

S.04-1



**SIMON FRASER UNIVERSITY**  
**Office of the Vice President Academic**  
**Undergraduate Curriculum Implementation Project**

**TO:** Senate

**FROM:** KC Bell, Coordinator  
Undergraduate Curriculum  
Implementation Task Force

A handwritten signature in black ink, appearing to read 'KC Bell', written over the 'FROM' field.

**RE:** Discussion Paper to Senate

**DATE:** December 4, 2003

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I attach a copy of the recently released Discussion Paper issued by the Undergraduate Curriculum Implementation Project Task Force and its ancillary Support Groups. We would like to present the paper for discussion at the January 5, 2004 Senate meeting.

Attending would be the chairs of the four implementation committees, Dennis Krebs, Roger Blackman, Phil Hanson and Len Berggren, and I would attend as Project Coordinator.

Please let me know if you require any further information.



## Curriculum Implementation Project Synopsis of the Discussion Paper

In Fall 2002, Senate approved in principle significant changes to SFU's undergraduate curriculum. After lengthy deliberation, the committees charged with refining and implementing those changes have prepared a set of recommendations and focus questions, which they offer in the context of a Discussion Paper. We encourage you to read the Discussion Paper and to send us your comments and suggestions. Following a period of consultation, we intend to revise the recommendations and present them to Senate for final approval in May or June of 2004.

The proposed changes are aimed at improving SFU undergraduate students' writing and quantitative abilities and extending their exposure to the ideas and modes of inquiry of disciplines other than those in which they specialize. If effectively implemented, we believe these changes will enhance our students' educational experience, increase their capacity to fulfill their civic responsibilities, better prepare them for graduate studies and improve their employment prospects. We also believe the changes will enhance the reputation of SFU and the value of our Bachelor's degrees. Implementing these changes will also introduce opportunities for new and exciting teaching experiences and help establish a more unified curriculum.

Implicit in our recommendations is a three-pronged approach to the enhancement of writing and quantitative abilities: (a) increasing the proportion of students who possess at admission the writing and quantitative abilities we expect; (b) offering students with problems in writing or quantitative abilities the assistance they need; and (c) requiring all students to whom we grant Bachelor's degrees to take courses designed to foster writing and quantitative abilities.

With respect to breadth, we recommend that all undergraduate students be required to take courses outside their programs of study, including a set of courses specially designed to introduce them to the ideas and methods of the humanities, sciences and social sciences.

In searching for and attempting to develop effective means of implementing these recommendations, we have addressed several particularly challenging questions:

***1. How can we increase the proportion of students we admit who possess the writing and quantitative abilities we expect and they need? How best can we assess the writing and quantitative abilities of students applying to SFU?***

We propose to require that all students we admit obtain high grades in English courses and/or an acceptable grade on the essay component of an appropriate language proficiency test. We propose that students transferring from other post-secondary institutions meet the same English and math requirements as students admitted directly from high school.

**2. How can we ensure that students who register for *W* and *Q* courses are adequately prepared to take them?**

In addition to refining our admission standards, we propose to employ grades in high school English and math courses and/or scores on the essay component of language proficiency tests and course-specific tests of quantitative abilities to place students in appropriate courses. Students who are not adequately prepared to take *W* and *Q* courses will be encouraged or required to take courses that help them to acquire the prerequisite skills.

**3. What are *W*, *Q* and *B* courses? How can we distinguish courses that warrant these designations from courses that do not?**

We have developed initial definitions for *W*, *Q* and *B* courses, sent them to all programs for comment, and revised the definitions in response to the suggestions and concerns we received. We include the revised definitions in the Discussion Paper and offer examples of courses that we believe meet the criteria.

**4. What models for teaching *W*, *Q* and *B* courses should we support?**

We outline a variety of models and list a preliminary set of evaluation criteria.

**5. What procedure should we use to certify courses as *W*, *Q* and *B*?**

We propose that, in the initial stage, candidate courses be forwarded to the appropriate Support Group (*W*, *Q* and/or *B*) for evaluation. We propose that Support Groups review the courses and forward those they approve to the Task Force, which will submit them to SCUS, and so on through our normal course-approval procedures. Following the initial phase courses will be approved in the normal manner.

**6. What procedures should we use to determine which courses from other post-secondary institutions are equivalent to our *W*, *Q* and *B* courses?**

We propose to work with sending institutions to articulate *W*, *Q* and *B* courses. In the initial stages, the Support Groups and Task Force would offer assistance; thereafter, normal procedures would be employed.

**7. Should all students be required to meet the proposed *W*, *Q* and *B* requirements?**

We recommend that all students be required to meet the *W* and *Q* requirements. We outline a process through which Programs that do not provide enough elective credits for students to meet the *B* requirement may apply for their students to be exempted.

**8. Should we place a limit on the time available for students to meet the proposed *W* and *Q* requirements?**

We recommend that all students be encouraged to take at least one *W* and one *Q* course within their first 30 credit hours at SFU, and that they be required to do so within their first 60 credit hours at SFU.

**9. What kind of academic support should we offer students who need help developing their writing and quantitative skills?**

Our Mathematics Department currently offers two forms of quantitative support to students: foundational math skills courses and tutoring. These services may need to be expanded. We propose that SFU create a course designed to help students acquire foundational writing skills. We also recommend that a Task Force be created to examine existing student academic support facilities at SFU and to consider the idea of amalgamating and expanding them in a new centralized Student Learning Centre.

**10. What kind of instructional support should we offer faculty who want to develop W, Q and B courses?**

We describe several sources of support for faculty interested in developing W, Q and B courses, including the Learning and Instructional Development Centre and the Centre for Writing Intensive Learning.

**11. What resources will be needed to implement the new requirements?**

We are preparing estimates of the number of course places that will be required to enable students to fulfill the WQB requirements, the number of courses currently available, and the number of new courses that we will need to develop. The need to develop new writing courses, quantitative courses for humanities students, and “big idea” breadth courses will be particularly challenging.

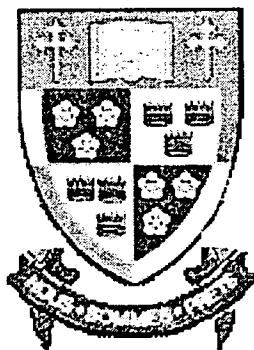
**12. How will resources be allocated?**

We have developed preliminary principles and procedures for the allocation of resources for the development of W, Q and B courses.

***A Call for Proposals: WQB Pilot Projects***

Programs are encouraged to submit pilot proposals for the development of W, Q and B courses, including an estimate of costs, in accordance with the guidelines outlined in *Appendix D* of the Discussion Paper. Proposals may be brief. We will try to evaluate the initial set of proposals (in consultation with Deans) by mid-January, 2004, and the next set by mid-March, 2004. We intend to make recommendations for funding to the VP Academic and Deans.

**New Directions for the Undergraduate Curriculum:  
A Discussion Paper on the Implementation of  
University-Wide  
Writing, Quantitative, and Breadth Requirements**



**Released: November 26, 2003  
By the Undergraduate Curriculum Implementation Task Force  
With the Writing, Quantitative and Breadth Support Groups**

*(This document also is available on the Internet at <http://www.sfu.ca/ugcr>)*

## *1: INTRODUCTION AND OVERVIEW*

### **1.1 A Commitment to General Education**

Since its inception, Simon Fraser University has been known for its commitment to undergraduate education. Like other institutions, we are finding it ever more challenging to fulfill this commitment. Technological and cultural changes, the rapid creation of new information, a larger and more diverse student body, conflicting sets of expectations on the part of social and political institutions; these are among the many factors that increase the difficulty of offering students a relevant, effective and coherent education.

In October 2002, the SFU Senate approved in principle several recommendations aimed at complementing the depth of knowledge students acquire from specialized programs with a set of general education requirements for all Bachelor's degrees. The recommendations were designed to enhance students foundational writing and quantitative abilities and to expose them to the basic concepts and modes of inquiry in the humanities, sciences and social sciences.

Recognizing that the task of implementing these requirements would be complex, Senate established a Task Force, which was supplemented by three Support Groups (hereafter collectively referred to as the "Implementation Committees"), to recommend how the proposed changes could be implemented most effectively.<sup>1</sup> The purpose of this Discussion Paper is to report the preliminary recommendations of the Implementation Committees, offering what we believe to be a workable plan for the advancement of undergraduate education at SFU.

### **1.2 Weighing Costs and Benefits**

During the past year, the Implementation Committees consulted extensively, both internally and externally to SFU, and debated a wide range of alternative approaches to implementing Senate's decisions. We were guided by three principles. First, the changes must work for students. To ensure that students are prepared to benefit from the new requirements, we have recommended changes to admission and transfer policies, and the establishment of a Student Learning Centre (Section 2). Second, the changes must work for faculty and programs. We have given much thought to the definition of the new courses and to issues of development, certification and faculty support (Section 3). Resource issues are always crucial, and we have addressed them in a separate section (Section 4). Finally, we discuss how the changes can be integrated into existing administrative and decision-making structures (Section 5).

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<sup>1</sup> [http://www.reg.sfu.ca/Senate/SenateMinutes02/Sum\\_1002.html](http://www.reg.sfu.ca/Senate/SenateMinutes02/Sum_1002.html)

In this paper, we highlight “focus questions” about issues that we believe warrant further consideration, but this is not imply that we do not welcome feedback about other issues as well. We intend to revise and refine our recommendations in light of the feedback we receive and to present them to Senate late in the spring of 2004, keeping the community apprised of our progress during the process.

We believe that Senate’s decision to support this initiative was well-founded. Although the proposed changes will be challenging to implement, they possess the potential for substantial benefits. If implemented successfully, our undergraduate students will be better prepared to live productive lives and to make significant contributions to society – qualities that the parents and the taxpayers who fund Simon Fraser University expect. Better writing and quantitative abilities will enable students and faculty to spend more course time on substantive issues, and to address such issues at an appropriate level. Implementing the new requirements will present interested faculty with an opportunity to reconsider their course offerings and to revitalize their methods of instruction. Not least, in graduating students who are more literate, numerate and broadly knowledgeable, we will improve the employment prospects of our degree-holders and enhance the reputation of our University, enabling us to attract an increasing number of well-qualified students.

### **1.3 Recommendations in Brief**

The following summary highlights the principal changes that are proposed to come into effect for students admitted to SFU in September 2006.

#### **Recommendation 1: New Admissions Requirements Pertaining to Writing**

We recommend that all applicants be required to demonstrate their competence in English as a part of the admissions process in one of three ways: (a) by obtaining a high grade in English 12 or a more advanced English course; (b) by obtaining a high score on a language proficiency test; or (c) by obtaining an acceptable grade in English and an acceptable score on a language proficiency test.

#### **Recommendation 2: New Post-secondary Transfer Admissions Requirements**

We recommend that students entering SFU from post-secondary institutions be required to meet the same English and mathematics standards as students entering from high school.

#### **Recommendation 3: Post-Admission Tests of Quantitative Proficiency**

We recommend that instructors of introductory-level quantitative courses be encouraged to develop tests equipped to assess the preparedness of students to learn the quantitative concepts they plan to teach. Students who score below the level expected should be so advised and encouraged to register in a less demanding quantitative course, or to seek assistance from another source.

#### **Recommendation 4: New WOB Graduation Requirements**

We recommend that all students seeking a Bachelor’s degree be required to complete (a) 6 credits in courses that foster writing abilities (W courses), with at least one from the

upper division; (b) 6 credits in courses that foster quantitative abilities (Q courses); (c) 18 credits in designated breadth (DB) courses, including 6 credits in the Humanities, 6 credits in the Sciences and 6 credits in the Social Sciences; and (d) 6 credits in undesignated breadth (UB) courses taken outside the student's major program. Programs may permit their students to substitute UB courses for the DB courses in their area.

Students will be encouraged to take at least one W and one Q course within their first 30 credits at SFU, and required to take them within their first 60 credits.

#### **Recommendation 5: A Student Learning Centre**

We recommend that a Task Force be established to review existing university-wide student academic support services and structures and to make recommendations about the establishment of a centralized Student Learning Centre.

#### **Recommendation 6: Foundational Writing Courses**

We recommend that a new Foundational Skills writing course be created, and that support services for students who are not sufficiently well prepared to take this course be expanded to meet the need.

## ***2: ISSUES FOR STUDENTS***

### **2.1 Better Courses, Better Qualifications**

In this section, we explain why we believe that changing admissions standards pertaining to language and quantitative skills will improve the probability that the students we admit are prepared to meet the challenges of a university education, including the new WQB requirements. We address issues pertaining to transfer credit and describe the proposed new WQB graduation requirements. Finally, we discuss the need for additional academic support for students who arrive without the foundational writing and quantitative skills necessary to succeed in the courses we offer.

### **2.2 Preparing for New Admissions Standards**

Principles of fairness and equity prescribe that all applicants to SFU should be evaluated in terms of the same basic standards. As a University whose admissions standards are premised on admitting "the best and the brightest," we expect those admitted to SFU to be fully prepared to undertake our programs of study. However, experience shows that a significant number of undergraduate students admitted to SFU are poorly equipped to begin the quantitative courses required in their disciplines or to write at the first year level.

Students who are not prepared for the courses they take struggle to keep up. They may slow the progress of fellow students who possess the necessary skills and consume disproportionate time and resources. Among the repercussions of admitting students with deficient writing and quantitative skills are plagiarism, grade inflation, and a lowering of



the level of lectures and discussions. Many faculty members and students have spoken of the demoralizing effect of this problem. The *Draft Report of the Task Force on Academic Honesty and Integrity*<sup>2</sup> discusses how “the challenges of working in a second or other language, a lack of familiarity with the conventions of Western academic discourse, and the more general need to develop academic literacy contribute to instances of both intentional and unintentional plagiarism in students’ writing.”

At present, all students admitted directly from high school are required to have passed English 12 and at least Principles of Math 11<sup>4</sup>. Many programs (e.g., Science, Business Administration, Computing Science, Engineering Science and Kinesiology) require Principles of Math 12. Unfortunately, SFU instructors encounter a significant number of students who have passed high school math courses, but have not mastered their content. Approximately 20% of first year students who take a high school level Math Skills Assessment Test administered at SFU fail it.

One source of this problem is that standards from high schools are inconsistent. The high school portion of the blended marks (i.e., 60% course grade and 40% provincial exam) on which our direct admissions are based may vary from school to school. Another source is our failure to require students transferring from other post-secondary institutions to obtain acceptable grades in English and math courses.

What should we do? There is little support for the idea of implementing extensive and expensive remedial services to assist students we admit under our current procedures. And there is little support for the idea of inflicting on such students the responsibility to redress their deficiencies within 30 credits or be required to withdraw. A wiser, fairer and more responsible alternative is to make a concentrated effort to identify applicants with seriously deficient writing and quantitative skills during the admission process and insist that they acquire the requisite skills before they are granted admission. Although we might choose to admit some otherwise outstanding students with minor writing or quantitative deficiencies, we should not accept more students than we are willing to help.

### ***Recommendation 1: New Admissions Requirements Pertaining to Writing***

We recommend that, beginning in 2006, all applicants be required to demonstrate their competence in English language skills as a part of the admissions process, by obtaining either:

- (a) a grade of 80% or higher in English 12 or equivalent; or

<sup>2</sup> [http://www.sfu.ca/integritytaskforce/Draft %20Discussion %20Paper Final.htm](http://www.sfu.ca/integritytaskforce/Draft%20Discussion%20Paper%20Final.htm)

<sup>3</sup> [http://www.sfu.ca/integritytaskforce/Draft %20Discussion %20Paper Final.htm](http://www.sfu.ca/integritytaskforce/Draft%20Discussion%20Paper%20Final.htm)

<sup>4</sup> Or Applications of Math 11 + Applications of Math 12

- (b) a grade of 70% or higher in a course more advanced than English 12 or equivalent (e.g., International Baccalaureate, Advanced Placement or a college English course for which English 12 is a prerequisite); or
- (c) a score of Level 6 on the essay component of the Language Proficiency Index (LPI) or a similar level of achievement on an equivalent language proficiency test; or
- (d) a grade of 70 - 79% in English 12 or equivalent, plus a score of Level 4 or 5 on the essay component of the LPI or a similar level of achievement on an equivalent language proficiency test; or
- (e) a grade of 60 - 69% in English 12 or equivalent plus a score of Level 4 or 5 on the essay component of the LPI or a similar level of achievement on an equivalent language proficiency test. Applicants admitted in this category will be required to complete a Foundational Writing course with a grade of C- or better before being allowed to register in a W course.

We recommend that International applicants continue to be required to provide evidence of English competence via the TOEFL, IELTS and other currently accepted tests and to meet the standards currently deemed acceptable for admission. We also recommend that International students be required to meet the same standards as domestic students for registering in W courses. We recommend that International students admitted to SFU who have not taken the essay component of the LPI or an equivalent language proficiency test be required to complete it before or during their first semester of registration at SFU. Those who score below Level 4 or equivalent would be required to complete an appropriately-designed Foundational Skills writing course with a grade of C- or better before being allowed to register in a W course.

A graphic representation of these proposed new English language admission requirements is shown in Appendix A.

### **2.3. Why the Language Proficiency Index?**

The Writing Support Group evaluated available language proficiency tests and decided that none was superior to the LPI, which is administered by an Institute housed at UBC. The LPI is already taken for placement purposes by most students admitted to UBC, UVic and other post-secondary institutions in BC, so introducing its use here should not pose an additional financial burden on most applicants. The Writing Support Group is examining the possibility that the IELTS may constitute a more appropriate test for students with English as an alternative language.

**Focus Question 1: Should we deny admission to students with acceptable grades who fail to score at an acceptable level on a language proficiency test?**

## ***Recommendation 2: New Post-secondary Transfer Admissions Requirements***

To improve the consistency between our admission requirements for applicants from high schools and applicants from post-secondary institutions, we recommend that students entering SFU from other colleges, universities or institutes be required to meet the same English and math standards as those required of students admitted directly from high school. For example, all students seeking admission to the Faculty of Arts would have successfully completed Principles of Math 11, or Applications of Math 11 and 12, or their equivalent.

### **2.4. A Quantitative Proficiency Admissions Test?**

The Quantitative Support Group considered at length the idea of requiring applicants to SFU who have not obtained a good grade in a high school level (or more advanced) mathematics course to take a quantitative proficiency test before being admitted. Several possible assessment tools were considered, ranging from SAT-type examinations to Provincial examination scores (rather than blended marks) for high school mathematics courses. Such tools proved problematic for the following reasons:

- virtually all quantitative assessment tests (e.g., the SAT) focus exclusively on the assessment of mathematical abilities; such tests are not appropriate to gauge “non-mathematical” aspects of quantitative abilities such as formal logic;
- the SAT is expensive, especially for foreign administrations;
- there is no widely-used Canadian test for assessing quantitative skills;
- UBC and UVic do not assess the quantitative skills of their applicants; indeed we know of no other Canadian university that requires such an assessment;
- the logistics of giving/taking such tests are daunting and should be redundant given the existence of Provincial exams; however,
  - (a) Math 11 is not examined Provincially;
  - (b) Changes to Provincial high school graduation requirements now under discussion by the Ministry of Education may make the Math 12 Provincial examination optional (although SFU programs could continue to require it for admission);
  - (c) Provincial examination scores arrive too late to be used in admission decisions (but we could grant applicants provisional admission pending acceptable Provincial examination scores).

The Quantitative Support Group also considered the recommendation of the Ad Hoc Senate Committee that students admitted to SFU without a good grade in an appropriate mathematics course be required to take a mathematics placement test before being permitted to register for a Q course.<sup>5</sup> This recommendation was not pursued because the

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<sup>5</sup> <http://cgi.sfu.ca/~senucc/cgi-bin/home.cgi>

logistics of administering such tests as, in effect, prerequisites to Q courses, was deemed not to be administratively feasible.

***Recommendation 3: A Course-specific Test of Quantitative Proficiency***

After extensive discussion, the Quantitative Support Group recommended that the most effective way of assessing students' quantitative abilities is to encourage instructors of introductory-level Q courses to develop tests designed to assess the preparedness of students to learn the quantitative concepts the instructors intend to teach. Separate instruments could be developed for Q courses requiring Math 11, Math 12, and formal logic. Such tests could be made available for students to take online before registering in Q courses. Students who scored below the level expected for introductory competence could be encouraged to register in a less demanding Q course, or to seek assistance from sources such as a Student Learning Centre, tutors, and/or online resources. Most upper-level Q courses would not require such tests. For example, students who passed Calculus I would be considered ready to take Calculus II.

**Focus Question 2: Should we assess students' quantitative proficiency and, if so, when and how?**

## **2.5 Navigating the New Course Requirements**

Recommendation 4 below reiterates and elaborates on the University-wide requirements approved in principle by Senate in October 2002. We have specified an implementation date, recommended when W and Q courses should be taken and outlined a process for exemptions.

***Recommendation 4: New WQB Graduation Requirements***

We recommend that the following University-wide graduation requirements be implemented for students admitted to SFU for the Fall 2006 (2006-3) semester:

- 6 credits of courses that foster writing abilities (W courses), including at least one course from the upper division;
- 6 credits of courses that foster quantitative abilities (Q courses);
- 24 credits of breadth, including:
  - 18\* credits of Designated Breadth (DB), consisting of 6 credits in the Humanities, 6 credits in the Sciences and 6 credits in the Social Sciences; and
  - 6 credits of Undesignated Breadth (i.e., courses taken outside the student's major program).

\*Programs may waive the requirement that their students take the DB courses in their areas. For instance, Biological Sciences may exempt its students from completing DB Science courses. In such cases, students would be required to replace the credits with

Undesignated Breadth (UB) courses. In the example cited, Biological Sciences majors would replace the 6-credit Science DB requirement with an additional 6 credits of Undesignated Breadth, for a total of 12 credits of DB (6 in the Humanities and 6 in the Social Sciences) and 12 credits of UB (courses outside their programs).

Note that these Breadth requirements are minimum requirements; some programs may choose to set additional Breadth requirements for their students.

Students would normally take at least one W and one Q course within their first 30 credits at SFU and be required to take them within their first 60 credits.

## **2.6. Joint Majors, Double Majors, Majors with Required Minors, 2<sup>nd</sup> degrees**

Students undertaking joint or double majors would be required to meet the same W and Q requirements as other students, but they would be required to meet them only once. Students seeking second degrees from SFU who have fulfilled the WQB requirements while earning their first degrees at SFU would not be required to fulfill additional WQB requirements for their second degrees.

The academic work of students who obtained a first degree from another institution or from SFU prior to the introduction of the B requirements would have to be assessed to determine WQB course credit.

## **2.7 Exemptions**

It is possible that the completion of the full breadth requirement will prove unduly onerous for students in programs that permit few elective credits. In such cases, the program may petition SCUS for its students to be exempted from some portion of the breadth requirement (section 5.6).

## **2.8 Toward a New Student Learning Centre**

When Senate passed the new WQB requirements in principle, it recommended that "the development and maintenance of additional support services such as a writing centre and a math centre be added to the issues which the task force will address."

Although we believe that our proposed changes to admissions policy will improve the readiness of new students to meet the demands of a university curriculum, some students will continue to need additional academic assistance.

***Recommendation 5: The creation of a Task Force or equivalent body to explore the establishment of a Student Learning Centre***

The Implementation Committees recommend that the Vice President Academic establish a Task Force or comparable body to review existing University-wide student academic support services and structures and to make recommendations about the establishment of

a centralized Student Learning Centre. Such a Centre might offer workshops, clinics, individual consultations and peer tutoring, and assist in the development of such new online resources as skills-assessment quizzes and self-guided tutorials.

We understand that the *Task Force on Academic Honesty and Integrity* intends to recommend that the University “establish an Academic Learning Centre for the Burnaby campus and accommodate the needs of students at Harbour Centre and the Surrey campuses,” and that the *Language Instruction Committee* plans to recommend that a Student Learning Centre be the point of contact between ESL students admitted to SFU and programs designed to improve their academic English. Currently, the English Bridge Program and the English Language and Culture Program offer services of this kind.

#### ***Recommendation 6: Foundational Writing Courses***

We recommend the development of a new Foundational Skills writing course for students admitted to SFU with low grades in English and/or low scores on a language proficiency test. A foundational skills course aims to prepare students to read and write at a first year university level. While it serves some remedial functions, it does not repeat instruction given at the high school for different purposes. Rather, it establishes a framework for uses of reading and writing that direct students toward such goals of university literacy as: use of Standard English, accurate representation and critical assessment of sources, and ability to construct and develop arguments.

Students needing additional assistance before attempting the Foundational Skills course would be referred to appropriate resources. Such resources might include individual assistance or online, self-directed programs teaching basic writing skills, which could be coordinated in a Student Learning Centre.

**Focus Question 3: Do we need a Student Learning Centre and, if so, what form should it take?**

### ***3: ISSUES FOR FACULTY***

#### **3.1 Innovation and Collaboration**

Implementing the new requirements will create opportunities for faculty to develop new courses and to redesign existing courses in ways that enhance their teaching experiences and the learning experiences of their students. Faculty who have structured their courses to include a writing-intensive component have been impressed with the contributions this change has made to the quality of the courses. Some have even said that they would never go back to their old way of teaching the courses. Their enthusiasm has been nourished by feedback from students who have said that, in spite of their initial reservations and some

increase in effort required, they learned significantly more than they did in courses without a writing-intensive component.

Some students are insecure about their quantitative abilities. We need quantitative courses that will help these students allay their insecurities. Courses that enable students to acquire skills such as those involved in evaluating the statistical information they encounter daily through the media and elsewhere, understanding basic probabilities and risks, and completing their own income tax forms are of considerable practical value. Designing such courses is a challenging but potentially rewarding experience.

Creating breadth courses that expose students to new ways of thinking about important issues and the “big ideas” that shape cultures should offer an exciting and invigorating experience for faculty. Replacing or supplementing the current array of breadth requirements with one coherent set should help organize, standardize and clarify the curriculum.

### **3.2 Definitions of W, Q and B Courses**

To designate courses as W, Q and B, we need criteria that enable us to distinguish them from other kinds of courses. In April 2003 we sent preliminary definitions of W, Q and B courses to programs for comment. Following discussion of the comments and suggestions we received,<sup>6</sup> we revised the definitions, which we offer here for further comment.

#### **3.2.1 What is a W course?**

On the assumption that students entering W courses have met a basic competency standard (see section 2.2), we propose that W-courses fulfill the following conditions:

1. Students have opportunities to use writing as a way of learning the content of the course and are taught to write in the forms and for the purposes that are typical of disciplines and/or professions, in ways that are clearly distinguished from remedial and foundational skills courses.
2. Examples of writing within the disciplines are used as a means of instruction about typical structures, modes of reasoning, styles of address, and the use of technical language and of evidence.
3. Students receive appropriate feedback and response to their writing that is explicitly directed at improving the quality of their writing.

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<sup>6</sup> A compendium of WQB comments received in response to our April questionnaire is available at [http://www.sfu.ca/ugcr/WQB\\_Requirements/](http://www.sfu.ca/ugcr/WQB_Requirements/)

4. Revision is built into the process of writing for formal assignments, usually in terms of revisions of the same paper, or alternatively, in revisions accomplished through successive similar assignments.
5. At least half the course grade is based on the quality and content of written assignments, which are evaluated according to explicit criteria. (Note that this standard does not equate to half the grade being based on the quality of writing.) Students whose grade on written work is C- or less may not claim W credit even if they have an overall passing grade in the course.

On these criteria, courses that require written assignments but do not provide explicit instruction in writing would not qualify as W courses. A list of courses developed in conjunction with the Centre for Writing Intensive Learning (CWIL) or which are otherwise deemed likely to be W courses is available in Appendix B.

**Focus Question 4: Do these criteria adequately define a W course?**

**Focus Question 5: What is the appropriate amount of writing a course should require to be considered a W course?**

**Focus Question 6: Is half the grade allocated to written assignments too much or too little, and should final exams count as "written" work?**

### 3.2.2 What is a Q course?

To qualify as a Quantitative (Q) course, we propose that a course must have either quantitative (e.g., numerical, geometric or statistical) or formal (e.g., logically deductive or probabilistic) reasoning as part of its primary subject matter, or make substantial use of such reasoning in practical problem solving, critical evaluation or analysis.

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#### *Guidelines for applying the Q definition:*

Math courses required in such programs as Mathematics, Science, Economics, Engineering, and Business Administration, and statistics courses required in most social science programs would qualify as Q courses. For students in such programs, the completion of the Q requirement will merge seamlessly into the completion of their major.

The central challenge in implementing the Q requirement will be to identify and develop Q courses for students in humanities programs in which mathematics does not play a major role. We envision such courses focusing on the relation between

- (a) information communicated through numbers or other modes of abstract formal representation (e.g., programming languages, algorithms, phonological and cartographic analyses), and
- (b) students' ability to engage effectively with the subject matter of their respective programs and with practical situations that arise in their everyday lives.

Skills nurtured in humanities-oriented Q courses might include the following: analyzing evidence, reading graphs, interpreting statistics, assessing risk, assessing relative likelihoods,



and detecting fallacies of reasoning. Aspects of mathematics might include measurement, quantitative data representation, computation or spatial visualization. (These lists are not meant to be definitive.)<sup>7</sup>

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**Focus Question 7: Do these criteria adequately define a Q course?**

### **3.2.3 What is a Designated Breadth (DB) course?**

To qualify as a Designated Breadth (DB) course, we propose that a course should be intellectually accessible to “non-majors”; that is, students’ ability to master the course content should not depend on bringing to it the kind of specialized knowledge typically possessed by students majoring in a discipline. Although most DB courses will be introductory in nature, upper-division courses may qualify as DB courses if they do not require students to have specialized knowledge or specific prerequisites.

In addition, we propose that a (DB) course substantially fulfills AT LEAST ONE of the following three conditions:

1. It explicitly addresses how and why a discipline (or disciplines) defines, acquires and organizes knowledge in particular ways; it identifies important questions and problems in the discipline (or disciplines) and describes procedures used to generate valid answers to the questions or workable solutions to the problems.
2. It is designed to give students a broad understanding of the historical development and/or the contemporary dynamics of the physical, natural, social and/or cultural environments.
3. It provides a survey of a substantial body of the knowledge, theories and/or controversies that are deemed to be central to a discipline or disciplines.

DB courses should expose students to new theoretical perspectives, forms of thought and modes of enquiry, and encourage them to examine and assess their values, beliefs and commitments.<sup>8</sup>

**Focus Question 8: Do these criteria adequately define a DB course?**

**Focus Question 9: Should we encourage the development of clusters or sequences of courses that offer students the opportunity to satisfy the DB requirement in one package, perhaps as cohorts?**

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<sup>7</sup> A list of possible Quantitative courses developed from the current SFU Calendar course index is available at [http://www.sfu.ca/ugcr/WQB\\_Requirements/Quantitative/](http://www.sfu.ca/ugcr/WQB_Requirements/Quantitative/). For examples of Q for the Humanities-type courses, see Appendix B.

<sup>8</sup> A list of possible DB courses developed from the current SFU Calendar course index is available at [http://www.sfu.ca/ugcr/WQB\\_Requirements/Breadth/](http://www.sfu.ca/ugcr/WQB_Requirements/Breadth/).

### **3.2.4 What is an Undesignated Breadth (UB) course?**

A UB course is simply a course taken outside a student's program, as determined by the program. For example, the Department of History might decide that courses in all programs except History count as UB courses.

### **3.3 Designing and Developing W, Q and B courses**

If the proposed changes to the undergraduate curriculum are to succeed, we will need to develop W, Q and B courses that appeal to students and accomplish the goals for which they are designed. Developing enough W courses to meet the demand will be a particularly challenging task.

#### **3.3.1. Designing W-courses: A Sample of Models**

Writing courses that meet the W criteria (section 3.2.1) may be designed in a wide variety of ways. See Appendix D for six examples.

#### **3.3.2 Instructional Support for the Development of W, Q and B Courses**

Faculty who are interested in revising existing courses to qualify as WQB courses, or who wish to develop new WQB courses, may obtain expert assistance from the following sources.

Learning and Instructional Development Centre (LIDC). LIDC is mandated to support and promote effective teaching of all kinds, to assist in the integration of instructional technologies, and to provide media services and classroom support. LIDC staff are available to help faculty develop conventional and on-line teaching materials, webpages, videos, and interactive exercises.<sup>9</sup>

Centre for Writing-intensive Learning (CWIL). CWIL is mandated to provide expert guidance to instructors from all disciplines interested in adding a writing-intensive component to their courses or developing new writing-intensive courses. CWIL is specifically mandated to help faculty design assignments and instructional strategies that help fulfill departmental criteria for successful writing in the discipline, and to offer workshops, seminars, summer institutes, departmental retreats, and other forms of training sessions for faculty and TAs for writing-intensive course development, assessment, and revision.<sup>10</sup>

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<sup>9</sup> <http://www.sfu.ca/lidc/>

<sup>10</sup> <http://www.sfu.ca/cwil/>

Support Groups: Members of the Writing, Quantitative and Breadth Support Groups are available for consultation. They are an excellent resource to draw on for inspiration and tips and cautions about what to do and what to avoid. In addition, many SFU faculty have considerable expertise in the development of writing-intensive, quantitative-intensive and breadth courses.

Reference material: Material is available on the Internet pertaining to the development of W,Q and B courses (e.g., the LIDC and CWIL websites above). Widely used in developing W-type courses elsewhere is John C. Bean's *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom*: Jossey-Bass, 2001.

### **3.4 A Call for Proposals: WQB Pilot Projects**

We encourage faculty who are interested in developing W, Q or B pilot courses that will require additional funding to submit proposals to us as soon as possible, even if in a brief form, with copies to their Deans. If possible, we will evaluate submissions received before January 15, 2004, by the end of January, and we will evaluate submissions received before March 15, 2004, by the end of March. We will try to make funding recommendations to the VP Academic, who will consult with Deans, in time for the courses to be offered in 2004-3 and 2005-1 respectively.

Please direct your proposals to:

Curriculum Implementation Task Force

c/o KC Bell

Office of the Vice President Academic

Fax: 604-291-5876

Or via attached document to: [kbell@sfu.ca](mailto:kbell@sfu.ca)

Please see section 4.3 for the principles we propose to employ to guide decisions about the allocation of resources. See Appendix D for proposal guidelines.

### **3.5 Certifying W, Q and B Courses**

We recommend that, during implementation, courses be designated W, Q and B by the appropriate Support Group based on documentation supplied by the programs nominating the courses for these designations.

One or more successor bodies with expertise in and commitment to each requirement should be charged with monitoring and maintaining the lists of W, Q, and B courses to ensure that there is an ample supply to meet the demand and that the goals envisioned for these requirements continue to be met.

For DB courses, the process of certification will include determining the sub-group or groups (B-Sci, B-Hum, B-Soc) to which a Designated Breadth course belongs. Programs

seeking to have a course certified DB will be asked to recommend a classification. The Breadth Support Group may seek clarification from other programs regarding the appropriate classification/category proposed for a DB course.

The content of some courses may qualify them to be classified in more than one subgroup (e.g., both B-Sci and B-Soc). When a course qualifies for more than one DB designation, students taking the course may select one (and only one) of the designations.

Credits for individual courses should not be split. However, specialized programs such as the Semester for Dialogue and various Field Schools may qualify to have some or all of their credits distributed among classifications (e.g., 6 credits B-Hum, 6 credits B-Soc).

All courses that are identified, revised or developed as a result of this curriculum initiative will have to go through the normal channels of review and approval at Departmental, Faculty and University levels.

## ***4: RESOURCE ISSUES***

### **4.1 A Planning Challenge**

Implementation of the W, Q and B requirements is intended to improve the quality of undergraduate education at SFU without overburdening students with additional requirements. Most students should be able to fulfill the WQB requirements within the credit hours currently required in their programs.

Careful planning will be required to ensure that an appropriate number of courses are available to students, and that a suitable quantity of fiscal, human and physical resources are available to support the development, implementation and maintenance of the new requirements. SFU currently provides significant support for writing, quantitative and breadth courses. Although it should be possible to redirect some resources, we anticipate that substantial additional resources will be required.

### **4.2 Modeling Supply and Demand**

We are currently preparing estimates of the number of course spaces that will be needed to enable students to meet the WQB requirements. Preliminary analyses indicate that the challenge of developing enough courses to meet the need will be greatest for writing. We currently offer enough Q courses to enable students to meet the Q requirement, but we will have to develop new Q courses for students in the humanities. We probably also offer enough breadth courses to meet the demand, but we anticipate the need to develop DB courses that are specially designed to expose students from one discipline, such as the sciences, to the ideas of other disciplines, such as the humanities.

See Appendix F for the types of analysis we envision performing to estimate the resources required to implement the requirements.

### **4.3 Resource Allocation**

We are eager to encourage and support the participation of faculty and programs in the identification and development of W, Q, and B courses. We are preparing guidelines and procedures to guide the allocation of resources to implement and sustain the new requirements. We expect the costs of initial development to be higher than the costs of maintaining the requirements.

Models for teaching W, Q and B courses differ in expense, but different models may be necessary to support different pedagogies. We are committed to developing fair and open procedures for the allocation of resources and to making hard decisions that ensure that resources are allocated equitably and used effectively and efficiently. Whenever possible, structures designed to develop, implement and maintain the requirements should be housed within, and be complementary to, existing University frameworks. The long-term success of the W, Q and B requirements will depend on implementing sustainable teaching and administrative models.

### **4.4 Procedures for Resource Allocation**

The procedure we propose to follow for the allocation of resources for WQB pilot projects is outlined in section 4.3 and Appendix D. The procedures we propose to follow for the allocation of resources during the implementation process are outlined in Appendix E. Following implementation, we recommend that normal course approval processes be followed.

## ***5: ADMINISTRATIVE ISSUES***

### **5.1 Using Existing Structures**

Our guiding principle in all administrative matters has been to integrate the proposed changes into the existing administrative and decision-making structures of the University in a way that meshes with the needs of other BC post-secondary institutions. In this section we address some relevant issues.

### **5.2 Recruitment**

We do not believe that requiring domestic students who apply to SFU to write a language proficiency test will entail a significant hardship. Students admitted to other BC universities are required to take such tests, and most BC students write the LPI relatively early in the application process. Our student recruiters report they are often asked by potential applicants from BC high schools why SFU does not require applicants to take the LPI (as do UBC and UVic in order to place students in appropriate first-year English

courses). Most high school students who apply to SFU also apply to other BC colleges or university colleges.

Students applying to UBC and UVic from outside BC are not exempted from the LPI requirement, although some students choose to write the test following their arrival in BC. Sitzings of the LPI are offered in a number of locations outside of BC, and individual sittings can be arranged anywhere in the world.

Some concern has been expressed that requiring language proficiency scores will discourage otherwise qualified applicants from applying to SFU, but as mentioned, most applicants take the test anyway. Although data provided by Analytical Studies suggest that a relatively small number of high school students applying to SFU would be deemed inadmissible on the basis of their language proficiency scores, we believe the benefits of identifying such students are worth the costs. The proposed requirements are sufficiently flexible to allow for exceptions to be made when appropriate. We believe that the statement of SFU's commitment to excellence implicit in the new requirements should be beneficial to recruiting activities.

### **5.3 Admissions**

One foreseeable impact of the changes in the admission process is that applicants would have to write the LPI far enough in advance for their scores to be included in their applications. Currently, the early admission deadline for Fall semester entry (for Canadian high school applicants) is two months before the regular application deadline. Students seeking early admission would have to write the LPI before December of their Grade 12 year. Such students could, however, be granted admission contingent on achieving acceptable language proficiency scores. Applicants seeking admission to SFU in other semesters would have more time to submit language proficiency scores, because spring and summer semesters do not have an early admission process. Administratively, the admissions process need not change significantly; applicants would simply submit additional information that should be helpful in making admissions decisions.

It is difficult to know whether the proposed changes to admission requirements would result in a change in the demographic profile of students admitted to SFU. What is perhaps more easily predicted is an improvement in the skill set and academic readiness of admitted students.

### **5.4 Transfer and Articulation**

SFU grants transfer credit for most of the academic courses taken by students at BC's "sending institutions" (institutes, colleges, and university colleges). We will work with the sending institutions to determine which transfer courses warrant certification as W, Q or B.

#### **5.4.1. Articulating Q Courses**

We expect the articulation process to be relatively straightforward for Q courses because the quantitative component of courses is usually apparent in course descriptions. Q for the Humanities-type courses may require closer analysis.

#### **5.4.2. Articulating W Courses**

We expect the articulation process to be more complex for W courses. The characteristics that distinguish a W course from other courses are in large part pedagogical, and these features are often not apparent from standard course descriptions. It will take much closer inspection to determine whether transfer courses meet the W criteria. Adding to this complexity is the possibility that a transfer course may merit a W designation when taught in one way, but not when taught another way (while being fully deserving of non-W transfer status in both cases). Because most transfer courses are lower division, students will generally be unable to satisfy the upper-division W requirement before admission to SFU.

#### **5.4.3. Articulating B Courses**

It will be relatively easy for students to satisfy Undesignated Breadth (UB) requirements with transfer courses. The situation with Designated Breadth (DB) is more akin to that for W-course articulation. SFU will have to examine the sending institutions' courses carefully to determine which ones merit a DB designation.

### **5.5 Record Keeping**

The new Student Information System (SIMS) will be able to track completed W, B, and Q requirements. Courses with W, Q, or B labels will be listed in the SFU Calendar, the electronic course catalogue, and when successfully completed, on students' records. Students will be able to see which courses carry which designation for course selection purposes, and students and advisors will be able to track which requirements remain to be completed for graduation. We propose that the W, B and Q requirements be noted in cumulative fashion on students' official transcripts.

### **5.6 Standards and Exemptions**

If a program is unable to implement the new requirements without jeopardizing the academic integrity of its curriculum, it may apply for an exemption. We propose that programs seeking exemptions prepare a rationale for their request, then consult with the relevant Support Group(s), which will forward the request to the Task Force. After review, the Task Force will forward its recommendation along the following path: the appropriate Department or Program UCC → the Faculty UCC → SCUS → SCUP → Senate.

## ***6: CONCLUSION***

We believe that this initiative has the potential to enhance significantly the quality of undergraduate education at SFU and to elevate its national profile. It also contains the potential to make faculty more aware of and engaged in the University curriculum as a whole and to engender a set of new and exciting courses. Although the costs of implementing the proposed recommendations may be significant in material and staff resources, we believe the benefits will vastly outweigh the costs.

Our consultation schedule is shown in Appendix G, as is a timeline for some major project goals over the next several months.

We welcome your comments and suggestions. Please send them to [kbell@sfu.ca](mailto:kbell@sfu.ca).



*APPENDICES*

**Appendix A: Graphic Representation of the Proposed New English Admissions Standard**

<i>2006 English language skills competence requirements</i>			
<u>English requirement</u>	<u>Additional requirements</u>		
A grade of 80% or higher in English 12 or equivalent	→		
A grade of 70% or higher in a course more advanced than English 12 or equivalent	→		
For example, IB, AP or a college English course for which English 12 is a prerequisite			
A score of Level 6 on the essay component of the LPI or equivalent test	→		
A grade of 70 to 79% in English 12 or equivalent	Plus a score of Level 4 or 5 on the essay component of the LPI or equivalent test	→	
A grade of 60 to 69% in English 12 or equivalent	Plus a score of Level 4 or 5 on the essay component of the LPI or equivalent test	and completion of a Foundational Writing Course with a grade of C- or better before being allowed to register in a W course.	→
<b>International applicants</b>			
<u>English requirement</u>	<u>Additional requirements</u>		
Current test standards via TOEFL, IELTS, etc.	Completion of the LPI or equivalent test during first semester of registration at SFU.	→	
	<i>Those scoring below Level 4 must complete an appropriately designed Foundational Writing Course (e.g., the English Bridge Program) with a grade of C- or better before being allowed to register in a W course</i>		

Demonstrated English Competence

## Appendix B: Examples of Existing W, Q and B Courses

A number of courses, each within their own particular context and for their own purposes, are currently offered at the University and would potentially qualify as meeting the W, Q or B requirements. The list of potential W, Q, B courses provided below is meant to supply a sense of the range of existing courses that may conform to our draft definitions.

### Writing courses

#### *Business*

The Business Communications course BUS 360 is designed to provide students with the strategies and skills to communicate effectively in the business world. While the main emphasis in the course is on written communication – memos, letter, email, reports and employment documents – other types of communication are important and are addressed. Students are required to do writing in class and out of class. Feedback is provided on out of class work and the students are then given the opportunity to re-write the work. The primary goal is to raise their communication performance to a professionally acceptable level within realistic business contexts.

#### *Engineering*

The ENSC Undergraduate Communication program is a four-year integrated program that consists of a sequence of six courses and other program requirements relating to mandatory co-op and the honours thesis. Three one-credit communications courses are paired with courses from the core curriculum to create a three-to-five credit writing intensive unit. For example, ENSC 102-1 *Form and Style in Professional Genres* is paired with PHYS 131-2 *Physics Laboratory I*. ENSC 102 focuses on the style and format of technical writing with attention to laboratory reports. It also includes resumes, cover letters, and interview skills to help students prepare for their first internship semester. The three paired courses and another two-credit stand-alone course could be classified as writing intensive. All four are taught by senior lecturers supported by TAs who have been trained within the program.

#### *English*

English 199 introduces students to the practice of scholarly writing. Focusing specifically on the research genres, it addresses the conditions students encounter as readers at university, and the expectations they must meet as writers at university. Accordingly, students should be prepared to read and master complex and often lengthy scholarly materials from a variety of disciplines, and to concentrate on developing their own ability to compose rigorous scholarly argument. Assuming students' competence at sentence level, and presupposing some experience of the contexts of university writing, English 199 is neither a remedial course nor one suitable for writers seeking ESL instruction.

Students undertake six assignments, ranging from 400 to 1500 words, developed from assigned readings of the type described above. One of these assignments is composed in class, and a passing grade in the in-class assignment is a necessary (but not sufficient) condition for passing the course.

#### *Physics*

PHYS 332 is a lab course that is being revised with the idea of converting it into a writing-intensive course. Students work on a series of experiments during the semester and write up

one of these experiments as a paper suitable for submission to a physics journal. Several of the other assignments have been changed to enhance and develop this experience.

The writing-related assignments are used to get the students ready to write their final report. For example, students are asked to analyze a classic physics paper with emphasis on how the material is presented and how the scientific argument is developed. Other assignments ask them to make an outline of their formal report or write drafts of figure captions or other sections. These are read and returned with comments, but not marked. The full draft of the final report is returned with comments on strengths and weaknesses and students are given the opportunity to revise.

The faculty member who usually teaches the course handles all of the feedback and marking involved in the writing-related assignments and in the formal report. He does not feel comfortable assigning this evaluation to a TA.

### **Quantitative Courses:**

#### *BUEC 232: Data and Decisions I*

An introduction to business statistics with a heavy emphasis on applications and the use of Excel. Students will be required to use statistical applications to solve business problems.

#### *STAT 101: An Introduction to Statistics*

An introductory course in the collection, description, analysis and summary of data, including the concepts of frequency distribution, parameter estimation and hypothesis testing.

#### *FPA 147: Introduction to Electroacoustic Music*

An introduction to the application of electroacoustic technology to music, including the concepts of the audio signal, signal processing and sound synthesis in their musical applications. The techniques of tape music, electronic music and computer music composition will be introduced and their role in both studio composition and live performance will be discussed. Practical experience in several of these areas is included in the lab component

#### *IART 206: Programming Multimedia, Encoded Activity*

Designed to introduce students to the concepts involved in multimedia production. Multimedia is understood as interactive applications that the user engages through multiple channels of visuals, text and audio. The tools used are Director and Lingo.

#### *SA 255: Introduction to Social Research*

An introduction to the conduct of sociological and anthropological research. Topics covered include: the relationship between theory and research, concept formation, operationalization, exploratory studies, hypothesis generation and testing, data collection techniques within both sociology and anthropology, the assessment of causality, the critical evaluation of research on both theoretical and methodological grounds, the definition of research problems, and ethical issues in social research.

### **Quantitative Courses for the Humanities**

#### *PHIL 001: Introduction to Critical Thinking*

An introduction to the evaluation of arguments as they are encountered in everyday life. The central aim will be to sharpen skills of reasoning and argumentation by understanding how arguments work and learning to distinguish those which actually prove what they set out to show from those which do not. Open to all students.

*EDUC 211: Mathematical Experience 1: Numbers and beyond (pending approval)*  
Builds on a variety of mathematical topics to build the mathematical literacy of Liberal Arts students in general and to increase their capabilities for quantitative reasoning and deductive argumentation in particular.

*EDUC 212: Mathematical Experience 2: Shape and Space (pending approval)*  
Mathematics will be presented as meaningful and accessible human activity situated in relevant historical and cultural contexts. Focus on aesthetics and utility of mathematics, with emphasis on problem solving, participatory investigations and collaborative projects rather than applying the lecturer/tutorial format.

*Late Renaissance Thought and the New Universe (from Dartmouth University)*  
Focuses on the problem of planetary motion and the search for a satisfactory predictive model in the sixteenth and seventeenth centuries, exploring the interactions between mathematical, scientific, political, philosophical, artistic and magical fields of discourse in the early modern period. Developed and co-taught by a mathematician and an English professor.

*Mathematics and Music (from Dartmouth University)*  
Reveals the mathematical structures and patterns underlying music. Students learn about timbre (through Fourier analysis), scales, melody, rhythm, musical structure. Developed and co-taught by a mathematician/composer and a musician.

*Mathematics and Science Fiction (from Dartmouth University)*  
Draws on a substantial body of novels and stories that depend on mathematical ideas. Is mathematics simply a way of mystifying, even intimidating, readers, or does understanding the underlying mathematics contribute to the total experience of reading a story?

### **Designated Breadth Courses**

#### **Designated Breadth in the Humanities courses (B-Hum):**

##### *FPA 104: Music Fundamentals*

This course is designed to provide a basic understanding of the elements of music and teaches the skill of reading music notation. An introduction to music theory and exposure to the application of music materials in a wide spectrum of music literature will be accompanied by practical exercises. The course is designed for students with no formal music training.

*HIST 105: Western Civilization from the Ancient World to the Reformation Era*  
An introduction to the Greek and Roman origins of Western Civilization, and its development to the 16th century.

##### *HUM 101: Introduction to the Humanities*

An introduction to issues and concepts central to the study of the Humanities. Through exposure to primary materials drawn from different periods and disciplines, students will become acquainted with a range of topics and ideas relating to the study of human values and human experience.

#### **Designated Breadth in the Sciences courses (B-Sci):**

##### *BISC 100: Introduction to Biology*

An introduction to the basic concepts of biology, emphasizing evolution as a unifying theme. Topics include cell structure, mitosis and meiosis, DNA structure and function, evolution and population and ecosystem ecology.

*EASC 103: The Rise and Fall of Dinosaurs*

An introductory course that deals with the class Dinosauria and, in particular, how our understanding of this extinct group of animals has been radically altered in the light of new discoveries during the last few decades. The course addresses the rise of the dinosaurs, criteria for the recognition of the different groups, fossil data regarding dinosaur metabolism, evidence of dinosaur behavior, possible evolutionary relationships with birds and so-called feathered dinosaurs, and theories of dinosaur extinction.

*EVSC 200: Introduction to Environmental Science*

The course focuses on how environmental scientists develop their insight and how the scientific discoveries eventually become incorporated (or not) into new regulations and attitudes.

*PHYS 190: Introduction to Astronomy*

Historical astronomy, telescopes, the sun and the solar system, stellar evolution, galaxies, cosmology.

*Designated Breadth in the Social Sciences courses (B-Soc):*

*ARCH 105: Evolution of Technology*

A history of technology from earliest times to the beginning of the Industrial Revolution. The course will discuss the causes and effects of technological change, as illustrated by specific technological developments including stone tools, metallurgy, agriculture, etc.

*CRIM 104: Sociological Explanations of Criminal and Deviant Behaviour*

A survey of some major sociological perspectives on crime and deviance that will include both mainstream and critical theories. These will include: anomie, neutralization, control, group conflict, sub-cultural, ecological, functionalist and critical theories. Critical analysis of the assumptions upon which each theory is based. Examination of the similarities and differences between/among the various explanations.

*HIST 151: The Modern Middle East*

An introductory survey of the changing societies of the Middle East since 1800. Emphasis will be placed on familiarizing students with the basic aspects of Islamic society, the influence of European imperialism, the modernization of traditional societies, the origins of the Arab-Israeli conflict, and the social and political ferment in the period since the Second World War.

*LAS 140: Cultural Heritage of Latin America*

A multi-disciplinary introduction to contemporary Latin American culture through the examination of pre-Columbian, Iberian, and African civilizations.

*SA 100: Perspectives on Canadian Society*

An examination of Canadian society from the perspective of the social sciences — an introduction both to the nature of Canadian society and to the use of sociological and anthropological concepts applied to the analysis of modern societies in general. This course is meant to appeal to those who specifically wish to expand their knowledge of Canadian Society, and also to those who may be considering further work in sociology and anthropology. Topics to be considered include class structure, the nature of Canada's population, regional variation, gender relations, multiculturalism, native issues.

## Appendix C: Types of Writing-intensive courses

1. **Content courses with a writing component.** Existing courses (often relatively small in size) are modified to include writing assignments, typically with marker assistance. The balance of grades in such courses is adjusted to reflect the value attached to the written work.<sup>11</sup>
2. **Writing courses linked to content courses.** One and two credit courses of this type are currently offered in the School of Engineering by lecturers with expertise in writing, rhetoric and technical communication who are assisted by TAs.<sup>12</sup>
3. **Discipline-specific writing courses.** Courses of this type are stand-alone writing courses designed to teach students to write in the genre of the disciplines that offer the courses. The writing courses taught in the Faculty of Business Administration, which are supported by a peer-mentoring program, are examples. It has been suggested that SFU develop a course for writing in the Sciences.
4. **English writing courses:** In English 199 and English 371 students from different disciplines are taught to write in the genres of their disciplines.<sup>13</sup>
5. **Content courses taught by faculty with the assistance of trained TAs.** Relatively large content courses are restructured to meet the criteria for W-courses. TAs assume the primary responsibility for helping students develop their writing skills. TAs are trained and their workload is adjusted to reflect the additional work required to supply feedback and marking of writing.<sup>14</sup>
6. **Content courses taught by faculty with the assistance of a head writing instructor and TAs:** A writing component is added to a relatively large course whose content is taught primarily by a faculty member. The writing component is overseen primarily by another instructor with expertise in teaching writing. Under the supervision of the faculty member, the writing instructor teaches tutorials and coaches and coordinates the teaching of several TAs, monitoring the writing-intensive features of the course, providing instruction on essay grading and revision, and organizing W-intensive tutorials.

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<sup>11</sup> See <http://www.sfu.ca/cwil/facresp/disciplines/archaeology.html> for an example.

<sup>12</sup> <http://www.ensc.sfu.ca/undergrad/courses/ENSC101.html>

<sup>13</sup> <http://www.sfu.ca/cde/cp/engl/engl199.htm>

<sup>14</sup> (For an example see

[http://www.sfu.ca/cwil/docs\\_content/fac\\_docs/w\\_courses/HIST\\_101\\_syllabus.](http://www.sfu.ca/cwil/docs_content/fac_docs/w_courses/HIST_101_syllabus.))

## Appendix D: Guidelines for Requests for Resources to Develop or Revise W, Q or B Courses

- 1 Indicate whether resources are needed for the revision of an existing course or for the development of a new course. Has the course in question been scheduled? For what semesters? How often will the course be offered over the next five years? Provide an estimate of how many students would be enrolled in the course.
- 2 Describe the course, focusing on its W, Q and/or B content.
- 3 Describe the instructional methods, the W, Q and/or B requirements of the course, and methods of evaluating students' work and assigning grades.
- 4 Identify those who will be responsible for revising, developing and teaching the course.
- 5 Estimate the costs of revising or developing the course (e.g., teaching release, expert consultation).
- 6 Estimate the costs per student of offering the course (e.g., additional instructional support; specialized equipment; base increase in program budget). How much more will it cost to offer the course as W, Q, or B than as a regular course offering?
- 7 Describe how the effectiveness of the course will be assessed.

### Evaluation Criteria

- 1 Extent to which the course is equipped to meet the objectives of, and criteria for, a W, Q and/or B course.
- 2 Cost-effectiveness.
3. Extent to which the course helps to balance the proportion of W, Q and/or B courses offered in different disciplines.

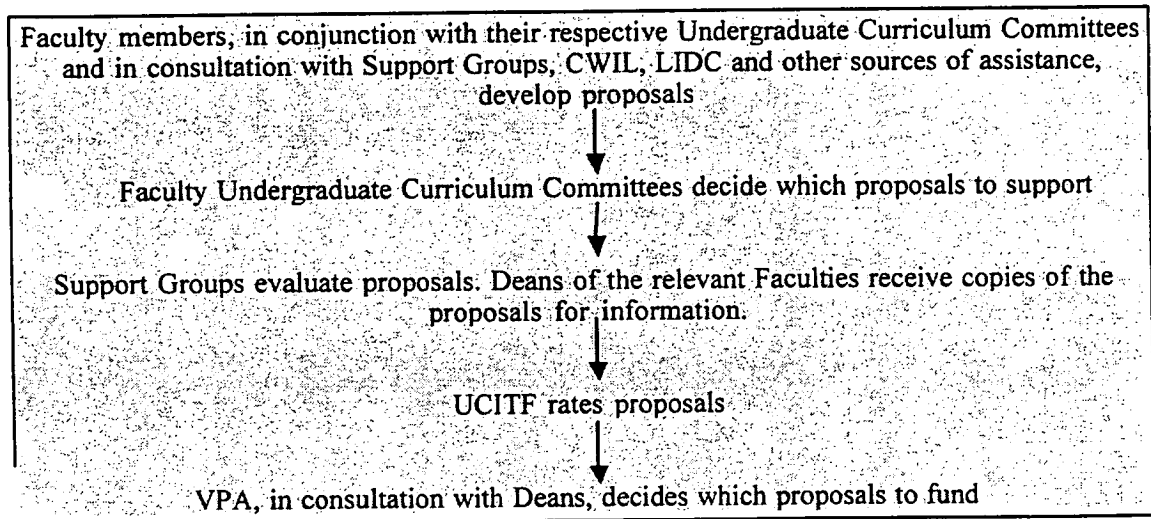
*Proposals that are innovative and creative are particularly welcome.*

*At the conclusion of the first offering of a revised or newly developed W, Q, B course, a report containing an evaluation of the course and assessment of students' learning will be required.*

## Appendix E: Decision-making Process for the Initial Allocation of Resources to Develop W, Q and B Courses

Initially, we anticipate a large number of requests for resources. After the WQB requirements are in effect, we expect the administration of the requirements and allocation of resources needed to maintain them to be integrated into the regular operations of the University.

We propose to employ the following process for making decisions about the allocation of resources for the development, adaptation and/or teaching of W, Q and B courses:





## Appendix F: Modeling Student Demand

### Student Demand Projections

- Analyze the number of students we currently admit and propose to admit and determine how many of these students would qualify to take the recommended W, Q, B courses.
- Estimate the number of students requiring W or Q foundational courses before they could proceed to fulfill the requirements.
- Map projected student intakes and create flow models for W, Q, and B courses that would potentially be required for academic years 2006/07 – 2011/12.

### Student Places Required

- Have each of the Support Groups provide a rough estimate of the number of student places in courses that already exist that could potentially fulfill the requirements.
- Review what courses WQB courses incoming college students could transfer .
- Have each of the Support Groups provide a rough estimate of where gaps could occur, i.e., Q student places for Humanities students, W student places for Science students, Big Ideas or Flagship type offerings for B, etc.

### Courses required

- Based on the above figures, provide a rough estimate of the number of new and revised courses that will be required for each of the requirements during the period 2006/07 – 2011/12.

### Level of Interest from Programs to Meet the Need

- Through the responses from the questionnaires and based on follow-up meetings, develop a preliminary assessment of the willingness of programs to help meet the need for courses for the W, Q, B requirements.

### Resources required

- Assess the type, the amount and the extent of currently available resources.
- Identify sources of funding that could be used to assist with the development and implementation of the requirements.
- Estimate the type, the amount and the extent of additional resources required and their costs.

A preliminary example of the kind of demand modeling we envision for W courses is outlined below:

#### *Annual course spaces required*

<u>Acad Yr</u>	<u>W1</u>	<u>W2</u>	<u>W1&amp;W2</u>
06/07	2600	700	3300
07/08	4,300	2000	6300
08/09	4,500	4200	8600
09/10	4,600	5700	10,300
10/11	4,700	5900	10,600
11/12	4,800	6000	10,800

## Appendix G: Consultation Schedule and a Brief Timeline:

The Undergraduate Curriculum Implementation Task Force intends to carry out a comprehensive consultation process in relation to the Discussion Paper and to consider all input received from members of the SFU community as well as those external to it. Students are invited to attend all of the open forums or to provide their feedback via their student representatives on SCUP, SCUS, SCUTL and Senate. Any Program, School, Department or individual who feels that they need a specific consultation in addition to those listed below, may request one of the Task Force through KC Bell at [kbell@sfu.ca](mailto:kbell@sfu.ca) or (604) 268-6854.

All information will be accessible through the Undergraduate Curriculum website, Comments can be sent in writing either via e-mail or paper or provided at one of the specific consultation sessions.

It is expected that the consultation process will run from late November 2003 to late spring 2004.

### 2003

November 26	VP's & Deans
December 3	SCUP
December 8	SCUTL
December 9	SCUS
December 11	Admissions Recruitment SFU International
December 11	Chairs Directors Administrators
December 12	BC Council on Admissions and Transfer

### 2004

January 5	Senate
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#### *Specific Consultations Still to be Determined for January 2004 Onward:*

Five Faculty Undergraduate Curriculum Committees  
Student Services  
Course Accessibility Implementation Committee  
1 forum – Burnaby  
1 forum – Surrey  
1 forum – Harbour Centre  
Kwantlen University College  
Langara College  
Douglas College  
Capilano College

#### **Important dates:**

November 25, 2003: Release of Discussion Paper  
November 25, 2003 – April 2004: Consultation Period  
January 15, 2004: Deadline to receive proposals for pilot WQB projects for Fall 2004  
March 15, 2004: Recommendations on funding first pilot projects for Fall 2004

March 30, 2004: Deadline to receive proposals for pilot WQB projects for Spring 2005

May/June 2004: Recommendations to Senate for approval

Students admitted for September 2006: Implementation Date