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

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The Issues

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

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.

May 2015
The Principles

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

1. 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.

2. 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.

3. 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.
The University of Alberta Graduate Student and Postdoctoral Fellow Professional and Career Development Strategic Plan

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

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

I1. Professional Development Advisory Board: Terms of reference will be developed for approval by the Advisory Board before the end of the Winter Term, 2015.

I2. Professional Development Implementation Group: 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. IDP Plan: 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. Recording Mechanism: 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 Transcript and an IDP. The PDIG will report on this matter.

I5. Mentors: 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.

I7. 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.

I8. PD Offerings: 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.
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I9. **PD Partnerships:** 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.

I10. **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.

I12. **Career Planning Resources:** 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.

I13. **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.

I14. **Linking PD with Academic Programs:** Run one or two pilot projects to understand the basic issues involved, and develop the resources as needed.

I15. **Communicating the Value of Graduate Education:** 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.

I16. **Communicating the Value of Mentoring:** 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.
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.

Employer Engagement: 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.

Business Innovation & Entrepreneurship: 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.
The University of Alberta Graduate Student and Postdoctoral Fellow Professional and Career Development Strategic Plan

Appendices
Appendix 1

Reporting required by the Government of Alberta
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:

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

Purpose of Metrics:

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
   c) 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
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:
1. 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 eHUB). In addition, $200k will be provided to UAlberta Venture Mentoring Service 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.

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<th>Qualitative</th>
<th>Quantitative</th>
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<tbody>
<tr>
<td>Establishment of new program modules for skills development</td>
<td>Participation rate of students enrolled in various programs; demonstrated completion in those programs</td>
</tr>
<tr>
<td>Establishment of employer liaison committees for each University</td>
<td>Number of internship placements developed at each university</td>
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<td></td>
<td>Number of commercialization opportunities (e.g., spin offs) developed at each university by graduate students</td>
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<td>Capacity measures: number of new graduate students, new professors as a direct result of funding</td>
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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
### SECTION 4 - PROFESSIONAL SKILLS DEVELOPMENT

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Did not participate</th>
<th>Not applicable</th>
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<tr>
<td>5. Advice/workshops on writing grant proposals</td>
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<td>159</td>
<td>214</td>
<td>163</td>
<td>112</td>
<td>266</td>
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<td>168</td>
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<td>9. Advice/workshops about research positions</td>
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<tr>
<td>10. Advice/workshops about research ethics in human subject research</td>
<td>33</td>
<td>229</td>
<td>236</td>
<td>110</td>
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<tr>
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<td>12. Advice on intellectual property issues</td>
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<td>43</td>
<td>138</td>
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### SECTION 5 - RESEARCH EXPERIENCE

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

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<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Did not participate</th>
<th>Not applicable</th>
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<tr>
<td>1. Conducting independent research since starting your graduate program</td>
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<td>345</td>
<td>208</td>
<td>102</td>
<td>49</td>
<td>35</td>
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<tr>
<td>2. Training in research methods before beginning your own research</td>
<td>140</td>
<td>283</td>
<td>257</td>
<td>189</td>
<td>143</td>
<td>32</td>
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<tr>
<td>3. Faculty guidance in formulating a research topic</td>
<td>204</td>
<td>296</td>
<td>264</td>
<td>149</td>
<td>108</td>
<td>23</td>
<td>31</td>
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<td>4. Research collaboration with one or more faculty members</td>
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<td>257</td>
<td>202</td>
<td>140</td>
<td>113</td>
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<tr>
<td>5. Collaboration with faculty in writing a grant proposal</td>
<td>124</td>
<td>142</td>
<td>164</td>
<td>110</td>
<td>147</td>
<td>201</td>
<td>179</td>
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### SECTION 6 - PRESENTATIONS AND PUBLICATIONS

**56-Q1: Please select if the following occurs in your department**

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<td>1. Seminars/colloquia at which students present their research</td>
<td>Count 975</td>
<td>Count 89</td>
<td>Count 1,064</td>
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<tr>
<td>2. Departmental funding for students to attend national or regional meetings</td>
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<td>Count 397</td>
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<td>3. Attend national scholarly meetings</td>
<td>Count 677</td>
<td>Count 369</td>
<td>Count 1,046</td>
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<tr>
<td>4. Deliver any papers or present a poster at national scholarly meetings</td>
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<td>Count 297</td>
<td>Count 1,048</td>
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<tr>
<td>5. Co-authored in refereed journals with your program faculty</td>
<td>Count 573</td>
<td>Count 472</td>
<td>Count 1,045</td>
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<td>6. Published as sole or first author in a refereed journal</td>
<td>Count 569</td>
<td>Count 483</td>
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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 - vkoziol@MosaicResearch.ca
### 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)**

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<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Did not participate</th>
<th>Not applicable</th>
<th>Total</th>
<th>Mean (out of 5)</th>
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<td>Count</td>
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<td>455</td>
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<tr>
<td>2. Advice/workshops on preparing for candidacy examinations</td>
<td>Count</td>
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<tr>
<td>3. Feedback on your research</td>
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<td>4. Advice/workshops on the standards for academic writing in your field</td>
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<td>5. Advice/workshops on writing grant proposals</td>
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<td>6. Advice/workshops on publishing your work</td>
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**Q10: How would you rate the quality of the support and training you received in these areas? (Long and Medium Streams only)**

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<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Did not participate</th>
<th>Not applicable</th>
<th>Total</th>
<th>Mean (out of 5)</th>
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</thead>
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<td>1. Advice/workshops on career options within academia</td>
<td>Count</td>
<td>87</td>
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<td>2. Advice/workshops on career options outside academia</td>
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<td>3. Advice/workshops about research positions</td>
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<td>4. Advice/workshops about research ethics in human subject research</td>
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<td>6. Advice on Intellectual property issues</td>
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**Q11: How would you rate the quality of the support and training you received in these areas? (Short Stream only)**

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<th>Did not participate</th>
<th>Not applicable</th>
<th>Total</th>
<th>Mean (out of 5)</th>
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<td>1. Advice/workshops on the standards for writing in your profession</td>
<td>Count</td>
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<td>24.4%</td>
<td>27.7%</td>
<td>20.2%</td>
<td>11.8%</td>
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<td>2. Advice/workshops on career options</td>
<td>Count</td>
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<td>36</td>
<td>40</td>
<td>24</td>
<td>12</td>
<td>25</td>
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<td>18.8%</td>
<td>26.1%</td>
<td>29.0%</td>
<td>17.4%</td>
<td>8.7%</td>
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<td>3. Advice/workshops on professional ethics</td>
<td>Count</td>
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<td>11</td>
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<td>3.2%</td>
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<td>19.0%</td>
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<td>28.5%</td>
<td>17.6%</td>
<td>9.2%</td>
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<tr>
<td>5. Opportunities for internships, practicum, and experiential learning as part of the program</td>
<td>Count</td>
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<td>33</td>
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<td>18</td>
<td>14</td>
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<td>12.1%</td>
<td>12.1%</td>
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<td></td>
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</tr>
<tr>
<td>6. Opportunities for contact lectures, seminars, discussion with practicing professionals</td>
<td>Count</td>
<td>53</td>
<td>49</td>
<td>28</td>
<td>20</td>
<td>7</td>
<td>11</td>
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<td>% by Row</td>
<td>33.8%</td>
<td>31.2%</td>
<td>17.8%</td>
<td>12.7%</td>
<td>4.5%</td>
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</tr>
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Appendix 4

Membership of the Professional Development Advisory Board (November 2013)
<table>
<thead>
<tr>
<th>Category</th>
<th>Dept/Unit/Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Grey</td>
<td>Alumni, FGSR Rep, Alumni Council</td>
</tr>
<tr>
<td>Sean Price</td>
<td>Alumni, Executive Director, Alumni Association</td>
</tr>
<tr>
<td>Chris Lumb</td>
<td>Entrepreneur, TEC Edmonton, CEO</td>
</tr>
<tr>
<td>Gail Powley</td>
<td>Entrepreneur, Vice President, Willowglen Systems Inc.</td>
</tr>
<tr>
<td>Judy Harcourt</td>
<td>Entrepreneur, Harcourt Recruiting Specialists</td>
</tr>
<tr>
<td>Anastasia Lim</td>
<td>Government, Executive Director, University Relations</td>
</tr>
<tr>
<td>Ken Freier</td>
<td>Government, Manager, Leadership Development, Alberta Government</td>
</tr>
<tr>
<td>Ryan Perry</td>
<td>Government, Director, Programs, Alberta Innovates Health Solutions</td>
</tr>
<tr>
<td>Keith Kibbler</td>
<td>HR, Human Resources Consultant</td>
</tr>
<tr>
<td>Mandi Abrams</td>
<td>Not for Profit, Workforce Strategy Program Manager</td>
</tr>
<tr>
<td>Janice Kapty</td>
<td>Recent Graduate, Regional Medical and Research Specialist, Oncology at Pfizer</td>
</tr>
<tr>
<td>Julianna Charchun</td>
<td>Recent Graduate, Senior Policy Advisor, City of Edmonton, Intergovernmental and External Affairs</td>
</tr>
<tr>
<td>Colin More</td>
<td>Student Representation, GSA VP Academic</td>
</tr>
<tr>
<td>Megha Bajaj</td>
<td>Student Representation, GSA VP Student Services</td>
</tr>
<tr>
<td>Lois Harder</td>
<td>University - Faculty, Arts, Associate Dean/ Research</td>
</tr>
<tr>
<td>Naomi Krogman</td>
<td>University - Faculty, ALES, Provost's Fellow on Graduate Student and Post-Doctoral Student Supervision</td>
</tr>
<tr>
<td>Tammy Hopper</td>
<td>University – Faculty, Rehab Med, Associate Dean, Graduate Studies and Research</td>
</tr>
<tr>
<td>Ashlyn Bernier</td>
<td>Mgr/Venture Mentoring Service, Office of Advancement</td>
</tr>
<tr>
<td>Ann Revill</td>
<td>President, Postdoctoral Fellows Association</td>
</tr>
<tr>
<td>Steve Dew</td>
<td>University - Faculty, Associate Dean, Engineering, and TLAT Council: Skills&amp; Attributes</td>
</tr>
<tr>
<td>Mazi Shirvani</td>
<td>FGSR, FGSR, Dean</td>
</tr>
<tr>
<td>Renee Polziehn</td>
<td>FGSR, FGSR Professional Development and Outreach</td>
</tr>
</tbody>
</table>
Appendix 5

Membership of the Professional Development Implementation Group (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
Individual Development Plan

The Individual Development Plan (IDP) is a tool to assist you 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 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?”

**Step 2**

**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.

**Step 4**

**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.
Individual Development Plan

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/Postdoc/Clifford.ppt

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

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?"

<table>
<thead>
<tr>
<th>Career Path:</th>
<th>Reason:</th>
<th>Required Skill Development:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>
Individual Development Plan

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-assessment 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
### Individual Development Plan

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

<table>
<thead>
<tr>
<th>Career Path:</th>
<th>Communication Role(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
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Please rate your communication skills on a scale from 1 (lowest) to 5 (highest)

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<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Writing for a general audience</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Writing for a discipline-specific audience</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Oral presentation for a general audience</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Oral presentation for a discipline-specific audience</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Multi-media communication and etiquette</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Academic networking</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Non-academic networking</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>1 2 3 4 5 n/a</td>
</tr>
</tbody>
</table>

**Additional comments:**
## Individual Development Plan

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

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<thead>
<tr>
<th>Career Path:</th>
<th>Collaboration Role(s):</th>
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<td></td>
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Please rate your **collaboration skills** on a scale from 1 (lowest) to 5 (highest)

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<th>3</th>
<th>4</th>
<th>5</th>
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<tr>
<td>Getting along with others</td>
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<td>Conflict resolution</td>
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<td>Mediation</td>
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<td>Ability to give constructive feedback</td>
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<tr>
<td>Ability to receive and implement constructive feedback</td>
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<td>Knowledge of academic etiquette</td>
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<td>Ability to compromise</td>
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<td>Ability to network</td>
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Additional comments:
### Individual Development Plan

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

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

<table>
<thead>
<tr>
<th>Rate each on a scale:</th>
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<tr>
<td>General research skills</td>
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<tr>
<td>Field-specific research skills</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Knowledge of literature in the field</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Knowledge of literature related to research project</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Search strategies and critical evaluation of the literature</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Academic writing skills</td>
<td>1 2 3 4 5 n/a</td>
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<tr>
<td>Grant proposal writing</td>
<td>1 2 3 4 5 n/a</td>
</tr>
<tr>
<td>Understanding of submissions/peer review process</td>
<td>1 2 3 4 5 n/a</td>
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Additional comments:
Individual Development Plan

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

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<th>Confidence Role(s):</th>
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Please rate your confidence-related skills on a scale from 1 (lowest) to 5 (highest)

Rate each on a scale:

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<tr>
<th>Skill</th>
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<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>Ability to identify personal strengths</td>
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<td></td>
<td></td>
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<td></td>
<td>n/a</td>
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<tr>
<td>Ability to identify personal weaknesses</td>
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<td></td>
<td></td>
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<td>n/a</td>
</tr>
<tr>
<td>General congruence between how you perceive yourself and how others perceive you</td>
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<td></td>
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<td>n/a</td>
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<tr>
<td>Self-promotion skills</td>
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<td>n/a</td>
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<td>Ability to not take professional feedback personally</td>
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<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Ability to pursue a project until fruition with minimal supervision</td>
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Additional comments:
What role(s) do you think **critical thinking** plays in each of your career paths?

<table>
<thead>
<tr>
<th>Career Path:</th>
<th>Critical thinking Role(s):</th>
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</thead>
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<tr>
<td></td>
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<td></td>
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</tbody>
</table>

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

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

**Additional comments:**
Individual Development Plan

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

<table>
<thead>
<tr>
<th>Career Path:</th>
<th>Creativity Role(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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</tbody>
</table>

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

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

Additional comments:
### Individual Development Plan

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

<table>
<thead>
<tr>
<th>Career Path:</th>
<th>Ethical Responsibility Role(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

<table>
<thead>
<tr>
<th>Communication Skills</th>
<th>Contribution</th>
<th>Coursework</th>
<th>Work Experience</th>
<th>Volunteering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing for a general audience</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Writing for a discipline-specific audience</td>
<td></td>
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<tr>
<td>Oral presentation for a general audience</td>
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<td></td>
</tr>
<tr>
<td>Oral presentation for a discipline-specific audience</td>
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<td></td>
</tr>
<tr>
<td>Multi-media communication and etiquette</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic networking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-academic networking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict resolution</td>
<td></td>
<td></td>
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</tbody>
</table>

**Comments:**
Collaboration

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

<table>
<thead>
<tr>
<th>Collaboration Skills</th>
<th>Contribution</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coursework</td>
<td>Work Experience</td>
<td>Volunteering</td>
</tr>
<tr>
<td>Getting along with others</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Conflict resolution</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mediation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to give constructive feedback</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to receive and implement constructive feedback</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Knowledge of academic etiquette</td>
<td></td>
<td></td>
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<tr>
<td>Ability to compromise</td>
<td></td>
<td></td>
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<tr>
<td>Ability to network</td>
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</tbody>
</table>

Comments:
Scholarship

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

<table>
<thead>
<tr>
<th>Scholarship Skills</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coursework</td>
</tr>
<tr>
<td>General research skills</td>
<td></td>
</tr>
<tr>
<td>Field-specific research skills</td>
<td></td>
</tr>
<tr>
<td>Knowledge of literature in the field</td>
<td></td>
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<tr>
<td>Knowledge of literature related to research project</td>
<td></td>
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<tr>
<td>Search strategies and critical evaluation of the literature</td>
<td></td>
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<tr>
<td>Academic writing skills</td>
<td></td>
</tr>
<tr>
<td>Grant proposal writing</td>
<td></td>
</tr>
<tr>
<td>Understanding of submission/peer review process</td>
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</tbody>
</table>

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

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

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

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

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

<table>
<thead>
<tr>
<th>Creativity Skills</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coursework</td>
</tr>
<tr>
<td>Thinking on your feet</td>
<td></td>
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<tr>
<td>Answering questions at a conference</td>
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<tr>
<td>Posting new research questions</td>
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<tr>
<td>Providing alternate solutions</td>
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<tr>
<td>Thinking outside of the box</td>
<td></td>
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<tr>
<td>Balancing self-expression with fundamentals</td>
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</tbody>
</table>

Comments:
Ethical Responsibility

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

<table>
<thead>
<tr>
<th>Ethical Responsibility Skills</th>
<th>Coursework</th>
<th>Work Experience</th>
<th>Volunteering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintaining integrity in research data representation</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Responsibility for project contribution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding cultural, psychological, and behavioral aspects of conflict</td>
<td></td>
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<tr>
<td>Relating your research to the larger community</td>
<td></td>
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<tr>
<td>Articulating why your research is important</td>
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</tr>
<tr>
<td>Conducting research ethically</td>
<td></td>
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</tr>
<tr>
<td>Practicing professional communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separating your personal and professional life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocating for your research</td>
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</table>

Comments:
In this section, develop a timeline 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 example for a PhD Science Program student has been provided below. Time lines will vary depending on graduate program.

**Enrolled in Graduate Program**

**Year 1**
- Academic Requirements: Course Work, Ethics, Research Proposal, Data Collection, Annual Committee Meeting
- Professional Development: Start LinkedIn Profile, Take P.D. Sessions, IDF

**Year 2**
- Academic Requirements: Candidacy Requirements, Publish 1st paper, Annual Committee Meeting
- Professional Development: Take P.D. Sessions, Identify Career Goals, Network, IDP

**Year 3-5**
- Academic Requirements: Publish 2-4 more papers, Annual Committee Meeting
- Professional Development: Network, IDP

**Complete Graduate Program**
Individual Development Plan

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 timeline, 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.
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 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, Professional 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:
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 PDs 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

**I19: 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.).

**I19b. 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.
I19c 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.

I19d: 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.
Appendix 10

University of Alberta - Graduate Student Survey & Academic Supervisor Survey
366 responses

University of Alberta
Graduate Student Survey

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...

- 0-3 months: 65 (18%)
- 4-11 months: 38 (10%)
- 1-3 years: 106 (29%)
- 3-5 years: 67 (18%)
- More than 5 years: 90 (25%)

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, resurnes): 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?

- Yes: 226 (62%)
- No: 140 (38%)

6a. If no, what is holding you back from getting involved?
Professional Development Survey Students - Google Forms
https://docs.google.com/a/ualberta.ca/forms/d/1_CPR0xORWXezI96L...
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?
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?
12. How much influence does your supervisor's/advisor's/department's perception of PD have on your decision to participate/not to participate?

![Bar chart showing responses to question 12]

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>93</td>
<td>25%</td>
</tr>
<tr>
<td>No</td>
<td>112</td>
<td>31%</td>
</tr>
<tr>
<td>2</td>
<td>43</td>
<td>12%</td>
</tr>
<tr>
<td>3</td>
<td>84</td>
<td>23%</td>
</tr>
<tr>
<td>5</td>
<td>34</td>
<td>9%</td>
</tr>
</tbody>
</table>

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

![Pie chart showing responses to question 13]

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>312</td>
<td>85%</td>
</tr>
<tr>
<td>No</td>
<td>54</td>
<td>15%</td>
</tr>
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</table>

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

![Bar chart showing responses to question 14]

<table>
<thead>
<tr>
<th>Incentive</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>67</td>
<td>18%</td>
</tr>
<tr>
<td>2</td>
<td>37</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>42</td>
<td>11%</td>
</tr>
<tr>
<td>4</td>
<td>51</td>
<td>14%</td>
</tr>
<tr>
<td>5</td>
<td>38</td>
<td>10%</td>
</tr>
<tr>
<td>6</td>
<td>46</td>
<td>13%</td>
</tr>
<tr>
<td>7</td>
<td>67</td>
<td>18%</td>
</tr>
</tbody>
</table>

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?]

1 66 18%
2 37 10%
3 51 14%
4 45 12%
5 53 14%
6 44 12%
7 50 14%

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

1 13 4%
2 17 5%
3 14 4%
4 31 8%
5 63 17%
6 90 25%
7 125 34%

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?]
Industry/business [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?]
16. Do you feel well-informed about career paths in general?
Yes 173 (47%)
No 193 (53%)

17. Do you feel well-informed about career paths outside of academia?
Yes 136 (37%)
No 230 (63%)

18. Why did you decide to pursue a graduate degree?
To have better job perspectives outside of academia 106 (29%)
Lack of job when graduating from undergraduate program 17 (5%)
Interest in the field of study 144 (39%)
Wish to pursue a career in the academia 76 (21%)
Other 23 (6%)

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

- Yes: 102 (28%)
- No: 264 (72%)

Number of daily responses:

- Dates: 10/16/14 to 11/4/14
222 responses

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?

- Assistant Professor 33 (15%)
- Associate Professor 85 (38%)
- Full Professor 104 (47%)

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

- 0-5 70 (32%)
- 6-10 55 (25%)
- 11-15 31 (14%)
- 15 and more 66 (30%)
4. My research/teaching/professional interests have put me in contact with non-academic stakeholders for...

- 0-3 months: 45 (20%)
- 4-11 months: 7 (3%)
- 1-5 years: 32 (14%)
- 5-10 years: 30 (14%)
- More than 10 years: 108 (49%)

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): 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 (88%)
- 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?

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

---

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

1. 1  8  4%
2. 6  10  5%
3. 9  12  5%
4. 17  8%
5. 31  14%
6. 53  26%
7. 89  40%

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

1. 1  8  4%
2. 6  10  5%
3. 9  12  5%
4. 17  8%
5. 35  16%
6. 60  27%
7. 81  36%

Soft skills/people skills [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?

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

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?

Yes 213 96%
No 9 4%

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

PD is considered as relevant for their field of study 21 9%
PD is considered as relevant for their future career 132 59%
The University of Alberta Graduate Student and Postdoctoral Fellow Professional and Career Development Strategic Plan

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

- PD meets individual interests and needs of my students: 42 (19%)
- Other: 21 (9%)

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: 33, 17%  
- 2: 27, 12%  
- 3: 17, 8%  
- 4: 29, 13%  
- 5: 23, 10%  
- 6: 23, 10%  
- 7: 50, 23%  

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

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

1. 20  9%
2. 17  8%
3. 40  18%
4. 64  29%
5. 32  14%

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

1. 17  8%
2. 23  10%
3. 62  28%
4. 44  20%
5. 21  9%

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

1. 36  16%
2. 46  21%
3. 42  19%
4. 24  11%
5. 14  6%

**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?

Yes 167 75%
No 55 25%

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
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?

Yes 119 54%
No 103 46%

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 reasons 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. 117? 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 intrinsically 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 hypoo
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 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 with 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.

#11 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 hypocrical 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 students 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 have an impression that this survey serves to justify decisions that have already been made. I believe that students should learn Professional Development from their supervisor. Creating 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, then 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

![Graph showing number of daily responses from 10/22/14 to 11/10/14.]