiatives)

NOTE: In cases of expansion of existing activities, to provide footnotes clarifying "net new" building on pre-pilot numbers.

- 2. Internship placements:
  - a) Number of new internship placements (with appendix listing names of businesses/agencies)
  - b) Number of internships leveraged through existing programs (e.g. MITACS, Alberta Innovates — Tech Futures, TEC Edmonton, Innovate Calgary)
- 3. Commercialization

Number of commercialization opportunities (including brief description) developed by

- a) Domestic students
- b) International graduate students
- 4. Capacity
  - a) Number of new domestic students admitted as a result of initiative
  - b) Number of new international students admitted as a result of initiative

Qualitative Measures:

- 1. Program Modules for skills development
  - a) Name and brief description of new modules developed
  - b) Name & brief description of existing modules revised based on evaluation
  - c) Summary of feedback about utility/impact from students/stakeholders
- 2. Internships/Commercialization (years 2 and 3)
  - a) Summary of feedback from domestic students
  - b) Summary of feedback from international students
  - Summary of feedback from employers (including employer liaison committees when appropriate)
- 3. Lessons learned
  - a) Optional at the discretion of institutions
  - b) May include identification of promising practices
  - c) May include evaluator comments about employer liaison committees (when applicable)
- Prepared by: Susan May, Manager, Education and Training Program Coordination 780-643-6422

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# Appendix 2

"A Vision for Innovation in Alberta"

### A Vision for Innovation in Alberta: Excellence and Transformative Talent (addendum)

In May, 2014, in response to a request from the ministry, a proposal entitled "A Vision for Innovation in Alberta: Excellence and Transformative Talent" was submitted to the Ministry of Innovation and Advanced Education by the Universities of Alberta, Calgary and Lethbridge that outlined a new vision for graduate education in Alberta. That proposal highlighted the importance of a grand vision for the future of Alberta that places innovation at the heart of its economic development. In essence, we argued that a strong innovation ecosystem, supported by excellence and talent, is key to Alberta's future success.

We provided information from four jurisdictions who have made successful transitions towards innovation economies: South Korea, Singapore, Queensland, and Austin. In each jurisdiction innovation was cultivated through excellence and talent. Excellence is at the foundation of a successful innovation strategy. Further, excellence within a vibrant and thriving innovation ecosystem is grounded in a number of interconnected factors, including critical mass, receptor capacity, innovation radar, inter/trans-disciplinary research, clusters, strategic investment, and global brand. Talent and excellence mutually reinforce one another. Talented, driven people are the engine of economic success. A long-standing and well-documented weakness in our national innovation ecosystem is Canada's chronic underperformance in producing and employing graduate students, particularly at the doctoral level. Within Canada, Alberta falls short of expectations relative to graduate education, producing the second lowest rate of graduate students per 1000 individuals between the ages of 25 to 34 amongst 10 provinces. Given the relative wealth, quality of life and high caliber of research opportunities available in Alberta, we argued that we can – and should – be a national and international leader in graduate education.

In our original proposal, we suggested that in order to establish Alberta as a destination of choice both nationally and internationally for the most talented graduate students and post-doctoral students, a new approach to graduate education is required, one that:

- 1. Builds a critical mass of graduate students in Alberta, whose research and expertise is aligned with strategic investment around the province's existing and emerging areas of excellence.
- 2. Recognizes the need for strategic investment of human and financial resources to support the growth of the innovation ecosystem that will build Alberta's capacity for finding and implementing solutions to the grand challenges that will benefit society, both in the province and internationally.
- 3. Encourages interaction and cooperation between disciplines to inspire novel solutions to grand challenges, especially those that encourage the integration of the humanities and social sciences with scientific research to derive social benefit and overall improvement to the quality of life.
- 4. Provides training opportunities for skills development that are responsive to the full breadth of career opportunities both inside and outside universities, as well as addressing the societal needs for knowledge generation, implementation and advanced education.

Our original proposal included two phases, the first of which called for a minimum \$4M base budget investment in 2014-15 for graduate student funding and recruitment initiatives in the CAIP priority areas, which would add significant capacity for realizing transformative research outcomes through the CAIP initiative, and ensure a steady supply of novel ideas, new applications and bold advances. Phase II called for a major enhancement of graduate and post-doctoral complement at the Universities of Alberta, Calgary and Lethbridge, and that this complement be supported by the development of a

provincial graduate student funding model that is competitive with our peer institutions in Canada. Phase II also called for the development of a more holistic view of graduate education and an overall experience that will brand Alberta as a unique and relevant place to study and work. This would include strong partnerships with industry, community organizations, government and the not-for-profit sector that broadens research depth, funds entrepreneurship and helps ensure relevance. Finally, we suggested it would be necessary to recruit top faculty members – a mixture of world class researchers and ambitious new researchers - to recruit, supervise, mentor and train students.

Following the submission of our proposal in May, a meeting to discuss the proposal was held with the Premier and the three University Presidents from Alberta, Calgary and Lethbridge. A provincial investment of at least \$4M would be made for a modified phase I – that is, the universities were requested to demonstrate how we could do things differently by creating graduate students with broad skill sets with a view to employability. Further, the information gleaned in Phase I would then be used to generate a Phase II proposal.

Until recently, the PhD degree was often understood to serve as a preparation for an academic career and focused exclusively on deep knowledge of the field of study, core research skills, and communication skills appropriate to scholarly communication within the discipline. In Canada, like the United States and several European countries, the PhD is no longer seen as an inevitable precursor to an academic career. In fact, less than half of PhD graduates pursue academic careers. Instead, they are working in industry, in research and policy positions in government, or as community leaders or entrepreneurs. The societal demand is that PhDs be prepared not only with the knowledge of the field and scholarly research and research communication skills, but also with a toolkit of "transferable skills", such as broad communication skills, leadership skills, project management, cross-cultural competencies, and entrepreneurial skills.

The University Presidents have agreed to a revenue split for the \$4M base funding in Phase I as follows:

University of Alberta	\$2,150,000
University of Calgary	\$1,550,000
University of Lethbridge	\$ 300,000

The Provosts met to discuss potential programming and agreed that two types were required: general support skill development and targeted skill development in special areas (e.g., entrepreneurship, licensing, project management, startup management). Each institution has agreed that they will provide some base level programming for support skill development for graduate students at their institutions, and further that there will be online components developed for graduate students (for both support skills as well as targeted skills) that the Campus Alberta system could use. In this way we will provide support for local graduate students but also maximize the dollars provided by working together to establish programming that can be used across the system. Each university will partner with organizations on and off their campuses to create the new material that will help graduate students achieve success and maximize their potential. In addition, each University would like to address specific capacity needs.

The following highlights specific objectives at each university:

### University of Alberta (\$2,150,000)

The University of Alberta will use the proposed investment in graduate education for:

 Entrepreneurship and venture skills and training: A relatively small number of grants (\$1.5k x 150 = \$225k) to graduate students and postdoctoral fellows to take advantage of the current course and program offerings at the University of Alberta (12 courses being offered currently by the Alberta School of Business, the entrepreneurship citation program offered by the Faculty of Extension, the programing offered by <u>eHUB</u>). In addition, \$200k will be provided to <u>UAlberta</u> <u>Venture Mentoring Service</u> in support of an expansion of the current service which brings together student and alumni entrepreneurs to set up high impact ventures.

Total to be spent in the pilot phase on entrepreneurship activities: \$425k.

2. Direct internship support for graduate students and postdoctoral fellows: Funds will be used to employ a coordinator to solicit internship opportunities for graduate students in industry, government and the non-profit sector, and to manage those placements [\$100K compensation and business costs]. Funding will be offered to enable the placement of the intern with a participating employer in business, industry, government, or other economic sector. Up to 150 students will be funded each year [\$8K x 150 = \$1,200K]

Total to be spent in the pilot phase on internship placements = \$1,300K

3. Implementation of the PD strategic plan: Developed by the University of Alberta Professional Development Advisory Board (consisting of employers, graduate students and postdoctoral fellows, and UAlberta administrators). The core recommendations revolve around a major enhancement of the non-disciplinary training in the skills and competencies required for success in the workplace as recognized by employers. Up to \$250k will be used towards the development of new training opportunities (online modules, in-person training, the development of social media career forums), an expansion of the UAlberta student careers services CAPS, support of the alumni mentorship activities, and some new salary costs in support of expanded professional development programming. Wherever possible, we will collaborate with our CARI partners and others, e.g. MITACS, to provide access to existing training modules. Another \$100k will be used to develop a non-academic transcript tool to allow for the precise recording and presentation of the students' professional development training in a format that is useful for employers. Unspent funds will be directed to initiatives 1 and 2.

Total to be spent in the pilot phase on non-disciplinary skills and competencies training: \$350k.

4. Curricular change: A small number of seed grants to cover the development costs for graduate programs planning to integrate internship and entrepreneurship training and opportunities into their graduate degree curricula, or to develop professional doctoral programs. Unspent funds will be directed to initiatives 1 and 2.

Total to be spent on curricular change: \$75k.

The initial graduate funding investment will be split between the skill development initiatives (options (1) & (2)) and capacity building (3). Additional investments will be targeted on increasing graduate student capacity (option (3)), a major outcome of the U of L's Strategic Plan (Destination 2020).

### Accountability:

Both qualitative and quantitative metrics will be used to demonstrate accountability.

Qualitative	Quantitative
Establishment of new program modules for skills development	Participation rate of students enrolled in various programs; demonstrated completion in those programs
Establishment of employer liaison committees for each University	Number of internship placements developed at each university
	Number of commercialization opportunities (e.g., spin offs) developed at each university by graduate students
	Capacity measures: number of new graduate students, new professors as a direct result of funding

# **Appendix 3**

Extracts from the 2010 and 2013 Canada Graduate and professional Student Survey (CGPSS) Documents

## **Canadian Graduate and Professional Student Survey - 2010**

## **Summary Report**

**All Respondents - Regular Survey** 

Prepared for:

## **University of Alberta**

April 29, 2010

Survey Dates: March 8 - April 16, 2010

Prepared by: Mosaic Research Solutions Contact: Valarie Koziol - <u>vkoziol@MosaicResearch.ca</u>

All Respondents (No Filter)

### SECTION 4 - PROFESSIONAL SKILLS DEVELOPMENT

		Excellent	Very good	Good	Fair	Poor	Did not participate	Not applicable	Total
1. Courses, workshops, or orientation on teaching	Count	120	292	283	118	68	139	66	1,086
1. Courses, workshops, or orientation on teaching	% by Row	13.6%	33.1%	32.1%	13.4%	7.7%			100.0%
2. Advice/workshops on preparing for candidacy	Count	51	133	164	114	122	220	268	1,072
examinations	% by Row	8.7%	22.8%	28.1%	19.5%	20.9%			100.0%
3. Feedback on your research	Count	159	298	303	138	71	44	66	1,079
5. Feedback on your research	% by Row	16.4%	30.8%	31.3%	14.2%	7.3%			100.0%
4. Advice/workshops on the standards for academic writing	Count	76	188	237	171	89	261	51	1,073
in your field	% by Row	10.0%	24.7%	31.1%	22.5%	11.7%			100.0%
5. Advice/workshops on writing grant proposals	Count	76	159	214	163	112	266	88	1,078
5. Advice/workshops on writing grant proposals	% by Row	10.5%	22.0%	29.6%	22.5%	15.5%			100.0%
	Count	69	184	214	144	127	247	85	1,070
<ol><li>Advice/workshops on publishing your work</li></ol>	% by Row	9.3%	24.9%	29.0%	19.5%	17.2%			100.0%
7. Advice/workshops on career options within academia	Count	50	148	226	168	135	265	81	1,073
7. Advice/workshops on career options within academia	% by Row	6.9%	20.4%	31.1%	23.1%	18.6%			100.0%
8. Advice/workshops on career options outside academia	Count	45	125	178	171	194	278	80	1,071
8. Advice/workshops on career options outside academia	% by Row	6.3%	17.5%	25.0%	24.0%	27.2%			100.0%
9. Advice/workshops about research positions	Count	46	111	193	187	163	276	91	1,067
9. Advice/workshops about research positions	% by Row	6.6%	15.9%	27.6%	26.7%	23.3%			100.0%
10. Advice/workshops about research ethics in human	Count	139	229	236	110	43	138	180	1,075
subject research	% by Row	18.4%	30.3%	31.2%	14.5%	5.7%			100.0%
11. Advice/workshops about research ethics in the use of	Count	79	128	125	50	39	187	461	1,069
animals	% by Row	18.8%	30.4%	29.7%	11.9%	9.3%			100.0%
12 Advice on intellectual property issues	Count	98	233	263	153	98	155	74	1,074
12. Advice on intellectual property issues	% by Row	11.6%	27.6%	31.1%	18.1%	11.6%			100.0%

S4-Q1: How would you rate the quality of the support and training you received in these areas?

### **SECTION 5 - RESEARCH EXPERIENCE**

#### S5-Q1: How would you rate the quality of the support and opportunities you received in these areas?

		Excellent	Very good	Good	Fair	Poor	Did not participate	Not applicable	Total
1. Conducting independent research since starting your	Count	290	345	208	102	49	35	45	1,074
graduate program	% by Row	29.2%	34.7%	20.9%	10.3%	4.9%			100.0%
2. Training in research methods before beginning your own	Count	140	283	257	189	143	32	30	1,074
research	% by Row	13.8%	28.0%	25.4%	18.7%	14.1%			100.0%
2. Frender antider as in formation a second sector	Count	204	296	264	149	108	23	31	1,075
3. Faculty guidance in formulating a research topic	% by Row	20.0%	29.0%	25.9%	14.6%	10.6%			100.0%
4. Research collaboration with one or more faculty	Count	212	257	202	140	113	67	74	1,065
members	% by Row	22.9%	27.8%	21.9%	15.2%	12.2%			100.0%
5. Collaboration with faculty in writing a grant proposal	Count	124	142	164	110	147	201	179	1,067
5. Collaboration with faculty in writing a grant proposal	% by Row	18.0%	20.7%	23.9%	16.0%	21.4%			100.0%

### SECTION 6 - PRESENTATIONS AND PUBLICATIONS

S6-Q1: Please select if the following occu	ırs in your de	epartment			lf Oct	urrence = "Y	es", indicat	e the Numbe	er of Occurre	nces
		Yes	No	Total	0	1	2	3	4+	Total
1. Seminars/colloquia at which students	Count	975	89	1,064	145	164	196	99	355	959
present their research	% by Row	91.6%	8.4%	100.0%	15.1%	17.1%	20.4%	10.3%	37.0%	100.0%
2. Departmental funding for students to attend national or regional meetings	Count	651	397	1,048	292	204	73	33	36	638
	% by Row	62.1%	37.9%	100.0%	45.8%	32.0%	11.4%	5.2%	5.6%	100.0%
	Count	677	369	1,046	213	188	97	55	109	662
3. Attend national scholarly meetings	% by Row	64.7%	35.3%	100.0%	32.2%	28.4%	14.7%	8.3%	16.5%	100.0%
4. Deliver any papers or present a poster at	Count	751	297	1,048	219	222	124	54	110	729
national scholarly meetings	% by Row	71.7%	28.3%	100.0%	30.0%	30.5%	17.0%	7.4%	15.1%	100.0%
5. Co-authored in refereed journals with your	Count	573	472	1,045	234	168	77	36	46	561
program faculty	% by Row	54.8%	45.2%	100.0%	41.7%	29.9%	13.7%	6.4%	8.2%	100.0%
6. Published as sole or first author in a refereed	Count	569	483	1,052	253	160	72	35	35	555
journal	% by Row	54.1%	45.9%	100.0%	45.6%	28.8%	13.0%	6.3%	6.3%	100.0%

## **Canadian Graduate and Professional Student Survey - 2013**

## Summary Report

**All Respondents** 

Prepared for:

**University of Alberta** 

Survey Dates: April 24 - May 30, 2013

Prepared by: Mosaic Research Solutions Contact: Valarie Koziol - <u>vkoziol@MosaicResearch.ca</u>

### SECTION 4 - PROFESSIONAL SKILLS DEVELOPMENT

#### Q9: How would you rate the quality of the support and training you received in these areas? (Long and Medium Streams only)

		Excellent	Very good	Good	Fair	Poor	Did not participate	Not applicable	Total	Mean (out of 5)
1. Courses, workshops, or orientation on	Count	216	471	455	185	124	195	186	1,832	3.324
teaching	% by Row	14.9%	32.5%	31.4%	12.7%	8.5%			100.0%	5.524
2. Advice/workshops on preparing for	Count	117	206	270	189	171	324	538	1,815	2.905
candidacy examinations	% by Row	12.3%	21.6%	28.3%	19.8%	17.9%		100.0	100.0%	2.905
3. Feedback on your research	Count	244	424	468	244	127	67	241	1,815	3.275
3. Feedback on your research	% by Row	16.2%	28.1%	31.1%	16.2%	8.4%			100.0%	
4. Advice/workshops on the standards for	Count	155	258	402	243	172	426	162	1,818	2.985
academic writing in your field	% by Row	12.6%	21.0%	32.7%	19.8%	14.0%			100.0%	2.905
5. Advice/workshops on writing grant proposals	Count	108	209	308	214	188	440	352	1,819	2.839
5. Advice/workshops on writing grant proposals	% by Row	10.5%	20.4%	30.0%	20.8%	18.3%			100.0%	2.039
6. Advice/workshops on publishing your work	Count	132	210	339	246	185	411	294	1,817	0.070
6. Advice/workshops on publishing your work	% by Row	11.9%	18.9%	30.5%	22.1%	16.6%			100.0%	2.872

### Q10: How would you rate the quality of the support and training you received in these areas? (Long and Medium Streams only)

		Excellent	Very good	Good	Fair	Poor	Did not participate	Not applicable	Total	Mean (out of 5)	
1. Advice/workshops on career options within	Count	87	212	351	270	296	368	184	1,768	2.609	
academia	% by Row	7.2%	17.4%	28.9%	22.2%	24.3%			100.0%	2.009	
2. Advice/workshops on career options outside	Count	80	200	307	304	352	358	158	1,759	2.479	
academia	% by Row	6.4%	16.1%	24.7%	24.5%	28.3%			100.0%	2.4/9	
3. Advice/workshops about research positions	Count	73	189	285	313	308	361	220	1,749	2.491	
5. Advice/ workshops about research positions	% by Row	6.3%	16.2%	24.4%	26.8%	26.4%			100.0%		
4. Advice/workshops about research ethics in	Count	158	328	375	171	84	256	389	1,761	3.273	
human subject research	% by Row	14.2%	29.4%	33.6%	15.3%	7.5%			100.0%	3.275	
5. Advice/workshops about research ethics in	Count	83	179	187	88	73	326	820	1,756	3.182	
the use of animals	% by Row	13.6%	29.3%	30.7%	14.4%	12.0%			100.0%	3.182	
6. Advice on intellectual property issues	Count	152	331	437	259	154	228	198	1,759	2.054	
o. Advice on intellectual property issues	% by Row	11.4%	24.8%	32.8%	19.4%	11.6%			100.0%	3.051	

#### Q11: How would you rate the quality of the support and training you received in these areas? (Short Stream only)

		Excellent	Very good	Good	Fair	Poor	Did not participate	Not applicable	Total	Mean (out of 5
1. Advice/workshops on the standards for	Count	19	29	33	24	14	34	20	173	3.126
writing in your profession	% by Row	16.0%	24.4%	27.7%	20.2%	11.8%			100.0%	5.120
2. Advice/workshops on career options	Count	26	36	40	24	12	25	10	173	3.290
2. Advice/workshops on career options	% by Row	18.8%	26.1%	29.0%	17.4%	8.7%			100.0%	3.290
3. Advice/workshops on professional ethics	Count	41	44	48	19	5	11	4	172	3.618
5. Advice/workshops on professional ethics	% by Row	26.1%	28.0%	30.6%	12.1%	3.2%			100.0%	5.010
4. Advice/workshops on job preparation and	Count	27	36	41	25	13	15	12	169	3.275
professional practice	% by Row	19.0%	25.4%	28.9%	17.6%	9.2%			100.0%	3.275
5. Opportunities for internships, practicum, and	Count	51	29	33	18	18	14	10	173	3.517
experiential learning as part of the program	% by Row	34.2%	19.5%	22.1%	12.1%	12.1%			100.0%	5.517
6. Opportunities for contact (lectures, seminars,	Count	53	49	28	20	7	11	4	172	3,771
discussion) with practicing professionals	% by Row	33.8%	31.2%	17.8%	12.7%	4.5%			100.0%	3.//1

# **Appendix 4**

Membership of the Professional Development Advisory Board (November 2013)

## Professional Development Advisory Board (November 2013)

	Category	Dept/Unit/Affiliation
Chris Grey	Alumni	FGSR Rep, Alumni Council
Sean Price	Alumni	Executive Director, Alumni Association
Chris Lumb	Entrepreneur	TEC Edmonton, CEO
Gail Powley	Entrepreneur	Vice President, Willowglen Systems Inc.
Judy Harcourt	Entrepreneur	Harcourt Recruiting Specialists
Anastasia Lim	Government	Executive Director, University Relations
Ken Freier	Government	Manager, Leadership Development, Alberta Government
Ryan Perry	Government	Director, Programs, Alberta Innovates Health Solutions
Keith Kibbler	HR	Human Resources Consultant
Mandi Abrams	Not for Profit	Workforce Strategy Program Manager
Janice Kapty	Recent Graduate	Regional Medical and Research Specialist, Oncology at Pfizer
Julianna Charchun	Recent Graduate	Senior Policy Advisor, City of Edmonton, Intergovernmental and External Affairs
Colin More	Student Represen- tation	GSA VP Academic
Megha Bajaj	Student Represen- tation	GSA VP Student Services
Lois Harder	University - Faculty	Arts, Associate Dean/ Research
Naomi Krogman	University - Faculty	ALES, Provost's Fellow on Graduate Student and Post-Doctoral Student Supervsion
Tammy Hopper	University – Facul- ty	Rehab Med, Associate Dean, Graduate Studies and Research
Ashlyn Bernier	Mgr/Venture Men- toring Service	Office of Advancement
Ann Revill	President	Postdoctoral Fellows Association
Steve Dew	University - Faculty	Associate Dean, Engineering, and TLAT Council: Skills& Attributes
Mazi Shirvani	FGSR	FGSR, Dean
Renee Polziehn	FGSR	FGSR Professional Development and Outreach

# **Appendix 5**

Membership of the Professional Development Implementation Group (May 2015)

### Professional Development Implementation Group Membership (May 2015)

Ashlyn Bernier - Office of Advancement, Venture Mentoring Service

Colin Moore - GSA

Erasmus Okine - Office VP Research

Hanne Ostergaard - Faculty of Medicine

Joan Schiebelbein - CAPS University Career Centre

Ken Freier - Government of Alberta

Keith Kiibbler - HR Consultant, UofA

Pamela Freeman - TEC Edmonton

Renee Polziehn - Faculty of Graduate Studies and Research - Chair

Sara Dorow - Faculty of Arts

Stephanie Minnema - Industry

# **Appendix 6**

Sample Individual Professional Development Plan Template



The Individual Development Plan (IDP) is a tool to assist your with planning for your future after your graduate program or postdoctoral fellowship. In addition to the knowledge and expertise you gain in your specific program or fellowship, the University of Alberta hopes that you develop general skills that will help you with your life after post-university.

## Why?

Why participate? Graduate students and postdoctoral fellows who complete IDP's are more productive, complete their programs sooner, and are more prepared for the job market. There are seven skills and attributes that employers seek from potential employees and that alumni have identified as being helpful in their life after U of A. They include: communication, critical thinking, creativity, collaboration, confidence, scholarship and ethical responsibility. The IDP will help you articulate your graduate school/postdoctoral fellowship experiences into skills and competencies required for your career paths and help you identify the areas that you can develop during your program or fellowship.

## **Completing an Individual Development Plan**

Ideally, you should complete these steps towards developing IDP on a yearly basis. Your IDP should be updated annually as you work on and gain further skills/competencies, and as you explore new career paths.



Step

2

### **Identifying Career Paths**

Take time to research possible career paths that are of interest to you. Look at possibilities in business, industry, government, nonprofit sectors, and academia. Identify at least three possible careers that you would want to work in. Leave yourself open to careers that you might otherwise not have thought to pursue. Ask yourself, "What are my long and short term goals?"

### Self Assessment

In this section, you will gauge your skills/competencies. This is intended to help you monitor skills or competencies which you are stronger at, and to identify those areas that need further development. What skills do you excel in and how can you best articulate these skills? What skills are emphasized in your careers of interest? Self Assessment Phase 1 is required. Phase 2 is optional, yet if completed a transcript notation will be received.

Step 3

### Time Lines

Develop a time line needed for completing your academic program, including milestones for your academic program and career goals. Include plans for how you can tailor your program/fellowship to develop your skills and competencies. You will need to allocate time for your professional development throughout each year.



### Guidance

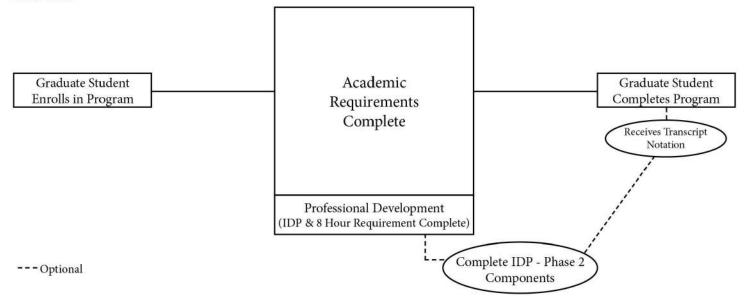
Meet with a mentor (supervisor/advisor/alumni/resource person) who can speak to your academic program's goals/time line and how to make the best of your graduate program/post-doc. You will want to discuss skills and attributes that you wish to develop. In addition to meeting your academic milestones, your mentor can alert you to professional development opportunities that you can apply to your interests or need for skill development.



### Completion

The plan you completed in Step 4 will serve as a road map to take you to the different career directions you have chosen. To obtain your career goals, you must put your plan into action and continually work on your professional development. Revise and modify the plan as necessary. The plan is not cast in concrete; it will need to be modified as circumstances and goals change. The challenge of implementation is to remain flexible and open to change. Review and revise your plan with your mentor(s) regularly. Meet frequently with your mentor(s) to assess progress, expectations, and changing goals. Take initiative to volunteer, job shadow, network and more.

### **Overview**



### **Resources and Further Reading**

University of Alberta IDP: http://uofa.ualberta.ca/graduate-studies/professional-development

University of Minnesota IDP: http://www.grad.umn.edu/postdoctoral\_affairs

IDP Powerpoint Guide, by Dr. Philip Clifford (Medical College Wisconsin): http://www.the-aps.org/careers/careers1/Post-doc/Clifford.ppt

Case Western Reserve University (CWRU) IDP: http://www.cwru.edu/provost/gradstudies/docs/Postdoc%20IDP%20 Form%20CURRENT.pdf

Vanderbilt IDP example: https://medschool.mc.vanderbilt.edu/mentor/Individual%20Development%20Plan.pdf

Annual Self Assessment for Postdoctoral Fellows, University of North Carolina Chapel Hill, Office of Postdoctoral Services http://postdocs.unc.edu/postdoc\_self\_assessment\_form.doc

"Career development is a two-way street: The FASEB individual development plan for postdocs and mentors" by Laure Haak in Science Careers online supplement: http://sciencecareers.sciencemag.org/career\_development/previous\_issues/ articles/1960/a\_career\_development\_plan\_for\_postdocs/

### Questions

For more information on how to meet the University of Alberta IDP & 8 Hour requirement and qualifications please contact the Faculty of Graduate Studies and Research.



## **Step 1: Identifying Career Paths**

Take time to research possible career paths that are of interest to you. Look at possibilities in business, industry, government, nonprofit sectors, and academia. Identify at least **three** possible careers that you would want to work in. Leave yourself open to careers that you might otherwise not have thought to pursue.

### Ask yourself:

- "What are my long and short term goals?"
- "What would a sustainable career path look like?"
- "What required skills do I need to develop or cultivate?"

Career Path:	Reason:	Required Skill Development:



## Step 2: Self Assessment

In this section, you will gauge your skills/competencies through a self-guided assessment. This is intended to help you monitor skills or competencies which you are stronger at, and to identify those areas that need further development. What skills do you excel in and how can you best articulate these skills? What skills are emphasized in your careers of interest?

There are two phases of self-asssement which should be completed: Phase 1 - Initial Career Path Assessment Phase 2 - Ongoing Skills & Competencies Assessment

Areas to be reviewed are:

- Communication
- Collaboration
- Scholarship
- Confidence
- Critical Thinking
- Creativity
- Ethical Responsibility



What role(s) do you think communication plays in each of your career paths?

Career Path:	Communication Role(s):	

### Please rate your communication skills on a scale from 1 (lowest) to 5 (highest)

Rate each on a scale:						
Writing for a general audience	1	2	3	4	5	n/a
Writing for a discipline-specific audience	1	2	3	4	5	n/a
Oral presentation for a general audience	1	2	3	4	5	n/a
Oral presentation for a discipline-specific audience	1	2	3	4	5	n/a
Multi-media communication and etiquette	1	2	3	4	5	n/a
Academic networking		2	3	4	5	n/a
Non-academic networking	1	2	3	4	5	n/a
Conflict Resolution	1	2	3	4	5	n/a

### Additional comments:



What role(s) do you think collaboration plays in each of your career paths?

Career Path:	Collaboration Role(s):

### Please rate your collaboration skills on a scale from 1 (lowest) to 5 (highest)

Rate each on a scale:						
Getting along with others		2	3	4	5	n/a
Conflict resolution	1	2	3	4	5	n/a
Mediation	1	2	3	4	5	n/a
Ability to give constructive feedback	1	2	3	4	5	n/a
Ability to receive and implement constructive feedback	1	2	3	4	5	n/a
Knowledge of academic etiquette	1	2	3	4	5	n/a
Ability to compromise	1	2	3	4	5	n/a
Ability to network	1	2	3	4	5	n/a

### Additional comments:



What role(s) do you think scholarship plays in each of your career paths?

Career Path:	Scholarship Role(s):

#### Please rate your scholarship-related skills on a scale from 1 (lowest) to 5 (highest)

Rate each on a scale:						
General research skills	1	2	3	4	5	n/a
Field-specific research skills	1	2	3	4	5	n/a
Knowledge of literature in the field	1	2	3	4	5	n/a
Knowledge of literature related to research project	1	2	3	4	5	n/a
Search strategies and critical evaluation of the literature	1	2	3	4	5	n/a
Academic writing skills	1	2	3	4	5	n/a
Grant proposal writing	1	2	3	4	5	n/a
Understanding of submissions/peer review process	1	2	3	4	5	n/a



#### What role(s) do you think confidence plays in each of your career paths?

Career Path:	Confidence Role(s):	

#### Please rate your confidence-related skills on a scale from 1 (lowest) to 5 (highest)

Rate each on a scale:						
Ability to identify personal strengths	1	2	3	4	5	n/a
Ability to identify personal weaknesses	1	2	3	4	5	n/a
General congruence between how you perceive yourself and how others perceive you	1	2	3	4	5	n/a
Self-promotion skills	1	2	3	4	5	n/a
Ability to not take professional feedback personally	1	2	3	4	5	n/a
Ability to pursue a project until fruition with minimal supervision	1	2	3	4	5	n/a



What role(s) do you think critical thinking plays in each of your career paths?

Career Path:	Critical thinking Role(s):	

#### Please rate your critical thinking skills on a scale from 1 (lowest) to 5 (highest)

Rate each on a scale:						
Ability to work unsupervised/independently	1	2	3	4	5	n/a
Problem solving using new solutions/approaches	1	2	3	4	5	n/a
Interpreting data under a variety of theories	1	2	3	4	5	n/a
Recommending the next steps for a project	1	2	3	4	5	n/a
Translating information from a variety of sources	1	2	3	4	5	n/a
Writing reviews	1	2	3	4	5	n/a
Finding applications for your research	1	2	3	4	5	n/a
Assimilating knowledge from and translating it into various sources (blogs/tweets/websites)	1	2	3	4	5	n/a



#### What role(s) do you think creativity plays in each of your career paths?

Career Path:	Creativity Role(s):	

#### Please rate your creativity-related skills on a scale from 1 (lowest) to 5 (highest)

Rate each on a scale:						
Thinking on your feet	1	2	3	4	5	n/a
Answering questions at a conference	1	2	3	4	5	n/a
Posing new research questions	1	2	3	4	5	n/a
Providing alternate solutions	1	2	3	4	5	n/a
Thinking outside of the box	1	2	3	4	5	n/a
Balancing self-expression with fundamentals	1	2	3	4	5	n/a



What role(s) do you think ethical responsibility plays in each of your career paths?

Career Path:	Ethical Responsibility Role(s):

#### Please rate your ethical repsonibility-related skills on a scale from 1 (lowest) to 5 (highest)

Rate each on a scale:						
Maintaining integrity in research data representation	1	2	3	4	5	n/a
Responsibility for project contribution	1	2	3	4	5	n/a
Understanding cultural, psychological, and behavioral aspects of conflict	1	2	3	4	5	n/a
Relating your research to the larger community	1	2	3	4	5	n/a
Articulating why your research is important	1	2	3	4	5	n/a
Conducting research ethically	1	2	3	4	5	n/a
Practicing professional communication	1	2	3	4	5	n/a
Separating your personal and professional life	1	2	3	4	5	n/a
Advocating for your research	1	2	3	4	5	n/a

# Communication

Reflect on how your various academic, work, and volunteer experience has contributed to your competency in communication.

Communication		Contribution	
Skills	Coursework	Work Experience	Volunteering
Writing for a general audience			
Writing for a discipline-specific audience			
Oral presentation for a general audience			
Oral presentation for a discipline-specific audience			
Multi-media communication and etiquette			
Academic networking			
Non-academic networking			
Conflict resolution			

## Comments:

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Reflect on how your various academic, work, and volunteer experience has contributed to your competency in collaboration.

Collaboration		Contribution	
Skills	Coursework	Work Experience	Volunteering
Getting along with others			
Conflict resolution			
Mediation			
Ability to give constructive feedback			
Ability to receive and implement constructive feedback			
Knowledge of academic etiquette			
Ability to compromise			
Ability to network			

### Comments:

EACULTY OF ALBERTA FACULTY OF GRADUATE STUDIES & RESEARCH

## Scholarship

Reflect on how your various academic, work, and volunteer experience has contributed to your competency in scholarship.

Scholarship		Contribution	
Skills	Coursework	Work Experience	Volunteering
General research skills			
Field-specific research skills			
Knowledge of literature in the field			
Knowledge of literature related to research project			
Search strategies and critical evaluation of the literature			
Academic writing skills			
Grant proposal writing			
Understanding of submission/peer review process			

### Comments:

EXAMPLE ALBERTA FACULTY OF GRADUATE STUDIES & RESEARCH

## Confidence

Reflect on how your various academic, work, and volunteer experience has contributed to your competency in confidence.

Confidence		Contribution	
Skills	Coursework	Work Experience	Volunteering
Ability to identify personal strengths			
Ability to identify personal weaknesses			
General congruence between how you perceive yourself and how others perceive you			
Self-promotion skills			
Ability to not take professional feedback personally			
Ability to pursue a project to fruition with minimal supervision			

Comments:

EXAMPLE ALBERTA FACULTY OF GRADUATE STUDIES & RESEARCH

# **Critical Thinking**

Reflect on how your various academic, work, and volunteer experience has contributed to your competency in critical thinking.

Critical Thinking		Contribution	
Skills	Coursework	Work Experience	Volunteering
Ability to work unsupervised/independently			
Problem solving new solutions/ approaches			
Interpreting data under a variety of theories			
Recommending the next steps for a project			
Translating information from a variety of sources			
Writing reviews			
Finding applications for your research			
Assimilating knowledge from and translating it into various sources (tweets/blogs/websites)			

### Comments:

EACULTY OF ALBERTA FACULTY OF GRADUATE STUDIES & RESEARCH

## Creativity

Reflect on how your various academic, work, and volunteer experience has contributed to your competency in creativity.

Creativity		Contribution	
Skills	Coursework	Work Experience	Volunteering
Thinking on your feet			
Answering questions at a conference			
Posting new research questions			
Providing alternate solutions			
Thinking outside of the box			
Balancing self-expression with fundamentals			

Comments:

EACULTY OF ALBERTA FACULTY OF GRADUATE STUDIES & RESEARCH

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Reflect on how your various academic, work, and volunteer experience has contributed to your competency in ethical responsibility.

Ethical Responsibility		Contribution	
Skills	Coursework	Work Experience	Volunteering
Maintaining integrity in research data representation			
Responsibility for project contribution			
Understanding cultural, psychological, and behavioral aspects of conflict			
Relating your research to the larger community			
Articulating why your research is important			
Conducting research ethically			
Practicing professional communication			
Separating your personal and pro- fessional life			
Advocating for your research			

Comments:

FACULTY OF ALBERTA FACULTY OF GRADUATE STUDIES & RESEARCH

n, develop a t . Include plan cate to profess ng on gradua Annual Professi Start Tak	Individual Development Plan	Step 3: Time Lines	In this section, develop a time line needed for completing your academic program, including milestones for your academic program and career goals. Include plans for how you can tailor your program/fellowship to develop your skills and competencies. How much time will you allocate to professional development. An <i>example</i> for a PhD Science Program student has been provided below. Time lines will vary depending on graduate program.	Complete Graduate Program	Year 1 Year 2 Year 3-5	Image: Nork Ethics     Academic Requirements:     Academic Requirements:       Nourse Work Course Work Ethics     Academic Requirements:     Academic Requirements:       Course Work Ethics     Publish 1st paper     Publish 2-4 more papers       Search Proposal ata Collection     Annual Committee Meeting	ional Development: t LinkedIn Profile t D. Sessions e P.D. Sessions e P.D. Sessions e P.D. Sessions ldentify Career Goals Network IDP IDP
e <b>P</b> als individuals als als als als als als als als als			In this section, develop a time line needed career goals. Include plans for how you ca will you allocate to professional developm vary depending on graduate program.	Enrolled in Graduate Program I	Year 1	Academic Requirements: Course Work Ethics Research Proposal Data Collection Annual Committee Meeting	Professional Development: Start LinkedIn Profile Take P.D. Sessions IDP



#### Step 4: Guidance

Meet with a mentor (supervisor/alumni/resource person) who can speak to your academic program's goals/time line and how to make the best of your graduate program/post-doc. You will want to discuss skills and attributes that you wish to develop. In addition to meeting your academic milestones. Your mentor can alert you to professional development opportunities that you can apply to your interests or need for skill development. At your guidance meeting, your mentor can help assess if you have a realistic time line, if you are missing any academic program requirements, and if you have set aside an appropriate amount of time for professional development. Mentors may also be able to provide ideas on who or how you can achieve some of your goals such as networking and translating your research experience into competencies. See a sample checklist below for suggested items to discuss. \*

#### **Guidance Checklist:**

- □ Schedule meeting with committee to review research/capping project progress
- Schedule meeting with supervisor/advisor to review academic progress (course requirements, ethics, etc.)
- □ Review professional development activities with supervisor/mentor
- □ If required, review teaching requirements by department/faculty

\* Please note in time individual faculties and departments will create their own checklists which will highlight distinct academic and professional development requirements relative to their disciplines.

The University of Alberta Graduate Student and Postdoctoral Fellow Professional and Career Development Strategic Plan

#### **Appendix 7**

A list of the current PD Offerings at the University of Alberta

#### Professional Development Sample of postings listed on the FGSR Professional Development List-Serve

A sample of postings on the FGSR Professional Development List Serve that highlight professional development opportunities on campus. There are about 500 postings each year.

#### Entrepreneurship

ABC Campus - Business Venture Bootcamp CAPS, Start-upU, Transforming Ideas Into Startups interVivos - Mentorship Program Start-up, Focus on Entrepreneurship & Self-Employment TEC Edmonton and ABCampus, Entrepreneur Training Camp Technology Commercialization Club - Annual Career Fair

#### Awards Sessions

AIHS, October 2012 Training & Early Career Development Program Competition
 CIHR, Preparing a Successful CIHR Master Award Application
 CIHR, Strategies for Preparing a Successful CIHR Doctoral Award Application
 FGSR, Awards - Vanier Canada Graduate Scholarship Workshop
 FGSR, Professional Development Week - Preparing your Scholarship Application - Research Description

#### Internships

AIHS, AIHS Training & Early Career Development Programs CAPS. Serving Communities Internship Program Connect Canada Internship Gain Board Experience with the City of Edmonton Mitacs, Accelerate Internships UAI, Alberta Abroad International Internship

#### Communication

AIHS, Plain Language and SKTT Workshops AIHS, Science Knowledge Translation Training Workshops Centre for Writers, Articles, Prepositions & Cookies Centre for Writers, Quoting, Paraphrasing, Summarizing & Brownie Eating CIHR, Grant Proposals: How to Write and Argue Effectively Faculty of Education, The Education Conference Slam Faculty of Science, Science Week Keynote: TED Presenter Andrew Hessel FGSR, PD Week Writing your First Paper in the Arts FGSR, PD Week, Workplace Culture and Communication MITACS, Practice Your Presentation Skills I Pecha Kucha, Pecha Kucha Nights RSO, Creating Effective Knowledge Mobilization Plans Student Success Centre, Crafting a Thesis or Dissertation Proposal Student Success Centre, Developing your Academic English: Strategies to Achieve Fluency UofA Library, RefWorks- Coutts Library - Resources and Webinars UofA Stuttering Institute, Intelligibility of Speech / Public Speaking

#### **Financial Development**

Alumni Office, Financial Fundamentals - Building a Strong Financial Future

Ecvo Financial Management Series For Nonprofit Organizations, Preparing and Understanding Financials

Money Coaches Canada, Money Workshops, Money in Canada - Orientation for Newcomers Students Union Student Financial Aid Information Centre, Money Truths Nobody Else Will Tell You

#### Leadership

Canada Excellence Research Chairs Presentations

Office of Advancement, Innovative Leaders Series, The Role of Formal and Informal Experiences in Shaping Your Leadership Journey

Office of the Dean of Students - Alberta Student Leadership Summit

Safe Disclosure and Human Rights, AWA, AASUA, and HRS Beyond the Can Women Have it All Debate about Women's Leadership in Academics

UAI, International Human Rights Leaders Wanted

UAI, Visiting Lectureship in Human Rights: It Takes A Village To Raise An Activist

University Relations - Overcoming Anonymous: Why Smart Women Need to Speak Up

#### Academic Preparation

Dean of Students, Take Back the Term

FGSR, Professional Development Week - How to Prepare Your Thesis

FGSR, Professional Development Week - Preparing for your Defense

Student Success Centre, Thesis Management System (TMS)

Student Success Centre, Keeping Up Your Motivation in Grad School

UAI, International Students - Communicating with your Graduate Supervisor

#### **Career Development**

ABCampus and UofA nanoGroup, nanoNEXUS Mixer

BESTT TEC Edmonton, Career and Networking Event

CAPS, Professonal U

CAPS, Beyond Academia: Your Conduit To A Non-Academic Career

CAPS, Career Forums, Economics Career Forum

CAPS, Resumes for Advanced Degree Holders

Chemical and Materials Engineering Graduate Students Safety Committee, Resume Building through the Implementation of Safe Work Procedures in the Lab

Faculty of Arts, Making a Living While Making a Difference Career Forum

Faculty of Education, Education Job application Panel Discussion

FGSR, Professional Development Week - Teaching And Researching At Other Post-Secondary Institutions

FGSR, FGSR Professional Development Week - Linked - In - A Road to Employment Success? Faculty of Medicine and Dentistry, Career in Project Management

Faculty of Engineering, Industry Presentation in Nanotechnology

Mentor UP, MentorUP Coffee Nights

TEC Edmonton, Workshop on Student-Industry Mixers

UAI, Succeeding Professionally in Canada Conference

UAI, International Students - How to find a Job While Studying Full-time?

WISER, WISER and UA-WISE, Annual Career Panel

#### **Professional Practice**

AIHS, RTNA KT: The Heart of the Innovation Journey Conference Alumni Affairs, Represent! Personal Branding Matters City of Edmonton, Womens Symposium Free Leadership Building and Community EHS, Risk Management for All Graduate Students: Emergency calls, elevators, and more. Faculty of Medicine and Dentistry Student Professional Development Seminars, Project Management for Trainees FGSR, Professional Development Week - Reference Letters FGSR, Professional Development Week - Research Administration 101 for Graduate Students & Postdocs HR, Innovating Your Way to Success HR, Lunch & Learn: Professionalism in the Workplace -Library, Research Impact Measures - The Times They Are A Changin Mental Health Centre, Increasing Motivation when Feeling Down, Mental Health Centre, Managing Anxiety MITACS, Networking Skills, MITACS, Project Management and Presentation Skills Mobile Minds, Networking: From Initial Contact to Powerful Follow-up Office of Sustainability, EcoREP Program RSO, RAD 101 - Overview of Research Administration at the U of A Student Success Centre, Brain Burps and Other Intellectual Snags Student Success Centre, Time Management and Procrastination URI, URI Mentorship Opportunities WISER, Learn from HR Managers!

#### Teaching

ARC, Graduate Student Workshop: Teaching and Evaluating Writing in Arts

Centre for Teaching and Learning, Modes of Engaging Students Inside and Outside the Classroom - Festival of Teaching

Centre for Teaching and Learning, Epic Fails: Learning from Our Teaching Mistakes

Centre for Teaching and Learning, Social Media Technologies

Community Service-Learning, Creating a CSL syllabus

Community Service-Learning, Integrating the CSL experience into your course

Faculty of Nursing, The 5th Annual Dr. Olive Yonge Teaching and Learning Scholarship Day

FGSR, Teaching Week, The First Class: Making it First Class

FGSR, Teaching Week, Learning Objectives

#### Ethics

\*May be used in addition or toward ethics credit but not both.

AASUA, Academic Freedom Panel Presentation: The Relevance of Academic Freedom - Sept 28 Faculty of Arts, Collusion, Resistance, Bearing Witness: Moral Distress and the PICU Team - Feb 15 FGSR, PD Week, Copyright - Ethics Credit - [90min]

FGSR, PD Week, Student Supervisor Conflict Resolution -Ethics Credit - [90 min],

Faculty of Medicine and Dentistry, Science and Integrity Day - Register Feb 5

Faculty of Science, Ethics in Mathematics and Statistics -March 28

Health Law Institute, Closing the Gap? The Canadian Charter and Determinants of Health Nov 28 Health Law Institute, Hear No Evidence. See No Evidence. Speak No Evidence - November 14 Intellectual Property Workshop, TEC Edmonton and ABCampus

John Dossetor Health Ethics, Vulnerable But Reluctant Recipients Of Care: Ought There Be Limits To Our Efforts?

- John Humphrey Centre for Peace and Human Rights, Creating a Human Rights City: An Unconference on Global and Local Explorations
- Office of Safe Disclosure & Human Rights, Ethical Considerations in Using Photos & Videos in (or as) Therapy or Research Oct 23

Office of Student Judicial Affairs, Plagiarism in the Online Classroom - April 26 Office of Student Judicial Affairs, Identifying and Managing Classroom Aggression and Violence RSO, Quality Management in Clinical Research, Good Clinical Practice (GCP) Training

Faculty of Arts, Fire in the Hole: Social Science Ethics and the US Army's Terrain Team Systems Nov 29

TEC Edmonton and ABCampus, Intellectual Property Workshop - February 12, 2013,

#### Career forums provided by CaPS:

Current forums: <u>http://www.caps.ualberta.ca/Programs-and-services/Career-Forums.aspx</u>

Past forums: <u>CAPS: http://www.caps.ualberta.ca/Programs-and-services/Career-Forums/Past-</u> <u>Career-Forums.aspx</u> The University of Alberta Graduate Student and Postdoctoral Fellow Professional and Career Development Strategic Plan

#### **Appendix 8**

A list of the current modules available from MyGradSkills.ca

#### My Grad Skills Ontario

MyGradSkills.ca is a resource for graduate students and postdoctoral fellows to enhance the professional skills so that they can succeed during their studies and research, and in a range of career paths. MyGradSkills.ca includes a number of self-paced, online modules on a range of #GradProSkills topics, including teaching & learning, to career development, to community engagement, to entrepreneurship, and much more.

#### Modules Offered:

Lesson Planning Mental Health and Well-Being: Skills for Graduate Students Mentoring: Undergraduate Students Non-Academic Work Search **Research Management Teaching Dossiers** Teaching Online: Advanced Facilitation Skills for Graduate Students Teaching Online – Basic Skills for TAs (teaching and learning) The Versatile Graduate: Exploring Diverse Career Paths for PhD's Understanding and Avoiding Plagiarism Academic and Professional Communication for New Researchers Academic and Research Integrity Converting a CV to a Resume Entrepreneurship and New Venture Creation Foundations of Community Engaged Scholarship Foundations of Community Engagement Intellectual Property: An Entrepreneur's Guide Intercultural Competency

#### Graduate students receive computer-generated certificates of achievement upon the completion of each module.

The University of Alberta Graduate Student and Postdoctoral Fellow Professional and Career Development Strategic Plan

#### **Appendix 9**

The Proposal for the Comprehensive Business Innovation and Entrepreneurship Program

#### Attention Dr. Mazi Shirvani

Mazi, following the feedback from the FGSR Council as noted by you, please find a revised version of the Entrepreneurship recommendation and implementation plan.

#### Jan 28 2015

**Entrepreneurship, Business & Social Innovation:** Entrepreneurship can be defined as the creation and implementation of innovative ideas to help solve economic problems and/or social concerns through enterprise creation, new mode of organization or improved product development. The plan envisaged here speaks to a change in culture at UofA so as to sustain an interdisciplinary culture of entrepreneurship and innovation on campus that leads to entrepreneurship leadership, human capital development, economic growth and social benefits within and outside Alberta. Thus, the proposed pathway (s) are for graduate students and PDFs across campus interested in professional development based on Business and Social Innovation and Entrepreneurship, and whose Faculties may not have a PD program to meet their needs.

#### **Overall Learning and Skills Outcomes Anticipated (Not Exhaustive):**

- Social Skills (leadership, team building, communication, industry engagement)
- Management (business models, corporate governance, culture building)
- Strategy and Organizations
- Business Innovation, Social Innovation, Entrepreneurship.
- Marketing
- Finance/Accounting
- Innovation and Patterns of Technological Change
- Basics of Intellectual Property and University Commercialization
- Entrepreneurial Processes (opportunity creation and development)

#### Recommendation

#### R19. Create an infrastructure for continuous support of Business Innovation & Entrepreneurship

#### 119: Implementation: Introduce a Comprehensive Business Innovation & Entrepreneurship

**Program:** The implementation plans indicated below can be independent of each other although some of them are interconnected

*I19a*. **Fundamental/ introductory course**: Plan and introduce a fundamental/ introductory course that provides a broad introduction to business, as well as innovation and entrepreneurship. This course will also act as a funnel to not only facilitate learning, but to also educate students about the wide variety of other services available to them—from career services, to assistance with technology commercialization and company formation (eHUB, TEC Edmonton, VMS etc.).

**119b**. **Certificate in Innovation and Entrepreneurship:** Develop and offer an enhanced track where students can receive a certificate in Innovation and Entrepreneurship, for those students who want to push their learning even further.

**119c** *Career Placement and Service: The Alberta School of Business as the lead* will work with CAPS, ASOB career services as well as our partners (VMS, TEC Edmonton and Industry) to develop a career services solution for graduate students and PDFs. This will involve coordination with existing resources around campus and with partner organizations such as TEC Edmonton and sharp focus on industry /NGO and government engagement and placement of students. This will enable us to help students find employment from small businesses to large corporations, from high tech, to major industry employers in the oil patch, health, and agribusiness and government, among others.

**119d:** Supplement Entrepreneurial experiences: Plan to incorporate/leverage existing University programs, scale up entrepreneurial initiatives (such as Entrepreneurship@UAlberta and Entrepreneurship Hub (eHUB)) and by interfacing with other service providers such as Venture Mentoring Service (VMS), TEC Edmonton, and Start-Up Edmonton, as well as through project and internship engagement with industry to provide entrepreneurial experiences by early stage mentoring and support to students who want to transform ideas and inventions into products and businesses.

**Proposed Lead:** Alberta School of Business in conjunction with CAPS, ASOB career services as well as our partners (VMS, TEC Edmonton and Industry, Entrepreneurship Hub (eHUB) and Alumni etc.

When: Proposed Launch Fall 2015

**Time lines:** During the **next four months**, develop resources to share information with prospective students and develop criteria for selecting participants. The model will:

1) Ensure that students can enter the program at different times while meeting students' varying needs.

2) Develop a strategy to recruit Ph.D. students from across the University into the program.

3) Develop a budget to ramp up, launch and operationalize a sustainable program.

4) Identify expectations of students and stakeholders

5) Identify expected outcomes and metrics.

**GAP:** Please note that the ASoB has capacity to serve graduate students from all faculties across campus and engage them, but resources will be needed to support developing appropriate infrastructure and scaling existing offerings. In addition, ASoB has already begun to develop relationships with some faculties (e.g., Science and Arts) to engage their students on such programmatic outreach and delivery.

Developed through seminal ideas and effective collaboration by: Anthony Briggs, Michael Lounsbury, Qasim Rasi, Ashlyn Bernier, Sean Price, Gail Powley, Pamela Freeman and Erasmus Okine. The University of Alberta Graduate Student and Postdoctoral Fellow Professional and Career Development Strategic Plan

#### **Appendix 10**

University of Alberta - Graduate Student Survey & Academic Supervisor Survey

hirschbe@ualberta.ca – Edit this form



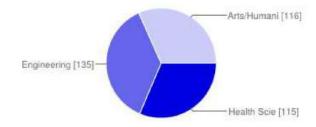
#### University of Alberta Graduate Student Survey

View all responses

Publish analytics

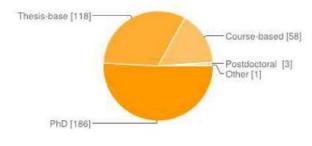
#### Summary

#### 1. Which of these general categories best describes your broad area of study?



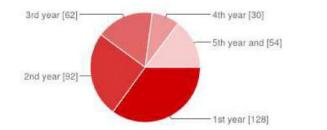
Health Sciences	115	31%	
Engineering/Science	135	37%	
Arts/Humanities/Social Sciences	116	32%	

#### 2. What degree are you pursuing?



PhD	186	51%
Thesis-based Master's	118	32%
Course-based Master's	58	16%
Postdoctoral Fellow	3	1%
Other	1	0%

#### 3. What year are you in?

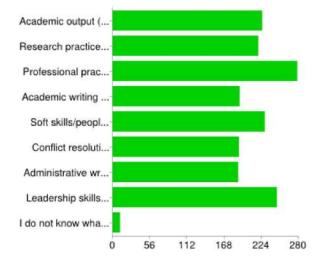


1st year	128	35%
2nd year	92	25%
3rd year	62	17%
4th year	30	8%
5th year and over	54	15%

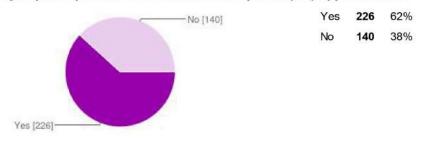
#### 4. I have worked in a professional environment for ...



#### 5. Which of the following fields are part of Professional Development according to your understanding of the term?

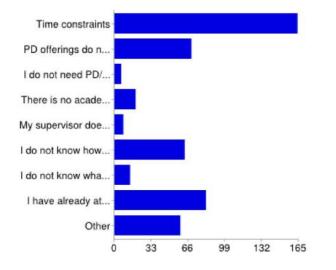


Academic output (e.g. conference presentations, publications)	225	61%	
Research practices (e.g. lab work, field related skills, data analysis)	219	60%	
Professional practices (e.g. project management, time management, mentorship)	278	76%	
Academic writing (e.g. thesis preparation, abstracts)	191	52%	
Soft skills/people skills (e.g. interpersonal abilities, emotional intuition, working in a team environment	229	63%	
Conflict resolution/mediation	190	52%	
Administrative writing (e.g. executive summaries, briefing notes, resumes)	189	52%	
Leadership skills (e.g. taking initiative, developing strategies, problem solving)	247	67%	
I do not know what Professional Development is	11	3%	



#### 6. Do you participate in Professional Development (PD) opportunities?

6a. If no, what is holding you back from getting involved?



Time constraints	164	45%
PD offerings do not meet my personal or program-related interests or needs	69	19%
I do not need PD/I do not see the benefits of PD	6	2%
There is no academic acknowledgement for PD (e.g. credits)	19	5%
My supervisor does not want me to participate	8	2%
I do not know how to participate/what is being offered	63	17%
I do not know what PD is	14	4%
I have already attended many PD sessions	82	22%
Other	59	16%

#### Academic output [7. How important are these most common features of PD to you (and your program/career/interest)?]

1

2

3

4

5

6

7

31

17

34

43

47

71

118

8%

5%

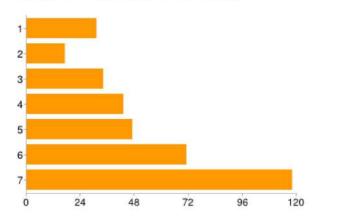
9%

12%

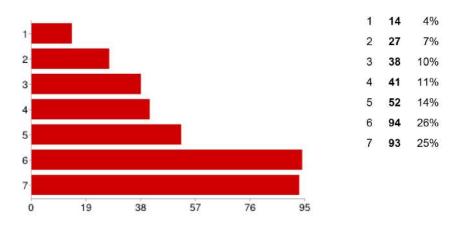
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19%

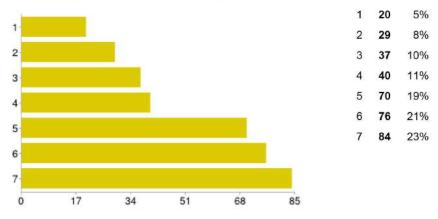
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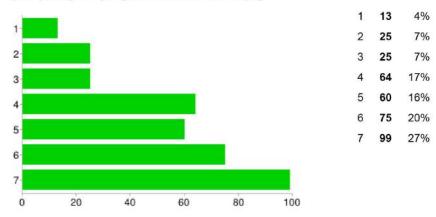
Research practices [7. How important are these most common features of PD to you (and your program/career/interest)?]



Academic writing [7. How important are these most common features of PD to you (and your program/career/interest)?]



Soft skills/people skills [7. How important are these most common features of PD to you (and your program/career/interest)?]



Conflict resolution/mediation [7. How important are these most common features of PD to you (and your program/career/interest)?]

6%

6%

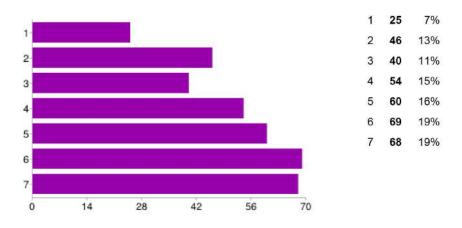
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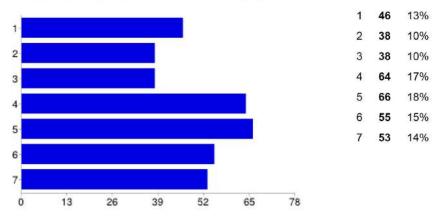
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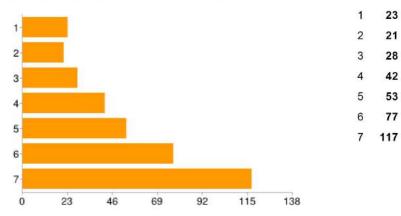
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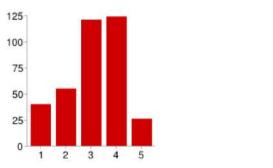
Administrative writing [7. How important are these most common features of PD to you (and your program/career/interest)?]



Leadership skills [7. How important are these most common features of PD to you (and your program/career/interest)?]

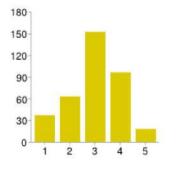


#### 8. How well-informed do you feel about what the University of Alberta is offering in terms of PD?



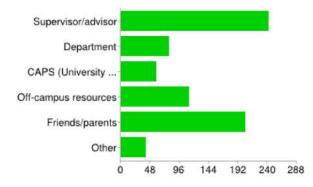
1	40	11%
2	55	15%
3	121	33%
4	124	34%
5	26	7%

#### 9. How satisfied are you with the PD offerings at the University of Alberta?



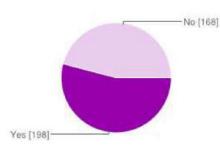
1	37	10%
2	63	17%
3	152	42%
4	96	26%
5	18	5%

#### 10. Who do you consult for career advice?

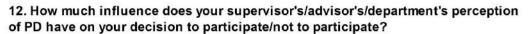


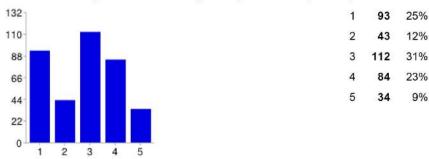
Supervisor/advisor	242	66%
Department	79	22%
CAPS (University of Alberta career centre)	58	16%
Off-campus resources	112	31%
Friends/parents	204	56%
Other	41	11%

#### 11. Do you receive support from your supervisor/advisor/department to participate in PD?

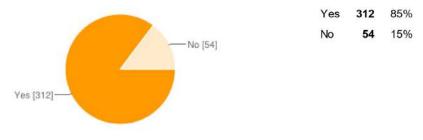


Yes	198	54%
No	168	46%

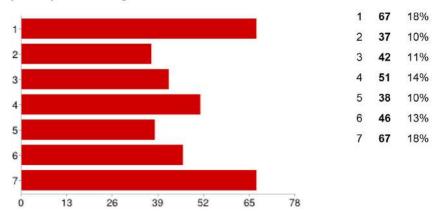




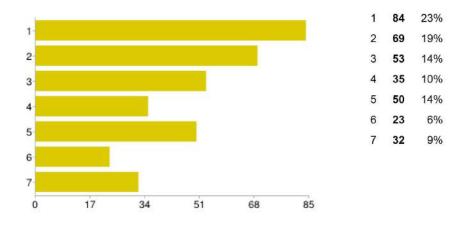
#### 13. Would you participate in PD without your supervisor's/advisor's/department's support?



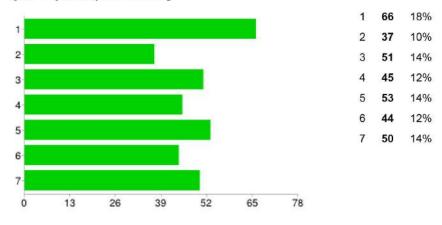
Course credit [14. Which of the following incentives would motivate you to participate in PD?]



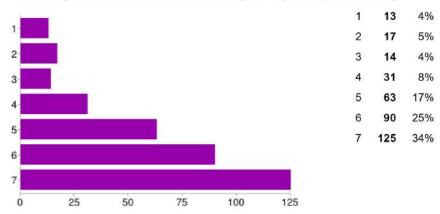
Reduction of TA or RA load [14. Which of the following incentives would motivate you to participate in PD?]



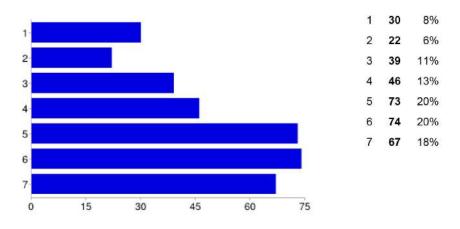
Reduction of course load [14. Which of the following incentives would motivate you to participate in PD?]



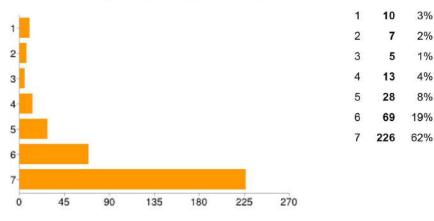
Better chances when applying for a scholarship or bursary [14. Which of the following incentives would motivate you to participate in PD?]



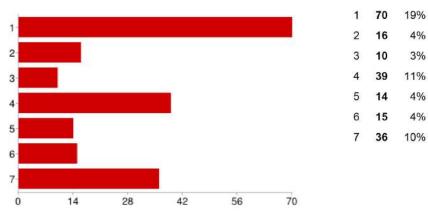
Departmental or institutional recognition [14. Which of the following incentives would motivate you to participate in PD?]



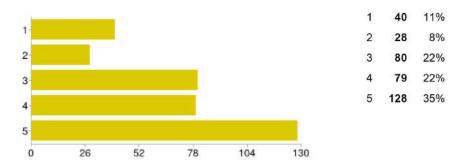
Enhanced career/employment opportunities [14. Which of the following incentives would motivate you to participate in PD?]

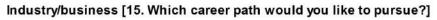


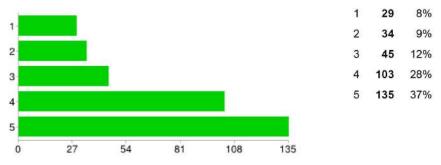
Other [14. Which of the following incentives would motivate you to participate in PD?]



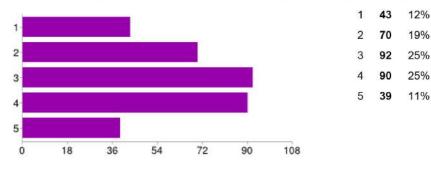
Academia [15. Which career path would you like to pursue?]



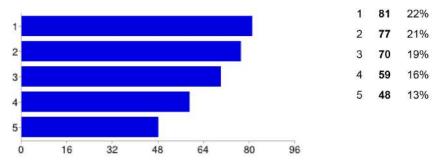




#### Not-for-profit [15. Which career path would you like to pursue?]



#### Starting my own company [15. Which career path would you like to pursue?]



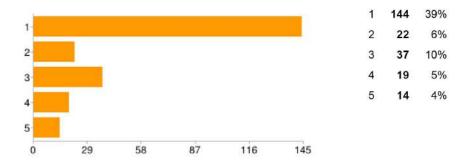
No preference [15. Which career path would you like to pursue?]

136

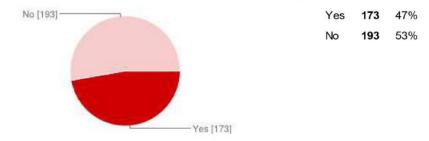
230

37%

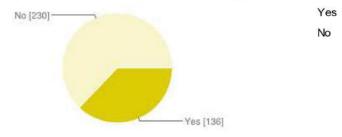
63%



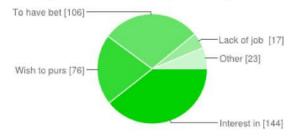
#### 16. Do you feel well-informed about career paths in general?



#### 17. Do you feel well-informed about career paths outside of academia?

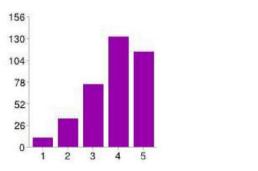


#### 18. Why did you decide to pursue a graduate degree?



Interest in the field of study	144	39%
Wish to pursue a career in the academia	76	21%
To have better job perspectives outside of academia	106	29%
Lack of job when graduating from undergraduate program	17	5%
Other	23	6%

#### 19. Given your motivator for pursuing a graduate degree, how important is PD in meeting your career goal?



1	11	3%
2	34	9%
3	75	20%
4	132	36%
5	114	31%

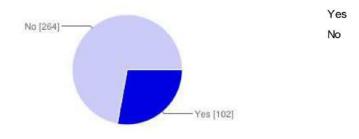
102

264

28%

72%

# 20. If you were offered an attractive position outside of academia while pursuing your degree, would you quit your graduate program and accept the offer?



## Number of daily responses



hirschbe@ualberta.ca -Edit this form



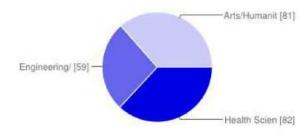
View all responses

Publish analytics

## University of Alberta Academic Supervisor Survey

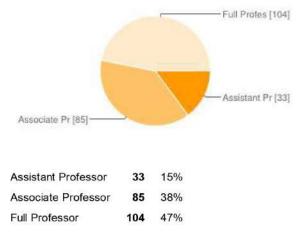
## Summary

## 1. Which of these general categories best describes your broad area of study?

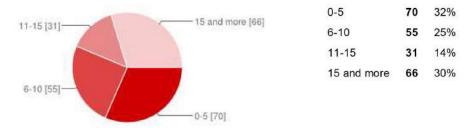


Health Sciences	82	37%
Engineering/Science	59	27%
Arts/Humanities/Social Sciences	81	36%

## 2. What is your current academic rank?



# 3. How many students have you supervised who have successfully completed their graduate program?



5-10 years [30]

1-5 years [32]-

5-10 years

More than 10 years

20%

3%

14%

14%

49%

7

30

108

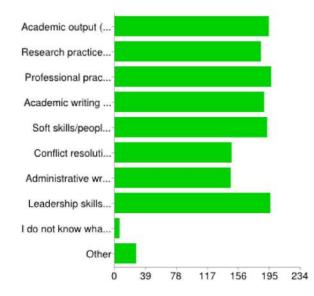


# 4. My research/teaching/professional interests have put me in contact with

## 5. Which of the following fields are part of Professional Development according to your understanding of the term?

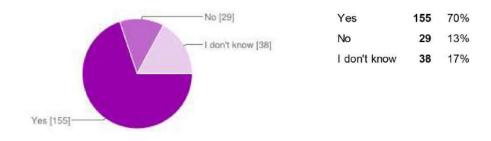
0-3 months [45]

4-11 months [7]

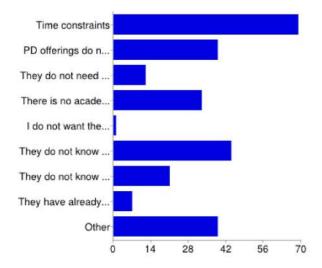


Academic output (e.g. conference presentations, publications)	194	87%
Research practices (e.g. lab work, field related skills, data analysis)	184	83%
Professional practices (e.g. project management, time management, mentorship)	197	89%
Academic writing (e.g. thesis preparation, abstracts)	188	85%
Soft skills/people skills (e.g. interpersonal abilities, emotional intuition, working in a team environment)	192	86%
Conflict resolution/mediation	147	66%
Administrative writing (e.g. executive summaries, briefing notes, resumes)	146	66%
Leadership skills (e.g. taking initiative, developing strategies, problem solving)	196	88%
I do not know what Professional Development is	6	3%
Other	27	12%

#### 6. Do your students participate in Professional Development (PD) opportunities?



### 6a. If no, what do you think is holding them back from getting involved?



Time constraints	69	31%
PD offerings do not meet their personal or program-related interests or needs	39	18%
They do not need PD/They do not see the benefits of PD	12	5%
There is no academic acknowledgement for PD (e.g. credits)	33	15%
I do not want them to participate	1	0%
They do not know how to participate/what is being offered	44	20%
They do not know what PD is	21	9%
They have already attended many PD sessions	7	3%
Other	39	18%

# Academic output [7. How important are these most common features of PD to you (and your program/career/interest)?]

3%

3%

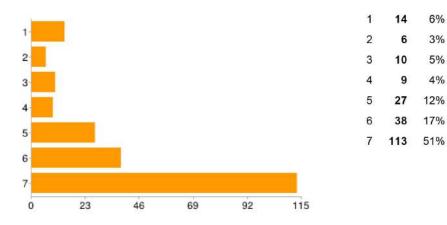
5%

8%

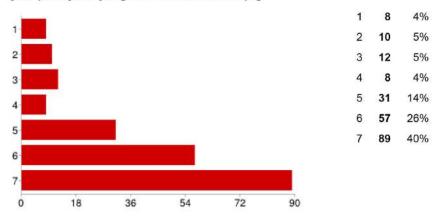
16%

27%

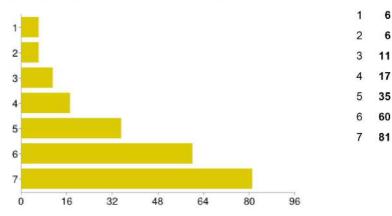
36%



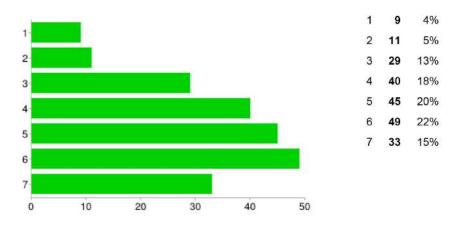
Research practices [7. How important are these most common features of PD to you (and your program/career/interest)?]



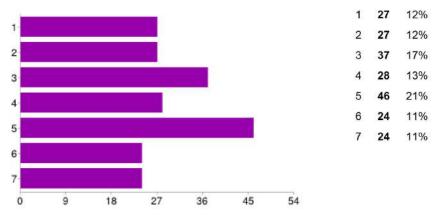
Academic writing [7. How important are these most common features of PD to you (and your program/career/interest)?]



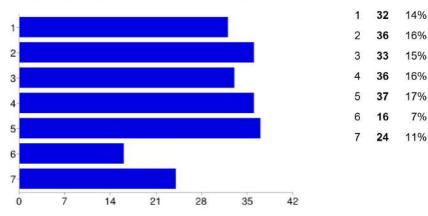
Soft skills/people skills [7. How important are these most common features of PD to you (and your program/career/interest)?]



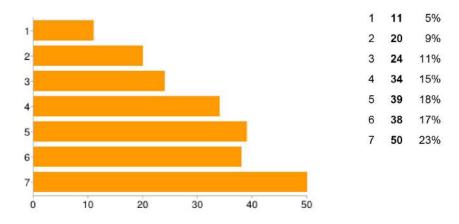
Conflict resolution/mediation [7. How important are these most common features of PD to you (and your program/career/interest)?]



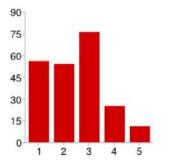
Administrative writing [7. How important are these most common features of PD to you (and your program/career/interest)?]



Leadership skills [7. How important are these most common features of PD to you (and your program/career/interest)?]



8. How well-informed do you feel about what the University of Alberta is offering in terms of PD?

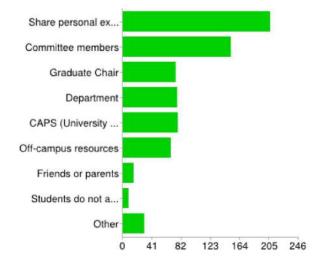


1	56	25%
2	54	24%
3	76	34%
4	25	11%
5	11	5%

# 9. How satisfied are you with the PD offerings for your students at the University of Alberta?

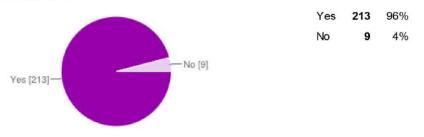


10. Where do you send students for career advice?

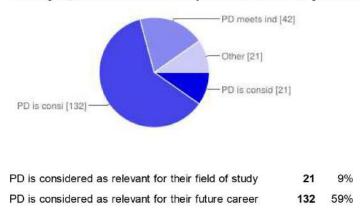


Share personal experience	206	93%
Committee members	151	68%
Graduate Chair	74	33%
Department	76	34%
CAPS (University of Alberta career centre)	77	35%
Off-campus resources	67	30%
Friends or parents	15	7%
Students do not ask me for career advice	8	4%
Other	30	14%

## 11. Do you support your students based on program (Masters/Doctoral) and individual needs?

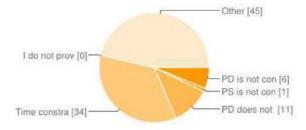


#### 11a. If yes, what is the most important reason for you to offer support?



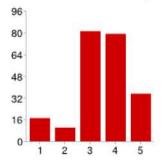
PD meets individual interests and needs of my students	42	19%
Other	21	9%

#### 11b. If no, what is the most important reason for you to not offer support?



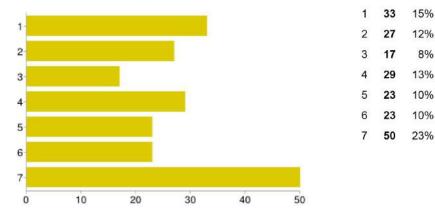
PD is not considered as relevant for their field of study	6	3%
PS is not considered as relevant for their future career	1	0%
PD does not meet the individual interests and needs of my students	11	5%
Time constraints	34	15%
I do not provide my students with career advice	0	0%
Other	45	20%

# 12. How much influence do you think your own perception of PD has on your students' decision to participate/not to participate in PD?



1	17	8%
2	10	5%
З	81	36%
4	79	36%
5	35	16%

# Course credit [13. Which of the following incentives would motivate your students to participate in PD?]



Reduction of TA or RA load [13. Which of the following incentives would motivate

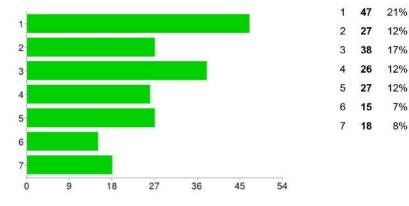
150 Professional Development Survey Supervisors - Google Forms

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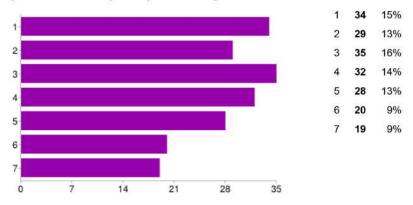
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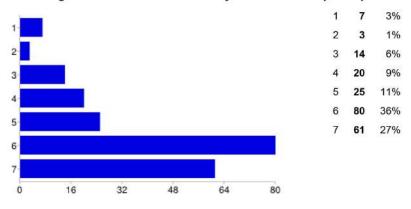
your students to participate in PD?]



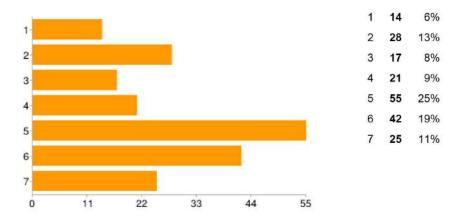
Reduction of course load [13. Which of the following incentives would motivate your students to participate in PD?]



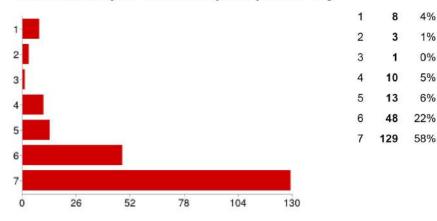
Better chances when applying for a scholarship or bursary [13. Which of the following incentives would motivate your students to participate in PD?]



Departmental or institutional recognition [13. Which of the following incentives would motivate your students to participate in PD?]



Enhanced career/employment opportunities [13. Which of the following incentives would motivate your students to participate in PD?]



Other [13. Which of the following incentives would motivate your students to participate in PD?]

1 27

2

3

4

5

6

7

3

7

5

3

4

9

12%

1%

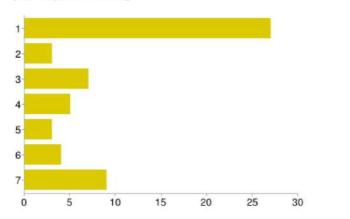
3%

2%

1%

2%

4%



Academia [14. Which career path would you like your students to pursue?]

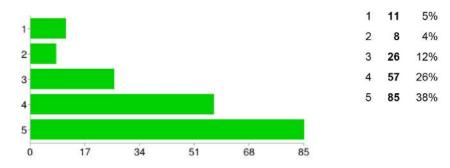
8%

10%

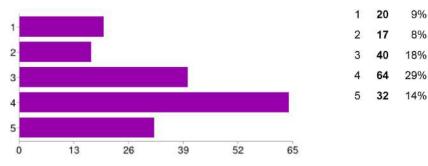
28%

20%

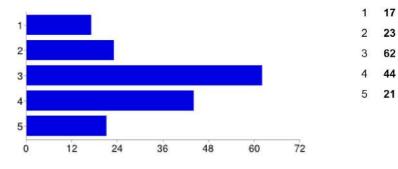
9%



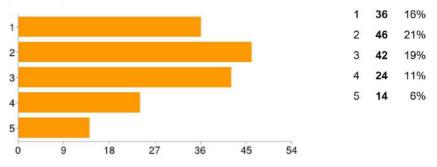
Industry/business [14. Which career path would you like your students to pursue?]



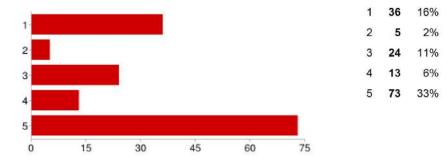
## Not-for-profit [14. Which career path would you like your students to pursue?]



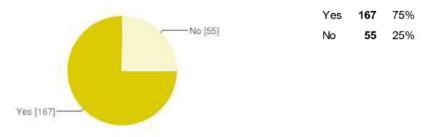
Starting their own company [14. Which career path would you like your students to pursue?]



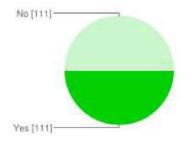
No preference [14. Which career path would you like your students to pursue?]



# 15. Do you feel well-equipped to inform your students about career paths in general?

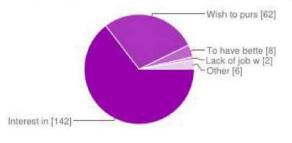


# 16. Do you feel well-equipped to inform your students about career paths outside of academia?



Yes	111	50%
No	111	50%

## 17. Why did you decide to pursue a graduate degree?



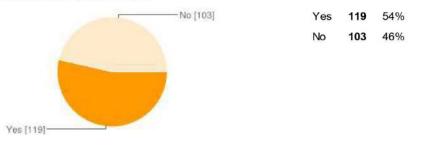
Interest in the field of study	142	64%
Wish to pursue a career in the academia	62	28%
To have better job perspectives outside of academia	8	4%
Lack of job when graduating from undergraduate program	2	1%
Other	6	3%

## 18. Given your motivator for pursuing a graduate degree, how important was PD in



1	41	18%
2	33	15%
З	54	24%
4	60	27%
5	34	15%

19. If your students were offered an attractive position outside of academia while pursuing their graduate degree, would you support them to quit their graduate program and accept the offer?



## 20. Please use this space to add any comments or to clarify any responses that you have made.

I do not understand many of these questions (really, wtf, is #4??).. I expect that they will be interpreted VERY differently by people from different disciplines. That's a problem in the survey design.

There are multiple reason to undertake a graduate degree - so Q. 17 and 18 are not well designed. With respect to questions about supporting students to pursue nonacademic career paths, I do not see it as my place to tell students what their life choices should be. My advice is intended to help them achieve goals they set for themselves. In particular, you forced me to give a potentially false answer to question 19. I always support my students to pursue their own goals.

Qu 19 is so dependent upon the circumstances - not a yes/no answer

many questions are vague here and I feel like I'm answering things I don't really think. In no. 5, for instance, these are skills I think they learn here. It's weird that you don't include teaching since that is, after all, a component of PD for people in academia. There used to be an excellent teaching certification the students could get. These sorts of workshops and voluntary certifications would be great.. What is no. 11? I can't imagine anyone would say "no" so what are you trying to get at? Just not sure that PD is defined properly here -- as separate courses or learning that occurs in the course of one's graduate programme.

Question 11 didn't make sense. Question 14 seems very limiting. In general, I do NOT want students to go into academia -- ANYTHING else is a better life path.

I think there is some confusion in categories going on here. Academic professional development should be understood as a separate category from transferable skills that can be used outside of the academy.

We need to stop thinking of non-academic career choices as some kind of failure, and stop sending that message to our students.

Some of these questions are very difficult to answer because each student is different. I think that is the biggest thing about professional development is that it needs to be tailored for the individual student.

My perception of professional development is a gradual, learned process, not necessarily a course they take. They have to put it into practice. Also for question 19, it depends on their personal goals and interests.

There was no professional development available to me as a student; it would have been conceived as instrinsically irrelevant to the pursuit of academic goals. I feel strongly that my department offers excellent professional development to those grad students seeking academic employment (we are always reviewing and improving this, it isn't yet perfect, but we do a very good job). But I have no resources for offering PD to those aiming outside of academia, and feel that such PD needs to be located outside of department programs, which are rightly focused on disciplinary training. Perhaps at the Faculty level with subgroups within that can speak to some likely career paths and the distinctive PD that such paths require.

About 11: I am not sure how to answer that; About 19: many students end up in graduate school because they need to change their lives (e.g., coming from less developed countries) or can't get a job; the hypoc

some of the questions posed only permit one answer while it is more accurate of my views to permit more than one answer

Funding enables PD of all kinds

I have had two students apply for medical school before they completed their MSc. While I prefer they finish their graduate studies, I appreciate their goals and mine may differ, and I feel obliged to support them in their goals as their primary supervisor.

This survey is absolutely meaningless as it should be firstly defined what PD is

I appreciate the intent of this survey but I do not think it is well formulated, because the standard academic research/writing skills are part of PD for us, so I could say "yes" to all the later questions, but that would not get at the issue of other aspects of PD and other career outcomes.

For question 19, it really depends on what the alternate career opportunity is. If their future plans include anything where a graduate degree may enhance their success potential, then I would encourage them to complete their graduate degree.

Education = Success

I have answered Q because it is required but I am NOT in a role with rank as a CAST member responsible for a the practice components of a course-based master's degree

For 19, would encourage them to negotiate completion of academic degree as part of their appointment. No position is forever so need the accreditation of degree.

In my field, a Master's degree is essential for a career; I would, however, support a student who wanted to quit a PhD to pursue an attractive position that did not require that level of qualification. It's hard for PhD grads to find jobs in my field.

I have several issues with this survey. First, it was distributed under the heading ACTION REQUIRED in contradiction to the statement in the email that it was voluntary. From my limited experience with survey research, this would never be allowed if the survey were reviewed ethically as a piece of research on human subjects. Second, respondents are asked to define their own concept of PD, and then are asked many questions that presuppose that PD has a clear definition. It's not clear how these are to be answered if the respondent's definition differs from the 'right' answer in the mind of whoever wrote the questions, or if the respondent has only a vague idea of what is and is not included in PD. Third, questions are ambiguously worded. E.g. compulsory question 11 asks about student support, but is a double question containing 'and': If my support is based on program but not individual needs, how am I supposed to answer? In fact, I provide support

for my students' living and tuition costs through grant funds, which in the case of foreign students are scaled for extra cost, so I guess I answer 'yes', but then 11a is all about PD (defined as whatever???). Fourth, several questions later in the survey (15, 16) require an answer on a scale, not just 'yes' or 'no'. I tried to leave these blank, as my answer would be 'somewhat', but the test will not allow this. Fifth, several other questions (e.g. 17) should allow more than one answer but allow only one. Some of these problematic questions are marked as compulsory. Again, if this were reviewed for human ethics as a piece of research, you would be required to give respondents the option not to answer a given question, and to reassure respondents that failure to answer would not be detrimental, especially if it is to be distributed to us as employees under the heading ACTION REQUIRED. This is not the first flawed survey I have received from the University this term. Overall, I am left with the feeling that tools such as Google Forms and Survey Monkey have encouraged units to use poorly designed surveys as opportunities to promote their activities. I am also concerned that these repeated communications trivialize the heading 'ACTION REQUIRED' to the point where overloaded staff will routinely ignore emails that really require emergency action. If you wish to discuss these issues further please contact john.waldron@ualberta.ca

#14 - is completely dependent on the student and their abilities and interests and whether they are MSc or PhD

this space is very small!! contact me for more input dhik@ualberta.ca

question 19 is entirely student dependent

I don't know how to answer question 20, and would like not to have answered. The question is too value laden.

go for bigger dream

Poorly worded questions and lack of adequate answer-options. My naswer to 19 is clearly dependent upon whattype of student, what type of job, etc.

Q11 is unclear.

regarding question 18 academic output part of PD (publication, conference presentation) had the most impact but not other aspects of PD

Most outside positions are contingent on getting the advanced degree so quitting and joining the organization is usually not an option.

Q19. That would depend on circumstances.

I am the principal provider of PD to my students (writing and computer courses and professional meetings/workshops aside)

#7 ALL of these aspects are very important so I will not rank any of them 7 or 1. 13. Students have to be self motivated, and PD can reasonably be expected as something they do on their own initiative. It is not my job to teach them relationship and parenting skills either. 14. I want each of my students to follow the career path best suited to their talents, and the one that will make them happiest. 19. I believe in the value of education, and would instead support them in negotiating with their employer to complete the thesis before leaving. I have 100% completion over 20 years.

About 11: I am not sure how to answer that; About 19: many students end up in graduate school because they need to change their lives (e.g., coming from less developed countries) or can't get a job; the hypocritical system we work under does not allow for a "yes" answer.

Number 19 is not sure

I think PD is an important strategy to equip studnets with skills that make them more competitive for jobs after graduation.

The attractive position outside of academia would have to be a special situation. In one case, my MSc graduate student quit their program to join the U Alberta medical school.

To clarify my response to question 19, I would encourage them to consider the opportunities and

implications in making their choice. I would neither

The survey is poorly designed. I hve an impression that this servey surves to justify decisions that have already been made. I believe that students should learn Professional Development from their supervisor. Criating a separate PD program under FGSR is a waste of resources. I realize that the concept that the university should be involved in PD and promoting PD is well-intentioned. I also realize that many supervisors/advisors are appallingly bad at mentoring their students. But to put it bluntly, the university still has no business trying to do this -- people in HR are simply not qualified to provide graduate students with the information and understanding necessary to enhance PD. For one thing, PD has to be specific to the student, to their field, and to their career goal; general advice cannot only be misleading but in some cases, actually damaging to the student's career. Moreover, if PD is not reinforced and guided by the supervisor, than a university-run class is probably not going to make much difference anyway for the student long-term. This is emphatically NOT something that should be centralized. Money that the university is using for PD should go straight to the departments to be used for internal PD seminars, or to advisor with a successful history of mentoring so that we can afford to send students to conferences and workshops. Successful mentoring (and I don't just mean bean-counting the number of students; I mean real guidance) ought to be more heavily rewarded for faculty merit increases etc. Encourage supervisors to do their job!

### Number of daily responses

