

# Interdisciplinary Graduate Development

## A Report from the Working Group

(January 2013)

### Executive summary

Interdisciplinary graduate programs bring together faculty members whose expertise cross disciplines to deliver unique programs that build upon principles and approaches that span traditional academic boundaries. These programs tend to be highly sought after and attract excellent candidates from diverse backgrounds. There are however several fundamental issues that challenge the development and the viability of interdisciplinary programs (IDPs). The task of the Working Group was to identify those challenges and to make recommendations that would address them by putting in place processes and structures that would facilitate the development of IDPs and allow them to thrive.

Seven recommendations to advance graduate IDPs are presented as part of the report and are described in brief below:

1. Confirmation and acknowledgment that interdisciplinarity is an institutional priority
2. Incorporate IDPs into the School of Graduate Studies' committee structure in accordance with the lead Faculty
3. Streamline administrative processes through an Advisory Committee of the Graduate Studies Executive Council
4. Provide recognition and credit for faculty member contributions through departmental workloads and annual reports.
5. Support program identity through the allocation of appropriate space.
6. Ensure adequate resourcing of collaborative IDPs in a way that encourages departmental participation (Memorandum of Agreement)
7. Ensure adequate resourcing of stand-alone IDPs in a way that provides stability to the program and incentives to faculties and departments to participate (Memorandum of Agreement)

## Introduction

Pillar two of the Queen's Academic Plan *Disciplinary/Interdisciplinarity*, recognizes that the student learning experience should have a strong disciplinary focus and opportunities for significant interdisciplinary encounters. At the graduate level, the breadth of faculty expertise (often reflected by fields of study) and the scope of research undertaken within a given department paired with access to courses offered through other units often provide students with interdisciplinary opportunities and experiences. Such unit-based interdisciplinary provisions are valuable though there remains a need and desire for cross-unit interdisciplinary advanced education. Interdisciplinary graduate programs expose students to concepts, principles and perspectives from multiple disciplines enabling students to apply methods and approaches to develop their studies and research in ways that span traditional academic boundaries. Indeed interdisciplinary education and research have been identified as central future directions for graduate education, innovation, and globalization.<sup>1</sup>

In order to foster interdisciplinary collaboration and program development it is imperative that administrative, structural and financial encumbrances are eliminated and that faculty member contributions are recognized and acknowledged in a meaningful way. These issues exist for all interdisciplinary programs, however they are more salient for programs that are stand-alone and that cross Faculties/Schools. The working group was tasked to review the issues around interdisciplinary graduate programs at Queen's University with the objective of identifying mechanisms and processes that would facilitate the development and sustainment of these programs (see Appendix 1, *Terms of Reference*). The group met on four occasions, reviewed relevant materials, examined graduate interdisciplinary programs at Queen's, and supported a set of seven recommendations aimed at removing existent barriers and providing structure and processes in support of interdisciplinary programs.

### Graduate interdisciplinary programs at Queen's

An interdisciplinary program (IDP) in the School of Graduate Studies (SGS) may be structured as a Collaborative Program or as a stand-alone IDP (Table 1).

#### *Collaborative Program:*

An inter-departmental program that provides an interdisciplinary experience for students enrolled in the program and registered in one of the participating academic units (Quality Assurance Framework). Students complete the degree requirements of their 'home' academic unit and in addition, specialize in the area of interdisciplinary focus; the latter is acknowledged on the transcript (e.g. M.Sc. in Biochemistry (Specialization in Cancer Research)).

#### *Stand-Alone Interdisciplinary Program:*

A graduate program that has unique program requirements and learning outcomes from those of any existing and approved program(s) offered by Queen's University. A graduate IDP offers a complete and cohesive set of advanced courses and program requirements that draw upon a broad base of contributing departments and faculty expertise.

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<sup>1</sup> Wendler C, Bridgeman B, Cline F, Millett C, Rock J, Bell N, and McAllister P. (2010). *The Path Forward: The Future of Graduate Education in the United States*. Princeton, NJ: Educational Testing Service.

**Table 1.** Collaborative and stand-alone interdisciplinary program structure, administration and resources.

	<b>Collaborative IDP</b>	<b>Stand-alone IDP</b>
Approval process	Expedited QUQAP. Periodic review in conjunction with each of the participating programs.	Full proposal and review process. Subject to full periodic review.
Structure	<ul style="list-style-type: none"> <li>• Builds on existing (parent) graduate programs and introduces a particular focus that spans cognate departments.</li> <li>• Students admitted have background appropriate for parent program and are part of departmental enrolment target</li> <li>• Usually 1-2 core collaborative courses introduced and the project or thesis is in the area of specialization</li> <li>• Degree level expectations and learning outcomes associated with parent department with additional learning outcome(s) relevant to the IDP of specialization</li> </ul>	<ul style="list-style-type: none"> <li>• Builds on broad, interdisciplinary interests and faculty expertise in an area of study/research that crosses departmental boundaries.</li> <li>• Students admitted with diverse backgrounds, enrolment target set for the IDP.</li> <li>• Cohesive set of advanced courses developed and list of non-core courses identified from existing courses across campus.</li> <li>• Degree level expectations and learning outcomes unique to the IDP.</li> </ul>
Administration	<ul style="list-style-type: none"> <li>• Graduate Coordinator</li> <li>• Administrative staffing needs covered by contributing departments</li> <li>• Adhere to all processes of the parent department (e.g. admissions, funding, monitoring, comprehensives).</li> </ul>	<ul style="list-style-type: none"> <li>• Graduate Coordinator and program director</li> <li>• Additional administrative support required for IDP</li> <li>• Develop and adhere to processes associated with IDP and in accordance with SGS (e.g. admissions, funding, monitoring, comprehensives)</li> </ul>
Resources	<ul style="list-style-type: none"> <li>• Subset of faculty members affiliated with parent departments self-identify to participate.</li> <li>• Student space associated with the parent department.</li> <li>• Student support packages formed with assistance of annual allocation to parent department.</li> <li>• Teaching assistantships and teaching fellowships available through parent department.</li> </ul>	<ul style="list-style-type: none"> <li>• Faculty members from any academic unit including those with no existing graduate program self-identify to participate.</li> <li>• Student space (if available) sought through lead faculty or through home unit of thesis supervisor.</li> <li>• Student support packages formed with assistance of annual allocation to IDP.</li> <li>• Teaching assistantships and teaching fellowships available through agreement from the home units of participating faculty.</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Program identity unequal across contributing units.</li> <li>• Suited to small as well as large programs</li> <li>• Address a particular societal need or research problem through collaborative means</li> <li>• Can bolster enrolment in parent program</li> </ul>	<ul style="list-style-type: none"> <li>• Strong program identity.</li> <li>• Suited to large programs</li> <li>• Enable faculty with shared academic interests the opportunity to mentor graduate students in research and scholarly activities beyond what may be possible in their home units</li> <li>• Interdisciplinary approaches and perspectives at grassroots of program</li> </ul>

Whether an IDP should be developed as a collaborative program or a stand-alone program is a decision that should be based on the program content and learning outcomes. The reality however, is that other factors including resources and ease of implementation have often influenced the decision. Faculties/Schools are allocated operating budgets and in turn, determine departmental budgets. Unlike collaborative IDPs, stand-alone IDPs are not housed in a department (or necessarily in a single Faculty) and consequently are vulnerable in the absence of a direct revenue source. Departments have no incentive to participate in stand-alone IDPs or support faculty involvement in program delivery. Furthermore, student enrolment in these programs may be viewed as a threat to the integrity of existing programs (competition for students); a sentiment expressed when graduate expansion funding was made available through the Provincial Government's *Reaching Higher* program.

Despite the challenges, stand-alone graduate IDPs offered at Queen's attract a strong and diverse applicant pool, recruit excellent candidates (above average number of external awards) and have a large complement of faculty members (>60) and students (>60) engaged in vibrant programs. Collaborative IDPs are increasingly in demand as evidenced by the addition of 4 new programs since 2009.

The adoption of a new budget model (NBM) and the principles that guide it afford the opportunity to explore how IDPs may be resourced in accordance with the location of activities (e.g. enrolments, teaching, and supervision) thereby removing financial barriers to developing (and sustaining) IDPs. Other encumbrances; however, must also be eliminated in order to grow interdisciplinary options at the graduate level beginning with an acknowledgement of their value and a commitment to support their development.

***Recommendation 1:*** *That interdisciplinary education is recognized as a priority and that one time resources may be required to support and facilitate the development of interdisciplinary graduate programs (e.g. administrative support, marketing analysis).*

### **Encumbrances to the development and sustainability of graduate collaborative and interdisciplinary programs**

1. Governance. The SGS organizational structure aligns graduate programs with the relevant Faculty/School Graduate Council/Committee on which they have representation. IDPs may cross Faculties and/or Schools which could create challenges with respect to reporting lines and processes for managing program-related business.

***Recommendation 2.*** *Adopt the current practice of identifying a 'lead' Faculty/School and conduct business in accordance with the respective Procedural Manual and appropriate consultation with other units. The Graduate Studies Executive Council (GSEC) would include interdisciplinary matters as a standing item on the agenda to assist with their management and facilitate communication.*

2. Administrative Processes. The development of multi-faculty/school IDPs can be onerous and daunting due to the negotiation and consultation required with multiple department heads, graduate coordinators and deans. The time required to proceed through the internal approvals can be upwards of 1 year for collaborative programs and longer for stand-alone IDPs.

***Recommendation 3.*** *That GSEC serve a steering function to streamline the approval process of new IDPs and major modifications to existing IDPs. For new programs, GSEC may establish a representative advisory committee with the role of bringing the proposal to GSEC for approval and identifying the lead Faculty/School.*

3. Recognition and credit. Currently there is inconsistent and uneven recognition of faculty members' involvement in IDPs. There is also no consistency in compensation for teaching, supervising or having administrative responsibility outside the faculty member's home unit (i.e. in an IDP); it may be part of an individual's workload or over and above their workload with or without compensation. If interdisciplinary education is an institutional priority then it follows that contributions should be duly recognized and valued.

**Recommendation 4.** *That contributions to graduate IDPs be recognized appropriately in annual and merit reviews, promotion and tenure decisions, and acknowledged in departmental workloads. Determination of a process for input and evaluation could be discussed and developed at the Provost-Deans meetings. Consideration might be given to adding an element "Activities in Interdisciplinary Programs" to the Annual Report which would permit faculty members to articulate their teaching (including graduate supervision), research and service involvement in an IDP. Stimulation of a culture that values involvement in IDPs as core to the university mission is important.*

4. Space. A Collaborative Program is a specialization that builds on existing graduate programs and as such, shares facilities and space with the parent unit. In contrast, stand-alone IDPs are independent of any existing academic unit and therefore may not have a physical, administrative home. Space to house the administrative office and staff as well as common meeting space for students is important for program identity and cohesion and to develop community among the students enrolled.

**Recommendation 5.** *That suitable space and other required facilities are identified in the IDP proposal and that associated costs are incorporated into the proposed program budget and the Memorandum of Agreement (see MOA for Collaborative IDP, Appendix 2 and MOA for a stand-alone IDP, Appendix 3).*

5. Financial and staff support. Collaborative IDPs are primarily resourced through the existing parent departments. There is no standard approach or described means of supporting the administration of these programs or the development and delivery of additional courses that are mounted in the area of specialization raising significant concerns about their sustainability. A description of the incremental costs associated with collaborative IDPs and a process for making funds available to cover the costs is essential to ensure program viability, success and buy-in from the contributing departments. A clear approach to supporting collaborative IDPs is consistent with the recognition of the value they add to graduate education. In the NBM tuition plus grant revenue flows to the Faculty(ies)/School(s) in which the graduate students are enrolled. An agreement detailing the transfer of funds to those departments that bear the program costs as appropriate should be established for all new and existing collaborative IDPs and that they be reviewed periodically (e.g. 3 to 5 years)

**Recommendation 6.** *That the incremental costs associated with the delivery of collaborative IDPs (e.g. core course development and delivery, teaching release for the coordinator, staff support, and operating costs) be itemized and transferred to the relevant department(s) from the Faculty(ies)/School(s) in proportion to their respective total enrolment in the IDP. The details can be described in a Memorandum of Agreement for Collaborative IDPs (Appendix 2), which would provide transparency to the stakeholders and a sense of stability for the program.*

Stand-alone IDPs are independent from existing graduate programs and are not housed within an academic department, school or necessarily a single faculty. As such, Faculty or Departmental budgets have limited capacity (or no capacity) to cover the cost of delivering these programs and there is no standard approach or described means of attributing revenues or incremental costs to the IDP.

Enrolments are associated with the program and cannot be aligned with a particular faculty as there is no central record of student supervisors; a central activity in research degree programs. The attribution of costs is complicated by the non-standard structure of graduate programs (e.g. thesis-based or course-based, number of courses, etc). There is a desire to have a consistent approach to financially supporting IDPs that provides appropriate incentives to all stakeholders with direct responsibilities while also promoting and preserving sound academic decision-making which includes those about supervision. The current approach in which the Graduate Coordinator (or IDP program director) typically negotiates with the relevant Faculty Dean(s) to secure resources is time-consuming, short-term, lacks clarity, and indentures program vulnerability; an alternative is required.

**Recommendation 7.** *That the incremental costs associated with the delivery of a stand-alone IDP (e.g. salary support for an administrative assistant, teaching release for the Graduate Coordinator and /or Program Director, the costs associated with the development and delivery of IDP specific core courses (IDP xxx), shared services costs (enrolment-based) and operating costs) be itemized and that the commodity of supervision is acknowledged through support to faculty members' home units. Consideration may also be given to supporting departments that provide access to specific graduate courses to students in the IDP. A lead Faculty/School should be identified to which the majority of the revenues (tuition+grant) are attributed (80% of Master's enrolment and 70% of PhD enrolment) and direct program costs are charged (described above). Revenues and shared service costs could be managed through the NBM and other costs through the provision of an administrative budget to the IDP to cover operations, and departmental transfers for teaching release and course delivery. The remaining 20% and 30% of Master's and PhD associated revenues, respectively would be shared among those departments whose faculty members supervise students in the IDP in proportion to the number of students supervised; the distribution to be managed by the IDP administration.*

*The details can be described in a Memorandum of Agreement for Stand-Alone IDPs (Appendix 3), which should be reviewed periodically (e.g. 3 to 5 years).*

The desire is to introduce practices and processes that incent the development of IDPs, entice departments to support IDPs through faculty involvement and access to courses, and provide the means to sustain and grow IDPs.

Respectfully submitted,

Brian Bennett  
Jo-Anne Brady  
James Reynolds  
Jill Scott  
Gordon Smith  
Brian Surgenor  
Brenda Brouwer

## **Reference Documents**

Council of Graduate Schools. Interdisciplinary Graduate Education: Role of the Graduate School. GradEdge Vol 1(8), Oct 2012

McMaster University's Taskforce on Interdisciplinary Programs, December, 2011

University of Arizona, Graduate Interdisciplinary Programs at the University of Arizona (McMaster University Task Force on Interdisciplinary Programs Meeting)

University of Arizona, Graduate Interdisciplinary Programs:

Annual review policy: <http://gidp.arizona.edu/node/300>

Guidelines and policies: <http://gidp.arizona.edu/node/299>

University of Minnesota, Memorandum of Understanding (Draft Template)

Wardell D, Yarrish J. Centralizing Interdisciplinary Learning: Key Offerings and Organizational Structures at Eight Universities. University Leadership Council, Advisory Board Company, Washington DC, 2008

# Appendix 1

## Working group on interdisciplinary graduate development

### Terms of reference

**Mandate:**

To review the issues around interdisciplinary graduate programs at Queen's University with the objective of identifying mechanisms and processes that would facilitate the development and sustainment of these programs as appropriate.

Specifically the working group is established to make recommendations to the Provost on:

- The alignment of interdisciplinary studies at Queen's with the Academic Plan and the Strategic Research Plan
- How to overcome encumbrances to the development of interdisciplinary programs including workload credit, supervisory responsibilities, administrative support and student support
- Ensuring appropriate distribution of revenue and attribution of costs
- The ongoing management of interdisciplinary programs including primary or lead Faculty/School and best practices/policies/guidelines that recognize internal procedures and regulations as well as external bodies (Quality Council)

**DRAFT ONLY (intended to initiate discussion and facilitate further development)**

## Appendix 2

### Memorandum of Agreement for Collaborative Graduate Interdisciplinary Programs (IDPs)

The administrative and program structure are as described in the New Program Approval document or in a subsequent Major Modifications document. Programs are governed by the policies and procedures of the School of Graduate Studies as well as the specific policies and procedures of the Department in which the student is enrolled.

Specialization:

List of participating Departments/Schools:

Name and home unit of collaborative program graduate coordinator:

**Table 1.** Annual distribution of financial support to participating departments (add /delete columns as appropriate)

Category	Budget Cost	Funding transfer*			
		Department 1	Department 2	Department 3	Department 4
Graduate Program Coordinator teaching release ( __ course(s) * \$8,000; normally 1 course)					
IDP specific core course(s) (\$8,000/course; list each course number, title, instructor(s))					
Graduate Assistant (normally \$5,000; include staff name and department)					
Operating budget (normally \$2,000)					
Other (e.g. space; specify item and cost)					
<b>Total Cost (transfer)</b>					

\* The funds will be transferred to the appropriate departments by the Faculty(ies)/School(s) in which students in the Collaborative IDP are enrolled (i.e. those that receive the revenues associated with these enrolments). The total cost will be attributed to the Faculty(ies)/School(s) based on their proportion of enrolment in the Collaborative IDP when more than one Faculty/School participates.

Period of Agreement: day/month/year to day/month/year

Signatories:

Faculty/School Dean(s)

Department Heads

Provost

### **Appendix 3**

#### **Memorandum of Agreement for ‘Stand-Alone’ Graduate Interdisciplinary Programs (IDPs)**

The administrative and program structure are as described in the New Program Approval document or the Program’s Cyclical Review Document, whichever is most recent. Programs are governed by the policies and procedures of the School of Graduate Studies as well as program-specific policies and processes as described in the aforementioned documents.

Program name:

Lead Faculty/School (responsible for serving as the administrative and physical home for the IDP):

List of Departments /Schools with faculty member involvement in teaching, supervision and/or service to the IDP:

Name and home unit of the Program Director (if applicable):

Name and home unit of graduate coordinator:

#### **Budget**

Eighty percent of tuition plus government grant (BIU) revenue will be attributed to the lead Faculty/School based on Master’s enrolment in the IDP and 70% of all revenue based on PhD enrolment in the IDP. Correspondingly, 20% and 30% of revenues associated with Master’s and PhD enrolments respectively will be provided to the IDP for sharing amongst those departments that provide faculty supervision; sharing will be in proportion to the number of students supervised. *[Information to be provided by the IDP and SGS]*

Program-related costs attributed to the lead Faculty/School include those listed in Table 1. In addition, the lead Faculty/School will transfer funds to cover program related costs detailed in Table 2, which will be disbursed as appropriate by the IDP. The remaining share of the revenues (tuition+grant) will be transferred to the IDP to be shared in its entirety with departments in recognition of the participation of their faculty members in providing supervision to students in the IDP.

**Table 1.** Costs covered directly by the lead Faculty/School

<b>Category</b>	<b>Budget</b>
Graduate Assistant ( __ FTE) Salary Benefits Incremental cost of office space (if applicable) Incremental shared service cost	
Shared service costs (enrolment related)	
Incremental space costs (e.g. student workspace, common space)	
Other (specify)	

**Table 2.** Administrative budget provided to the IDP by the lead Faculty/School. The IDP has responsibility to transfer funds as appropriate to participating departments (add /delete columns as appropriate)

Category	Admin Budget (IDP)	Funding transfer			
		Department 1	Department 2	Department 3	Department 4
Program Director teaching release ( __ course(s) * \$8,000)					
Graduate Coordinator teaching release ( __ course(s) * \$8,000; normally 1 course)					
IDP specific core course (s). (\$8,000/course, list each course number, title, instructor(s))					
Operating budget (normally \$5,000)		NA	NA	NA	NA
Other* (specify item and cost)					
<b>Total Cost (transfer)</b>					

\* Consideration may be given to compensate departments that list their courses as options for students enrolled in the IDP are regularly take by IDP students

The IDP will receive 20% and 30% of revenues associated with Master’s and PhD enrolments, respectively. The IDP is responsible for distributing these funds to the appropriate units in proportion to the number of IDP students supervised by their faculty members.

Signatories:

- Lead Faculty/School Dean
- Affiliated Faculty/School Dean(s)
- IDP Program Director or Graduate Coordinator
- Department Heads
- Vice-Provost and Dean, SGS
- Provost