

opportunities. The success of the revisions to our undergraduate curriculum recommended in this report will depend to a great extent on the quality of writing-intensive, quantitative-intensive, and breadth courses we designate and develop and the quality of instruction in the courses. We cannot expect students to be attracted to SFU because they will be required to fulfill general education requirements. Students will be attracted to SFU because an SFU degree certifies a high quality education.

IV. RECOMMENDATIONS

RECOMMENDATION 1: WRITING REQUIREMENT

To improve the writing abilities of students who graduate from SFU, we recommend that SFU adopt the following requirement:

To earn a Bachelor's degree from Simon Fraser University, all students must obtain a grade of C- or higher in a minimum of 6 credit hours of specifically designated university-level writing-intensive (W) instruction. A minimum of 3 W credit hours must be taken at Simon Fraser University within the first 30 credit hours of a student's undergraduate program at Simon Fraser University. Students transferring to Simon Fraser University may transfer a maximum of 3 W credit hours toward the 6 credit hours of specifically designated W instruction. Students earning a second Bachelor's degree must complete a minimum of 3 W credit hours at Simon Fraser University.

Before registering for a W course at Simon Fraser University, students must obtain either a score of 75% or higher on all sections of the Language Placement Index (LPI) or an equivalent language placement test specifically mandated by Simon Fraser University, or a final grade of 80% or higher in BC English 12 or its equivalent.

Definitions and Elaborations

By W courses, we mean specifically designated courses in which:

- Students write multiple drafts and receive feedback on each draft;
- Writing is associated with critical thinking and with problem-posing and problem solving through assignments that require arguments;
- Samples of writing are available for analysis involving recognition of typical structures, modes of reasoning, use of evidence and technical language, and modes of audience address.

Wendy Strachan and Steven Davis have described the development and assessment of a model writing-intensive course for Philosophy 100 in "Learning to Write in Philosophy: Developing a Writing Intensive Course".

The LPI is offered frequently and costs approximately \$40 (within BC) and \$80 (other countries) to take. It is a two and a half-hour examination. Part I assesses the ability to identify errors in sentence structure. Part II assesses the ability to identify errors in English usage. Part III assesses the ability to evaluate or summarize paragraphs. Part IV requires students to write a 300-400 word essay.

Commentary

- Because SFU grants Bachelor's degrees, SFU should accept responsibility for ensuring that the students to whom it grants degrees have the training the degree certifies.
- A mechanism for selecting, developing and approving W courses will have to be created.
- Students in some fields should be able to satisfy the writing requirement by taking the courses required in their majors.
- C- is considered a satisfactory grade at SFU. The University or individual programs may want to set a higher standard.

- Students should take one W course within their first 30 credit hours at SFU because the ability to comprehend English and express oneself in English are foundational abilities, important for success in other courses.
- Although this recommendation does not prescribe any changes in SFU admissions requirements, it increases the value of adequate preparation for university studies.
- Students admitted to SFU will have at least two semesters to pass the language placement test or otherwise establish that they are prepared to take W courses.
- Students should be required to obtain a good score on a language placement test before taking a W course because high school level writing abilities are prerequisite to university level writing-intensive courses. Knowing that they will be required to take a W course at SFU should increase the motivation of students applying to SFU to ensure that they acquire the prerequisite writing abilities.
- With respect to ESL, SFU's current requirements are, "an applicant whose primary language is not English, or whose previous education has been conducted in another language, must demonstrate a command of English sufficient to meet the demands of classroom instruction, written assignments and participation in tutorials and discussions (p. 29, 2001/2002 Calendar)."
- UBC's and UVic's writing requirements are summarized in Appendix 2.

RECOMMENDATION 2: QUANTITATIVE REQUIREMENT

To improve the quantitative abilities of students who graduate from SFU, we recommend that SFU adopt the following requirement:

To earn a Bachelor's degree from Simon Fraser University, all students must obtain a grade of C- or higher in a minimum of 6 credit hours of specifically designated university-level quantitative-intensive (Q) instruction. A minimum of 3 Q credit hours must be taken at Simon Fraser University within the first 30 credit hours of a student's undergraduate program at Simon Fraser University. Students transferring to Simon Fraser University may transfer a maximum of 3 Q credit hours toward the 6 credit hours of

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Commentary

- The purpose of this requirement is to assure that everyone who graduates from SFU with a Bachelor's degree has had some experience with quantitative and logical/inferential skills at the university level.
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covered by their major programs. Within this context, many types of course may qualify as “designated” breadth courses, including, (a) “great books,” “great ideas,” and “masterpieces,” courses (it was suggested that “great equations” might be added to the list) (b) topical or focus courses for non-majors (e.g., “First Nations Writers,” “The History of Conflict in the Middle East,” (c) area introductions appropriate for non-majors (e.g., “Physics for Poets,” “History of Philosophy,” “An Introduction to the Fine and Performing Arts,” “Film” (d) courses emphasizing an understanding of other cultures, and (e) thematically-focused interdisciplinary courses (e.g., courses dealing with issues such as war, globalization, morality, the purposes of education, the nature of the human mind, and science and human cultures). In our discussion paper, we offer examples of each kind of course from SFU and from other universities.

- Core courses required in major programs at SFU could constitute designated breadth courses for students not majoring in the programs.
- According to this recommendation, some programs may require 6 designated B credit hours in each of the three areas, for a minimum total of 18 designated B credit hours; other programs may adopt the requirement for a minimum of 18 hours of designated B credit, but allow all courses to be outside the area of the major program; still others may require only 12 designated B credit hours divided between the two areas outside the area of the major program.
- Although most designated B courses should fit comfortably into one of the three breadth categories (Hum, Sci, Soc Sci), there may be some designated B courses for which a double listing is appropriate. In such cases, a student could count the course in one area or the other but not in both.
- Although we would expect most of the designated B courses to be offered by departments in related Faculties (e.g., most B-Sci courses would be offered by departments in the Faculties of Science and Applied Sciences; most B-Soc Sci courses would be offered by departments in the social sciences, the Faculty of Business Administration, and the Faculty of Education), departments would not be constrained from offering designated B course outside their areas. For example, the Department of Psychology might offer a B-Sci course on the brain.
- Beyond the required designated B courses specified above, students may take any courses (B or non-B) approved by their home program to complete their required 24 “outside” credit hours .
- Certain courses, though nominally outside the area of a student’s major program, may not be appropriate for breadth. For example, a course in statistics in the Psychology Department would not be an appropriate breadth course for a student majoring in Statistics or Actuarial Science. Such exceptions will have to be identified by advisors in each student’s major program.
- Designated breadth courses that are also classified as writing-intensive or quantitative-intensive may be counted as meeting both requirements.
- Upper-level breadth courses may require lower-level breadth courses as prerequisites.

Commentary

employed in SFU's Certificate of Liberal Arts program, distinctions are made in the Humanities between analysis of contemporary issues, literature, fine and performing arts, culture and civilization, and period and place. Foundations of Social Science is distinguished from Social and Behavioral Analysis, and Natural Science is distinguished from The Impact of Science and Technology. Although SFU or some units within SFU may choose to make additional distinctions, we believe the three category system is the best place to begin.

Implications for Departmental Breadth Requirements

University-wide breadth requirements may enable some departments to simplify the breadth requirements in their major and honors programs. However, the purpose of the recommended breadth requirement is to ensure that all students granted Bachelor's degrees from SFU obtain a broad liberal education.

Alternative Ways of Fulfilling Breadth Requirements

We view the breadth requirement in Recommendation 3 as a minimal requirement that will be met by most students. It is designed to be relatively simple, to supply clear guidance to students, and to be easy to administer. We would not, however, want to discourage faculty from developing more creative initiatives with greater potential educational benefits, especially initiatives that would attract top students. Therefore, we leave open the option of programs permitting students to fulfill the breadth requirement in alternative ways, as long as such alternatives are consistent with the spirit of Recommendation 3 (and, more forcefully, are not designed to evade it). In our discussion paper, we outline innovative methods developed by other universities to cultivate breadth. We believe the following three are particularly attractive.

Clusters of courses and course sequences

Students could satisfy the breadth requirement by obtaining a Certificate in Liberal Arts, currently required in our Faculty of Education for students obtaining a B.Ed degree. In addition, we should be able to develop clusters and sequences of breadth courses at SFU organized around common themes, some of which could be taken by students in cohorts. As an example, we might offer a sequence of courses from Biology, Archaeology, Anthropology and Psychology dealing with human evolution. Or, more ambitiously, we might offer more Undergraduate Semesters like the one developed by Mark Winston around the theme, "Nature, Environment, and Society," options such as UBC's Arts 1, Science 1 and Foundations 1, distinctive semesters or comprehensive programs like the ones described at the end of our discussion paper, and/or course-credit experiences associated with exchange programs and field schools. We would expect such opportunities to be attractive to students applying to SFU.

Interdisciplinary Studies

One of the distinguishing features of SFU is its emphasis on interdisciplinary studies. Many SFU courses and programs are interdisciplinary in nature. Previous committees have recommended the expansion of interdisciplinary opportunities (see the Abridged Compendium in our discussion paper). When appropriate, breadth courses could be clustered or sequenced in ways that encourage students to integrate concepts from different disciplines.

Topical Approaches to Breadth

We might allow students to fulfill the breadth requirement by selecting a general topic early in their programs that they explore and elaborate over the time of their degree. As examples, a Physics major might study the crusades; a History student might study the geology of the solar system; a Performing Arts student might study hunter-gatherer societies. Courses on such topics could be offered by a variety of departments. Such topics could be recorded in portfolios. Assistance in choosing such topics, locating and scheduling appropriate courses, and establishing criteria for assessment would need to be developed. A set of templates or models might be provided to incoming students, guiding but not inhibiting unduly their construction of a portfolio. This would have implications for resources devoted to student advising.

RECOMMENDATION 4: GPA CALCULATIONS

Students are often inhibited from taking “breadth” courses by fear of lowering their GPAs.

We recommend that two GPAs be calculated and exhibited on students’ transcripts: the overall cumulative GPA (as is now done), plus a separate partial GPA for courses within each student’s major program, as determined by that program.

Commentary

If programs decided to base decisions about scholarships and other rewards on students’ GPAs within their

V. GUIDELINES FOR IMPLEMENTATION

During the committee's discussions, a number of issues and concerns arose pertaining to the implementation of recommendations such as those we are making. The guidelines outlined below are intended to draw attention to issues that, if not addressed, might hamper the implementation of our recommendations.

Allocation of Resources

The availability of adequate resources to implement our recommendations will be critical to their acceptance by the university community and to their success in meeting their educational goals. Faculty will be understandably resistant to the changes we are recommending if the changes are seen as robbing scarce funding from already under-funded programs. Some of our recommendations would be relatively inexpensive to implement (e.g., the modified GPA calculations and the designation of existing courses as W, Q, or B); others would require significant new resources (e.g., the development of new W and B courses). We have not regarded it as part of our mandate to explore budget issues in detail. Nevertheless, we believe that a balanced approach to implementation is necessary. It will be critical to implement these proposals in a graduated manner, as adequate resources for each part become available.

The Formation of Committees or Task Forces

Committees or Task Forces will have to be created to identify, develop, and label writing-intensive, quantitative-intensive, and breadth courses, to specify the particulars of calendar entries, (such calendar entries would, of course, have to be approved by Senate), to ensure that the SFU community is apprised of the changes, and to evaluate and assess the elements of the curriculum that are developed and implemented. We envision the implementation process being guided by a 3 year plan in which courses are identified, designed, assessed, refined, and offered as prototypes. See Appendix 1 for some of the issues that we

Appendix 1

Suggestions for Implementation

1. Communication and Consultation

If our recommendations are accepted, the university community should be encouraged to become involved in making the changes necessary to implement them. Regular information updates and events to involve members of the community in the process will be needed. Communication and consultation mechanisms could include: (a) discussion forums via e-mail, (b) open face-to-face sessions, (c) surveys, (d) newsletters, (e) updates published in SFU News, and (f) brown bag presentations.

2. Development of Courses and Implementation of Recommendations

To anticipate and to address potential problems with the development of foundational and breadth courses and the implementation of our recommendations, we suggest that task forces consider undertaking the following:

- Evaluate existing Language Placement and Mathematics Placement tests and if necessary provide assistance for the development of new assessment tools;
- Undertake an evaluation of similar curriculum models at other post-secondary institutions to adapt best practices and to avoid pitfalls;
- In consultation with Faculties, Schools, Departments and Programs, develop criteria for the identification and development of W, Q, and B courses, considering successful formats developed and in use at SFU and other post-secondary institutions;
- Meet with Departments/Programs to discuss criteria for W, Q, and B courses and to offer assistance in identifying, certifying and labeling existing SFU courses in accordance with the criteria;
- Undertake an estimate of the number of new W, Q, and B courses that will be needed and the cost of developing and offering them. A draft of a proposal for the development of writing-intensive courses, with projected costs, developed by Wendy Strachan, Steven Davis and Dennis Krebs is available from krebs@sfu.ca.

3. Formation of Curriculum Groups

Faculty, TAs and staff involved in the implementation of the recommendations might meet in groups to share their experiences and to develop procedures for spreading the word.

4. Selection of Experts and Advocates of the Curriculum Recommendations

To expedite the implementation of the recommendations, a core group of “early adopters” and advocates could be identified within the university community. This will provide the curriculum initiative with an identity as well as an impetus to move forward and to succeed. Advocates will need time and resources to dedicate themselves to the curriculum change process. Involvement in the curriculum change and implementation process should be seen as a career opportunity and should not constrain career progression.

5. Role of Special University Units and Staff

We would expect groups such as the Learning and Instructional Development Centre, the Centre for Writing-Intensive Learning, the English Bridge Program, the Mathematics Department, the Department of Statistics and Actuarial Science, and Academic Advisors to be involved in the implementation process.

6. Resources and Training

Faculty and TAs involved in the development of new courses, especially W courses, may require resources and training. Some suggestions are (a) workshops, (b) seminars, (c) summer institutes, i.e., on writing, (d) time and assistance with pre-course planning in the semester before courses are offered, followed by ongoing refresher or advanced sessions, (e) ongoing mentoring and in-course consultation during the first semester of offering, (f) peer training/mentoring, and (g) help desks.

7. Recognition and Reward

The efforts of those who contribute to the curriculum change process should be recognized appropriately. Recognition and reward might include: (a) administrative support, (b) teaching reductions, (c) professional allowances/opportunities, and/or (d) credit towards merit increments in salary.

8. Assessment and Evaluation

Assessment and evaluation of the courses and programs implemented as a result of our recommendations is an essential component of the change process. Such assessments should be part of a continuing cycle of review, quality control and improvement.

9. Transfer and Articulation

High schools and post-secondary institutions will need to be apprised of targeted changes in SFU curricula that have implications for admission and transfer. Courses will have to be articulated.

10. Funding

In order to help defray some of the costs of the recommendations, additional sources of funding should be sought, including grants and fund-raising initiatives.

Appendix 2

UBC and UVic Writing Requirements

1. English Language Admission Standard

UBC: “all applicants, regardless of country of origin or of citizenship status will be required to demonstrate competence in the English language prior to admission. Competence is expected in all four of the following skills: listening, reading, speaking, and writing. (p. 26)”

“applicants may demonstrate English language competence by one of the following”

1. 4 years of full-time education in English
2. A grade of 70% or better on the provincial examination portion of BC English 12 or equivalent
3. 4 years of full-time instruction in a school in which the level of English proficiency is equivalent to that in BC Grade 12.
4. A specified grade on an English language proficiency test (e.g., TOEFL)
5. Six credits of post-secondary 1st year English for which UBC gives transfer credit
6. Graduation from a recognized degree program in which English is the primary language in a country where English is the principle language.

UVIC: “The University requires that applicants whose first language is not English submit proof of English proficiency.” (p. 16)

Options similar to UBC’s 1, 4, 6, (above) plus:

- a grade of 86% or higher on English 12 or its equivalent from other provinces
- successful completion of the UVIC Admission Preparation Course

2. English requirement

UBC is currently considering a proposal to implement the requirement that all students take two writing-intensive courses.

Current UBC requirements are: “All programs require at least three credits of first-year English; most require six credits.”

UVIC: “All undergraduate students...must complete 1.5 units of first-year English” (p. 18). Students who meet the following criteria may be exempt from completion of the UVIC Admission Preparation Course or its equivalent from other provinces: 2-33 525 1186 Tm /F1.0 1 rov2 0 -ent from

Students who fail to obtain a level 5 score on the essay section of the LPI are not permitted to register for 1st year English courses.

UBC offers the following exemptions from their LPI requirement:

1. final grade of 80% in BC English 12 or BC English Literature 12
2. grade of A (80%) in Grade 12 English (senior year) in a Canadian secondary school outside of BC...
3. a grade of 4 or better in the Advance Placement course in literature and composition and a grade of 5 or better in the higher level International Baccalaureate course in English Literature
4. passing UBC's English Composition Test prior to Sept. 1992
5. six credits of first year English or equivalent, acceptable for transfer to UBC

UVic:

Students applying to UVic must write UVic's English Placement Essay or take the LPI. Scores on these tests determine which English courses students may take. Students who score low must take non-credit remedial English courses. Students are allowed four attempts at remedial English courses, after which they are required to withdraw.

Appendix 3:

SFU, UBC and UVic Mathematics Requirements

All SFU departments and Schools except the School of Communication and programs in the Faculties of Arts and Education