Discussion Paper:

Academic Restructuring at Ryerson University

Provost's Academic Structure Commission September 21, 2009

CONTENTS

Preface	3
Commission Members	
Background	6
Academic Restructuring	8
Why Change?	
Ryerson's Structural Legacy	
Academic Restructuring Vignettes	
WLU; Mount Allison; SFU; U of Calgary; York U.	
Role of a Faculty Dean	
Macro Inter-University Comparison	15
An Institutional Profile	18
A Current Faculty/Department Scan	
The Demand for Places	
Summary: Matters to be Considered in Academic Restructuring	26
Appendices (A, B, C, D)	
A: Ryerson Historical Timeline	
B: Comparator Universities	
C: Programs in the University	
D: Undergraduate Applications and Targets	

PREFACE

On May 6, 2009 the Provost announced the establishment of an Academic Structures Commission to prepare a Report to him on possible reorganization of some parts of the University. The Commission arises from Recommendation 16 in *Shaping Our Future: Academic Plan for 2008/13*, which was approved by Senate (May, 2008). In the consultations and discussions which guided the formation of the plan, it was argued that the academic structure be revisited to ensure the University responds effectively to internal and external pressures arising from recent and expected growth and change.

The mandate of the Provost's Academic Structures Commission (PASC) is to prepare a Report on such possible reorganizations within the context of current and anticipated teaching and research developments, following an extensive consultation process. The Commission is tasked to explore a range of possibilities with respect to restructuring existing Faculties and establishing new ones. Since becoming a university in 1993, Ryerson has grown exponentially in undergraduate student numbers and programs, has established a graduate school, and placed greater emphasis on scholarly, research and creative activity. This has occurred within the framework of a long established five-Faculty structure.

Given the Report is to be submitted to the Provost by January, 2010, the Commission (members listed below) has established a tight schedule of written reports and university-wide consultations:

 Create a generic e-mail address (pwg@ryerson.ca) to which any person in the university community may send comments, ideas, suggestions, and so forth.
 By the end of June, 2009, hold two Town Halls to explain the process, respond to questions and concerns, and receive suggestions. These were held May 29 (91 in

attendance) and June 26 (41 in attendance).

3. Prepare a Discussion Paper to be transmitted to the university community by the end of September.

4. Convene a Town Hall at which Commission members will welcome input on the Discussion Paper and the topic in general.

5. By the end of November prepare a Green Paper containing the Commission's preliminary restructuring scenarios, and transmit to the university community.

6. Hold a Town Hall to present and discuss the Green Paper.

7. Prepare a White Paper containing the recommended restructuring scenarios by the end of January, 2010.

8. Present to Provost and university community.

Interleaved within this schedule will be discussions with other groups as requested.

Commission Members

Faculty Members:

Sandeep Kumar Agrawal MPI Program Director and Professor, School of Urban and Regional Planning

Mehru Ali Professor, School of Early Childhood Education

Robert Burley Professor, School of Image Arts

David Checkland Professor, Department of Philosophy

Michelle Dionne Professor, Department of Psychology

Gervan Fearon Dean, The G. Raymond Chang School of Continuing Education

Abby Goodrum¹ Velma Rogers Graham Research Chair and Professor, School of Journalism

Murtaza Haider Professor, Ted Rogers School of Management (Retail Management)

Darrick Heyd Professor and Chair, Department of Chemistry and Biology

Don Kinder Senior Librarian, Reference and Instruction

Sri Krishnan² Professor and Chair, Department of Electrical Engineering

Rena Mendelson³ Professor, School of Nutrition

Paul Missios Professor and Chair, Department of Economics

Annick Mitchell Professor and Chair, School of Interior Design

Kendra Schank Smith Professor and Chair, Department of Architectural Science

Jim Tiessen MBA Program Director and Professor, Ted Rogers School of Management

¹ Subsequently also Associate Dean, Research, FCAD

² Subsequently Associate Dean Research, Development, and Graduate Programs, FEAS

³ A member of Board of Governors

Nancy Walton Professor and Associate Director, Daphne Cockwell School of Nursing

Mehmet Zeytinoglu Professor, Department of Electrical Engineering

Undergraduate Students:

Hamed Basseri Medical Physics

Andrew West Politics and Governance

Natasha Williams⁴ Ted Rogers School of Business Management

Graduate Students:

Asif Sharif Doctoral student, Mechanical Engineering

Angela Joosse Doctoral student, Communication and Culture

Alumnus:

Chris Nguyen Ted Rogers School of Information Technology Management '05

Chair:

Maurice Yeates Dean, School of Graduate Studies

⁴ Withdrew due to pressures from other commitments.

BACKGROUND

Ryerson – a leading polytechnic in Canada during the second half of the twentieth century, is now transforming itself to become a leading university in Canada. It commenced operation in 1948 to help meet the needs of a rapidly growing post-WWII population by providing post-secondary certificate/diploma programs in a variety of technical and trade occupations⁵. By 1964 it had become a polytechnic institute with its own Board of Governors, and in 1971 it was authorized to grant four year degrees in its established areas of strength. In 1993 Ryerson was granted university status, implying similar expectations as other universities with respect to undergraduate and graduate development, and attention to scholarship, research, and creative activity. While this transfer to university status was not associated with an immediate growth in student numbers during the 1990s, it did set the stage for dramatic growth during the current decade (Figure 1).

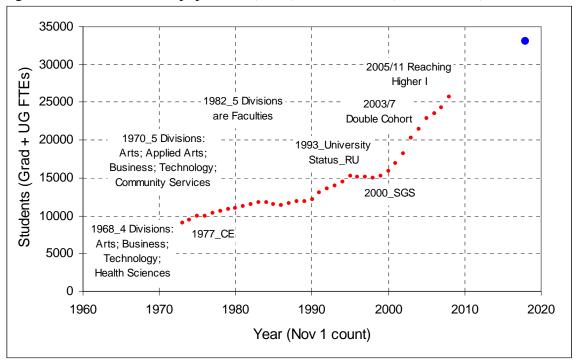


Figure 1 Growth in student population (FTEs) 1973 to 2008 (Source: UPO)

This brief sketch of a proud heritage emphasizes the institutional context in which Ryerson's existing academic structure is rooted. In 1968 the polytechnic's teaching departments were grouped into four operational Divisions: Arts, Business, Technology, and Health Sciences. This four-fold grouping had, with some additional programs, expanded to five by 1970. The expansion involved a bifurcation of the Arts division, and renaming of the Health Sciences Division to Community Services to accommodate a

⁵ The Commission is indebted to Don Kinder and his colleagues in the Archives of the RU Library for the Ryerson Timeline summarized in Appendix A. Also see: R. Stagg 'Serving Society's Needs: A History of Ryerson Polytechnic University' (http://www.ryerson.ca/archives/images/stagg1.pdf).

general Social Services Department. This five-fold Divisional structure, each with a number of additional programs, metamorphosed into the same number of Faculties in 1982, by which time a formal School of Continuing Education had been established (1977).

Since 1982, new programs have been added and many existing programs restructured, all within the five Faculty structure (see Appendix A). The most evident change followed implementation of the School of Graduate Studies in 2000 with three graduate programs and 50 students – as of September 2009 there are 34 masters programs (offering 42 masters degrees) and nine doctoral programs, all involving 2,100 students⁶.

The impetus for this rapid undergraduate and graduate growth in the current decade was: (i) the elimination of Grade 13 in 2003 in the Ontario secondary school system which led to a double-cohort of post-secondary headed students; and (ii) implementation of the Ontario government's 'Reaching Higher' plan which was announced in 2005 and implemented in stages through to 2011/12. These governmental programs, taken together, provide(d) additional base operating money, and capital, for undergraduate and graduate growth for Ontario's universities and colleges. Given Ryerson's academic vision⁷, history of responding to community needs, and central location in the Greater Toronto Area (GTA), the university has responded responsibly to the demand for access while at the same time improving quality and gaining enormously in reputation.

The universities (through the Council of Ontario Universities) and colleges (through Colleges Ontario) are now discussing with the provincial government the outlines of a 'Reaching Higher II' plan. The impetus for this is: (i) the continued growth in Ontario's population (primarily through immigration), particularly in the prime post-secondary age group; and (ii) the evident necessity for human capital enhancement in a knowledge-based society. Here again, Ryerson University will have an important role to play because most of the envisaged increase in demand for undergraduate and graduate places will be derived from the GTA, as well as from young persons moving to the metropolis to take advantage of its myriad socio/cultural opportunities and employment possibilities. Hence, in Figure 1, there is a guesstimate enrolment of 33,000 for 2018⁸.

It was evident from a number of university-wide consultations, and briefs, associated with the preparation of *Shaping Our Future*, that the polytechnic divisional framework that helped the University to its current stage of quality and development needs some re-assessment. In essence, what Faculty framework does the University need, given the forecast financial and demographic environment, to further help the institution to (and through) the next stage of its evolution?

⁶ In September 2010 there is planned to be 37 masters programs (offering 45 masters degrees) and ten doctoral programs, involving in total about 2,200 students.

⁷ The current *Shaping Our Future: Academic Plan for 2008/13* was preceded by Ryerson's first academic plan *Learning Together: Academic Plan for 2003/8* which emphasized growth in research and graduate studies as well as undergraduate access and quality improvement.

⁸ Likely the end date of the third academic plan!!

ACADEMIC RESTRUCTURING

Although every university undertakes an academic restructuring exercise at one time or another, "… few recent studies address the formal structure of academic organizations"⁹. There are, therefore, few blue-prints to follow, and none that can be found which analyze outcomes. Most appear to undertake the process incrementally, through partial restructuring, and more frequently than Ryerson¹⁰.

In this case, the PASC restructuring exercise is focusing on the number, and departmental composition, of Faculties at the university¹¹. Ideally, academic Departments (or 'costing units') are the organizational places in which disciplines (and faculty members devoted to them) and programs are located. Faculties are agglomerations of congruent departments designed to pursue and advance the interests of the group within the context of university objectives as a whole.

Why Change?

Gumport and Snydman¹² develop their argument with respect to academic structures and change on the basis of two propositions: (i) "... structural dimensions of academic organizations shape what counts as knowledge"; and, (ii) "... modifying the academic structure enables universities to reconcile competing imperatives for stability and change".

Academic structures facilitate the legitimization of knowledge. If a major university decides to eliminate a Department of MM and close or contract the program(s) on which it is based, it is in effect contributing to the delegitimizing MM as a discipline, which can have a severe effect on careers and career choice. Faculties, as aggregates of Departments, also contribute to academic legitimacy in the way they are designated and which departments are included within them. Universities, in deciding to designate a Faculty as XX, but not as Faculty YY, also aid the legitimacy of XX and diminish YY. The placement of a Department in one Faculty rather than another also influences disciplinary perception and hence legitimacy.

The euphemism 'competing imperatives' is also likely to generate concern, particularly in times of straitened university finances, which is most of the time. University administrations are forever attempting to balance competing expectations, both internal and external to the organization. Universities have existed in one form or another for centuries, and have survived all kinds of internal and external exigencies through careful decision-making processes that have always attempted to reconcile "...

⁹ Gumport, P.J. and Snydman (2002) "The Formal Organization of Knowledge: An Analysis of Academic Structure" The Journal of Higher Education, 73, 3, p. 375.

¹⁰ Snowdon, Ken (2009) "Academic Organization: Considerations" (unpublished paper prepared for PASC); and presentation to the Commission of September 3, 2009.

 ¹¹ Gumport, P.J. (2000) "Academic Restructuring: Organizational Change and Institutional Imperatives"
 Higher Education: The International Journal of Higher Education and Educational Planning, 39, 67-71.
 ¹² Gumport, P.J. and Snydman (2002) op. cit., pp 376 and 377.

accumulated heritage versus modern imperatives"¹³. In this reconciliation, universities have realized that change in academic structures is one way in which they are able to undertake, and flag, their actual or intended responses to internal/external expectations arising from 'competing imperatives'.

Ryerson's Structural Legacy

The trade school/polytechnic base of Ryerson's academic structure is reflected strongly in its current academic structure. Ryerson is different from other universities in that it has been based on professional (as with engineering or nursing) and quasi-professional (as with disability studies or retail management) education. A familiar description is that it is an 'inside-out university'.

The conceptual model for the traditional university is a set of core disciplines¹⁴, which may be located in one or more Faculties (humanities, science, social science), around which professionally-oriented Faculties, such as business, medicine, law, engineering, and so forth may be arrayed. These professional activities, supposedly, feed off various elements of basic education (and research) provided by the core disciplines. While most students are admitted to pursue a particular undergraduate degree, general program requirements rooted in part in the core disciplines provide some flexibility with respect to program transfer.

Ryerson, on the other hand, has a group of professional and quasi-professional disciplines or activities at its core, each charged with establishing its own curriculum. Students enter the university with the intention of pursuing a particular professional degree program, and there is virtually no opportunity for change in program. The elements of the core disciplines necessary for each program are either provided within the professional program itself or through the contracting of courses from elsewhere in the University. The fundamental point is that once a student commences an intentional program, the student either completes or withdraws¹⁵.

To ensure some breadth in knowledge, which is required by all professional programs, a curricular device known as the 'tripartite model' was implemented in 1977¹⁶. This requires that students in professional programs include in their curriculum not only courses vital to practice, but also a certain number of professionally related (defined by the program) and liberal studies courses. The liberal studies courses are provided from the social science or humanities Departments in the Faculty of Arts. None of these liberal studies courses provide access to other programs. During the current

¹³ Kerr, C. (1987) "A Critical Age in the University World: Accumulated Heritage Versus Modern Imperatives", *European Journal of Education*, 22 (2), 183-193.

¹⁴ Such as: history, chemistry, political studies, physics, economics, language and literature (the major languages), biology, geography, mathematics, philosophy, sociology, and so forth.
¹⁵ Few actually withdraw.

¹⁶ Currie, R.F., B. Cameron, and M. Zeytinoglu (2005) *Curriculum Review Report: Ryerson University*, May 24, 2005, p.5.

decade the Faculty of Arts has instituted a number of its own undergraduate degree programs¹⁷.

This structural legacy underlies a number of the matters raised during the first two Town Halls and in comments received by Commission members. These include: lack of opportunities for transferability for students between programs; difficulty of establishing multi or inter disciplinary programs at the undergraduate level; difficulty of managing multi or inter disciplinary programs at the graduate level; and, perceived constraints to development consequent to the tripartite model¹⁸. A contention is that academic restructuring should point towards some other means of achieving breadth, and might also facilitate transferability of students between programs in certain situations.

Academic Restructuring Vignettes

Wilfrid Laurier University: Report of the Advisory Committee on Academic Restructuring (1993). The mandate of this nine person committee was far wider than that for PASC. It included: undergraduate program development; course duplication; integration of new technology in teaching; team teaching; the core curriculum in A&S; class sizes; program evaluation; and so forth. Among its many recommendations was that a "… review and reorganization of faculties, departments and other academic units with a view to reducing costs of administration might allow for more economical use of resources and offer opportunities for new programs, both disciplinary and interdisciplinary".

Comment: The Committee was mandated to address a large number of issues, including non-academic matters. The many recommendations were referred to the V-P Academic, and the Senate Committee on Academic Planning. This has, apparently, led to incremental changes. The Committee did not make specific recommendations, or provide alternative scenarios, with respect to academic restructuring.

Mount Allison University (1992). In an Appendix to the WLU Report is a statement from the President of Mt. Allison University: "A year ago, the University split its one large Faculty of Arts and Science into four smaller Faculties of Science, Social Science, Arts I and Arts II (the latter two faculties have yet to agree on nomenclature!). The purpose of the division was to create smaller units which could work effectively to restructure academic programs. It has been recognized that as a result of reduced revenues there will have to be a great deal of curricular integration. Each of the Faculties is addressing this issue in different ways. By and large the goal is to develop programs which are supported by more than one Department and which help to reduce the

¹⁷ Such as the 'common platform' in Arts and Contemporary Studies, which leads to English, French, History, and Philosophy options. The first departmentally-based program in the Faculty was in Applied Geography in 1973, now Geographic Analysis.

¹⁸ The outcome of the Currie *at al.* report (Footnote 15) with respect to radical change in the tripartite model was, in general, that "... the community is not yet there" (Aspevig, E. (2007) "Tripartite Curriculum Review", p.1).

intellectual barriers which Department structures help to build. We are not doing away with Departments and are not eliminating department-based programs".

Comment: Even though Mt A is a small university, it is an interesting case because there are clear objectives, which, given the time since 1992, allows for follow-up. The end product has been three Faculties, not four (Science, Social Science, and Arts). The smaller Faculties have developed 'common platforms' leading to majors, combined majors, and major/minors. Furthermore, the reputation of Mt.A as a small liberal arts university has increased greatly during the past fifteen years, attracting students nationally and internationally -- and it remains financially viable by all accounts!

Simon Fraser University (2009). SFU Media release, March 31, 2009: "...SFUs newest faculty, the Faculty of Environment ...encompasses the School of Resource and Environmental Management, the Department of Geography, the Environmental Science program, the Centre for Sustainable Community Development and the Graduate Certificate in Development Studies...The university has a tremendous pool of talented people who deal with environmental issues, who have traditionally been scattered across diverse faculties, but now campus members will be collaborating under the umbrella of this new faculty... The Faculty offers undergraduate programs leading to BA and BSc. degrees. At the graduate level, students may complete MA, MSc, or MRM degrees and doctorates (PhDs). It also offers certificates and diploma programs and is considering other degree options".

Comment: This vignette is useful because it illustrates: (i) how an interdisciplinary program may be included in a university structure through an 'umbrella' Faculty; and, (ii) the way in which a university may flag internally and externally through academic restructuring its contribution to an important societal issue.

University of Calgary (2009). Uof C News release, June 25, 2009¹⁹: "… the University of Calgary Board of Governors voted to unify the Faculties of Communication and Culture, Fine Arts, Humanities, and Social Sciences into a single Faculty …Concentrating efforts on one administrative structure will facilitate an improved and seamless university experience for arts and social sciences students. This includes … simplifying processes for transferability between undergraduate programs … promoting multi-disciplinary and interdisciplinary research and experiential learning opportunities at the graduate and undergraduate levels …strengthening the financial foundation and flexibility for arts and social sciences education. … The new structure will bring the U of C in line with other G13 universities, the majority of which have two or fewer arts and social sciences".

Comment: Mt. Allison and the University of Calgary (from opposite ends of the size and research spectrum) are examples of universities essentially trying to attain the same objectives, but utilizing entirely different academic restructuring approaches – one subdivided an existing structure, the other is amalgamating. Calgary had 16 Faculties in June, 2009!

¹⁹ Please note that this News Release has been heavily edited for concision in this Discussion Paper.

The reference to the U of Cs participation among the leading thirteen research universities in Canada and the few large Arts, or Arts and Social Science, or Arts & Science Faculties in them is interesting in the context of the Commissions discussions. Each of the research intensive universities has large core discipline communities built around powerful Departments with Faculty structures of limited and prescribed intrusiveness, exactly the opposite to the Ryerson situation. In 'strong Department/weak Faculty' situations, each Department has to live within the aggregate resources allocated by the university to and research and other funds raised by it, and maintain undergraduate and graduate programs that conform to common university guidelines and objectives.

York University (2009). Anticipating its 50th Anniversary (in 2009) YU commenced some vears previous an examination of its Faculty structure because "...it is becoming increasingly clear that current structures no longer serve us as well as they could or should"²⁰. YU had already established a Faculty of Health (2006) which "... saw the movement to that Faculty of the School of Nursing and the School of Health Policy and Management (from Atkinson), the School of Kinesiology and Health Science (from Arts and Science and Engineering), and the Departments of Psychology (from Arts and Atkinson), with the consolidation of the Departments of Psychology into a single unit"²¹. Following a similar review process, "... on July 1, 2009, York University launched the new Faculty of Liberal Arts & Professional Studies (LA&PS), combining the strengths of the former Atkinson Faculty of Liberal & Professional Studies and the Faculty of Arts"²².

Comment: Both restructuring exercises addressed mega-issues of duplication, which are not issues at Ryerson. More interestingly, the Faculty of Health clearly flags YUs current and planned intentions in the health/medicine area. The Faculty of LA&PS now offers an extensive range of programs in the social sciences, humanities and related professional areas. Of particular interest to RU is that these programs may be structured in many ways: majors, double majors, and major-minor options.

Role of a Faculty Dean²³

Given the focus of the Commission is on Faculties, it may be appropriate at this stage to segue into the role of the Faculty Dean. Given the "... real work of the university is at the level of the classroom, the laboratory, the library, the study....²⁴, a milieu in which Departments are best equipped to judge quality with respect to their subjects, what should

²⁰ York University, Office of the Vice-President (2006) "Discussion Paper: Restructuring on the Keele *campus of York University*", p.1. ²¹ *Ibid*, p.2.

²²York University (2009) "Overview of York University Restructuring of the Faculty of Arts and Atkinson Faculty of Liberal and Professional Studies". http://www.yorku.ca/laps/

²³ This section is based largely on information provided by Ken Snowdon and Associates.

²⁴ Smith, David C., (1985) The Mission of the University, Queen's University (quoted in Snowdon, Ken (2009), op. cit.).

be the role of the Faculty Dean. What is expected of a Dean and of Faculty "administration"? What are the responsibilities and how might future developments affect the capacity of the existing structures?

The role of the Faculty office (and the Dean) varies considerably from one institution to another and, in some cases, within the same institution. While Faculties may share some common elements such as adhering to institutional policies set by or approved by governance bodies (Senate, Boards) there are considerable variations that emanate from the fundamental differences in institutional management philosophy.

In some institutions, Faculty Deans are seen as an integral part of the executive team and expected to wear both institutional and sectoral 'hats' (this would appear to be the case at Ryerson). In other institutions the Dean is first and foremost a sectoral champion – often asked for advice but not necessarily part of the formal decision-making apparatus (a lobbyist, if you like). In other institutions the role of Faculty Dean is more akin to middle management – implementing policies or decisions that emanate from elsewhere (Senate, Board, collective agreements) – but having little to do with decision-making and planning.

In universities where emphasis is placed on decentralization, the role of the Dean and Faculty office takes on greater importance and responsibility, which in turn increases the level of complexity. In a more centralized institution many of the key issues may be decided centrally (e.g. enrolment targets, admission standards, budget trade-offs, fundraising priorities) and the Faculty/Division role is oriented towards 'administration' in a narrower sense. A few excerpts from recent recruitment advertisements and posted job descriptions may help illustrate the rather different set of expectations and duties associated with being a Faculty Dean.

- **Queen's University**: The (Dean) will champion a compelling vision for the Faculty; support academic programming; oversee the Faculty's related financial, administrative and operational planning needs; be an advocate and champion; ensure its (the Faculty's) continued growth and success; and build relationships
- **University of Waterloo**: The Dean will develop and maintain the Faculty as a worldclass centre of excellence and prominence.
- **University of Ottawa**: The Dean is the titular head of the Faculty whose main functions are determined by the dual role as Chair of Faculty Council and Chief Executive Officer of the Faculty....responsible first and foremost as an academic for excellence in teaching and research but also for the overall management of the Faculty. Today's Dean is also deeply involved in public relations and fund-raising while at the same time maintaining traditional roles related to protocol and diplomacy.
- And, from the **University of Missouri**, an ultimate job description spells it out: Deans are involved centrally in issues including strategic planning, budget, curriculum, facilities, and research. Moreover, they are key participants in external relations

including fund raising, alumni relations, economic development, political priorities (federal and state) and public relations. Deans are expected to support and promote the highest quality educational programs, research, public service, and economic development activities of their respective colleges and schools. Each Dean must be an effective advocate for his/her college, both within the University and externally. Deans have ultimate accountability for their colleges' sound management of resources: fiscal, facilities, and human. They are responsible for collegiate planning, including alignment of plans for educational, research, and other activities in their colleges.

The Deans have direct responsibility for: engaging faculty, staff, and students in discussions of all important collegiate issues and assuring a positive, high-quality working environment; convening strategic intellectual discussions about future academic directions of departments, centers, programs, and the college itself; advocating for the College, especially by joining the university-wide processes in strategic planning, budget, facilities planning, and political action, to position the College favorably in the University's broader planning; raising private funds for scholarships, professorships, programs, facilities, and other College needs, normally spending 40% of his/her time on such activities; playing a key oversight role in accreditation, program review, and other processes that are important for continuous improvement of the College's activities; engaging with the Deans' Council in key discussions of institutional planning, policy, political action, and other key activities, in so doing representing the College's interests effectively; hiring highly effective chairs, directors, staff and others who are direct reports, doing their performance evaluations, and assuring their accountability for high-level performance in areas appropriate to their positions; and, assuring coordination of all components of the Collegedepartments, centers, academic programs (including undergraduate, graduate, and professional), economic development activities, public service, and other activities of the unit.

The preceding underscores key differences in the role of Deans and the role of Faculties/Divisions in university administration. Differences in the *expected* role will have some bearing on organization structure. At Ryerson, Faculty Deans are regarded as an important part of the senior management structure. The role is evolving to encompass direct responsibility for key administrative responsibilities (e.g. integrated planning and financial management, quality assurance and enhancement). In particular, Faculty Deans are deeply entwined in the realities of a complex and formal labor relations environment. At the same time Deans are expected to be more 'external' than in the past – building partnerships, increasing profile, and helping to secure private and/or public sector monies. Effectiveness in such a complex role speaks to Faculty size and structure.

MACRO INTER-UNIVERSITY COMPARATORS

At an early stage in its deliberations Commission members compiled information on the number of Faculties and Departments in universities in a similar size range (undergraduate and graduate headcounts) simply to see how Ryerson compared²⁵.

The selected comparator universities in Figure 2 are located in Canada, the United States, and Australia (full names in Appendix B). There is, of course, no 'law' which says that a university of a given size normally has a particular number of Faculties. Ryerson, however, appears to be on the low side with respect to the number of its Faculties. Ryerson would not be out of place if it had as many as eight Faculties, and at 33,000 headcount as many as ten Faculties would not be unusual

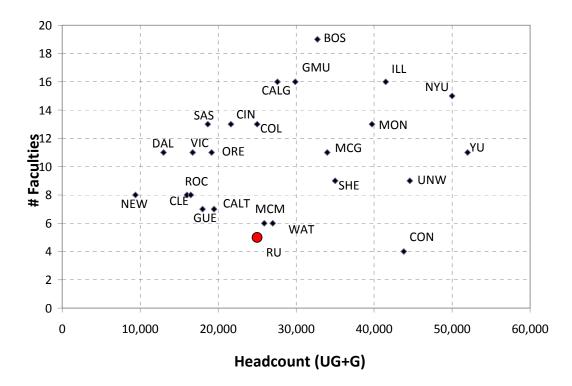
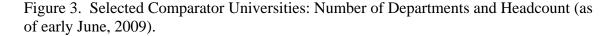
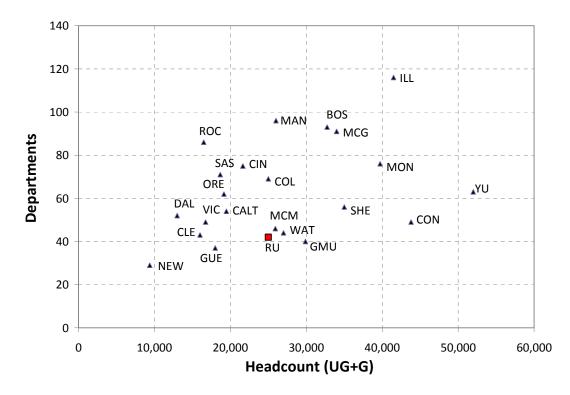


Figure 2. Selected Comparator Universities: Number of Faculties and Headcount (as of early June, 2009).

²⁵ The Commission members did this through an examination of the information on university web-sites, which itself became an item of interest. University web-sites vary enormously – some are almost impossible to navigate. In general, there are two types of sites. One type focuses on programs, because most users of web sites are seeking information of that type. In these, one has to click around to find Faculties and Departments. The other kind places Faculties up-front, which leads, after a click or two, to Departments and programs. Ryerson's web-site is of this second kind – reasonably navigable, but programs are not up-front.

In general, Ryerson also appears to have fewer Departments for its size than other comparable universities (Figure 3). This, however, is in process of change as the Ted Rogers School of Management is instituting a greater level of departmentalization. The one element that is clear is that Ryerson is not over-departmentalized, and if it were to grow to 33,000 headcount even 60 departments would not be out of place.





The collected data permits some analysis of the number of Departments in Faculties. Information in Figure 4 indicates that the range is quite wide. For example, thirty-four Faculties in the selected group of universities are single 'costing units' consisting of one Department; 15 of the Faculties include nine Departments; and five Faculties, all in Canadian universities, involve 26-50 Departments. The average number of Departments per Faculty for all universities is eight. An interesting point, given the nature of some of the new Faculties proposed by attendees in the first two Town Halls, is that 37% of the Departments in the data-set are in Faculties consisting of four Departments or less.

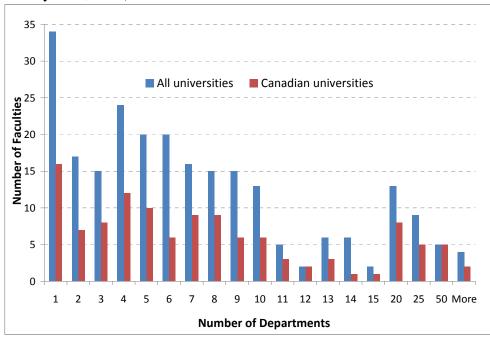


Figure 4. Selected Comparator Universities: The Number of Departments in Faculties (as of early June, 2009)

AN INSTITUTIONAL PROFILE

The listings in Appendix C emphasize that it is programs (undergraduate and graduate) which attract students who are the *raison d'être* of the University. This mission generates base revenue, which, along with income of other types, covers the costs of operating the University²⁶. In Ontario, a summary unit for analysis of the base component of this revenue is the BIU (or basic income unit), which essentially conflates grant (from MTCU) and tuition revenue. This part of the analysis uses data for undergraduate programs only because graduate student enrolment is not currently expressed in BIU terms²⁷.

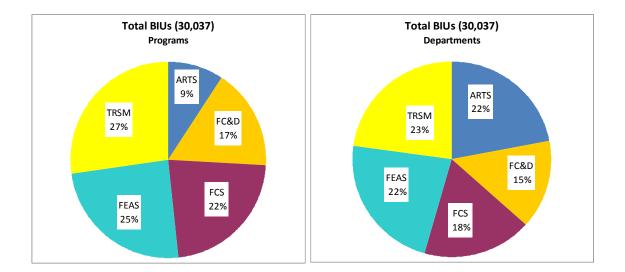


Figure 5 Programs generate BIUs. The teaching is provided by instructors located in Departments in Faculties (2007/8)

The 'programs' side of the pie in Figure 5 may thus be interpreted as the current Faculty locations of the programs in the university that generate the 'business', and the Departments side of the diagram the Faculty locations wherein the teaching is done. The picture that the pies provide is not unusual as a 'university' is a composite of complementary parts each of which 'depends' directly or indirectly on elements of the

²⁶ The other main types include: one time only (OTO) funds from MTCU, research and contracts, and gifts. For RU, it is the base revenue that is by far the most important. For a general overview of the University budget see: <u>http://www.ryerson.ca/about/governors/documents/Handbook</u>, and look at Financial Statements.

²⁷ The data for this section is obtained from: UPO (2008) *Decision Support Indicators and Data* (Ryerson University: University Planning Office, December, 2008). Graduate program data is included later in the scan.

whole. Thus, the four Faculties in which the professional and 'quasi-professional' programs are located may have programs in which 91% of the BIUs are registered for degrees, but 22% of the aggregate teaching (or the consumption of BIUs) is undertaken in the Faculty of Arts. This also illustrates the impact of the tripartite model, and the need for delicacy in its reconsideration. The Arts percentage is changing as more programs are developed within the Faculty, and in partnership with others.

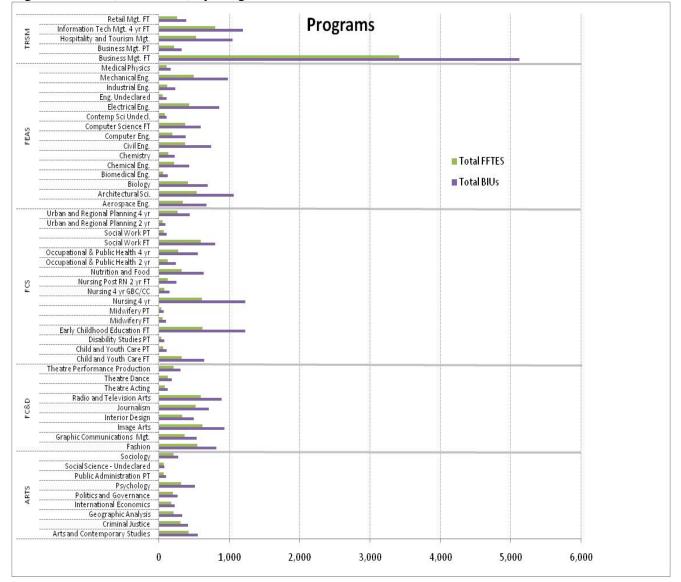


Figure 6. BIUs (and FFTEs) by Program

This information²⁸ may be disaggregated by program (Figure 6), and Department (Figure 7). In the examination of this data, it must be noted that student enrolment in programs is planned, it is not a 'free' market. Thus many programs of limited planned enrolment have large application/admission ratios, with concomitant high admission

²⁸ One FFTE = one (fiscal) full-time equivalent student.

averages. Nevertheless, although the list of undergraduate programs is long, 60% of the BIUs are associated with the 14 largest programs. An interesting feature of Figure 7 is that even if Business Management, which is in process of departmentalization, is excluded, the range in Department size, as measured by instructional BIUs, is quite wide. 68% of the Departments lie in size between 250 and 870 BIUs, with a mean (and median) of 560 BIUs.

	RETAIL MGT	-	1			Depar	tments	
2	INFORMATION TECHNOLOGY MGT					ocpui		
i	НОЅРІТАЦТУ МІСТ							
	BUSINESS MGT			_				
	PHYSICS							
	MECHANICALENG				ĺ			
	MATHEMATICS							
	INDUSTRIAL ENG	<u>-</u>						
	ELECENG		' İ	İ	ĺ		i i	
	COMPUTER SCIENCE							
	CIVILENG							
	CHEMICAL ENG							
	CHEMISTRY & BIOLOGY		-				Total FFTEs	
	ARCHITECTURE AEROSPACE ENG		= i		ĺ		Total BIUs	
	URBAN PLANNING						Total Blos	
	SOCIAL WORK							
	OCCUPATIONAL & PUBLIC HEALTH							
	NUTRITION							
	NURSING							
	MIDWIFERY		1					
	EARLY CHILDHOOD EDUCATION		_					
	DISABILITY STUDIES		-					
CO⊩	MMUNITY SERVICES INTERDISCIPLINARY STUDIES COURSES	E						
	CHILD & YOUTH CARE		<u> </u>		i			
	THEATRE							
	RADIO & TV ARTS							
	JOURNALISM		i		İ			
<u>} </u>	INTERIOR DESIGN							
	IMAGE ARTS							
	GRAPHIC COMMUNICATION MGT							
	FASHION							
	PROFESSIONAL COMMUNICATION S		1					
	SOCIOLOGY		-		I			
	PSYCHOLOGY							
	POLITICS							
	PHILOSOPHY							
	JUSTICE STUDIES							
<u> </u>	HISTORY							
t	GEOGRAPHY							
	FRENCH / SPANISH	<u> </u>						
	ENGLISH							
	ECONOMICS							
	ARTS & CONTEMPORARY STUDIES							
	ARTS INTERDISCIPLINARY STUDIES COURSES	-	_					
		D		2,000	3.0	00 4,0	00 5,000	

Figure 7. BIUs (and FFTEs) by Department

A Current Faculty/Department Scan

The following scan is based on teaching resources in Faculties and Departments, as measured by RFA appointments, to which are added CUPE resources²⁹. The largest is

²⁹ UPO (2008) *Decision Support Indicators and Data* (Ryerson University: University Planning Office, December, 2008), Table of "RFA and CUPE Counts" p. 2.11. The following formula is used by UPO with respect to CUPE resources. 1FTE = 15 ACH over two semesters for sessional CUPE, and 16 ACHs over two semesters for PT.

FEAS, and the smallest TRSM (Figure 8), which seems slightly incongruent with Figure 5. But, this data does not include graduate studies and externally funded research, which are prominent activities in FEAS. The average size of a Faculty is 195 RFA+CUPE.

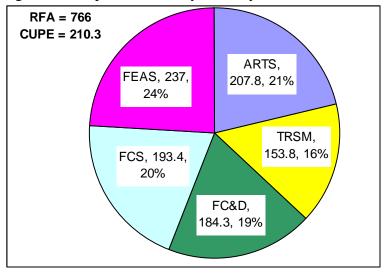


Figure 8. Comparative Faculty Size: By RFA+CUPE Resources (2007/8)

The Faculty of Arts has been the fastest growing Faculty during the current decade, reflecting the impact of the double cohort. It is a Faculty of the humanities and social sciences (Fig. 9), which is adding to its liberal studies role degree programs in most of the disciplines based on 'common platforms'; and in graduate studies disciplinary and multidisciplinary programs through to the doctoral level. The Departments herein will undoubtedly play a key role in the future expansion of the University as applications are strong, program choice increasing, and curriculum design becoming more flexible.

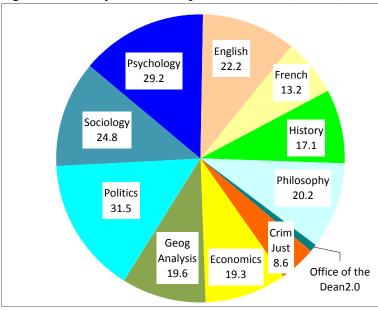
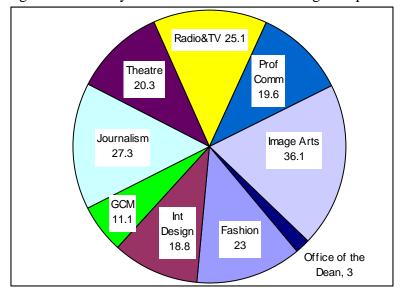
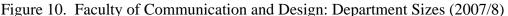


Figure 9. Faculty of Arts: Department Sizes (2007/8)

That Faculty of Communication and Design is generally regarded as including a group of programs in the 'design' area (Fashion, Interior Design, and Graphic Communications Management), with the rest in the broad area of 'communication' in its many manifestations (Figure 10). Graduate programs are available in five areas, and doctoral work through the interdisciplinary, multi-Faculty, MA/PhD in Communication & Culture. Undergraduate programs are highly 'intentional', with a strong base in studio instruction. A number of the Departments are major forces in the cultural community in Canada. However, this is probably the Faculty about which there is most discussion concerning flexibility, cost effectiveness, and increasing competition from the community college system.





The Faculty of Engineering, Architecture, and Science offers numerous undergraduate programs, and was the first to move aggressively into graduate studies and research. It includes three large Departments – Electrical Engineering, Mechanical and Industrial Engineering, and Architectural Science – and seven smaller (Figure 11). All Departments within FEAS offer graduate programs. There is a 'common platform' supporting the science programs, and there is a common first year in engineering as part of the regular engineering syllabus. The science departments (Physics, Chemistry and Biology, Computer Science, and Mathematics) have argued strongly for a separate Faculty of Science³⁰, and there have also been suggestions for a bifurcation of Chemistry and Biology. If a separate Faculty of Science came about, this would lead to a separate Faculty of Engineering which may include Architectural Science.

³⁰ Evans, C; S. Ferrando, N. George, P. Goldman, D. Heyd and A. Sadeghian (2008) "A Faculty of Science at Ryerson University".

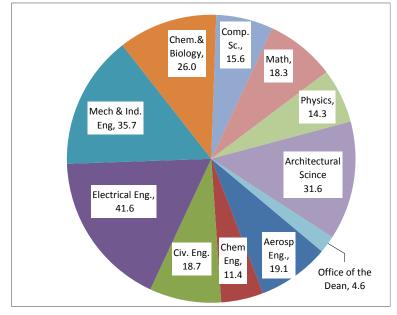


Figure 11. Faculty of Engineering, Architecture, and Science: Department Sizes (2007/8)

The Faculty of Community Services is a much larger descendent of the former Division of Health Sciences, expanded to include various aspects of social services (Figure 12). The undergraduate Nursing program is, by some counts, the largest in Canada. The 'health' component overall involves nearly 60% of the Faculty teaching resources. The 'social service' component includes four loosely related Departments (ECE, C&Y Care, U&R Pl., and SW). There are graduate programs in the four largest Departments, and U&R Planning. The issues here involve the position of Nursing, the possible resurrection of the appellation 'Health' in some form (including more departments than in FCS), incongruence among the 'social service' departments, and limited exploitation of the commonalities that do exist.

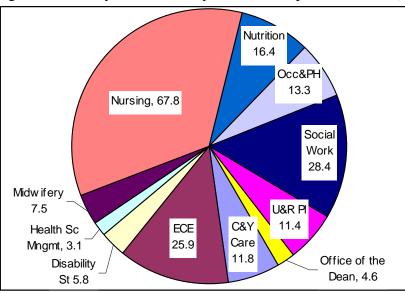


Figure 12. Faculty of Community Services: Department Sizes (2007/8)

The Ted Rogers School of Management is undergoing departmentalization in order to generate greater *ésprit de corps*, particularly with respect to curriculum development and research generation, among its constituent parts. In essence, this is a classic case of subdivision to achieve legitimation and 'branding' at the discipline level (the 'business management' wedge in the right pie is not a Department). The TRSM has a large presence at Ryerson. It currently generates 27% of the BIUs in the University with 16% of the teaching resources. Plainly, it operates on a highly cost efficient pedagogic model. There would, therefore, be a strong likelihood that if the University were to grow, much of the increase in enrolment over current levels in business programs. This would imply a 35% increase in enrolment over current levels in business programs, which immediately raises questions concerning student demand (which is high but cannot be regarded as infinite), faculty availability (qualified business faculty are in short supply), and space. Fortunately (for PASC) these issues, as they currently stand, are not in the bailiwick of academic restructuring.

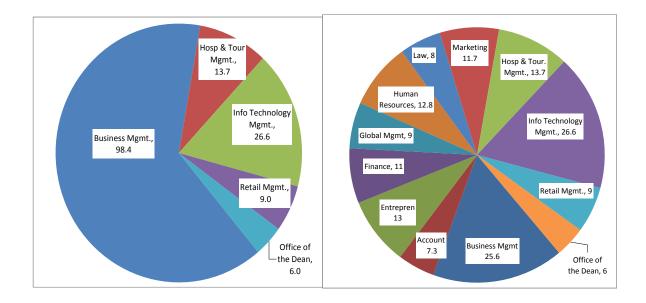


Figure 13. TRSM Departmentalization (as of Sept 2008)

The Demand for Places

Any assessment of the future has to take into account current conditions concerning the demand for places in academic programs, and the costs of providing places in them. There is strong demand, at both the graduate and undergraduate levels, for places in academic programs at Ryerson. At the undergraduate level, Ryerson is now among the top three in aggregate and first choice applications in the Province. Such comparative information is not available at the graduate level, but with almost 5000 applications for

academic year 2009/10, and an overall application/place ratio of 5:1, it is among the Provincial leaders in terms of the strength of graduate applications.

At the undergraduate level, most programs have between 500 and 1000 applications, while the Business Management program has nearly 10,000 (Appendix D). This may look dramatic, but with the TRSM being one of five Faculties its four programs with 22% of total applications is not unexpected. Of interest with respect to future possible expansion is the ratio of applications to target numbers, and the take-up (Figure 14). For example, there are more than 30 applications for each available ('target') space for the 'undeclared Arts' and the Performance-Acting programs. But, it takes 10 offers to achieve one confirmed acceptance (the take-up) in the former, and less than two offers to achieve one confirmed in the latter. Most Ryerson programs generate between five and ten offers per space, and require two to four offers per confirmation.

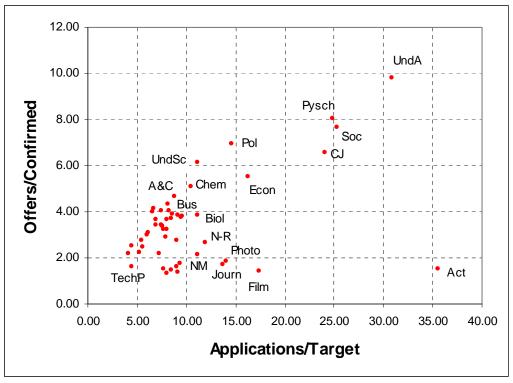


Figure 14 Ryerson: Undergraduate Application Data (August 29, 2008).

The target numbers have, of course, been set incrementally over time in relation to: (i) the historic strength (numbers and quality) of the applications; (ii) the trend in takeups; and, (iii) an estimate of the marginal cost/marginal revenue trade-off with respect to the additional student in a program (conceptually a 'stepped' function in many cases). Thus the P-Acting intake is set at annual ensembles of 26 due much to current space and instructional constraints, while the 'undeclared Arts' intake is set at 60 (as compared with a feasible target of 120) due much to perceived 'undeclared' vagaries (in which programs will students seek to major?). Furthermore, the targets have to be consistent with an overall objective of maintenance of a 'comprehensive' university. The targets can, therefore, be viewed as summaries of the three influences.

SUMMARY: MATTERS TO BE CONSIDERED IN ACADEMIC RESTRUCTURING

Information in the previous sections leads to the conclusion that there are a variety of considerations (or 'tests') that may be considered in a restructuring exercise. These may not necessarily lead to the same conclusions concerning Faculty formations, and certainly are not all applicable in all possible cases. These considerations may be summarized as relating to: legacy, congruency, legitimacy, quality, 'branding' and strategic opportunities, administrative and operational efficiency, financial viability, growth and opportunities, interdisciplinary activities, single discipline professional activities, and acceptability.

Legacy: There is no doubt that Ryerson has a lengthy and successful tradition of strong, accountable, and responsible administration through its five-Faculty structure. If the ensuing 'tests' indicate that little or no restructuring should occur with respect to a particular Faculty, then none will be suggested. This is entirely consistent with the Commission's mandate, which is to prepare a Report on "... possible reorganization of some parts of the University".

Congruency or "Fit": A Faculty should include departments that are as congruent as possible. This does not imply sameness. Rather, it requires some shared assumptions and/or practices among Departments regarding things such as: prerequisites and important student skills; pedagogic structures; current and possible future teaching and research; and necessary facilities. There may or may not be any particular one (or set) of these shared by all Departments in a Faculty; overlapping threads of such assumptions and practices generally suffice. Further, such "fit" is not always clearly in favor of locating a Department uniquely in a particular Faculty.

Legitimacy: Following from the congruency principle, a Faculty should adequately represent through its leadership and designation its current and possible future foci of teaching and inquiry. Does the Faculty name and structure adequately reflect the congruent departments therein? Clarity is required.

Quality of Programs: Given Ryerson's unique concentration in professional and quasiprofessional areas, this consideration addresses the quality issue particularly in context of general Provincial standards (through OCGS and UPRAC), but also various professional bodies (particularly those with regulatory obligations covered by Provincial or Federal statute). The 'tests' are whether the Faculty would be able to focus properly on maintaining and enhancing quality among its constituent parts.

'Branding' and Strategic Opportunities: Given increasing Governmental 'shaping' (primarily through fiscal means) of post-secondary education and research, it is becoming increasingly important that what a university does be highly visible to the external (and internal) community. The 'test' question in this case is whether a Department is in a Faculty which reveals adequately the true import of what it is doing, thereby increasing the possibility of emphasizing its immediate relevance to new opportunities as they arise.

Administrative and Operational Efficiency: This is in many ways linked to congruence and size of Faculty. It is easier for Chairs and Deans to do their jobs if Faculties are of reasonable size, and Departments are intellectually congruent. Huge Faculties (such as traditional Faculties of Arts & Science) are invariably subdivided for administrative purposes into congruent groups, with many Associate and Assistant Deans. The 'tests', therefore, are whether a Faculty is too big (perhaps 8 Departments, ±4, would be about right), or too disparate; or, on the other hand, include sufficient RFA+CUPE instruction resources to warrant necessary Faculty-based support services. A Faculty of Science, for example, would currently include about 75 RFA+CUPE instruction equivalents (compare with Figure 8).

Financial Viability: The important issue is that all Faculties implement modes of operation, particularly on the instructional side, that encourage financial efficiency and flexibility. The 'test' question in this case, therefore, becomes whether a new or restructured Faculty would be more likely to add to financial efficiency and academic flexibility, and not impoverish those existing. At Ryerson, a good part of increased financial efficiency can be achieved by re-organizing academic programs through some form of common first and (perhaps) second year courses.

Growth and Opportunities: While the potential for another phase of growth in student numbers at both the undergraduate and graduate levels is on the horizon, any Faculty restructuring that may be proposed is not predicated upon it. Furthermore, opportunities of various kinds occur that are not associated with significant growth. Faculties and Departments organized to take advantage of such situations in a financially viable manner will be in a favorable position. The general 'test' question would be whether any Faculty restructuring leaves Ryerson as a whole better positioned to take advantage of a variety of opportunities that may arise.

Interdisciplinary Activities: Ryerson is not the only university in which faculty members and students appear to want more interdisciplinary programs. Equally, all universities find them difficult to design, implement, and manage in a Department based environment. There are few real interdisciplinary programs at the undergraduate level at Ryerson. The three highly successful interdisciplinary programs at the graduate level provide clear *economic incentives* for cooperation. Would Faculties consisting of more congruent disciplines foster greater within-Faculty interdisciplinary work? Should a Faculty (or School) of Interdisciplinary Studies be established to develop cross-Faculty interdisciplinary work at the undergraduate level? What kinds of economic incentives should be required?

Single-Discipline Professional Faculties: One of the reasons some 'traditional' universities have many Faculties is that single-discipline professional areas (such as Social Work), particularly those subject to Provincial regulations (such as Education or Nursing), are often designated as Faculties. Questions related to separate Faculty status include: is a single-discipline area too 'large' to be included with other much smaller

Departments in a Faculty; and, does such a Department's professional obligations require sufficiently different administrative and/or pedagogic structures?

Acceptability: Previous decisions at Ryerson concerning Faculty restructuring have not involved as much community involvement as the current exercise. Any outcome will have to be acceptable to the community at large. Unfortunately, whatever restructuring happens, there may be knock-on effects. One or more Departments may have to make a Faculty location decision that it might prefer not to contemplate. The point is that Departments as they are constructed will still exist (unless sub-groups within Departments suggest change), and Departmental based programs will remain the norm. While the Commission contemplates alternative scenarios, it will have to keep in mind the question of acceptability, and undoubtedly it will be front and centre in the minds of the Provost, Senate, and Board of Governors.

TIMELINE: RYERSON (from 1948 to 2008)

The following timeline is a list of significant dates in the history of Ryerson gleaned from a variety of primary and secondary sources held in the Ryerson Archives. Ryerson has a complex sixty-year history. While we had tried to ensure the accuracy of the information, there may be discrepancies. As well, due to time constraints and the vast number of resources held in the Ryerson Archives, we cannot guarantee the comprehensiveness of the events listed.

1948

Ryerson Institute of Technology founded to provide post-secondary education in a variety of technical and trade occupations through the following schools: School of Architectural Draughting, School of Barbering (dropped in 1949), School of Business, School of Cosmetology (dropped in 1949), School of Electronics, School of Fashion Crafts (changed to School of Costume Design in 1949), School of Graphic Arts, School of Jewellery and Horology, School of Furniture Crafts, School of Photography, School of Welding Fabrication.

1948-1955

Ryerson concentrates on two and three year programs for technician education, business studies and applied arts. Trades training is transferred to other institutions (1952). Program in Jewellery and Horology discontinued.

Howard Kerr is Principal. Sets up a Faculty Council, which includes the directors of schools and heads of departments, but makes most of the decisions himself. Faculty Council becomes Academic Council in 1971. Kerr directs almost every detail in the founding period at Ryerson.

Courses and programs often change content in mid-year. Some programs suddenly shift from two year to three year programs.

Not many new programs introduced in the 1950's, although Aeronautical and Gas Technology Programs introduced in 1957. Most programs continue to move from two to three years in length.

Service Departments introduced in 1951/52: Social Sciences, English, Mathematics, Physical Education.

1962

Ryerson still operating under an obscure 1934 act regarding technical schools. Some of what it does is illegal under the Act. Kerr formally applies for separate governance for Ryerson, with its own board of governors.

Kerr establishes committee recommending a name change to Ryerson Polytechncial Institute.

1964

The 1964 Ryerson Act creates the autonomous **Ryerson Polytechnic Institute** with its own board of governors.

The Institute is to provide courses of study in any branch of technology, business or commerce. Ryerson is to provide courses of study sponsored jointly with provincial departments, industry, commerce, or with other educational institutions.

1965

Applied Arts, Communications, and Health Services – New groupings added to calendar.

1966

"Ryerson Polytechnical Institute Review of Organization Structure". January, 1966. Woods, Gordon & Co. Management Consultants. 45 pages, plus appendices.

Report is authorized by Principal H. H. Kerr. Conclusions of the report were developed from extensive interviews with people directly or indirectly connected with Ryerson, the Consultants' experiences in other similar institutions and a limited study of the literature on the subject.

The organizational plan suggested in the report "is not a great deal different than the present structure." The consultants stress changes in emphasis on the way things are done within the organization structure.

Primary recommendations:

- Establish clear objectives, policies and planning in every field
- Present objectives as to the size of the student body, standards of admission, level of courses, and physical facilities should be made known to the staff and the public.
- Ryerson should strive for a closer relationship with industry in developing new courses and improving the content of existing courses.

- Review the extension program of night courses
- Clarification of policy in other fields
- Administrative Organization
 - Change the responsibilities of the Principal with retention of direct control of physical planning and public relations activities
 - Appoint a Vice-Principal to direct all teaching and ancillary activities including the Registrar's office and the Library
 - Appoint a Director of Administrative Services to consolidate and direct all business and administrative services.

1968

"The Ryerson Philosophy: Changes at Ryerson" F.C. Jorgenson, President

"Jorgenson consulted widely both inside and outside Ryerson and came up with a series of ideas for Ryerson's future. The document recommends dropping obsolete courses, upgrading existing ones, adding post-graduate courses, increasing credit courses at night, and integrating day and night courses into a total education package to provide greater flexibility for the needs of employed students. The document also hints at the idea of offering degrees." (Stagg, R. Serving Society's Needs: A History of Ryerson Polytechnic University.) <u>http://www.ryerson.ca/archives/images/stagg1.pdf</u>

Academic "Divisions" are created:

ARTS DIVISION (Interior Design, Journalism, RTA, Photographic Arts, Graphic Arts Management, Home Economics, Social Services, English, Physical Education, Diploma in Arts.)

BUSINESS DIVISION (Business Administration, Secretarial Science)

TECHNOLOGY DIVISION (Architectural Technology, Laboratory Sciences, Chemical and Metallurgical Technology, Civil Technology, Electrical Technology, Mechanical Technology)

HEALTH SCIENCES DIVISION (Nursing, Psychiatric Nursing, Public Health Inspection)

1969/70

President Jorgenson forwards a proposal to the Ontario Ministry of Education "that Ryerson specialize and pioneer in highly sophisticated and advanced programs in engineering technologies, business, arts, health sciences, environmental studies, and emerging disciplines. "He recommends that the programs include (1) diploma programs at least three years in length, (2) post-diploma programs which that lead to specialist, advanced and master certificates, diplomas and degrees, (3) four-year degree programs.

Jorgenson leaves Ryerson.

APPLIED ARTS DIVISION FORMED. Arts Division now stands alone, offering a Diploma in Arts.

Ryerson's five new Divisions:

ARTS (Diploma in Arts)

APPLIED ARTS (Interior Design, Journalism, RTA, Photographic Arts, Graphic Arts Management, Home Economics, Library Arts (new program)

BUSINESS (Business Administration, Secretarial Science)

TECHNOLOGY (Aerospace Technology, Architectural Technology, Chemical Technology, Civil Technology, Computer Science Minor, Electrical Technology, Industrial Engineering Technology, Laboratory Sciences, Mechanical Engineering Technology, Metallurgical Engineering, Physics Technology, Survey Technology, Mathematics and Physics Department.)

COMMUNITY SERVICES (Nursing, Psychiatric Nursing, Public Health Inspection, Social Services)

1970

"Ryerson's Role in the Future of Ontario Education" Study. President Donald Mordell pilots a request for the authority to grant degrees through the Wright Commission on Post-Secondary Education in Ontario. Also recommends that the Ryerson's name be changed to Ryerson Polytechnic University.

1971

Ryerson becomes a degree-granting institution. Authorized to grant Bachelor of Applied Arts and Bachelor of Technology degrees in addition to certificates and diplomas through passage of Bill 97. Existing programs are upgraded in order to grant degrees. A year is usually added to the existing diploma program.

Diploma in Theatre Arts introduced.

Community Services Division created (formerly Health Sciences Division) through transfer of three hospital nursing schools to Ryerson. Include Public Health Inspection and Social Services.

Degree programs in Business Administration, Early Childhood Education, Secretarial Science and Home Economics approved by Academic Council.

Faculty Council becomes Academic Council.

1972

Departmental Councils plan approved. Departmental Councils develop and recommend policy relevant to the department as it related to the general policy of the Institute. These smaller versions of Academic Council are composed of faculty and students.

1972/1973

The following programs begin granting degrees: Journalism, Radio and Television Arts, Interior Design, Business Management, Hotel Management, Secretarial Science, Geodetic Sciences, Electrical Engineering Technology, Construction Management, Urban Planning, Mechanical Engineering Technology, Social Services, Early Childhood Education.

It is announced at the September 18, 1973 meeting of Academic Council that Ryerson's Academic Administrators would undertake a review of the Institution's aims and objectives as a needed service to Council and the Ryerson Community. The review, prepared by the administrators is released in September 1974 under the title: "Proposed Aims, Goals and Objectives for Ryerson".

Academic Council approves the proposal for the implementation of a degree program in Applied Geography.

1975

The Report of the Vice President's Academic's Committee on Part-Time Studies is released. The report recommends that a Division of Evening Studies headed by an academic dean be established. (Academic Council Minutes, February 4, 1975.)

1977

Academic Council passes a motion allowing a department to offer courses not related to its professional subjects, but offered by other departments. Additions to curriculum of new or existing general courses will be administered by the Dean of Arts and a committee of advisors. This committee defines and recommends to Academic Council general courses which should be included in a department's curriculum.

The policy **"Liberal Studies in Polytechnic Education: Development of a Tripartite Curriculum Structure"** (Academic Standards Committee Report #23) is approved on February 1st, 1977. The policy states that all programs should contain an appropriate balance among the following categories of study:

Professional Studies: Studies that induce functional competence by presenting the knowledge and developing the skills characteristic of current practice in the career field.

Professionally-Related Studies: Studies that develop an understanding of the theoretical disciplines upon which the career field is based, or which synthesize the diverse elements of professional study.

Liberal Studies: Studies that develop the capacity to understand and appraise the social and cultural context in which the graduate will work as a professional and live as an educated citizen.

Academic Council approves a report calling for a greater variety of liberal studies courses at its Feb. 11 meeting. (ACADEMIC STANDARDS COMMITTEE REPORT, Jim Packham.)

Ryerson begins to establish a process for reviewing and assessing its programs of studies, as recommended by the Ontario Council of University Affairs.

The Evening Studies Division is renamed the Continuing Education Division at the May 3rd meeting of Academic Council.

New proposal for a Public Administration certificate program in works.

1979

The Ontario Ministry of Education grants Ryerson the right to establish the validity of its own programs. The decision means that independent evaluation committees will be appointed by the president to determine whether a particular program is worthy of degree or diploma status. This is an important step toward establishing realistic funding levels. Academic Council will decide the academic excellence of the programs. "We ourselves will determine the validity and needed funding of our programs". (President Walter Pitman). The evaluation committees which are to investigate and report on each program may be composed of five independent people from industries connected with the programs and several people from other fields. Eye, March 8, 1979. File History/General 1979.

Four departments propose name changes:

Hotel, Restaurant and Institutional Administration ightarrow Hospitality and Tourism

Secretary Science Department \rightarrow Secretarial and Administrative Studies (AC approval 9/2/79)

Urban Planning \rightarrow Urban and Regional Planning

Chemical and Metallurgical Technology Department ightarrow places call for name suggestions

Council approves degrees in Computer Science, Nursing and Environmental Health.

1981

Ryerson Course Calendar no longer lists programs by division (Applied Arts, Arts, Business, Community Services, Technology). Now lists programs only, along with Academic Service Departments (BTC, Economics, English, Geography, History, Mathematics/Physics/Computer Science, Philosophy, Physical Health Education, Politics, Psychology and Sociology). Practice continues until 2005.

Ministry of Education under Bette Stephenson freezes all new degree programs until the government has a chance to respond to the report of the Committee on the Future Roles of Universities in Ontario. At Ryerson, Fashion and Landscape Architecture programs are stalled.

1982

Academic Council adopts Program Balance Guidelines. All courses within a program to be designated as professional, professionally-related or liberal studies. Academic Council to be final arbiter where designations are in dispute.

1982/83

Ryerson's Divisions renamed "Faculties".

1984

Fashion and Applied Economics degree programs approved by Academic Council.

1986

Minimum set for liberal studies. Policy approved by Academic Council. Ryerson students to take a minimum number of liberal studies courses –generally one per semester—to graduate with a degree or diploma. Requirements will be introduced in 1988.

1988

Certificate in Telecommunications Management through the School of Office and Administrative Studies approved.

1990

Minor in Public Administration and an extension of pilot projects for minors in Human Settlements and Health Promotion approved by Academic Council.

New certificate programs in Facility Management (Business), and Purchasing approved.

1991

Long-Term Care Administration, Project Cost Management and Family Life Education programs approved by Academic Council

Aerospace Engineering and Chemical Engineering Degrees approved by Ministry of Colleges and Universities.

New programs in Canadian Studies (CE) and Environmental Management (CE) approved by Academic Council.

The two-volume document, "Ryerson's Case for University Status" submitted to the Ontario Council on University Affairs (June).

Journalism begins its first year of a four year program.

School of Environmental Health introduces new option in Occupational Health and Safety. Only such degree in Canada.

1992

Certificate in Public Relations approved (Radio and Television Arts).

1993

Ryerson is granted University Status.

Midwifery Program begins.

1994

Four year degree in Dance, new program in Justice Studies is approved.

A degree designation for Nursing ---Bachelor of Applied Arts (Nursing) changed to Bachelor of Science in Nursing (BScN)—is approved.

1995

Major curriculum restructuring occurs to accommodate budget cutbacks.

Nursing: Reduces number of courses in program from 49 to 41

Fashion: Combines two majors to one.

Nutrition, Consumer and Family Studies, Applied Geography and Child and Youth Care reduce course loads.

Film and Photography: To undergo complete restructuring. To Implement common first year.

New Nurse Practitioner program curriculum approved by Academic Council.

Environmental Health and Food, Nutrition and Consumers and Family Studies change their degree designations from Bachelor of Applied Arts to Bachelor of Applied Science.

The Program Review and Evaluation Process (PREP) is replaced by the Periodic Review and Evaluation of Undergraduate Programs (PREUP). The new program review guidelines are adopted following university status. All programs to be reviewed on a cyclical basis with respect to academic quality, societal need and financial viability.

1996

Applied Chemistry and Biology degree changed from Bachelor of Technology to Bachelor of Science.

1997

"Diploma Exits" eliminated in most programs. (Diploma exits allow students who complete three e years of a 4 year program to leave with a diploma. School of Fashion is the only school to retain diploma exit, but will review later in the year.

Film and Photography Department changes its name to School of Image Arts. The degree program, formerly the Photographic Arts Program is renamed the Image Arts Program.

School of Nutrition, Consumer and Family Studies changes name to School of Nutrition.

New liberal studies courses (3) in Caribbean Studies approved

1998

The School of Graduate Studies is established on May 19, 1998.

Graduate degrees in Communication and Culture and Spatial Analysis approved by Academic Council. Communication and Culture will be run with York University and Spatial Analysis with the University of Toronto. **These are Ryerson's first graduate programs.**

New minor in Multimedia implemented in Radio and Television Arts. It is the first minor to be offered to Applied Arts students at Ryerson.

The Planning and Priorities Advisory Committee of Academic Council releases report that states that Ryerson must preserve its traditional values of student-centredness and focus on applied career education while making the transition into the "brave new world" of universities. Report expresses the committee's concern that Ryerson is "drifting into corporate mode". (April 28, Forum.)

Academic Council considers a proposal from the Theatre School to combine its acting and dance diploma programs into one four-year Bachelor of Fine Arts degree—Ryerson's first BFA. (Oct 7, 1998, Eyeopener.)

Degree in Disabilities Studies (Bachelor of Applied Arts) approved by Academic Council.

Department of French changes name to Department of French and Spanish as Ryerson begins offering Spanish courses.

Bachelor of Business Management (BBM) degree changes to Bachelor of Commerce (BComm).

Masters program in Environmental Applied Science and Management approved. It is Ryerson's first independent graduate program.

1999

New Information and Technology Management (ITM) Degree (4 year) established through an amalgamation of the Administration and Information Management (AIM) program and the Business Information Systems (BIS) option of the Business Management degree. The new BComm degree gives Ryerson the distinction of being the only school in Toronto to offer a degree in information technology. ITM school opens in Fall 1999.

School of Health Services Management changes designation of degree from Bachelor of Applied Arts to Bachelor of Health Services Management.

All Applied Computer Science graduates granted the right to replace their Bachelor of Technology degree with the Bachelor of Science designation.

First Bachelor of Arts designation approved. (The International Economics program).

Master's and Doctoral programs in Electrical and Computer Engineering approved by Council for submission to the OCGS.

Prepared for the Provost's Academic Structures Commission - Revised 21/09/2009

2000

eBusiness Minor made available to ITM and Business Management in response to the burgeoning commercial activity on the Internet.

Certificates in Lighting Design (first in Canada), Geotechnology for Teachers approved.

Graduate programs in Engineering approved by OCGS: Masters of Engineering and Masters of Applied Sciences in Chemical, Civil, Electrical and Computer, and Mechanical Engineering.

Council approves degree name changes for Journalism and Image Arts. Journalism will now award a Bachelor of Journalism and Image Arts will award a Bachelor of Fine Arts. (Replacing Bachelor of Applied Arts for both.)

2001

Ryerson adopts a new name: Ryerson University.

School of Public Administration: Two minors approved by Academic Council: Occupational and Public Health and Management of Information Systems.

Computer Engineering becomes a standalone program. Council approves a restructuring of the Electrical and Computer Engineering program to offer two separate programs.

Board of Governors approves a new program "Master of Engineering in Computer Networks". It is a joint initiative of the Department of Electrical and Computer Engineering and the School of Computer Science.

Academic Council approves a proposal to offer Computer Engineering as a separate program.

Landscape Architecture to be phased out due to limited enrolment.

Faculty of Applied Arts changed to "Faculty of Communication and Design". (Approved at Academic Council March 6). It is stated that "Applied Arts" is now identified with the college system in Ontario. As well, the term rarely exists in North America.

Nursing Consortium: School of Nursing integrates degree with George Brown College and Centennial College. College students will complete the final two years of their program at Ryerson to earn a Bachelor of Science (Nursing). Beginning 2005, a nursing degree will be the minimum credential for nurses entering the workforce in Ontario.

2002

Degree designation changes: Urban Planning: Bachelor of Applied Arts in Urban and Regional Planning to Bachelor of Urban and Regional Planning (BURPI). Changes from BAA to BA: Public Administration, Disability Studies, Early Childhood Education. Interior Design degree will be a Bachelor of Interior Design.

Department of Architectural Science and Landscape Architecture renamed as the Department of Architectural Science.

2003

Bachelor of Arts degree program in Gerontology begins in September.

"Learning Together: An Academic Plan for Ryerson University 2003-2008" is released. http://www.ryerson.ca/about/provost/docs_policies/content/LearningTogether.pdf

2004

Board of Governors gives approval to proceed with the implementation of five new graduate programs, including the University's first stand-alone PhD. Master's program in Photographic Preservation and Collections Management, Immigration and Settlement Master's program, PhD programs in Civil, Electrical and Computer, and Mechanical Engineering.

2004/05:

A review of the Tripartite Curriculum is commissioned.

2005

Faculty of Engineering, Architecture and Applied Science changes name to Faculty of Engineering, Architecture and Science (FEAS).

Ryerson Undergraduate Course Calendar begins listing courses by Faculty, replacing "Programs of Study" which has been in place since 1981.

2006

Tripartite Curriculum Review recommendations released: http://www.ryerson.ca/about/provost/docs_policies/tpc.pdf

MBA program begins in September.

Bachelor of Arts in Psychology introduced.

Bachelor of Science in Medical Physics introduced.

2007

Academic Council becomes the Ryerson University Senate through a Ryerson University Act amendment.

Business School changes approved by Senate: Single Management, Entrepreneurship and Strategy Department becomes three separate departments: Entrepreneurship and Strategy; Law and Business; Global Management Studies.

Medical Physics Program (BSc) introduced in FEAS.

2008

Ted Rogers School of Management replaces the Faculty of Business.

Appendix B

Institution	Abbr
University of New South Wales	UNW
Arizona State University	ASU
Boston University	BOS
University of Calgary	CALG
University of Cincinnati	CIN
Cleveland State University	CLE
Colorado State	COL
Concordia University	CON
University of Guelph	GUE
University of Manitoba	MAN
McGill University	MCG
McMaster University	MCM
University of Montreal	MON
New School	NEW
New York University	NYU
Oregon State University	ORE
Rochester Institute of Technology	ROC
University of Saskatchewan	SAS
University of Victoria	VIC
University of Waterloo	WAT
Dalhousie University	DAL
University of Illinois at Urbana-Champaign	ILL
George Mason University	GMU
Ryerson University	RU
Université de Sherbrooke	SHE
York University	YU
California Polytechnic State University, San Luis Obispo	CALT

culty				APPENDIX C
	Department Criminal Justice and Criminology Department	Certificate / Degree Completion	Undergraduate Program Criminal Justice	Graduate Program
			Justice Studies	
	Economics Department	Economics Industrial Organization and Policy	International Economics & Finance	International Economics and Finance (MA/PhD)
		Introductory International Economics		
		Macroeconomic Theory and Policy		
		Microeconomic Theory and Policy Quantitative Economics		
	English Department	English as a Second/Additional Language		Literatures of Modernity (MA)
	French & Spanish Department	Business French and Translation Proficiency in French		
		Proficiency in Spanish		
	Geography Department	Applied Digital Geography and GIS	Geographic Analysis	Spatial Analysis (MSA)
Faculty of Arts	History Department	Applied Digital Geography and GIS, Advanced		
	Philosophy Department			Philosophy (MA)
	Politics & Public Administration Department	(PADP) (PADP)	Politics and Governance Public Administration and Governance	Public Policy and Administration (MA)
	Psychology Department	Mental Health and Addictions	Psychology	Psychology (MA/PhD)
		Psychology		
	Sociology Department Multidisciplinary		Sociology Diploma in Arts	
	Multidisciplinary		Arts & Contemporary Studies	Immigration and Settlement Studies (MA)
	Multidisciplinary Multidisciplinary			Policy Studies (PhD) Env App Sc and Management (MASc/PhD)
	Multidisciplinary			Immigration and Settlement Studies (MA)
	Multidisciplinary		Undeclared Arts	Communication and Culture (MA/PhD)
	School of Fashion	Fashion Coordination and Styling	Fashion Communication Fashion Design	Fashion (MA)
	School of Graphic Communications Mgmt.	Graphic Communications	Graphic Communication Management	
	School of Image Arts	Photography Studies) Film Studies	Image Arts	Photo Pres and Collections Management (MA)
		Photography Studies		Documentary Media
	School of Interior Design	Fundamentals of Interior Design	Interior Design	
	l	Lighting Design Design Management		
		Facility Management		
	School of Journalism	Public Relations	Journalism	Journalism (MJ)
	<u></u>	Magazine Publishing Publishing		
	Professional Communication Department	Business Communication		Professional Communication (MPC)
	School of Radio and Television	Audio Production Fundamentals Media Writing Fundamentals	Radio & Television Arts	Media Production (MA)
		Television Production Fundamentals		
	Theatre School	Design for Arts and Entertainment	Theatre - Performance Production	
			Theatre - Acting Theatre - Dance	
	Multidisciplinary			Communication and Culture (PhD, MA)
	School of Child and Youth Care	Family Supports Residential Care for Children and Youth	Child and Youth Care	
	School of Disability Studies		Disability Studies	
	School of Early Childhood Education	ECE Degree Completion	Early Childhood Education	Early Childhood Studies (MA)
	School of Health Services Mgmt.	Health Services Management	Health Info Mgmt. Health Services Mgmt.	
	Midwifery Education Program		Midwifery	
•	School of Nursing	Degree Completion (BSc)	Nursing	Nursing (MN)
		Advanced Neuroscience-Stroke Care Leadership and Management for Nurses		
	School of Nutrition	Food Security	Nutrition & Food	Nutrition Communication (MHSc)
	School of Occupational and Public Health	Physical Activity: Assessment and Promotion Advanced Safety Management	Occupational & Public Health	
		Environmental Public Health Leadership		
		Occupational Health and Safety		
	School of Social Work School of Urban and Regional Planning	Canadian Social Work Practice	Social Work Urban & Regional Planning	Social Work (MSW) Urban Development (MPI)
	Multidisciplinary			Env App Sc and Management (MASc/PhD)
	Multidisciplinary			Policy Studies (PhD) Immigration and Settlement Studies (MA)
	Multidisciplinary Multidisciplinary	Fundraising Management		Infinigration and Settlement Studies (MA)
		Gerontology		
	Department of Aerospace Engineering		Aerospace Engineering	Aerospace Engineering (PhD, MASc, MEng)
	Department of Aerospace Engineering Department of Architectural Science	Gerontology	Aerospace Engineering Architectural Science	Aerospace Engineering (PhD, MASc, MEng) Architecture (MArch)
		Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture		
		Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation		
	Department of Architectural Science	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture Architecture, Advanced	Architectural Science	Architecture (MArch) Building Science (MBSc, MASc)
	Department of Architectural Science	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design	Architectural Science	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng)
	Department of Architectural Science	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture Architecture, Advanced	Architectural Science Chemical Engineering Chemistry Biology	Architecture (MArch) Building Science (MBSc, MASc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture Architecture Chemical Analysis Computer Programming Applications Database Technology	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis Chemical Analysis Computer Programming Applications	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture Architecture Chemical Analysis Computer Programming Applications Database Technology	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc)
j	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Computer Engineering	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEn Computer Networks (MASc, MEng) Applied Mathematics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Engineering	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture Architecture Chemical Analysis Computer Programming Applications Database Technology	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Mechanical Engineering	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEn Computer Networks (MASc, MEng)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Computer Engineering Mechanical Engineering Industrial Engineering	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Computer Engineering Mechanical Engineering Industrial Engineering Mechanical Engineering Mechanical Engineering Mechanical Engineering Mechanical Engineering Mechanical Engineering	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Computer Engineering Mechanical Engineering Industrial Engineering	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Sustainability	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Environmental Engineering Science Sustainability Project Management	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Computer Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Sustainability	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Planning	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Planning Financial Management in Canada	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Computer Engineering Mechanical Engineering Mechanical Engineering Mechanical Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship Finance	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Planning Financial Management in Canada Human Resources Management Business Analysis	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Planning Financial Management in Canada Human Resources Management Business Analysis Business Management	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship Finance Human Resources Management	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Planning Financial Management in Canada Human Resources Management Business Analysis	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship Finance Human Resources Management	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary School of Business Management School of Hospitality and Tourism Mgmt.	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Planning Financial Planning Financial Management Business Management International Business Marketing Management	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship Finance Human Resources Management Management Marketing Hospitality and Tourism Mgmt.	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc) Env App Sc Management (MASc/PhD)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary School of Business Management	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Planning Financial Management in Canada Human Resources Management Business Analysis Business Management International Business Marketing Management Database Knowledge and Management	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship Finance Human Resources Management Management Marketing	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary School of Business Management School of Hospitality and Tourism Mgmt.	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Management in Canada Human Resources Management Business Management International Business Marketing Management	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship Finance Human Resources Management Management Marketing Hospitality and Tourism Mgmt.	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc) Env App Sc Management (MASc/PhD)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary School of Business Management School of Hospitality and Tourism Mgmt.	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Sustainability Project Management Accounting - Finance Financial Management Accounting - Finance Financial Management Marketing Management Marketing Management Business Management International Business Marketing Management Information Systems Development Information Systems Management	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship Finance Human Resources Management Management Marketing Hospitality and Tourism Mgmt.	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc) Env App Sc Management (MASc/PhD)
	Department of Architectural Science Department of Chemical Engineering Department of Chemistry and Biology Department of Civil Engineering School of Computer Science Engineering Department of Mathematics Engineering Department of Physics Multidisciplinary Multidisciplinary Multidisciplinary School of Business Management School of Hospitality and Tourism Mgmt.	Gerontology Nonprofit and Voluntary Sector Management Architectural Preservation and Conservation Architecture, Advanced Landscape Design Chemical Analysis Computer Programming Applications Database Technology IBM Mainframe System z Computing Environmental Engineering Science Environmental Engineering Science Financial Management Accounting - Finance Financial Planning Financial Management Business Management International Business Marketing Management Database Knowledge and Management Business Information Systems Development	Architectural Science Chemical Engineering Chemistry Biology Applied Chemistry & Biology Civil Engineering Computer Science Electrical Engineering Mechanical Engineering Industrial Engineering Medical Physics Contemporary Science Biomedical Engineering Accounting Entrepreneurship Finance Human Resources Management Management Marketing Hospitality and Tourism Mgmt.	Architecture (MArch) Building Science (MBSc, MASc) Chemical Engineering (PhD, MASc, MEng) Molecular Science (MSc) Civil Engineering (PhD, MASc, MEng) Computer Science (MSc) Electrical and Computer Eng (PhD, MASc, MEng) Applied Mathematics (MSc) Mechanical Engineering (PhD, MASc, MEng) Biomedical Physics (MSc) Env App Sc Management (MASc/PhD)

					Appe	ndix D
	Applications	Target	Offers	Confirmed		Offers/Conf
Business Management	9778	1018	3868	1013	9.61	3.82
Psychology	3099	125	1062	132	24.79	8.05
Criminal Justice	2412	100	712	108	24.12	6.59
Sociology	2151	85	713	93	25.31	7.67
Journalism	2088	152	258	152	13.74	1.70
Nursing-Ryerson	2050	172	459	172	11.92	2.67
Arts-Undeclared	1851	60	715	73	30.85	9.79
Biology	1733	155	933	152	11.18	6.14
Arts & Contemporary Studies	1674	190	893	192	8.81	4.65
Hospitality & Tourism Mgt	1547	206	716	210	7.51	3.41
International Economics	1461	90	542	98	16.23	5.53
Early Childhood Education	1410	149	562	150	9.46	3.75
Nursing-George Brown	1392	176	527	181	7.91	2.91
Radio and Television	1389	165	244	165	8.42	1.48
Social Work	1361	187	420	193	7.28	2.18
Information Technology Mgt	1350	330	721	330	4.09	2.18
Architectural Science	1336	142	263	151	9.41	1.74
Mechanical	1173	169	615	168	6.94	3.66
Politics & Governance	1093	75	584	84	14.57	6.95
Film Studies	1063	61	94	66	17.43	1.42
Nursing-Centennial	1044	155	658	158	6.74	4.16
Civil	1014	134	466	138	7.57	3.38
Performance-Acting	925	26	40	26	35.58	1.54
Electrical	920	134	465	136	6.87	3.42
Interior Design	919	102	163	102	9.01	1.60
Nutrition and Food	894	111	360	111	8.05	3.24
Retail Mgt	877	104	399	107	8.43	3.73
Computer Science	875	160	447	163	5.47	2.74
Photography Studies	873	62	118	64	14.08	1.84
Graphics Comm Mgt	816	132	411	133	6.18	3.09
Aerospace	786	120	460	115	6.55	4.00
Child & Youth Care	773	86	239	86	8.99	2.78
Fashion-Communication	752	82	113	81	9.17	1.40
Computer	685	80	330	84	8.56	3.93
New Media	677	61	137	64	11.10	2.14
Fashion-Design	646	80	108	81	8.08	1.33
Chemical	539	66	308	71	8.17	4.34
Urban and Regional Plg	538	90	292	98	5.98	2.98
	524	50	255	50	10.48	5.10
Engineering-Undeclared	466	62	250	62	7.52	4.03
Biomedical	450	56	246	67	8.04	3.67
Science-Undeclared	447	40	192	50	11.18	3.84
Geographic Analysis	351	78	230	91	4.50	2.53
Industrial Performance-Dance	322	39	146	36	8.26	4.06
	314	41	63	41	7.66	1.54
Occupational & Public HIth	301	54 62	134	54	5.57	2.48
Performance-Tech Prod	282	63 25	108	66	4.48	1.64
Medical Physics	270	35	136	42	7.71	3.24
Contemporary Science	228	30	112 94	33	7.60	3.39
Occupational HIth & Safety	209	40	94	42	5.23	2.24

Mathematics & Its Appl	183	20	62	16	9.15	3.88
Midwifery	180	17		20	10.59	
	60491	6217	22443	6371	9.73	3.52
Source, UAR August 28, 2008						