

BUSINESS AT WATERLOO PROGRAMS: CURRENT STATE AND FUTURE OPPORTUNITIES

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EXECUTIVE SUMMARY

Business at Waterloo is impressive in its scope and size, representing about one-quarter of our undergraduate students. Our business graduates are well employed in high-paying jobs. Other universities are copying elements of our unique approach (subject-grounded, business-enriched, experientially-strong and entrepreneurially-focused) and threatening our competitive edge.

After one year of deliberations, the Working Group believes we can significantly raise the market visibility of Business at Waterloo, build stronger synergies among undergraduate programs, improve links between business research and our courses, and increase the overall quality of the Business at Waterloo undergraduate experience.

The Working Group recommends three structural initiatives to enhance value for Waterloo's decentralized approach to business education and research:

- *A Waterloo Business Forum* to develop measures to increase quality and visibility of Business at Waterloo, including enhancements to experiential learning, strengthening concentrations of business scholarship, supporting new faculty hires, and guiding undergraduate recruitment;
- *A Waterloo Business Student Hub*, initially conceived to be a virtual center and resource, then to become a physical space that supports Waterloo business students and instructors of business courses; and,
- *A Business Curriculum Committee* to coordinate major business programs, including common business ('BUS') courses among Faculties and to improve operational delivery effectiveness.

The Working Group also concludes that the relationship with Wilfrid Laurier University, including costs associated with business courses and joint program delivery, is appropriate in cost and scope.

With these actions and with Waterloo spirit, we anticipate in the near future that, for Business at Waterloo, we can achieve the recommended vision: "Our students and graduates are recognized as individuals ready to lead and make change. They are differentiated by a deep knowledge of a core discipline that has been integrated with relevant business studies enriched by repeated and relevant workplace experiences, and an ability to make new things happen by engaging in the world entrepreneurially".

1. PURPOSE OF THE UW BUSINESS WORKING GROUP

The Associate Vice-President Academic, Mario Coniglio and the Vice-President Academic and Provost, Ian Orchard, developed terms of reference in consultation with Deans Council in the autumn of 2015 (Appendix 1). The mandate for the UW Business Working Group was stipulated as:

... to critically assess the state of business studies at Waterloo, with the following questions in mind. Does the *status quo* serve us well, or is it time to take the next step as it relates to teaching and learning business at Waterloo? How do we set ourselves apart as a non-traditional business school, while attracting the highest quality students intent on studying business? How can we best leverage existing brand strengths of co-operative education and entrepreneurship to enhance Waterloo as a destination for studying business?

This document is a proposal to address these overarching questions through the establishment of a working group. The immediate goal is to focus on undergraduate studies, although it is expected that the findings of the working group will act as a foundation for future consideration of graduate programs and scholarship in business areas.

The mandate was modified very slightly once the Working Group began, and this report is the outcome of consultations by, and deliberations of, the UW Business Working Group. It is submitted to the Vice-President Academic and Provost, and to the Associate Vice-President Academic, for their consideration and action.

2. THE UW BUSINESS WORKING GROUP: CREATION, MEMBERSHIP AND PROCEDURES

In October 2015, the Vice-President Academic and Provost invited Bruce Mitchell, Professor of Geography and Environmental Management and who retired on 1 November 2015, and Steven Young, Associate Professor in the School of Environment, Enterprise and Development, to co-chair the UW Business Working Group. The intent was to have the group begin its work in January 2016, and submit a report in December 2016.

Regarding membership, one faculty member from each of the six Faculties identified by their Deans, was invited to serve, as well as one representative from each of Cooperative Education, Institutional Analysis and Planning, and the Registrar's Office (Marketing and Undergraduate Recruitment). In addition, a staff member from the office of the Associate Provost, Students, provided support to the working group.

The membership was: (1) Applied Health Sciences (Katie Misener, preceded by Mark Havitz in January - February 2016), (2) Arts (Emanuel Carvalho), (3) Engineering (Howard Armitage, with Mark Weber as alternate), (4) Environment (Steven Young, and co-chair), (5) Mathematics (Peter Forsyth), (6) Science (Jean Richardson), (7) Co-operative Education (Rocco Fondacaro), (8) Institutional Analysis and Planning (Allan Starr), (9) Registrar (Marketing, Tina Roberts and Adam Geml), support staff (Victoria Lehmann), and co-chair (Bruce Mitchell).

The expectation was for Faculty representatives to reach out and consult with appropriate colleagues in their respective Faculties, including the Affiliated and Federated Institutions (Conrad Grebel, Renison, St. Jerome's, St. Paul's) and satellite campus (Stratford: Global Business and Digital Arts) whose relevant programs were included within those of the Faculty of Arts.

Faculty representatives were asked to, and did, keep their respective Deans updated on the progress of the Working Group. Various individuals from UW departments were invited to attend meetings to share their views and some others submitted written comments.

The two co-chairs reported on a regular basis to the Associate Vice-President Academic and the Vice-President Academic and Provost, and on 25 May 2016 they provided a progress report to Deans Council which generated helpful observations and suggestions.

The Working Group met 18 times. The first meeting was on 5 January 2016, followed by subsequent meetings at 3 week intervals until July, after which, beginning in September, meetings occurred every 2 weeks. The last meeting took place on 16 January 2017.

3. FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

In this section, the Working Group provides findings, conclusions and recommendations with reference to each mandate item. Several mandate items are discussed together, and when that happens they are identified at the beginning of the relevant section. Recommendations are highlighted (underlined and italicized) throughout the report, and the highest priority recommendations are noted in the Executive Summary and in Section 5.5.

3.1 Breadth and Scope of Business Studies at the UW

The mandate for the Working Group, dated 25 November 2015, stated that: "Over 5,000 undergraduate students currently study business at the University of Waterloo – that is approximately 1 in 6 of Waterloo's 30,600 full- and part-time undergraduate students." Based on data provided by Institutional Analysis and Planning (IAP), and given the Working Group's definition of "business programs" (see Section 3.1.1 below, and Appendix 2), the Working Group documented that, in 2015/16, 7,569 undergraduates were enrolled in Business at Waterloo programs (majors, minors/options), which represented 23.6% of

full- and part-time undergraduates in that academic year (Appendix 3). In contrast, in the 2010/11 academic year, 6,079 students, or 21.1%, were enrolled in Business at Waterloo programs (Figures 1 and 2). In 2015/16, 1,156 international students, or 15.3%, of all international students were enrolled in Business at Waterloo programs, compared to 651, or 10.7%, in 2010/11. In 2015/16, 3,935, or 52%, female students were enrolled in Business at Waterloo programs, compared to 3,003, or 49.4%, in 2010/11.

Figure 1

Undergraduate Enrolment in Business Majors/Minors/Options

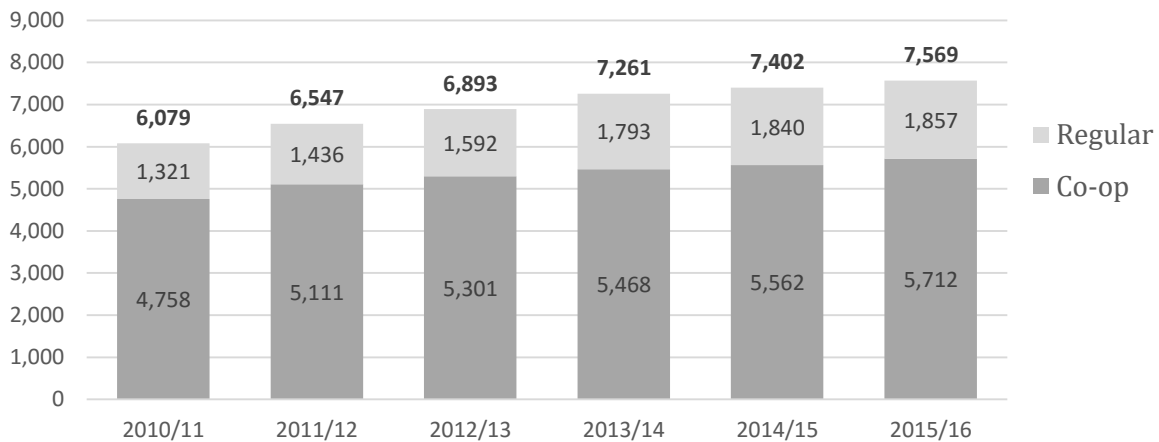
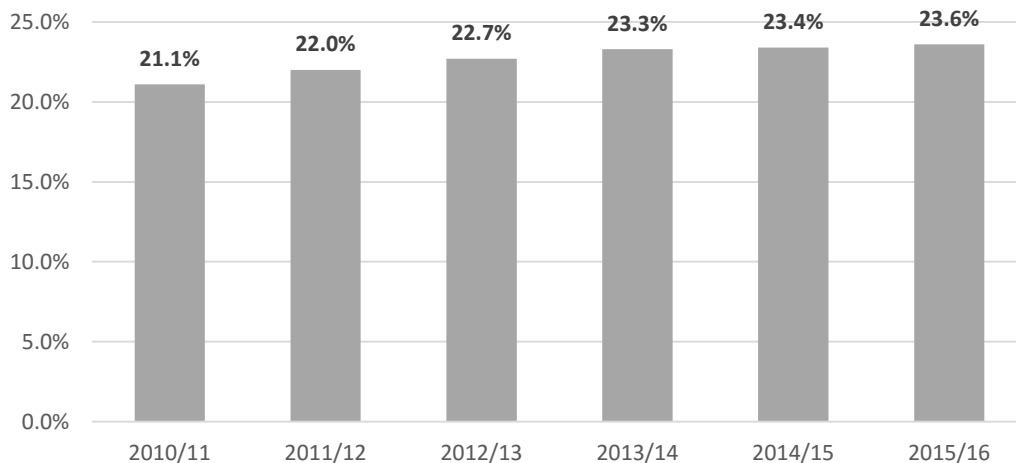


Figure 2

Business Enrolment as Proportion of Total



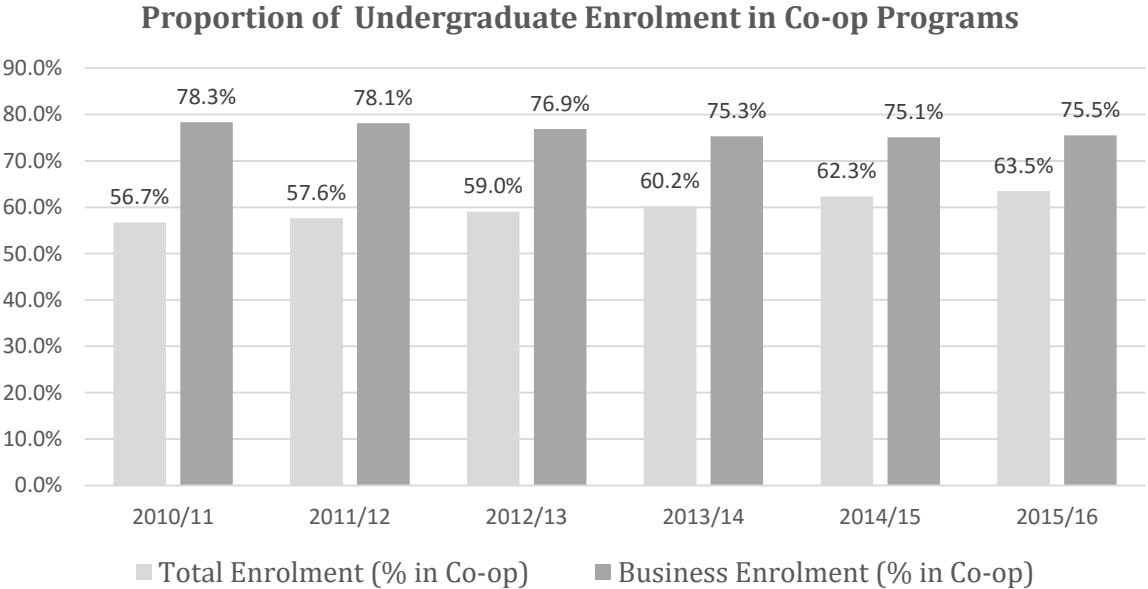
3.1.1 Nature of Business at Waterloo Programs

Academic departments and schools self-selected their programs to be categorized as part of 'Business at Waterloo'. The Working Group then examined the population of programs and deliberated as to how to describe the set. Three types were identified:

1. Accredited programs (Accounting and Finance; Management Engineering) ¹ that are primarily structured to meet external professional accreditation requirements;
2. 'X and Business' programs that are housed in four of the Faculties (AHS, Arts, Environment, Science), which integrate business and management studies with disciplinary subjects;
3. 'Quantitative Business' in the Faculty of Mathematics, which encompasses several computational and analytical business plans, including two double degree programs (BMath at Waterloo with BBA at Wilfrid Laurier University).

Notably, a higher fraction of undergraduate students in business programs at Waterloo are in co-op education plans (Figure 3), 75.5% in 2015/16 compared to 63.5% for all undergraduates in 2015/16. The Working Group notes that all these figures represent a conservative estimate of the size of Business at Waterloo, as some groups of students are not counted. For example, as a result of UW's strategic plan emphasis on entrepreneurship, many students are enrolled in elective business entrepreneurship courses which are not captured in the above count.

Figure 3



Appendix 2 provides a summary of the enrolment in Business at Waterloo programs.

¹ Several other programs, not just Management Engineering and Accounting and Finance support accreditation and/or contribute to credentialization of graduates in professional areas

3.1.2 Employment and Salary Trends

The Ontario University Graduate Survey (OUGS) allows comparisons to be made between students in Business at Waterloo programs and those in other programs at Waterloo. The data for the entire graduate class of 2012 show that 96% of students from undergraduate Business at Waterloo programs were employed two years after graduation. For undergraduates whose Business at Waterloo programs included co-operative education, the percentage employed two years following graduation was just over 97%, while just under 96% of students from non-co-op programs were employed two years after graduating. In contrast, just under 94% of students from non-Business at Waterloo programs were employed after two years following graduation. Figure 4 shows the employment rates of Business at Waterloo students compared to undergraduates from business and commerce programs at other Ontario universities.

Figure 4

Employment Rates Two Years After Graduation - Business & Commerce Programs

Program	Year of Graduation					2012 employed + offered employment
	2008	2009	2010	2011	2012	
Hearst	100.0%	100.0%	100.0%	100.0%	---	---
UOIT	92.7%	97.1%	92.2%	96.6%	98.9%	88
Laurentian	94.4%	97.8%	97.9%	97.2%	98.7%	149
McMaster	93.9%	95.5%	94.1%	94.0%	98.6%	143
Wilfrid Laurier	98.7%	99.1%	97.2%	96.3%	98.3%	292
Brock	95.2%	95.9%	94.4%	97.0%	98.2%	107
Carleton	98.5%	95.3%	96.3%	96.5%	97.1%	133
Ottawa	95.5%	97.4%	97.8%	96.9%	97.1%	238
Guelph	93.7%	94.2%	94.0%	96.5%	96.9%	220
Queens	100.0%	94.2%	96.1%	97.5%	96.7%	88
Western	95.5%	96.0%	97.1%	95.5%	96.3%	285
Province	94.9%	95.6%	94.8%	94.9%	96.1%	3077
Nipissing	100.0%	97.0%	96.7%	94.4%	96.0%	96
Waterloo	96.4%	100.0%	96.6%	98.8%	95.8%	114
Lakehead	88.2%	91.1%	93.3%	95.9%	95.1%	39
Ryerson	94.4%	94.7%	92.8%	93.3%	95.0%	382
York	91.7%	94.2%	93.5%	91.6%	94.9%	263
Algoma	100.0%	84.6%	75.0%	86.7%	94.4%	17
Toronto	95.0%	94.0%	91.7%	94.1%	93.4%	310
Windsor	93.5%	93.5%	94.1%	89.7%	92.1%	82
Trent	100.0%	100.0%	97.0%	92.3%	80.6%	29

Source: MAESD Survey of Undergrad Completers

While there is some difference in employment rates between business and non-business programs at UW, there is a significant difference in the salaries obtained both 6 months and two years after graduation. In 2012, the most recent year of available data, 74% of all undergraduates who completed a Business at Waterloo program earned more than \$40,000 6 months after graduation compared to 58% of graduates from non-Business at Waterloo programs. Furthermore, in 2012, 69% of all undergraduates from Business at Waterloo programs earned more than \$50,000 at 2 years after graduation, compared to 55% of graduates from non-Business at Waterloo programs. A comparable pattern emerges related to 'job relatedness to program of study'. That is, in 2012, 82% of all Business at Waterloo program graduates was employed in jobs related to the subject matter of their program of studies 6 months following graduation, compared to 75% of graduates from non-Business at Waterloo programs. Two years after graduation, the comparable percentages were 85% and 79%.

3.1.3 Conclusions and Recommendations

The Working Group is impressed that a very large number of undergraduate students, whether part- or full-time, are selecting Business at Waterloo undergraduate programs. This is particularly notable given that we do not have a business school in the conventional sense (i.e., a School of Business). Furthermore, the number of undergraduates enrolling in such programs has been increasing steadily.

Based on the above, the University of Waterloo has significant strength in business-focused programs and its students are interested in them because they provide an alternative to those offered by business schools. However, other universities are taking new initiatives related to their business programs. For example, the School of Business at Trent University has just introduced joint majors in Arts or Science with Business, and claims that no other Canadian university offers comparable programs. Initiatives by other Ontario universities to connect business with other subjects, and/or to incorporate cooperative education and entrepreneurship in such programs, are provided in Appendix 4.

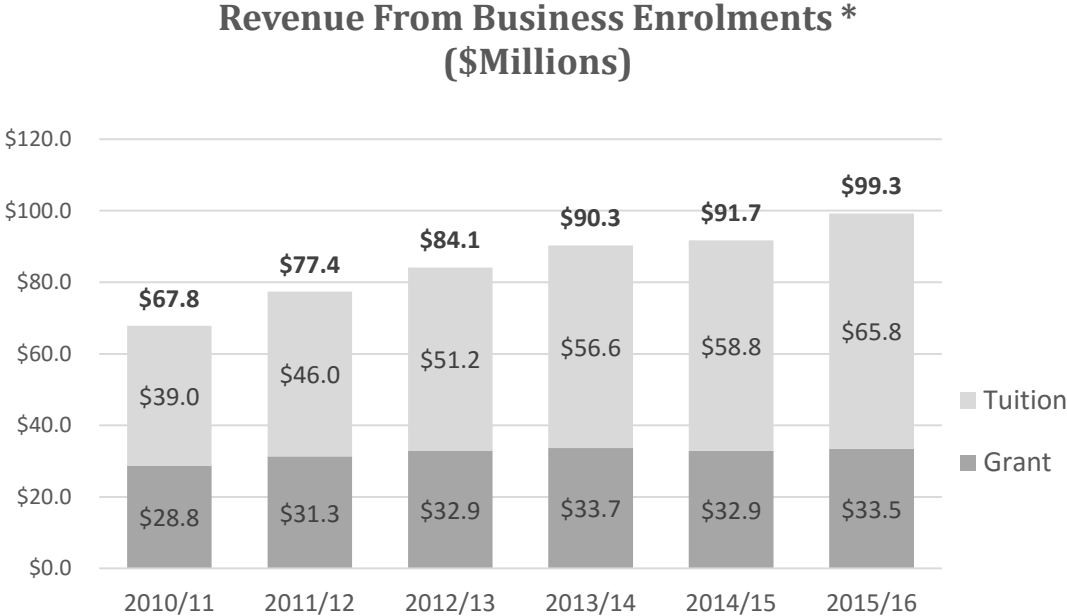
Waterloo's breadth and depth of business programs is impressive, and important across all six Faculties, as measured by student numbers and quality, but also often under-recognized by prospective students. Furthermore, while Waterloo has been a leader in connecting disciplinary-based programs with business studies, the Working Group recognizes that the status quo will not continue to differentiate Business at Waterloo's programs to the extent it has up to now. The same observation applies to both cooperative education and entrepreneurial opportunities in Business at Waterloo programs, given these also have been or are being developed at other Ontario universities. Thus, *the Working Group recommends that the Forum (discussed in Section 3.8.1) continually review our Business at Waterloo programs and their competitors, and strive for continual improvement as we move forward.* Specific recommendations in this regard are provided in Section 3.8.

3.2 Financial Implications of Business at Waterloo Programs, including from Partnership with Wilfrid Laurier University for Business Courses and Joint Degrees

3.2.1 Overall Financial Implications of Business Programs at Waterloo

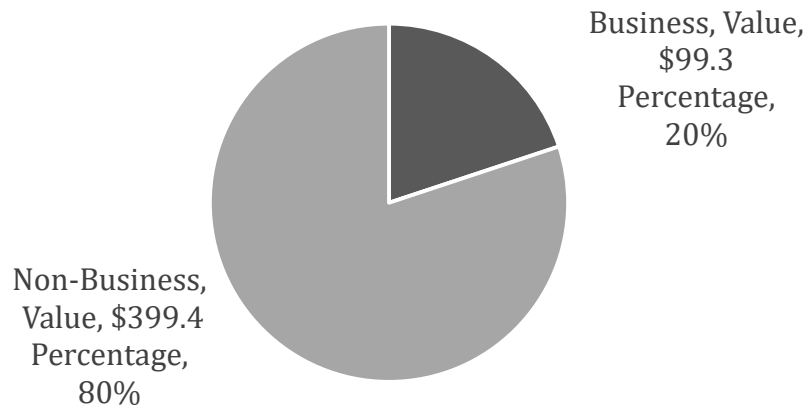
In terms of overall financial implications of Business at Waterloo programs, Appendix 5.1 provides financial details related to such programs by Faculty and for the university as a whole. In terms of tuition and grant revenue, for the Business at Waterloo programs in 2015/16, the total revenue for UW related to business programs, including three affiliated and federated institutions, totaled \$99.27 million, or 19.9% of the total UW revenue of \$498.74 million (Figures 5a and b). Comparable figures for the 2010/11 academic year were \$67.79 million (18.4%) and \$368.05 million. In terms of the six Faculties, the tuition and grant income from Business at Waterloo programs in 2015/16 ranged from \$41.33 million for Arts to \$1.04 million for Applied Health Sciences. The Working Group concludes that the Business at Waterloo programs generate significant revenue for UW and its Faculties, highlighting that investment in strategic initiatives to strengthen them deserves consideration. More specifics regarding such investment are presented later in this report.

Figures 5a and b



* Includes primary majors only (excludes minors and options)

UW Grant and Tuition Revenues (\$Millions)



3.2.2 Financial Implications of UW students taking Business Courses at Wilfrid Laurier University (WLU)

With reference to the financial implications of students at UW taking business courses at WLU, and vice versa, the Working Group notes that WLU's Lazaridis School of Business and Economics, which offers degrees in business (BBA), economics (BA), Business Technology Management (BBTA), and Masters of Business Administration (MBA), creates opportunities for collaboration between the two institutions. Business courses and research expertise at WLU are accessible to both UW programs and students. And, as already mentioned, the Faculty of Mathematics offers several joint degrees (BMath and BBA) with WLU.

The Working Group documented the number of UW students enrolled in business courses at WLU (Appendix 5.2). In 2015/16, UW transferred \$810,000 to WLU for our students taking courses there. Comparable transfers were \$1.52 million in 2014/15, \$1.09 million in 2013, and \$1.15 million in 2010/11. Relative to the size of Waterloo, the Working Group believes that the cost of UW students being able to enroll in business courses at WLU is reasonable, especially given the benefits to our students in taking specialized upper-year courses in WLU's Lazaridis School of Business and Economics.

3.2.3 Conclusions and Recommendations

Given the above findings and conclusion, the Working Group recommends that IAP, on behalf of the Forum (discussed below), annually monitor the number of UW students taking business courses at WLU and the financial implications. Another consideration is to continue our relationship with WLU with respect to those students pursuing joint BBA degrees but also to invest more resources at UW to permit other students in Business at Waterloo programs to obtain their business studies requirements on the UW campus. Specific recommendations are provided in Section 3.5.4.

3.3 Philosophies and Core Educational Objectives, with Possibility of a Common/ Shared Vision, and the Manner in which UW differs from Traditional Business Schools

Normally, a business school education requires students to take a mix of introductory business courses to become familiar with the breadth and scope of business. Subsequently, students typically focus on a subset of fundamental business expertise, such as accounting, economics, operations, strategy, marketing and sales, and human resources. On completion of their business degrees, students have both a broad perspective on concepts, methods and skills expected in business, as well as depth in selected aspects of business. A downside, however, is that students in business schools often lack other disciplinary knowledge upon which to link or apply their business knowledge.

3.3.1 The Waterloo Way for Business Education

A different approach to business-focused programs exists at the University of Waterloo. At present, each Faculty has its own business education plan. The common view is that students develop expertise in a discipline but also take a prescribed set of business courses, and are usually enrolled in the co-operative education program. Such an approach allows students to pursue their interest or passion for a discipline, but also to obtain understanding of business theories, concepts, methods and techniques, and, for many, to be able to apply them in real-world settings during co-op work terms and throughout their courses. Each dimension adds value to the others. A strength of the Business at Waterloo programs is that each Faculty has determined which mix of business courses makes the best complement for its students. Specialized and integrated courses exist within each plan, especially in upper year and capstone courses. Such an approach provides flexibility and custom-designed programs.

3.3.2 A Vision for Business at Waterloo

While the Waterloo way for business education has existed for many years, one of the mandates for the Working Group was to articulate a shared vision for Business at Waterloo. In that regard, *the Working Group recommends the following vision:*

Our students and graduates are recognized as individuals ready to lead and make change. They are differentiated by a deep knowledge of a core discipline that has been integrated with relevant business studies enriched by repeated and relevant workplace experiences, and an ability to make new things happen by engaging in the world entrepreneurially.

This vision is achieved through the following core mechanisms:

1. Purposeful integration of business studies embedded in, and informed by, a primary discipline.

2. A distinctly entrepreneurial approach to significant business and enterprise innovation problems.
3. Experiential learning opportunities, gained through co-operative education work term experience, as well as from applied projects, capstone projects, living-learning-making labs and other transformative education experiences.
4. Fostering complementary student experience that enhances communication, team building, critical thinking, problem solving and leadership skills.
5. Education initiatives supported by a community of scholars engaged in leading-edge business-related research.

3.3.3 Desirable Attributes for Students enrolled in Business at Waterloo Programs

The Working Group also believes that a set of core educational objectives for Business at Waterloo undergraduate programs, along with other core objectives specific to Faculty programs, are highly desirable. In particular, such educational objectives would clarify the learning expectations for students both for their discipline and business-related courses as well as for co-operative work term and entrepreneurial experiences. In that context, *the Working Group recommends the following as a set of desired attributes for students graduating from our Business at Waterloo undergraduate programs.*

1. *Discipline/business learning:*

- *be informed by a core discipline*
- *be knowledgeable about business principles*
- *be able to implement core business approaches*
- *reflect high professional standards*
- *reflect critical thinking when identifying and assessing situations*
- *champion social responsibility of business, including sustainability*

2. *Work experiential learning and entrepreneurship:*

- *function effectively in team settings*
- *understand leadership concepts and skills*
- *communicate effectively and professionally*
- *uphold ethical behaviour and approaches to management*
- *accommodate quickly to an organization's culture, norms and behaviours*
- *embrace an entrepreneurial perspective*

Note: "Entrepreneurial" is meant in a broad sense here. Entrepreneurial graduates can "make new things happen" – whether that is a start-up or a new enterprise within an existing organization.

3.3.4 Current Challenges

The Working Group identified several challenges related to our collective business efforts on campus. Most significant is the lack of visibility of multiple programs embedded across multiple Faculties. A pressing operational challenge is that efficiencies are not always being achieved due to different Faculties focusing on their own needs, and not engaging with

other Faculties to determine how they might collaborate in various ways. This leads to other challenges that prevent our business programs from playing a significant role in adding to the desired UW brand. These additional challenges include:

1. Business-related subjects that students include in their business programs may be limited to subjects covered at an introductory level.
2. The strengths gained by considerable diversity of content, assignments, resources, instructors and approaches to curriculum design may lead to inconsistent quality of offerings.
3. Despite strong reputational strengths in many business areas, a decentralized approach to choosing instructors, subject and content matter results in a loss of potential system-wide efficiencies.
4. No standard, consistent course names or defined number of business courses (required or elective) exists for programs included under Business at Waterloo.

3.3.5 Conclusions and Recommendations

Given the proposed university-wide vision for Business at Waterloo programs, *the Working Group recommends that each Faculty or program develop an explicit vision to highlight the distinctive features of its business-focused programs. Such visions would help to guide initiatives in individual programs, and also help Marketing and Undergraduate Recruitment in its promotion of all Business at Waterloo programs. Once the UW and Faculty visions are prepared and endorsed, senior officers of the University of Waterloo and the Deans of the six Faculties should identify existing or potential clusters of excellence of business-focused undergraduate courses and scholarship, and determine initiatives to achieve and sustain excellence in them.*

3.4 Merits of Developing a Common Core of Business Courses and Expected Learning Outcomes

As noted in Section 3.3 above, individual Faculties run their own business programs. The Working Group deliberated on the idea of a common set of business courses, and agreed that this is desirable for one category of programs under Business at Waterloo.

For the subset of numerous programs covered under 'X and Business', the Working Group completed a curriculum mapping exercise to identify business courses required. It is apparent that sometimes one or more of the same business courses are required by programs in two or more Faculties. The Working Group agreed that synergies and efficiencies, most particularly in subjects for which there are shared courses, should be a key curriculum objective. The intent would be to identify subject areas for which Faculty resources can be shared and UW resources could be applied to benefit the X and Business programs, and most likely serve a wider group of programs in Business at Waterloo more generally.

Most broadly, the Working Group urges Faculties to regularly examine their required business courses to determine if all the courses in the set are contemporary and relevant. Moreover, important aspects of business, such as entrepreneurship, marketing/sales, leadership/followership, data analytics and sustainable development, should be considered by programs to be incorporated into their curricula.

3.4.1 Conclusions and Recommendations

Given the above considerations, *the Working Group recommends that an ongoing Business Curriculum Committee be established, composed of the heads of programs delivering undergraduate major degrees (X and Business, and Quantitative Business). This committee should be tasked to find synergies and efficiencies in course offerings, with the target of defining a common standard of business subjects delivered by X and Business.* The committee would be encouraged to reach out to service units and departments that contribute to the delivery of their undergraduate education programs to develop such courses. More detail is provided about such a Curriculum Committee in Section 3.8.3.

3.5 Where Business Scholarship occurs at the UW, and How to Encourage and Support such Scholarship consistent with UW's Strategic Goals

Business-focused research is also a critical strength of the scholarship platform at the University of Waterloo. The decentralized model that we have developed means that research is distributed across the university. The Working Group also observes that much of Waterloo's business scholarship (1) informs disciplines, and (2) in turn is enriched by disciplines. A common approach involves faculty integrating disciplinary and business expertise in their research.

3.5.1 Current Ranking related to Research in Business

Data from the Library and IAP examined by the Working Group show that Waterloo's business scholarship occurs in every Faculty. Furthermore, the quality of the published research is high, with business-focused research at Waterloo often being ranked well above that of other Canadian universities with business schools (Appendix 6). According to Maclean's rankings of business programs in Canadian universities released in October 2016, Waterloo was ranked 11th in Canada for business, compared to 8th in the previous year. According to the Maclean's analysis, in 2016, Waterloo was ranked 4th in publications, 7th in citations, and 9th in research reputation for its business research relative to other Canadian universities. In the QS rankings for 2016, Waterloo ranked 9th in both Business and Management, and in Accounting & Finance, among its Canadian peers (Appendix 6).

3.5.2 Aspiration for Enhanced Business Research at Waterloo

The rankings noted in Section 3.5.1 are impressive, given that they place Waterloo ahead of numerous other Canadian universities that have formal Schools of Business. However, the Working Group believes the University of Waterloo should aspire to a higher standing for our business-related research. In that context, the Working Group recommends that an aspirational goal of steadily moving up in the rankings relative to other Canadian universities be sought.

To facilitate achieving the enhanced ranking, the Working Group recommends that UW strategically invest through adding full-time faculty to our Business at Waterloo programs. We have the advantage of approaching researchable business issues in our differentiable 'Waterloo way'. For example, scholarship conducted at Waterloo exhibits unique strengths in quantitative business, sports business, sustainability management, entrepreneurship and management of technology – just some examples of current research leadership at Waterloo. With added resources, the opportunity exists for Waterloo to build an even stronger record of such research and be ranked higher in the country regarding its business reputation. If that were achieved, it would position the University of Waterloo well to enhance graduate programs focused on themes or aspects of business which advance Waterloo's advantage.

The Working Group believes that business scholarship can be further strengthened, and the university's reputation enhanced, by focusing on selected aspects of business research for which Waterloo already has an advantage, and systematically adding tenured faculty positions in targeted areas. To achieve that end, Faculty Deans should be asked to work with relevant colleagues to develop recommendations about which aspects of business-related research should be strengthened, with particular attention to benefits that would arise if more collaboration occurred across Faculties.

Business at Waterloo graduate programs were not identified as one of the mandate items for the Working Group, but they are mentioned here because the Group believes such programs should be an integral part of research capacity at Waterloo. This matter is discussed further in Section 4.

3.5.3 Connecting Research to Teaching in Undergraduate Programs

The Working Group believes that several key initiatives are needed if the benefits of enhanced business scholarship are to be achieved. First, by highlighting and linking nodes of existing researchers on campus, benefits should accrue through increased interaction among business-focused scholars already at the University of Waterloo. Second, as noted above, attracting and hiring individuals comfortable with the Waterloo approach to business education will enhance both our teaching strengths and research reputation. Third, the Working Group recommends that UW should ensure that faculty engaged in business research also actively participate in teaching courses in the Business at Waterloo undergraduate programs. The Working Group believes that, on the one hand, a significant portion of business and management research at Waterloo is being conducted by scholars

who do not teach undergraduates in Business programs; and, on the other hand, a significant proportion of teaching in undergraduate Business at Waterloo programs is done by lecturers, sessional lecturers or continuing lecturers not in a position to pursue much research. Thus, an important goal should be to ensure that enhanced Business at Waterloo scholarship be accompanied by a parallel initiative to ensure that research faculty are engaged as active teachers in the undergraduate Business at Waterloo programs.

3.5.4 Conclusions and Recommendations

The University of Waterloo research related to business is significant, and is recognized externally (Appendix 6). Thus, a foundation exists to aim even higher in terms of Business at Waterloo scholarship. As a first step to enhance the foundation for such scholarship, *the Working Group recommends creating an inventory of scholars at UW who do business-focused research.* Numerous advantages could emerge from such an initiative. For example, the list could be used to promote guest lectures or workshops related to business issues. Also, such a list could be used to help determine opportunities for such faculty to become more involved in undergraduate teaching.

Consequently, *the Working Group recommends that additional talent and expertise in the form of tenure-track faculty with specialist knowledge in business fields be hired to enhance existing scholarly nodes and teaching capacity in UW Faculties.* Such new, incremental faculty would:

1. Offer a valuable resource for UW's collective Business at Waterloo programs
2. Enable some students, who otherwise may not, be able to complete their business courses entirely at Waterloo
3. Facilitate interdisciplinary exchange and innovation among faculty and students in Business at Waterloo programs
4. Support business research communities that are essential for an enhanced sense of purpose, continuity, generation of new ideas and approaches, and experimentation and evaluation

Decisions are needed regarding which Business at Waterloo research foci should be expanded and strengthened, and in which Faculties new hires would be based. Such decisions would be needed once agreement was reached to make such new, incremental strategic investments.

3.6 Potential Market Opportunities to Brand Waterloo as an Alternative Approach to Business Education

Until relatively recently, the approach to Business at Waterloo programs was distinctly different from other universities' business programs. As already highlighted, Business at Waterloo programs offer first-year entry into a discipline-specific business program, many include co-op, and also provide opportunities for entrepreneurship (e.g., entrepreneurship minor or option, Velocity).

However, at the same time, the difference among programs creates challenges from a marketing perspective. Specifically, the breadth and depth of business studies at Waterloo is not clearly visible to some prospective students interested in Business at Waterloo programs. MUR has observed from in-person conversations with students at the Ontario University Fair (OUF) and on-campus events, as well as reports from liaison officers returning from a season of travel, that Business at Waterloo's programs are sometimes overlooked. Some students have commented as they pass by the Waterloo OUF booth ("No point stopping at Waterloo's booth because they don't have business") or at on-campus recruitment events, ("I've applied for business at WLU because Waterloo does not have business") (Appendix 7). Furthermore, business schools at other universities have begun emulating aspects of Waterloo's approach to business, by also combining business with other areas of study, offering experiential learning opportunities, and focusing on entrepreneurship, as previously discussed in Section 3.1.3, and highlighted in Appendix 4.

In addition, 2015 non-confirm survey results regarding some of our Business at Waterloo programs highlight the programs that students chose if they declined a business-focused program at Waterloo (Appendix 8). Those data indicate that a significant proportion of students who declined one of the Business at Waterloo programs selected a business program at another university (e.g., Business Administration, Commerce, Management, Accounting), or an academic major at another university similar to the one applied to at Waterloo (e.g., applicant declines Arts and Business) and chooses an Arts program (e.g., Political Science, Psychology, Communication) at another university.

An enhanced promotions initiative was undertaken by Marketing and Undergraduate Recruitment (MUR) for the 2016 OUF. This included two '+Business' pillars added to the UW booth and trained boothers speaking to students/parents interested in business. A two-step approach was used. The first step involved boothers sharing more about 'business at Waterloo' and answering questions. The second step involved guiding students/parents to the appropriate business expert within Faculty pavilions. This initiative resulted in more students/parents stopping at the Waterloo booth, and representatives from two Faculties reported they were kept busy meeting with students/parents interested in learning more about their X and Business programs.

However, MUR staff also reported that it continues to be a challenge in the first step of contact at the Fair to summarize the diversity of Faculty approaches in X and Business Programs. They reported that a 'majority' (upwards of 70%) of visitors at the OUF in September 2016 did not understand our X and Business programs. Questions often heard at this stage included: 'What is the name of the business school?' 'What BBAs does Waterloo offer?' 'What are the first-year common courses for business?'

Despite the above observations and insights, a strong majority of Working Group members conclude UW should continue with the diversity of requirements in X and Business programs because of strengths noted earlier in this report, a point elaborated upon in Sections 3.6.1 and 3.8.1. MUR also has noted that once potential students 'get it' and see the Waterloo way, they are more likely to choose Waterloo and enter our unique programs and

co-op (i.e., confirmation rates are typically high from accepted to confirmed students). A few others in the Working Group suggested a separate visioning exercise to determine if we could do Business at Waterloo programs very differently.

Faculty representatives would like to engage with MUR on an ongoing basis to develop new and alternative ways to present the diversity in Business at Waterloo programs to prospective students and their parents because they believe that many in the pool of students attracted to the UW approach are not in the same pool of prospective students seeking a traditional business program.

In terms of marketing initiatives, during 2010, MUR launched three new viewbooks highlighting our Business at Waterloo via a “business, accounting, and finance” theme. In 2015, when initial statistics were compiled regarding the number of students enrolled in Business at Waterloo programs at Waterloo, MUR enhanced how business is presented and can be searched on <https://uwaterloo.ca/find-out-more/programs>. Recruitment presentations were also rewritten for September 2016, focusing specifically on Waterloo’s strength in Business at Waterloo programs and how we believe they are distinct from other programs. In September 2016, MUR also launched the new business presence at the OUF, already mentioned above.

3.6.1 Conclusions and Recommendations

The diversity of Business at Waterloo programs is both a strength and a challenge. A notable teaching strength is that the Faculty-based X and Business and Quantitative Business programs allow students to combine their interests in a discipline along with gaining experiential understanding related to business and entrepreneurial approaches, methods and experiences. A main challenge is communicating to students and their parents about the nature of such programs, and how they offer a valuable and distinct option to a degree at a School of Business. The biggest challenge in that regard is highlighting the X and Business programs, for which the idea of the central Hub would be beneficial, a matter discussed in Section 3.8.2.

The Working Group recommends that research and conversations continue between MUR and the Faculties to refine marketing initiatives for the Business at Waterloo programs. As dialogue continues with Faculties about Business at Waterloo programs, it is recommended that MUR consider new initiatives, determine appropriate strategies and communicate with potential students. As marketing priorities are established in consultation with the Faculties, attention also will need to be given by the University of Waterloo to incremental human and financial resources needed to enhance communication to students and their parents.

3.7 Opportunities offered by Experiential Education, including Co-operative Education, for Business at Waterloo Programs

As noted in previous sections, experience gained by students through co-operative education enriches most Business at Waterloo programs. Such experience is also a feature

that helps to differentiate Waterloo programs from those in many Schools of Business, and is further enhanced by the reputation of co-operative education at the University of Waterloo. Attesting to the reputational, pedagogical and career advantages of work integrated learning that accrue to Waterloo co-op students, the Working Group concludes that a strong work experiential component should enrich our business-focused programs.

Regarding cooperative education work terms, Faculty representatives on the Working Group believe there is opportunity for the Faculties to work more closely with Co-operative Education and Career Action (CECA) to achieve the highest quality work term experiences for students in Business at Waterloo programs. The motivation for such collaboration is due to comments from Faculty representatives on the Working Group that some students withdraw from Business at Waterloo programs because they conclude that their co-operative education work terms did not provide the type of business experience hoped for or expected.

Other experiential learning experiences can complement the co-op educational program, but the Working Group believes that they will not differentiate Waterloo programs in the same way as co-op will and does. To further enrich and strengthen Waterloo co-op, the university's Co-op 2.0 initiative will improve flexibility and broaden the educational relevance of its co-op programming. One facet of Co-op 2.0 will facilitate specific work-integrated learning (WIL) concentrations in different occupational areas and industry sectors that may include specializations in areas of research, entrepreneurship and business. In addition, Co-op 2.0 will make provisions to build more academy/ industry/ government/ NGO partnerships to enhance business pedagogy and/or facilitate more pathways to facilitate post-graduation career success.

Furthermore, and in line with Waterloo's experiential education strategic imperatives, initiatives are underway to develop or enhance existing high quality, non-co-op experiential programming, including but not limited to group case studies, competitions and simulations, and the new EDGE experiential education certificate program to begin in the fall term 2017. Such initiatives are considered further in Section 3.8.2, and CECA could become a key resource in that regard.

3.7.1 Conclusions and Recommendations

In consideration of the benefits of co-op and experiential education at Waterloo, *the Working Group recommends that: (1) A co-op component be available to students in all Business at Waterloo undergraduate programs, and (2) A supplementary or substitute work experiential component should be mandatory in all Business at Waterloo undergraduate programs in which co-op is not possible or practical for students. Furthermore, the Working Group recommends CECA and the Faculties determine new and more effective ways to collaborate to identify work terms which will provide high quality experiences for Business at Waterloo undergraduates.*

3.8 Value of a Centralized or Decentralized Approach to Business Programs and Value of a UW Umbrella Structure that could contribute to Comprehensiveness of Curricular Offerings, Sharing of Resources, Encouragement of Academic and Research Collaborations, and/or Building a Student Community among the disparate Business-Focused Programs

Regarding Mandate #7 (Appendix 1), the Working Group has chosen to use the term 'decentralized' in place of 'diffusion', and 'centralized' in place of 'concentration', because it believes those words better characterize what was intended.

The current Business at Waterloo program offerings represent many years of deliberations and actions in and by each of the Faculties, reflecting a decentralized approach to business scholarship and in developing Business at Waterloo programs. However, benefits also can be realized from a centralized approach, especially to avoid inappropriate duplication or inefficiencies in developing or organizing key courses for students in different Business at Waterloo programs.

Thus, given that each of centralized and decentralized approaches has benefits and limitations, *the Working Group recommends that UW continue supporting an approach to Business at Waterloo programs weighed toward decentralization.* This approach will most strongly support the value of disciplinary-based business education, substantially maintain our differentiation in the university marketplace, and stimulate enthusiasm, engagement and commitment in the Faculties regarding their Business at Waterloo programs. However, in order to avoid or minimize inefficiencies and ineffectiveness, some coordinating (not controlling) processes and mechanisms should be developed between and among Business at Waterloo programs and nodes of business scholarship on campus, and those are considered further below.

3.8.1 Establish a Waterloo Business Forum

*The Working Group concludes, and recommends, that advantages could be realized by establishing a **Waterloo Business Forum** whose primary role and task would be to identify and examine opportunities for collaboration and support of business programs and scholarship at the University of Waterloo.* The general aim is to develop measures that will increase quality and visibility of Business at Waterloo. Such a group would have a faculty representative from each of the six Faculties, a representative from each of CECA, IAP, and MUR (Registrar's Office), and undergraduate and graduate student representatives. The outcome of its deliberations would include suggestions or recommendations to the six Faculties and/or to specific Business at Waterloo programs. It would be supported with resources from the University and the Faculties. Essential characteristics of the Forum should be collaboration, cooperation and communication regarding education, research, student success and engagement with alumni.

The ultimate purpose of the Forum should be to facilitate inter-Faculty and inter-Business at Waterloo program deliberations to ensure opportunities for collaboration are identified and considered, to raise the profile of Business at Waterloo programs, and help create a sharper identity with such programs for their current students. Thus, the Forum is not a Steering Committee, given that the latter implies an ultimate decision-making authority for all Business at Waterloo academic programs and initiatives. A good example of such a Forum elsewhere on campus is the Co-operative Education Council, which provides 'direction and advice on matters relating to the Professional Development Program' at the University of Waterloo.

Recommended Forum initial tasks include:

1. Support and grow business scholarship and graduate (research) programs through determining desirable new faculty hires, and graduate funding and scholarships
2. Engage with CECA to explore enhancements for experiential learning opportunities for all students, undergraduate and graduate, in Business at Waterloo programs
3. Work with IAP to publish a list of journals specific to business/management rankings, based on a list that contributes to QS and other university or subject-area rankings.
4. Engage with the Waterloo Library to enhance specific business/management resources for education and scholarship
5. Work with MUR to continually advance the visibility of undergraduate business programs, as a whole and separately where necessary

Given that the focus of the Waterloo Business Forum would be enhancement of the academic quality of all Business at Waterloo programs, it is recommended that its Chair should be the Associate Vice-President Academic. That individual would convene and chair regular meetings of the group, facilitate agreement on agendas, be an ongoing liaison among the Forum, the six Faculties and their Deans, relevant support departments, and the Vice-President Academic and Provost, and provide continuity over time. In that regard, the Forum would have roles of deliberation, advising, providing strategic oversight and being an advocate for initiatives developed by, between and among Faculties and Business at Waterloo programs, as well as with MUR.

3.8.2 Establish a Waterloo Business Student Hub

It is further recommended that the Waterloo Business Forum provide the base for a **Waterloo Business Student Hub**, which would serve as a focus for initiatives intended to enrich the experience of Business at Waterloo undergraduate students. The Hub is envisioned initially as a "virtual" centre but the ambition is to develop a physical centre to serve students and support business programs across all Faculties. The Hub could collaborate with and complement other initiatives at the University (for example: Velocity Start, the Problem Lab and the various incubators on campus). It can also work to support Business at Waterloo programs with resources for students and teaching.

Recommended Hub roles and activities include:

1. Most critically, the Hub will provide a beacon on campus that MUR and our Faculties can use to increase the visibility of Business at Waterloo programs to high school students and their parents, and CECA can show to employers
2. Serve as a centre for a mix of educational value-added collaborations among Business at Waterloo programs by coordinating or hosting value-added activities and events such as guest speaker presentations, faculty research presentations, and annual or bi-annual workshops or conferences
3. Serve students by providing space or services for student clubs and associations (Appendix 9). Furthermore, new value could be created by having one club or association that brings together students from multiple Faculties and their Business at Waterloo programs into one group
4. Support cross- or inter-Faculty shared projects for academic credit by fourth-year students, to provide opportunity to learn to work across disciplines and professions

The vision of the Hub is as a resource and touchstone for business students from first-year to graduation.

The Forum would be responsible to identify who would be the manager for the Hub, and what resources would be needed to allow it to function effectively, and make recommendations in that regard to the Associate Vice-President Academic and the Deans.

3.8.3 Establish a Business Curriculum Committee

In addition to the Forum and the Hub, it is recommended that a **Business Curriculum Committee** be established, composed of the heads of programs delivering undergraduate major degrees (X and Business, and Quantitative Business) for Business at Waterloo programs. This committee should be tasked to find synergies and efficiencies in course offerings, with the target of defining a common set of business subjects delivered by X and Business programs, and possibly Quantitative Business. The committee would be encouraged to reach out to service units and departments that contribute to the delivery of their undergraduate education programs to help in development of such courses.

Recommended Business Curriculum Committee specific activities should include:

1. Identifying opportunities for efficiencies through shared courses
2. Identifying potential synergies and resource access across programs, including course scheduling, course naming and numbering, and sequencing of prerequisites in a manner that maximizes both teaching resource and student success
For example, a set of shared business subject courses (i.e., shared by two or more Faculties) should be given a distinct Waterloo business designation (e.g. 'BUS') and their sequencing and scheduling designed to encourage mingling of students from different programs.
3. Considering service teaching between and among programs

4. Enhancing the curriculum with 1-2 shared courses and set electives that define 'Waterloo Business'
5. Including a defined fourth-year project or capstone element unique to the program, but still recognized by the home degree (possibly involving teams of students from a mix of Faculties)

4. FUTURE OPPORTUNITIES NEEDING ATTENTION

As noted in subsection 3.5.2, regarding enhanced business-related research, development of additional relevant graduate programs should be an integral component of initiatives to enhance research capacity. Thus, the Working Group recommends that the Business Curriculum Committee should give high priority to identifying potential for new graduate programs as well as to enhancing existing graduate programs associated with Business at Waterloo programs.

Appendix 10 provides an overview of current graduate programs in the six Faculties focused on various aspects of business, as well as insights about possible future initiatives for graduate programs.

5. ENHANCING BUSINESS AT THE UNIVERSITY OF WATERLOO

To repeat information from Section 1, the mandate for the Business Working Group posed several questions. Those are:

1. Does the *status quo* serve us well, or is it time to take the next step as it relates to teaching and learning business at Waterloo?
2. How do we set ourselves apart as a non-traditional business school, while attracting the highest quality students intent on studying business?
3. How can we best leverage existing brand strengths of co-operative education and entrepreneurship to enhance Waterloo as a destination for studying business?

5.1 Status Quo or New Next Steps

The Business at Waterloo programs offered an innovative alternative when they were introduced, in comparison to programs offered by Schools of Business. However, as already observed, the distinctiveness of the Business at Waterloo undergraduate programs has become less pronounced because other universities have been adding comparable programs, and Business School programs have started to require their students to take courses in other disciplines. In addition, the features of co-operative education and entrepreneurship at Waterloo also have been or are being added by other Canadian universities, reducing the distinctiveness of Waterloo's programs.

The conclusion of the Working Group is that the Business at Waterloo programs do not need a complete overhaul. However, for Business at Waterloo undergraduate programs, the Working Group recommends that a Forum, Hub and Curriculum Committee be created to focus on the suggestions offered in Section 3.8 to incorporate novel elements into the Waterloo programs. In addition, the Working Group recommends that thought be given to developing new graduate programs, and enhancing existing programs, with a strong business connection.

5.2 Differentiating Waterloo

Very few, if any, Business Schools across Canada market themselves as being 'traditional'. In addition, as already observed, many are offering dual degree programs, or are beginning to require their undergraduates to have expertise in one or more other disciplines. As a result, the University of Waterloo should focus on highlighting the basic attributes of our Business at Waterloo programs already noted in Section 3.3.3:

1. Be informed by a core discipline, be knowledgeable about business principles, be able to implement core business approaches, leverage deep work experience to develop solutions for business-related problems, and embrace an entrepreneurial perspective
2. Champion social responsibility and reflect high professional standards
3. Be flexible and adaptive in defining and resolving problems, and be willing and able to learn from experience

5.3 Leverage Brand Strengths of Cooperative Education and Entrepreneurship

While the University of Waterloo has an excellent reputation related to co-operative education and entrepreneurship, those attributes do not differentiate as they once did because many other universities across Canada are incorporating them into their undergraduate offerings.

As a result, the Working Group suggests that while the presence of those attributes themselves is no longer a differentiating factor, the quality of them at Waterloo continues to be so. As a result, the Working Group recommends that both the Faculties and MUR continue ongoing initiatives, and consider new initiatives, to highlight those two strengths at Waterloo as components of most Business at Waterloo programs. A challenge in that regard is that Faculties offering regular as well as co-operative education programs feel strongly that their Business at Waterloo programs should continue to be available to students not enrolled in co-operative education. That approach reduces the ability to promote co-operative education as a foundation for all Business at Waterloo programs. However, it also provides an incentive for all programs to determine which other experiential learning opportunities become integral parts of their programs, so that all programs can be promoted as containing significant experiential learning opportunities.

5.4 Concluding Observations

Business at Waterloo undergraduate programs are well aligned with strategic theme areas in the University of Waterloo's Strategic Plan. Specifically, they relate well to achieving:

1. outstanding academic programming, where objectives include educating graduates uniquely prepared to address the challenges and opportunities of the 21st century, and enhancing Waterloo's excellence in academic programs
2. a uniquely entrepreneurial university, where an objective is to enhance student opportunities to participate in entrepreneurial activities
3. experiential education for all, where an objective is to educate outstanding and world-ready graduates whose skills are in high demand globally
4. global prominence and internationalization, where an objective is to educate globally literate and world-ready graduates

Given the tight alignment with the University's Strategic Plan, the Working Group believes that we should continue to enhance the Business at Waterloo undergraduate programs, in order that they will continue to attract excellent students, to extend business-related graduate programs, and to foster even higher level performance related to business-related scholarship. In the following Section, a summary of recommendations is provided.

5.5 Priority Recommendations

Based on the conclusions and recommendations presented in this report, the Working Group agrees that the following recommendations should be given priority because action on them should contribute to enhancing the distinctiveness of Business at Waterloo programs, as well as their credibility and their promotion.

1. Each Faculty develop or confirm the vision for its Business at Waterloo programs to highlight how each reflects the proposed University-wide vision that: "Our students and graduates are recognized as individuals ready to lead and make change. They are differentiated by a deep knowledge of a core discipline that has been integrated with relevant business studies enriched by repeated and relevant workplace experiences, and an ability to make new things happen by engaging in the world entrepreneurially".
2. Initiate three strategic structural initiatives to enhance value of business education and research at Waterloo:
 - A new *Waterloo Business Forum* that will develop measures to increase quality and visibility of Business at Waterloo, including enhancements to experiential learning, strengthening concentrations of business scholarship, supporting new faculty hires, and guiding undergraduate recruitment, the latter in collaboration with Marketing and Undergraduate Recruitment and the Faculties

- A *Waterloo Business Student Hub*, initially conceived to be a virtual center and resource, then to become a physical space that supports Waterloo business students and instructors of business courses
- An on-going *Business Curriculum Committee* to coordinate major business programs, including common business ('BUS') courses among Faculties and to improve operational delivery effectiveness

APPENDICES

Appendix 1: Terms of Reference for the UW Business Working Group

25 November 2015

Proposal of the Terms of Reference for a Working Group to Examine Business Programs at University of Waterloo

Introduction

Waterloo is known most widely as a STEM institution, notably from the stature of its related faculties. The absence of a business school at Waterloo, often leads to the quick conclusion that the School of Business and Economics at Wilfrid Laurier University addresses that need in the Waterloo region; however, the evidence suggests otherwise. Over 5,000 undergraduate students currently study business at the University of Waterloo – that is approximately 1 in 6 of Waterloo’s 30,600 full- and part-time undergraduate students. Enrolments have grown substantially in the past decade. Furthermore, there are approximately 1,500 additional students enrolled in the School of Accounting and Finance. Business is important at Waterloo.

Business at Waterloo is dispersed widely and deeply throughout the institution and judging by the number of students enrolled in business programs, Waterloo has, *de facto*, among the largest “business schools” in the country. We have the highly reputed School of Accounting and Finance, and offer specialized degree programs (e.g., Bachelor of Accounting and Financial Management), programs that combine a discipline with business (e.g., Arts and Business, Global Business and Digital Arts), double degrees involving partnership with Wilfrid Laurier University (e.g., Computer Science and Business Administration) as well as numerous other programs that have a business aspect embedded in a disciplinary context (e.g., Management Engineering). Business at Waterloo is bolstered by numerous programs that are offered in the co-operative education mode, as well as by the infusion of entrepreneurship throughout our curricular and co-curricular offerings, expressed in various ways – for example, the Conrad Centre, Enterprise Co-op and Velocity.

In the recently released *QS World University Rankings by Subject 2015*, Waterloo’s overall score in “Business and Management” ranked 151-200. In Accounting and Finance, Waterloo ranked 101-150. These rankings are the highest in the region.

Business at Waterloo and the Relationship to our Strategic Plan

Four of our strategic plan theme areas touch on business at Waterloo:

1. outstanding academic programming, where objectives include educating graduates

uniquely prepared to address the challenges and opportunities of the 21st century, and enhancing Waterloo's excellence in academic programs;

2. a uniquely entrepreneurial university, where an objective is to enhance student opportunities to participate in entrepreneurial activities;
3. experiential education for all, where an objective is to educate outstanding and world-ready graduates whose skills are in high demand globally; and
4. global prominence and internationalization, where an objective is to educate globally literate and world-ready graduates.,

In light of the above, it is timely to critically assess the state of business studies at Waterloo, with the following questions in mind. Does the *status quo* serve us well, or is it time to take the next step as it relates to teaching and learning business at Waterloo? How do we set ourselves apart as a non-traditional business school, while attracting the highest quality students intent on studying business? How can we best leverage existing brand strengths of co-operative education and entrepreneurship to enhance Waterloo as a destination for studying business?

This document is a proposal to address these overarching questions through the establishment of a working group. The immediate goal is to focus on undergraduate studies, although it is expected that the findings of the working group will act as a foundation for future consideration of graduate programs and scholarship in business areas.

Mandate and deliverables of a working group studying business at Waterloo

Given the diversity and importance of business at Waterloo, the mandate of the proposed working group will be to produce a report that considers aspects of curriculum, scholarship, branding strategies and institutional goals. Specifically, the working group will:

1. describe the breadth and impact of business studies on this campus (spectrum of programs, enrollment statistics, including student mobility and retention)
2. document the financial impact of business programs at Waterloo, including program partnerships with Wilfrid Laurier University
3. articulate the shared and distinctive philosophies, and core business educational objectives, as they pertain to the various business-type programs on campus
4. consider the merits and possible efficiencies of developing a common core of courses for X and business programs across the campus
5. identify where business scholarship occurs on campus, and seek ways to further develop scholarship in line with the strategic goals of the university
6. examine the potential and market opportunities for branding Waterloo as an alternative approach to business education beyond the obvious connection to co-operative education and entrepreneurship
7. assess whether concentration or diffusion is more conducive to encouraging excellence throughout the institution
8. articulate how Waterloo differs from traditional business schools with respect to core educational competencies, while emphasizing the benefits of our approach to business as a key differentiator from other institutions. This will enable us to continue to evolve

and capitalize on our business offerings in ways that support both the brand and mission of the institution and potential resource generation

9. consider opportunities offered by experiential education (including co-operative education) for the design of undergraduate business education at Waterloo
10. consider the value of a possible institutional umbrella structure, that could, for example, (a) ensure the comprehensiveness of curricular offerings, (b) facilitate sharing of resources, (c) encourage academic and research collaborations, or (d) build student community among the various disparate business entities.

Membership of the working group

The working group should have functional representation from each Faculty, Co-operative Education, Registrar's Office and Institutional Analysis and Planning. Other units / individuals may be asked to contribute expertise when needed. Details of the working group composition will be finalized in consultation with Vice-President, Academic and Provost and the Faculty deans.

Project Management

The Chair of the working group will arrange monthly meetings of 90 minutes to 2 hours. At times it may be necessary to meet more frequently. There is no set quorum for meetings to proceed – a decision to meet or not to meet will be made by the Chair. Minutes of each meeting will be kept and circulated electronically before or with upcoming meeting agendas. The working group will be supported by resources from the Office of the Associate Vice-President, Academic.

Reporting

The working group will report via its Chair to the Associate Vice-President, Academic. Presentations will be made at Deans' Council, Executive Council and Senate.

The target date for the final report is December 2016.

Appendix 2: Undergraduate Business at Waterloo Programs Enrollment

Major/ Minor	Faculty	Program Grouping	2015/16
Major	AHS	Recreation and Business	5
		Recreation and Sport Business	99
		Tourism and Parks Management	16
	ARTS	Accounting and Financial Management	1532
		Arts & Business (Anthropology)	4
		Arts and Business (1 st year)	1104
		Arts and Business (Classical Studies)	1
		Arts and Business (Drama)	5
		Arts and Business (Economics)	146
		Arts and Business (English Language & Lit.)	50
		Arts and Business (Fine Arts)	43
		Arts and Business (French)	17
		Arts and Business (German)	3
		Arts and Business (History)	17
		Arts and Business (Medieval Studies)	0
		Arts and Business (Philosophy)	6
		Arts and Business (Political Science)	53
		Arts and Business (Psychology)	123
		Arts and Business (Religious Studies)	1
		Arts and Business (Russian & East Eur. St.)	0
		Arts and Business (Sociology)	21
		Arts and Business (Spanish)	4
		Arts and Business (Speech Communication)	83
		Arts and Business (Women's Studies)	0
		Global Business and Digital Arts	378
		CGC	Arts and Business (Music)
	Arts and Business (Peace and Conflict Stud.)		28
	REN	Arts & Business (Social Development Studies)	15
	STJ	Arts & Business (Legal Studies)	133
		Arts & Business (Sexuality, Marriage and Family)	1
	ENG	Management Engineering	300
	ENV	Environment and Business	550
	MAT	Business Administration and Computer Sci.	311
		Business Administration and Mathematics	495
		Chartered Professional Accountancy	367
		Computer Science and Business	108

		Computing and Financial Management	155
		Financial Analysis and Risk Management	563
		Information Technology Management	23
		Mathematical Finance	78
		Mathematical Studies and Business	77
		Mathematics/Business Administration	375
	SCI	Science & Business (Biotech/Chartered Prof. Acc.)	62
		Science & Business (Biotech./Economics)	27
		Science and Business	354
Minor/ Option	ART	Human Resources Management	342
		Management Studies	281
	ENG	Entrepreneurship	23
		Management Sciences	207
	ENV	Business	20

Note:

- Source: IAP, 2016

Appendix 3: Undergraduate Enrolment in Business at Waterloo Programs

UW Business Plans						
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Majors	5,539	6,047	6,285	6,591	6,660	6,885
Minors/Options	628	642	827	882	951	844
Unique Count	6,079	6,547	6,893	7,261	7,402	7,569

Summary of UW Business Plan Enrolment as a Proportion of Total Enrolments

UW Business Plan Enrolment as a % of Total						
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Majors	19.2%	20.4%	20.7%	21.1%	21.0%	21.4%
Minors/Options	24.7%	21.9%	22.8%	23.4%	25.0%	21.9%
Unique Count	21.1%	22.0%	22.7%	23.3%	23.4%	23.6%

Notes:

- Business-related plans are as defined by the Business@Waterloo working group
- Unique headcount enrolments by academic year (fall, winter, spring)
- Students enrolled in multiple terms during any given year are counted once only
- Counts for Majors include students who are in a business-related plan as either a primary plan or a non-primary plan
- Students enrolled in more than one Major are counted only once for the year
- Students included in the Majors count may also be present in the Minors/Options count; Unique Count removes this duplication
- Undergraduate students only
- Data are as of official government count date in each term
- IAP internal source: From R:\B\Business@Waterloo Working Group\DAR original analysis\Retention and completion_v2.twb ("Unique Cts Maj/NonMaj - acad year" and "Uni Cts Maj/NonMaj Coop only")
- Source: IAP, 2016

Appendix 4: Business-Related Programs Offered at Selected Ontario Universities

McMaster (degroote.mcmaster.ca)

DeGroot School of Business: Has a joint program with humanities called Integrated Business and Humanities (IBH). Students in other Faculties (except for Management, Engineering and Commerce) can obtain a minor in business.

Students will have an opportunity to work for 12-16 months with one employer after their 3rd year. Students participating in the internship program will be required to complete workshops which help build skills like resume/cover letter preparation, interview skills, and job search strategies.

“The internship program was created in 1994. It supports our focus on experiential learning by enhancing your classroom education with a real-world, paid opportunity in the business community.”

Entrepreneurship: Students who wish to learn more about entrepreneurship can take courses in undergrad that pertain to entrepreneurship. More opportunities such as the DeGroot Student Entrepreneurship Consulting Program are available to MBAs. McMaster Entrepreneurship Association – club for entrepreneurial activities at McMaster

Queen’s (smith.queensu.ca)

Stephen J.R. Smith School of Business: Bachelor of Commerce Undergraduate program. Dual degree (concurrent) or second degree (following completion of BCom) with Arts/Science programs.

Queen’s Option Program: students completing a BComm have the option of completing additional courses related to a specialized area of study as part of their undergrad program.

Queen’s Certificate in Business can be obtained by students in the Faculty of Arts and Science, Faculty of Engineering and Applied Sciences if they are interested in having a foundation in business.

Internship opportunities/Co-op: “The BCC assists students in finding summer employment following their first, second, and third years of study.”

Entrepreneurship: Offers entrepreneurship courses in their BComm program, the Business Career Centre (BCC) also offers students the opportunity to explore career options related to entrepreneurship.

Ryerson (ryerson.ca/tedrogersschool/)

The Ted Rogers School of Management: No joint major programs, but can pursue a minor while also studying 1 of 7 majors available at Ted Rogers.

Co-op program is available. “The Co-op programs delivered by the Ted Rogers School of Management are designed with the best interests of students in mind.”

Entrepreneurship: Bachelor of Commerce, Entrepreneurship & Strategy major offers students an opportunity to take more undergraduate entrepreneurship courses than any other schools in Canada. Students will learn how to prepare to start their own business, be entrepreneurial within existing organizations and how start-up companies succeed.

Toronto, St. George (rotmancommerce.utoronto.ca/)

The Rotman School of Management: Bachelor of Commerce program is offered jointly by the Rotman School of Management and the Faculty of Arts and Science

Rotman Commerce allows students to pursue their Bachelor of Commerce while also exploring areas of interest in the Faculty of Arts and Science.

Professional Experience Year: “The Professional Experience Year (PEY) Internship Program at the University of Toronto provides undergraduate students with a 12-16 month paid internship where they can apply their academic knowledge in a project-based professional environment as part of ongoing career development. PEY is open to Rotman Commerce students in year 2 and 3 who seek to combine their business education in accounting, finance, management and marketing to the business community”. Entrepreneurship: Specialist in Management allows students to focus on 5 different areas of management with Innovation and Entrepreneurship being one of them.

Entrepreneurship: Banting and Best Centre for Innovation and Entrepreneurship offers 60 programs/courses from different Faculties that allow aspiring entrepreneurs to learn more about developing ideas/launching their own business

Western (ivey.uwo.ca)

Richard Ivey School of Business: Dual degree with Ivey HBA, students can select majors such as economics, engineering, science, geography, arts etc.

Students will complete requirements for their second degree in first two years of university. Their 3rd year will be the first year of the Ivey program while 4th and 5th years will be spent completing requirements for both their HBA and second degree

Internships: Do not have co-op program but there are summer internship opportunities for students.

For the HBA Class of 2016, 95% of our students found summer employment with an average weekly salary of \$873. 26% of the 2015 class indicated that their summer internship jobs resulted in full-time job opportunities once they graduated from their program.

Entrepreneurship: Pierre L. Morrissette Institute for Entrepreneurship, offers those who are pursuing an HBA the opportunity to obtain the Certificate in Entrepreneurship. The certificate provides students with a coordinated set of courses/experiences that will allow them to pursue their entrepreneurial goals.

Wilfrid Laurier University (legacy.wlu.ca)

Lazaridis School of Business and Economics: Dual degree options with Honours BBA + Computer Science, Financial Math, Honours CS @UW and Honours Math @UW.

Co-op program available for all of the double degree programs listed above and for honours business administration program (BBA)

The Honors Economics in combination with another honours program allows students to take economic courses and also select courses from another undergraduate discipline at WLU.

“Co-operative education, a form of work-integrated learning, is a model of education that integrates and alternates a student’s academic learning with workplace learning in fields relevant to the student’s academic and personal goals.”

Entrepreneurship; Schlegel Centre for Entrepreneurship and Social Innovation, various programs in the Faculty of arts, science, liberal arts and Lazaridis business have the opportunity work within the entrepreneurial community. The program offers students opportunities to engage in active clubs/co-curricular programs, access network of alumni entrepreneurs, access to funding opportunities and a range of entrepreneurship courses. Only school in Canada to offer Social Entrepreneurship which has earned the Ashoka ChangeMaker Campus Designation for its social innovation/entrepreneurial offerings.

York (schulich.yorku.ca/)

Schulich School of Business: No double degree options available.

No co-op, but internships are available. "At Schulich, we offer summer internships instead of co-op. Students can apply for internships at the major companies that recruit at Schulich. Internships are coordinated through our Career Development Centre."

Entrepreneurship: Entrepreneurship and Family Business Studies BBA Specialization, students can choose courses designed to develop the skills, knowledge, and confidence of those who want to be entrepreneurs, intrapreneurs and people who work with them.

Source: Marketing and Undergraduate Recruitment, 2016

Appendix 5: Financial Aspects of Business at Waterloo Programs, and UW Undergraduate Students Enrolled in Business Courses at Wilfrid Laurier University, and Financial Implications

5.1 Overall Financial Aspects regarding Business at Waterloo Programs Business Programs: Tuition and Grant Revenue (in \$)

Faculty	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Applied Health Sciences	640,830	918,595	887,456	947,407	999,439	1,040,515
Arts	25,401,654	29,264,751	32,563,782	36,644,013	37,141,685	41,326,789
Conrad Grebel College	206,875	263,482	347,657	461,515	434,380	440,255
St. Jerome's	765,777	914,375	975,184	1,123,988	1,119,855	1,330,847
Renison	188,137	252,314	270,409	209,866	259,531	168,610
Engineering	3,513,546	4,419,642	4,918,532	5,429,449	5,632,537	5,740,873
Environment	5,092,697	6,175,465	6,780,720	6,808,089	6,981,250	7,256,932
Mathematics	26,913,249	30,473,228	32,770,871	33,887,655	34,049,291	36,120,260
Science	5,073,612	4,707,858	4,632,537	4,779,776	5,079,917	5,848,528
Business-Related	67,796,377	77,389,710	84,147,147	90,291,758	91,697,885	99,273,610
Non-Business-Related	300,219,093	319,965,416	337,363,325	355,681,754	377,271,443	399,412,631
Institutional Total	368,050,953	397,387,080	421,558,438	446,024,381	469,047,500	498,740,900
<i>% Business-Related</i>	<i>18.4%</i>	<i>19.5%</i>	<i>20.0%</i>	<i>20.2%</i>	<i>19.5%</i>	<i>19.9%</i>

Business Programs: Grant Revenue (in \$)

Faculty	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Applied Health Sciences	346,819	482,104	456,780	481,993	506,006	509,550
Arts	10,520,611	11,488,496	12,220,049	13,366,860	13,130,461	13,917,014
Conrad Grebel College	122,958	148,812	200,064	260,478	218,098	219,783
St. Jerome's	430,852	499,003	533,179	564,416	567,132	666,182
Renison	103,959	135,435	144,388	110,081	134,708	88,579
Engineering	1,572,803	1,884,544	2,066,946	2,113,309	2,138,810	2,052,151
Environment	2,478,329	2,964,868	3,207,666	3,220,546	3,219,477	3,129,271
Mathematics	10,366,147	11,255,236	11,605,479	11,109,573	10,415,064	10,157,670
Science	2,829,770	2,489,002	2,483,544	2,461,424	2,557,910	2,724,756
Business-Related	28,772,248	31,347,501	32,918,094	33,688,679	32,887,667	33,464,955
Non-Business-Related	137,936,249	141,658,642	142,815,390	144,425,415	144,487,961	145,735,232

Faculty	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Institutional Total	166,720,716	173,016,836	175,749,065	178,129,783	177,399,749	179,216,566
<i>% Business-Related</i>	<i>17.3%</i>	<i>18.1%</i>	<i>18.7%</i>	<i>18.9%</i>	<i>18.5%</i>	<i>18.7%</i>

Business Programs: Tuition Revenue (in \$)

Faculty	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Applied Health Sciences	294,011	436,492	430,676	465,415	493,434	530,966
Arts	14,881,044	17,776,255	20,343,733	23,277,153	24,011,224	27,409,776
Conrad Grebel College	83,918	114,670	147,592	201,038	216,282	220,473
St. Jerome's	334,925	415,372	442,005	559,572	552,723	664,665
Renison	84,178	116,878	126,021	99,785	124,823	80,031
Engineering	1,940,743	2,535,098	2,851,586	3,316,140	3,493,726	3,688,722
Environment	2,614,368	3,210,597	3,573,054	3,587,543	3,761,774	4,127,661
Mathematics	16,547,102	19,217,993	21,165,392	22,778,082	23,634,228	25,962,591
Science	2,243,842	2,218,856	2,148,994	2,318,353	2,522,007	3,123,773
Business-Related	39,024,130	46,042,209	51,229,053	56,603,078	58,810,218	65,808,655
Non-Business-Related	162,282,844	178,306,773	194,547,935	211,256,339	232,783,482	253,677,399
Institutional Total	201,330,237	224,370,245	245,809,373	267,894,598	291,647,751	319,524,334
<i>% Business-Related</i>	<i>19.4%</i>	<i>20.5%</i>	<i>20.8%</i>	<i>21.1%</i>	<i>20.2%</i>	<i>20.6%</i>

Notes:

- Revenues are based on FTE enrolments for a fiscal year (spring, fall, winter). This does not align directly with headcount enrolments based on academic year (fall, winter, spring).
- Only primary majors are included. Non-primary business majors are excluded.
- Minor and options are excluded as grant and tuition are associated with majors only.
- Source: IAP budget modelling, 2016

UW/WLU Double-Degree Programs Enrolments (Headcounts)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
BUSCSH (WLU)	14	22	29	57	68	112
BUSCSHC (UW)	61	115	145	166	203	198
BUSMATH (WLU)	233	236	233	238	209	229
BUSMATHC (UW)	248	253	265	244	257	263

Notes:

- Unique headcounts enrolments based on academic year (fall, winter, spring)
- Includes primary and non-primary majors

UW/WLU Double Degree Program Revenues (in \$)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
BUSCSH (WLU)	0	0	0	0	0	0
BUSCSHC (UW)	751,887	1,559,335	2,354,947	2,992,877	3,693,951	3,938,616
BUSMATH (WLU)	0	0	0	0	0	0
BUSMATHC (UW)	3,681,601	3,777,148	3,893,781	3,874,770	4,051,448	4,428,284
Total Math Business-related	24,923,724	28,406,243	30,581,153	31,592,490	31,662,102	33,435,403
<i>Double Degrees as % of Total</i>	17.8%	18.8%	20.4%	21.7%	24.5%	25.0%

4.2 Cross Registration Information for UW and WLU related to Business Programs, and Financial Implications

Summary 1: 2010/11 to 2015/16 number of units taken and \$ amount of:

(a) UW students taking courses at WLU

(b) WLU students taking courses at UW

(c) Net of (a) and (b)

Academic Plan Categories	2015/16		2014/15		2013/14	
	Units Taken	\$ Amount	Units Taken	\$ Amount	Units Taken	\$ Amount

(a) UW Students at WLU

Double Degr. Math	577.0	1,040,290	607.0	1,094,254	601.0	1,020,261
Double Degr. CS	440.0	1,031,496	452.5	1,061,490	384.0	841,618
Total Double Degree Progs.	1,017.0	2,071,786	1,059.5	2,155,744	985.0	1,861,879
Other Business Plans	404.5	496,508	420.5	509,428	485.5	581,697
Total Business-Related	1,421.5	2,568,294	1,480.0	2,665,172	1,470.5	2,443,576
Total Non Business-Related	184.3	220,652	244.0	297,778	232.8	272,998
Total UW Students at WLU	1,605.8	2,788,946	1,724.0	2,962,950	1,703.3	2,716,574

(b) WLU students at UW

Double Degr. Math	575.5	1,039,311	494.5	892,013	597.5	1,021,304
Double Degr. CS	300.5	708,843	148.0	348,330	140.5	312,515
Non Double Degree	177.3	230,560	154.0	198,170	229.3	290,830
Total WLU students at UW	1,053.3	1,978,714	796.5	1,438,513	967.3	1,624,649

(c) Net WLU and UW

Double Degr. Math	1.5	979	112.5	202,241	3.5	(1,043)
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Double Degr. CS	139.5	322,653	304.5	713,160	243.5	529,103
Non Double Degree	411.5	486,600	510.5	609,036	489.0	563,865
Grand Total (net)	552.5	810,232	927.5	1,524,437	736.0	1,091,925

Academic Plan Categories	2012/13		2011/12		2010/11	
	Units Taken	\$ Amount	Units Taken	\$ Amount	Units Taken	\$ Amount

(a) UW Students at WLU

Double Degr. Math	592.0	975,191	605.5	963,898	599.5	918,412
Double Degr. CS	298.5	635,702	197.5	411,005	109.0	222,246
Total Double Degree Progs.	890.5	1,610,893	803.0	1,374,903	708.5	1,140,658
Other Business Plans	504.5	602,470	563.5	648,575	524.0	592,433
Total Business-Related	1,395.0	2,213,363	1,366.5	2,023,478	1,232.5	1,733,090
Total Non Business-Related	258.8	306,191	275.8	318,245	311.3	342,379
Total UW Students at WLU	1,653.8	2,519,554	1,642.3	2,341,723	1,543.8	2,075,469

(b) WLU students at UW

Double Degr. Math	589.0	973,093	565.0	900,262	581.5	895,747
Double Degr. CS	64.0	136,640	56.5	116,659	34.0	68,733
Non Double Degree	207.3	261,354	198.3	242,070	222.8	273,880
Total WLU students at UW	860.3	1,371,086	819.8	1,258,990	838.3	1,238,359

(c) Net WLU and UW

Double Degr. Math	3.0	2,099	40.5	63,636	18.0	22,665
Double Degr. CS	234.5	499,062	141.0	294,347	75.0	153,513
Non Double Degree	556.0	647,308	641.0	724,750	612.5	660,932
Grand Total (net)	793.5	1,148,468	822.5	1,082,732	705.5	837,110

Summary 2: Number of units taken by UW students at WLU by subject name from 2010/11 to 2015/16

Subject	2015/16	2014/15	2013/14	2012/13	2011/12	2010/11
BUS	1,353.5	1,430.5	1,447.0	1,375.5	1,356.5	1,308.0
ECON	149.0	160.5	155.0	176.0	183.5	119.0
GEOG	34.0	43.0	25.0	26.0	13.0	18.5
MUSIC	14.5	16.5	9.5	7.0	8.0	7.5
SPAN	9.0	17.0	13.0	21.5	24.5	30.0
PSCI	5.0	4.0	1.0	-	3.0	3.5
ENVS	5.0	7.5	8.5	3.0	1.5	-
CHEM	5.0	10.5	10.5	4.5	-	-
BIOL	3.0	0.5	-	1.0	-	1.0
ASTRN	3.0	-	1.0	1.0	0.5	0.5
KPE	2.3	2.0	0.3	1.8	1.3	2.8
PSYCH	2.0	3.0	4.0	3.5	5.5	9.0
PHIL	2.0	2.0	3.5	-	1.5	3.5

FR	2.0	0.5	0.5	5.5	0.5	4.0
SOC	2.0	2.5	1.5	2.5	4.5	3.5
ANTH	1.5	0.5	3.0	2.0	8.5	5.0
RELC	1.5	4.0	2.0	5.0	7.0	0.5
PHYS	1.5	2.0	1.5	-	-	-
ENGL	1.5	0.5	1.0	1.0	-	2.0
ARCHL	1.5	-	3.5	-	5.0	1.0
SOCE	1.0	-	-	-	-	-
FILM	1.0	0.5	0.5	-	-	0.5
ENTR	1.0	-	-	-	-	-
MATH	1.0	1.0	1.5	-	5.0	1.0

Notes:

- Revenues are based on FTE enrolments for a fiscal year (spring, fall, winter). This does not align directly with headcount enrolments based on academic year (fall, winter, and spring).
- Only primary majors are included. Non-primary business majors are excluded.
- Minor and options are excluded as grant and tuition are associated with majors only.
- Source: IAP budget modelling, 2016

Appendix 6: Ranking of Business-Focused Research at UW

UW ranking in Canada Related to Business Programs Results

Year	Program	Program Reputation	Research Reputation	Fractional Publications	Fractional Citations	Field Weighted Citations
2016	Business	11*	9	4	7	21*
2015	Business	8	8	3	6	17

Notes:

- * Indicates a tie
- Source: Maclean's 2015 and 2016

Business and Management Canadian Results

Rank	University	IAP Rank	Score	Academic Reputation	Employer Reputation	Citations per Paper	H-index Citations
35	University of Toronto	35	79.2	77	78.4	84.5	87.3
38	University of British Columbia	38	78.7	77	76.4	88	84.8
45	McGill University	45	77.6	73.4	78.5	88.6	84.8
51-100	The University of Western Ontario	72	72.9	70	69.2	85.1	86.5
51-100	Université de Montréal	94	71	67.4	68.4	82.1	85.7
101-150	Queen's University at Kingston	117	69.2	63.8	67.5	89.5	81.1
101-150	University of Alberta	120	68.8	63.3	64.1	87.7	91.6
101-150	York University	128	68.2	62.3	64.9	85	90.9
151-200	University of Waterloo	193	64.2	54.3	70.7	80.4	77.9

Notes:

- UW ranked 9th in Business & Management amongst our Canadian peers.
- Source: QS 2016 Rankings

Accounting & Finance Canadian Results

Rank	University	IAP Rank	Score	Academic Reputation	Employer Reputation	Citations per Paper	H-index Citations
34	University of Toronto	34	80.2	80.1	76.8	88.2	83.1
39	University of British Columbia	39	79.7	80.6	77.5	85.3	75.7
51-100	McGill University	54	74.2	74.5	76.7	74.2	65.5
51-100	University of Alberta	77	70.9	69.6	66.5	80.7	80.4

51-100	Université de Montréal	91	68.8	69.9	67.6	68.3	67.8
101-150	The University of Western Ontario	109	67	68	65.5	70.2	62.9
101-150	Queen's University at Kingston	121	66.1	65.7	65.6	67.9	67.8
101-150	York University	128	65.3	62.5	61.9	81.2	73.9
101-150	University of Waterloo	137	64.6	58.6	70.3	73.9	67.8
151-200	Concordia University	195	60.3	54.9	61.5	76.4	67.8
151-200	Université du Québec	197	60.1	56.7	61.7	64.9	67.8

Notes:

- UW ranked 7th in Accounting and Finance amongst our Canadian peers
- Source: QS 2016 Rankings

Appendix 7: Qualitative Perspectives about Business at Waterloo Programs

Gathered from MUR Liaison Officers (Class of 2017) by Adam Gehl (MUR).

Every year we have a team of Liaison Officers who travel throughout Canada visiting high schools and attending University Information Fairs on behalf of University of Waterloo. They are now back on campus after 4-months on the road and I had the opportunity to participate in a debrief.

During the debrief the topic of business at Waterloo came up and I took the time to ask some more pointed questions on the perception of business at Waterloo from prospective students, parents, and guidance counsellors.

Context:

- 10 Liaison Officers
- Liaison Officers are returning from last year's recruitment team
- Liaison Officers are graduates of X Business programs at Waterloo + 1 GBDA
- They participated in over 750 visits (schools/fairs/info sessions) all across Canada

On average, the Liaison Officers would receive 10-15 inquiries about business per visit. This means that they received well over 7,500 inquiries about business studies at Waterloo.

Top Questions:

1. Does Waterloo have business?
2. Can I get a BBA at Waterloo?
3. What do I need to have (grades) to get into commerce at Waterloo?
4. What's the name of your business school, what does the building offer (student services and connection to industry)?
5. I want to study Marketing Management, does Waterloo have that program? —
Countless students ask for a program called 'Marketing Management' above any other

Based on the questions/answers, the Liaison Officers were able to continue the conversation with 5 out of the 10-15 per event, the others would disengage and move on to the next university.

Top Challenges:

1. Prospective students and parents are looking for a BBA program
2. Don't understand entrepreneur or don't identify themselves as such
3. Want a program with 'marketing' and/or 'management' in the title
4. Question the validity of business at Waterloo when it's not associated with a business school and some classes are taught at another university
 - a. How much of a business education will they receive when mixed with other studies?

When Liaison Officers begin their answers with “We do business differently at Waterloo...” in response to any of the above Top Questions and Top Challenges, it comes across as a ‘sales pitch’ or a redirect to something else.

Top Selling Points of X Business:

1. Advanced Functions and Calculus is not required - which for some also caused them to further question the validity of business at Waterloo [Business Working Group meeting on 12 December highlighted this statement is not correct. For example, Science requires such Math skills, as does Accounting and Finance].
2. Co-Op offerings
3. Ability to study something else they are interested in / passionate about and add a business twist

Other Interesting Points:

1. Top business schools students were asking/talking about: Queens Commerce, Ryerson DMZ, Western Ivey
2. When explaining X Business at Waterloo: Honours Arts & Business was the ‘catch all’ for many prospective students
3. Prospective students and parents looking for resources on campus for business students and connection to industry
4. The concept of how Waterloo does business is so different from other schools (and parent/guidance counsellor experiences) that high school students don’t grasp it
In General:
 - All other institutions offer a centralized program in a centralized building
 - Almost ALL have a general/common business first-year, some have common studies through-out (Queens & Laurier)
 - Waterloo has 'business related programs' but NOT A BUSINESS PROGRAM
 - Over 75% of the inquires the Liaison Officers receive are from prospective students who want to study general business; they have not thought about merging their business studies with something else - to some, it just doesn’t compute.

Prospective Student Perspective:

- No point of reference, what is Plus Business?
- No point of comparison, can’t put alongside other business programs to compare classes and outcomes
- Not easily explained, have a short time with prospective students, especially at schools/fairs where there are hundreds of people in attendance, and large crowds waiting to speak to the Waterloo representatives, you only have 30 seconds to ‘pitch’ a program. If you don’t answer their pre-prepared questions, they’re off to the next one.
- BBA is the path to a MBA

Parent / Guidance Counsellor Perspective:

- Have a BBA themselves, experience with business school in the traditional sense from their own post- secondary studies

Industry / cultural norms, a BBA is “what’s required” for a career in business fields and higher management

- BBA is more widely recognized, doesn’t require explanation to potential employers
- Feel there is greater future opportunity when you graduate from a University with a well- respected business school: Western Ivey, York Schulich, Ryerson DMZ, Queen’s Commerce (now Smith)

Liaison Officers Have Two Suggestions:

1. Create a business centre on campus. This doesn’t have to be a ‘business school’ but it does need to be something that connects all of business together and thus give Waterloo Business validity - Could answer questions with: ‘First year business courses are taught at the Waterloo Business Centre by top industry leading professors where you have the opportunity to make connections with classmates from other Faculties and business leaders...’
2. Create a Marketing specific program or even a Marketing specialty. Marketing is the #1 question / interest across Canada and Honours Arts & Business is where they direct most to but just as there is a minor in DAC (Digital Arts & Communications) if there were a minor in Marketing Communications & Management, they feel this course would be of great interest.

Appendix 8: Non-Confirm 2015 University Programs Chosen when Declining Some of UW's Business-Related Programs

Waterloo program	Entering a business-related program	Entering a major similar to Waterloo program applied to	Entering another program
Honours Arts and Business (n:140)	45% (63)	48.6% (68)	6.4% (9)
Management Engineering (n:16)	18.75% (3)	62.5 % (10)	18.75% (3)
Environment and Business (n:43)	53.5% (23)	11.6 % (5)	34.9% (15)
BBA and Mathematics (n:24)	79.2% (19)	12.5 % (3)	8.3 % (2)
BBA and Computer Science (n:8*)	37.5 % (3)	25% (2)	37.5% (3)
Mathematics/Business Administration (n:6*)	83.3% (5)	16.7% (1)	(0)
Science and Business (n:34)	17.6% (6)	61.8 % (21)	20.6% (7)

*Caution – small base

Notes:

- Recreation and Sport Business has not been included given that it is not an entry program; therefore, difficult to determine competitor set.
- Source: Marketing & Undergraduate Recruitment, 2016

Appendix 9: Business-Related Clubs and Associations at UW

Various clubs and associations provide resources and support for undergraduate students. Examples are:

- Accounting and Finance Student Association
- AIESEC Waterloo - provides internship opportunities to students
- Arts and Business Society
- Engineers Without Borders
- Entrepreneurship Society
- Fusion Conference
- Global Brigades – Business Brigades
- Global Business and Digital Arts Society
- Management Consulting Club
- Math's Double Degree program club
- Professional Engineering Network
- Science and Business Ambassadors (SBAT)
- Science and Business Student association (SBSA)
- Waterloo Environment and Business Students (WEBS)
- UW Apprentice
- UW Finance Association
- UW Marketing Association
- UW Sports Business Association

Source: Feds Club's Manager, 2016

Appendix 10: Existing Business at Waterloo Graduate Programs, and Possible Future Initiatives

A scan of related graduate programs in the six Faculties revealed that numerous Faculties have Business at Waterloo graduate programs.

Specifically, activities in the Faculties are as noted below:

Applied Health Sciences

AHS has a longstanding graduate program (MA and PhD) in Recreation and Leisure Studies, in which students can focus on one of five central thematic areas. The students studying business/management typically align with the focal area entitled “organizations, services, and policy”. The program description intentionally has been kept broad as it encompasses studies across public, non-profit, and commercial sectors.

The AHS graduate program has always had a strong research orientation via a thesis-based MA program and a comprehensive PhD program known internationally as one of the strongest research training grounds in leisure studies. AHS has recently launched a new course-based MA which will further strengthen ties between research and practice and allow students more flexibility in the type of graduate experience they may be seeking related to business/management studies.

Arts

The only related graduate programs are in the School of Accounting and Finance. They include: Master of Accounting, Master of Taxation, and PhD in Accounting.

There had been discussion about a joint initiative between the School of Accounting and Finance and the Department of Economics (Master of Economics and Finance) which resulted in development of a program, including required courses. However, the proposed program has not received much attention lately, and it is not clear what the level of commitment is to it.

Engineering

Engineering has several graduate programs related to business:

The Conrad Business, Entrepreneurship and Technology Centre offers an intensive, 1-year Masters of Business Entrepreneurship and Technology (MBET) program and UW's Graduate Diploma in Business and Entrepreneurship

In the coming year, Conrad expects to re-launch the 3-year part-time version of MBET for those seeking to develop entrepreneurial skills without leaving their jobs, and for those who wish to pursue their studies in a more gradual way in parallel with work on new ventures of all kinds.

The Graduate Diploma in Business and Entrepreneurship is rapidly growing, and a proposal is under consideration to promote a renewed GDip to graduate students across the university who wish to develop business and market-ready skills along with their diverse disciplinary pursuits. This is seen as a UW-brand-consistent way to address the challenge of graduate students who are unlikely to find themselves in full-time academic roles when they graduate. Resources will be required to fund program expansion.

The Department of Management Sciences offers the following graduate degree programs:

- Doctor of Philosophy (PhD) offered on campus full time
- Master of Applied Science (MAsc) offered on campus full time
- Master of Management Sciences (MMSc) offered part time or full time on campus or part time online (MMSc Online) (a one year Diploma program in Data Analytics).

Environment

Faculty of Environment offers several graduate business programs, all within the School of Environment, Enterprise and Environment (SEED). Tenured and tenure-track professors deliver advanced business courses on strategy, finance, economics, operations management, sustainability, entrepreneurship, innovation, marketing, and ethics.

Master of Environment and Business (MEB) – meets the growing need for business sustainability professionals as a distinct group of knowledgeable, skilled, confident and motivated individuals with the information, tools and expertise to integrate environment with business in very practical ways. The MEB provides an executive, MBA-equivalent degree through online courses with minimal on-campus study. Students can complete the MEB in 12 months or take the 3-year part-time option designed for working professionals.

Master of Economic Development and Innovation (MEDI) – Students learn economic development theory and practice, and how to help businesses start, grow and prosper in cities and communities across Canada and internationally. Guest speakers, field trips, conferences, and networking opportunities are key components of the curriculum. MEDI students work with an outside organization to complete a final capstone project. The program is offered flexibly in both full- and part-time formats. MEDI has strong ties to Waterloo's Economic Development Program, which delivers professional development courses to practitioners, and MEDI graduates write the Ec.D. Designation exam.

Sustainability Management (MES) – provides future environmental leaders with the research skills, management tools, strategies and processes required to realize sustainable outcomes within business, government and third sector organizations. The research degree focuses on methods, systems, concepts, and tools for sustainability management. Students prepare for careers in areas such as academia,

public policy and business analytics. Full-time students typically complete the Sustainability Management degree, including the master's thesis, within two years.

Sustainability Management (PhD) – PROPOSED START 2017 – Sustainability management focuses on the complex intersection of environment, business/enterprise and sustainable development. The PhD program is for full-time students who are interested in applied research-based careers in academia, public policy, and business. Two core and one elective courses are complemented by seminars that focus on practical skills in consulting, evaluation, or analysis. The comprehensive examination includes topics on corporate sustainability, environmental management, innovation management and business management. Original research culminates in a doctoral dissertation.

Mathematics

Mathematics has a number of graduate programs relevant to business:

The Masters in Quantitative Finance (MQF) program has a 20 year record of placing graduates in quantitative analysis in major financial institutions. In a typical year, the MQF program receives about 400 applications for 20 places.

The new Masters in Data Science program (a collaborative program between Statistics and Actuarial Science and Computer Science) will have an enrollment target of 40 MMath students per year.

In terms of possible new business-related graduate programs, Mathematics notes that many major academic institutions are in the process of starting professional graduate programs focused on FINTECH, which include all emerging technological innovations in the financial sector, including retail banking and investment. The University of Waterloo has expertise in machine learning, security and quantitative finance, core disciplines in any FINTECH program. As result, a focus on FINTECH would be a natural graduate program to be based on strengths in Mathematics at Waterloo.

Graduate programs based in Mathematics also have or could have links with a number of existing institutes which provide hubs for research collaboration in business-related areas. An example is the Waterloo Research Institute in Insurance, Securities and Quantitative Finance (WATRISQ), whose members include 23 faculty from seven academic units and three Faculties.

Individuals also are playing key roles. For example, Professor Tom Coleman (C&O) is the Chief Research Officer of the Global Risk Institute (GRI). GRI is based in Toronto, and has 32 member organizations, including all of the major banks and insurance companies in Canada. Such collaboration and networks provide an excellent opportunity for development of related graduate programs and research projects.

In terms of barriers to establishing grad programs, Mathematics notes that the budget models under the Waterloo Budget Model (WBM) make it difficult to make it pay to offer

specialized professional graduate programs. If high tuition is charged, then the classes have to be small and restricted to those in the specialized programs. If the Faculties do not receive a significant portion of the funding generated from the tuition for such specialized programs, their financial viability becomes questionable.

Science

Science has no business-related graduate programs. The priority is to deepen connections with Velocity Science and related innovative and entrepreneurial activities. As well, there is a focus to develop on-line executive certificate courses before a Science and Business graduate program. Thus, a business-related graduate program for Science is not a priority.

Source: Faculty reps in Working Group, 2016