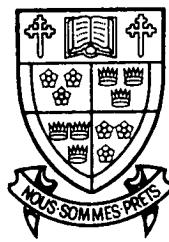


S.77-101



SIMON FRASER UNIVERSITY

REPORT OF
THE PLANNING COMMITTEE
ON INTERIOR PROGRAMMING

SEPTEMBER 15, 1977

TABLE OF CONTENTS

	<u>PAGE</u>
ACKNOWLEDGMENTS	1
SUMMARY	2-3
THE OVERALL PLAN:	
1. Background to the Plan	4-6
2. The Planning Process at SFU	6-11
3. The Proposals	11-20
4. Education	20-21
5. The Roles of the Universities	22-23
DISTANCE EDUCATION PROGRAM	24-30
REGIONAL UNIVERSITY SCHOOLS AND UNIVERSITY CENTRES	31-36
LIBRARY SUPPORT	37-42
ADMINISTRATION	43-44
APPENDICES: BUDGET	45-50
SCHOOLS	51-125
COMMITTEE MEMBERS	126

ACKNOWLEDGMENTS

We appreciate the continuing encouragement of President Jewett and members of the Board of Governors. We are very grateful to over thirty faculty members who contributed directly to the development of possible 'School' programs and to many others for comments.

We acknowledge helpful discussions in Senate and its Committee on Academic Planning, as well as with all Chairmen of Departments.

A large number of Interior residents, including staff and students of Colleges, turned what might have been an abstract exercise into a valuable learning experience for the Committee. We are indebted to them for their time, their criticism, their frankness, their courtesy and their friendliness. We share their enthusiasm for the future of higher education in the Interior.

SUMMARY

This report describes a plan for extending degree-completion opportunities throughout British Columbia. Because of its large area and dispersed population, this province represents an unusual challenge to educational planners. Geography, climate and a major emphasis on resource industry produce an environment where the participation rate in higher education in the Interior is significantly below that in the metropolitan areas. The plan set out below provides a solution to the connected problems of making available university programs of continuing high quality and of stimulating economic development in areas distant from the major population centres.

Universities are unique institutions in that they are involved in both the creation and dissemination of knowledge. Whether research is inspired by curiosity or by potential application to problems, it requires the investigator to be up-to-date in his or her field and alert to potential discovery - both qualities of prime value to senior students. In developing our model of university centres with, necessarily, relatively few faculty, we have therefore stressed two basic requirements - a "critical mass" of researchers and high quality library services. We are proposing the establishment of Regional University Schools whose research and teaching focus is interdisciplinary - often problem- and job-oriented - and whose library resources are those of a major university.

In British Columbia no reasonable deployment of universities or Schools can provide degree-completion opportunities to all residents. A distance education program is required to extend an opportunity to all.

We propose a system using a variety of media with a major emphasis on tutorials and face to face contact. Such a system may be supplemented by radio and television. The program would be designed for degree-completion through university departments in a wide range of disciplines.

The Schools and the Distance Education proposals are complementary. Distance education students within commuting distance of a School can supplement their program with courses offered in the School's classrooms; School students can supplement their curriculum with courses from the distance education program. The Centres where Schools are located would also provide classrooms and administrative support for the tutorial component of the distance education program.

No proposal from Simon Fraser concerning the delivery of university services to the Interior can overlook our ongoing Professional Development Program in Education. In PDP this university has clearly demonstrated an ability to provide high quality instruction at the senior level for pre-service teachers. This program is offered in eleven locations throughout British Columbia. With the possibility of expansion of this and other education programs currently being offered in the Interior, the introduction of additional models seems to us premature at this time. However, we propose some new thrusts in the PDP model to provide a broader range of professional service.

We illustrate the concept of the Regional University Schools by developing several examples of possible curricular themes. We provide sample budgets for a typical School as well as for the distance education program. Finally, we suggest specific roles for each of the three public universities in the Province; these are shown to be logical extensions of their current activities outside the metropolitan areas.

THE OVERALL PLAN

Simon Fraser is proposing what we believe to be a unique and powerful model for the delivery of degree-completion opportunities in the interior of British Columbia. Basically, we envision the combination of a well-designed distance education program with carefully-focussed programs at various regional centres. Both programs would be augmented by professional programs of the other two universities and administered through regional University Centres. We propose this model because after substantial research and planning we believe it responds most fully and realistically to the challenge of extending access to university programs in this Province. Before presenting this model itself, we describe the background and planning process which led us to our proposals.

1. BACKGROUND TO THE PLAN

In 1974 a major development in the Government's commitment to providing greater access to university programs occurred with the funding of "innovative program proposals" from the three public universities. These proposals included the delivery of university courses beyond the metropolitan regions. UBC was funded to expand and improve its correspondence program; U.Vic. to provide a sequence of upper division Arts courses in Nanaimo; and SFU to initiate a correspondence program and to locate third and fourth year courses at various college locations in the interior.

In the fall of 1974 we located upper division credit courses in Prince George, Kamloops, and Kelowna. Enrollments were not large and discussions with the students and college representatives confirmed

our views that an ad hoc approach to providing university courses was inappropriate. We therefore requested and received permission from the Minister of Education to re-direct funds for interior courses towards a feasibility study and towards other means of determining how best to serve the interior's needs for university programs. Over a period of several weeks, two members of the SFU staff (at times joined by representatives of UBC and U.Vic.) toured the college regions to obtain the views of college administration, faculty, and students. Partly as an outcome of these consultations, we set as our objective the establishment of degree-completion programs in two college locations. As planning progressed we decided instead to combine two programs at one location.

In the fall of 1975 in collaboration with Okanagan College, we established at Kelowna degree-completion programs in Psychology and Biological Sciences for a three-year experimental period. We saw this venture, in addition to providing degree-completion opportunities for the first time in one interior location, as a means of testing several assumptions about how to organize and provide high quality programs in the interior. We learned a great deal from this project which influenced the proposals outlined below.

In addition to these programs in Arts and Science, SFU had earlier been operating Faculty of Education Professional Development Programs in Vernon, Kamloops and Prince George and these, too, have provided us with valuable and extensive experience in meeting specific Interior needs.

In Spring 1976 the newly-elected Government of British Columbia

established the Commission on University Programs in Non-Metropolitan Areas, presumably because it felt that activities to that date were insufficient and uncoordinated. The Commissioner, Dr. William Winegard (formerly President of Guelph University and now Chairman, Ontario Council on University Affairs), was assisted by an advisory panel of ten members, including two representatives from each of the three public universities. In May 1976, the Commissioner issued a discussion paper and during the ensuing weeks he and his advisory panel held public meetings in numerous British Columbia locations where they received written and oral briefs. Written briefs were invited from interested groups or persons and Dr. Winegard also consulted representatives of several key organizations, such as college and university faculty associations. The Report of the "Winegard Commission" was delivered to the Government on September 2, 1976.

With the principles of efficiency and practicality apparently guiding his views, Dr. Winegard's major recommendations were that a new division of Simon Fraser University or, alternatively, a new university, ought to have responsibility for providing degree-completion programs in the non-metropolitan areas of the Province. The vehicles for delivery would be four or five university centres, each with ten to twelve faculty providing several conventional majors, and an outreach program utilizing "packaged courses". Dr. Winegard further suggested that SFU should decide by December 31, 1976, whether it would assume this responsibility, and that, should SFU not accept it, a new university should be established.

2. THE PLANNING PROCESS AT SFU

Although SFU's planning for interior programs had been initiated in 1974, the Winegard recommendation intensified and focussed the planning process. To assist the University Senate in its consideration of the Winegard proposals, a task force headed by Professor B. Beirne was asked to examine the implications of accepting the proposals. Dr. Beirne submitted his report to the Senate Committee on Academic Planning which in turn forwarded a series of alternative proposals to Senate. Senate agreed in principle that SFU should accept the responsibility for providing interior programs (but without accepting the details of Winegard's Report) and agreed that SFU should undertake detailed planning. The Board of Governors, however, modified this position to accept only the principle of planning, with any commitment towards implementation contingent upon guaranteed and adequate funding. This position was forwarded to the Universities Council, with a request for funding the planning of a "grand design".

The planning which culminated in the present Report began in January, 1977. During January, February and March, meetings were held with the Chairman of the Universities Council and with the Deputy Minister of Education to establish the degree of Government commitment to interior programs and, in general, the roles that the three public universities might assume. On March 24, planning funds were granted to each of the three universities (SFU, \$120,000; UBC, \$50,000; U.Vic., \$30,000). At SFU, a senior group known as the Interior Programs Planning Committee (IPPC)* was formed.

* Members of this Committee are listed in the Appendices

The IPPC did not believe that it was necessary to gather detailed data on the need for interior university programs, both because the Winegard Commission already had determined that a need existed, and because the Government appeared committed to providing degree program opportunities in the interior. Further, the Universities Council had recently conducted an accessibility study which documented the inequality of opportunity facing interior residents. The Government saw the provision of Interior programs not only as a means to equalize opportunity, but also as an instrument for spurring regional development. Both of these aims are reflected in our proposals. The IPPC did examine a variety of data and reports: the briefs to the Winegard Commission; economic, social and political profiles of the Interior regions; reports of other provinces and states dealing with external degree programs; and relevant research and conceptual analyses available in the published literature. Several committee members visited other institutions to learn, first hand, how they had responded to the kinds of challenges we face in British Columbia, particularly those that may be best met through Distance Education methods.*

While the above inputs into the planning process were valuable, the most critical input came from our interactions with individuals in the regions to be served. At the outset of our planning, we decided that collaboration with the interior colleges in the provision of upper

* The institutions visited were: Athabasca, Waterloo, and Memorial Universities in Canada; the Open University in the United Kingdom; and Queensland, New England, New South Wales and Macquarie Universities in Australia.

division degree programs was essential, for both educational and economics reasons. Nevertheless, we were, and remain, sensitive to concerns that the unique character and mission of the colleges should not be jeopardized. Further, we believed that our proposals ought to develop through successive consultations with groups and individuals in the college regions to be served. To this end we scheduled a series of meetings at important stages of proposal development:

- (a) After an initial meeting in early April at Castlegar, we met on April 18 with the Principals and Vice-principals or Dean of Cariboo, New Caledonia, and Okanagan Colleges and asked them their views on how best the various needs could be satisfied and on some of the general concepts being developed by the IPPC.
- (b) A first discussion paper was developed by the IPPC as an outcome of these meetings and of our own valuable experience in mounting off-campus credit degree programs. This paper outlined in general terms the concepts of Schools of Excellence, Distance Education, and University Centres. It was distributed to all interior college regions, to relevant groups within Simon Fraser University (including the Senate Committee on Academic Planning, Senate, the Board of Governors, Department Chairmen and the academic community), to the other Universities and to other interested groups such as the College Faculties Federation and the Association of Colleges of British Columbia.
- (c) Representatives of College Councils, administration, faculty and students as well as representatives of various

community groups met with the IPPC at Prince George, Kamloops, Vernon, Kelowna and Castlegar/Trail. The character and make-up of meetings varied from community to community, but in all almost 200 persons were involved in sixteen different meetings.

(d) Visits were made to Northern Lights, East Kootenay, and North-West Colleges to discuss this first working paper.

(e) On May 27, IPPC representatives met with all British Columbia College Principals on the discussion paper.

(f) As a result of these full and frank discussions IPPC re-worked the first set of general proposals. Papers on Distance Education, Regional University Schools and University Centres, and a Library Model were prepared. In addition, eight faculty working groups prepared prototypes of Regional University Schools, each with a different focus. This set of papers, the Draft Proposals for Interior Programs - July, 1977, was distributed to the College regions, to Senators and Governors, to the other Universities and to others.

(g) During July and August members of the IPPC visited Prince George, Kelowna, Kamloops, Vernon and Castlegar to discuss and assess the Draft Proposals. Representatives of UBC and U.Vic. were invited to participate and to discuss their proposals.

(h) Two meetings of representatives of the three public universities were held in June and July to share information and coordinate proposals where possible.

(i) This report has been developed as a result of IPPC assessment of the data collected.

3. THE PROPOSALS

Among virtually all interested groups there appears to be consensus as to certain basic conditions which should be met by any university programs for the Interior:

- a. They should substantially increase access throughout British Columbia to degree-completion opportunities.
- b. They should be of unquestioned quality and their credibility should be established at the outset.
- c. They should not exacerbate but rather help reduce credit transfer problems; portability of credit should be improved.
- d. They should be provided in as efficient and cost-effective a manner as possible.
- e. They should contribute towards the employment potential of graduates and the development of the regions in which they are located.
- f. They should complement and support any existing programs, particularly those of the regional colleges.
- g. They should be designed and offered to meet the unique characteristics of the diverse student population to be served.

It would appear that the Minister of Education has rejected the idea of establishing, at this time, a new and separate university in the province. Although a new institution may be equipped to satisfy some of the above conditions, it could not hope to initially satisfy conditions b, c, and d above as well as one of the existing universities.

Assuming that the existing universities will assume responsibility for interior programming, there are two basic models of assigning responsibility, that is, by (i) region or geographic area, and by (ii) programs. Simon Fraser has opposed the regional or "balkanization" approach to delivering programs because we are convinced that such a development would not satisfy conditions a, c, and d above as well as would a programmatic approach. Many of the briefs to the Winegard Commission, and Dr. Winegard himself, took this position. We have tested our views on this question in our recent meetings with college regions and, in general, they have received strong support, in part because interior residents are quite mobile within the province and do not wish to face an avoidable credit transfer problem.

Province-wide accessibility can be provided only through a program of distance education. However, there is consensus that a university presence, incorporating classroom instruction and scholarly research, ought to be established in several regional centres. But there is a difference of opinion concerning the kind of program that should be offered in these centres. In essence, two kinds of regional centre programs are being suggested: a "mini" Faculty of Arts, providing core degree-completion programs in six to eight disciplines; and an interdisciplinary program with a job-market and regional development focus. We are proposing the latter type of program and our rationale for doing so is reinforced by first explaining our reasons for rejecting the "mini" Faculty of Arts type of program.

The mini-Faculty or mini-university proposal includes the following basic features: location of up to twenty-four faculty to teach up to eight disciplines (or three faculty per discipline) for conventional majors in Anthropology-Sociology, Economics, English, Geography, History, Philosophy, Political Science, and Psychology; the eight departments operate as integral parts of the home-campus departments; integration of library and other services with a local regional college; provision of adequate facilities. We gave careful consideration to the development of a mini-Faculty, or a mini-university. Our current degree-completion programs in Kelowna, offering majors in Psychology and Biological Sciences and some electives in other disciplines, are based on just such a model. But our experience with it, and the experiences of the College officials, have persuaded us that it is not a viable model, and not in the best interests of those to be served. Quite briefly, our reasons for rejecting this model are as follows:

1. No region of the province has a sufficient population base to support a conventional "bricks and mortar" type of Faculty or University. Enrollments in many courses and in many disciplines would be quite small, a situation already experienced in the second year programs of all interior colleges. Only those within commuting distance of such a centre would be served. Since the program offered would be a very modest replica of that provided by the parent university, it would attract few, if any, students beyond its immediate region. It would be expensive.

2. With a maximum of three faculty per discipline, faculty would have to be chosen with broad disciplinary interests in order that

a reasonable variety of courses could be offered for a major in that discipline. An inevitable corollary would be an insufficient number of faculty with common research and intellectual interests to maintain a high quality research/academic environment. It would be very difficult for faculty to maintain themselves as scholars. (Fly-in-fly-out professors mitigate this problem, as we have found in Kelowna, but a viable program cannot exist without full-time, resident faculty.) Inevitably the programs would be seen as of lower quality than those at the parent institution.

3. Such programs would not contribute to regional development, or provide job-market skills as well as other programs might.

4. The centres are defined as branch plants, governed by Departments and Senate remote from the area. Hence, such programs are not likely to develop the autonomy and flexibility necessary to respond to regional needs and changes in those needs.

The main perceived advantage of the mini-Faculty is its standard approach. The conventional B.A. is well known and many people, particularly those with some traditional university background, would feel comfortable with it. However, as shown above, the mini-Faculty proposal clearly does not satisfy most of the program conditions or requirements for the interior of our province.

What, then, do we propose? Essentially, three inter-related programs and services:

1. A Distance Education Program that would provide every resident of British Columbia, regardless of place of residence or work schedule, the opportunity to complete a degree (B.A., B.Sc., B.G.S.)

2. Regional University Schools, in four to six of the most populated regions, providing interdisciplinary, career-oriented degree-completion programs (B.A., B.Sc. and B.G.S.).

3. University Centres, wherever a Regional University School is located, to provide administrative support services (i) to the Schools; (ii) to the Regional Coordinator of Distance Education; (iii) to the professional development and other programs provided by the other universities.

Each of the above three proposals, as well as a suggested model for delivering library services, is described in some detail in the following sections. Also, for illustrative purposes, descriptions of eight potential Schools are included in the Appendices. The basic features of our proposal are as follows:

The proposal for a Distance Education Program is not a mere extension or expansion of existing correspondence courses as we now know them. Our Distance Education Program proposal has three significant features. First, the program would be designed for degree-completion. Eight to twelve conventional academic majors, and perhaps some occupationally-oriented programs, would be developed as coherent, sequential programs, not as an ad hoc selection of courses. Students, regardless of where they lived, would have an opportunity to complete a B.A. or a B.G.S., and potentially a B.Sc. Second, the courses included in the program would be systematically designed to provide quality instruction at a distance. Empirically-based course development procedures, field testing and revision, and continuous evaluation would guarantee their quality. Third, the Distance Education Program would have an extensive system of regional support. In each

college region a Regional Coordinator of Distance Education would provide course planning, counselling and administrative services. The coordinator would also arrange tutorial sessions, with such sessions being as frequent as once per week in the more populated centres. In the larger centres, face-to-face contact between students and tutor, and in some courses between students and instructor, would be as frequent as regular, campus-based courses. In centres of less population, itinerant tutors and telephone-tutoring would be established. Such a system of tutorial support has the advantages of providing face-to-face contact where demand and interest warrant it, and of reducing that contact (and expense) where there is less demonstrable student interest.

While the Distance Education Program would provide degree-completion opportunities throughout the province in conventional Arts disciplines (and potentially in Science as well), the Regional University Schools would provide a university presence and unique, high quality programs in four to six centres. Each School, such as a School of Resource Management, would offer a focussed, interdisciplinary degree-completion program (B.A. or B.Sc. and a B.G.S.). Most or all Schools would have a quasi-professional and job market orientation, and would relate to the needs and character of the regions in which they would operate, or to non-metropolitan regions in general. Faculty research would take advantage of the problems and opportunities presented by the region. The Schools would not replicate the program offerings of the three coastal universities and therefore could expect to attract students from all parts of the province, and beyond. The viability of

the program would not depend solely on those within commuting distance. Each School would have ten to twelve resident faculty, with visiting faculty from time to time. Local persons would be appointed for specific teaching assignments. The Schools would offer only upper division courses, and these would be designed to articulate with college and other university programs. Students enrolled in the Schools' programs could supplement their course of study, particularly electives, with courses from the Distance Education program. Students in the Distance Education program, on the other hand, would be able to take advantage of classroom-based courses in the Schools where such courses matched their educational program goals. Each School would have a Director who would, in consultation with faculty, students and the community, exercise considerable autonomy, thereby enhancing the potential of eventual separation should that be desirable at some time in the future.

University Centres would be established wherever a School is in operation. The University Centre would be an administrative unit, providing support services to the School, to the Distance Education program for the organization of tutorial classes and student services, and to the professional development courses and programs offered by the other universities. The University Centre could also work in close collaboration with the college, thereby effecting savings through a joint use of facilities and resources.

The School and Distance Education model offers significant advantages for interior residents. We recognize that the mobile student is likely to prefer the greater course opportunities at the three major universities, but for many in the interior such mobility

is not possible. A great strength of the combination of the School plus Distance Education Program approach is the uniqueness of the School programs: the entire province would become the constituency for each School. They would offer different programs which would be relevant in their application to the employment and regional development needs of their communities. Also, the Distance Education Program would provide for all residents of British Columbia conventional programs very much like those the mini-Faculties could offer only to individuals within commuting range. Apart from face-to-face tutorials, many standard courses would also be available in the basic School curriculum. The strength of the conventional approach is its instant credibility -- the same kind of program as at UBC, SFU and U.Vic. and at each location. However, this means that all these programs compete for the same students, and it is highly doubtful whether the mini-Faculty approach could compete successfully with the coastal universities.

What about student numbers? Our Kelowna experience suggests that they will be relatively small. In our Psychology and Biology majors -- both popular fields of study -- we have about 30 FTE students for 4.5 FTE faculty, a reasonable ratio for upper division work. We know, however, that many of our 120 enrollees would take Sociology or Geography or English if it was offered and only take Psychology because it is available. Similarly students with science interests are forced to take Biology. We suspect that if we offered ten or twelve major disciplines our enrollment might increase by only two or three times inasmuch as some Psychology and Biology enrollees would probably transfer to other disciplines. Since the course offerings of a

proposed School would provide sufficient courses for majors in some disciplines relative to the specific focus of the School, we would anticipate that the student numbers would be 50% - 80% of a mini-Faculty even if there were no students taking the interdisciplinary major. Since the faculty complement of a School is only half that of a mini-Faculty, it is clear that even if the specific School program attracted no majors at all, it would still be cost effective in comparison. The great interest evinced in the Schools, however, suggests a much more optimistic outlook. The Distance Education project, of course, provides all the alternative programs to supplement that of the School at even greater cost advantage.

While the faculty members of a mini-Faculty would have interests spread over several fields, the faculty of a School would have research interests in common. This could lead to innovative scholarship and a reputation for excellence in a particular area as good as in the parent university. Such a group of interactive researchers would make the School unit vital and viable--perhaps the most crucial design feature of all. The Schools might well contribute to regional development, be responsive to changing needs and provide local and province-wide job market skills. Inevitably they will be largely autonomous. On the other hand, mini-Faculties are branch plants of a distance university; their faculty form a small minority in their parent university departments with potentially problematic relationships and a questionable degree of autonomy.

On the basis of available data we project about 150 FTE students per School. Based on comparable programs in other parts of the world, we believe that the FTE enrollment for the Distance

Education program should stabilize at several times that figure.

4. EDUCATION

A variety of opportunities exist for teacher certification in British Columbia. In the metropolitan areas, UBC, U.Vic, and SFU offer B.Ed. degrees and one-year transfer programs. In addition, SFU offers a one-year Professional Development Program to graduates of Arts and Science and to students with not less than two years' undergraduate credits; the University of Victoria offers a one-year internship program to selected graduates. Both of these one-year programs are School-based, offered in interior centres, and are well-accepted.

Table I lists present sites and enrollments of the SFU PDP units with 240 potential graduates per year. In addition, UBC offers the NITEP in several interior locations and SFU, the Mount-Currie community-based program for Native Indian teachers. Taken together, the SFU, U.Vic., and UBC programs allow approximately 300 students to complete certification requirements in Interior centres. Table I indicates that potential students can be served over a wide geographic area. Because of the variety of opportunities, the range of instructional locations and the number of available places, it is our view, at this time, that the establishment of additional pre-service education programs should have a low priority. Within the basic PDP model, several new thrusts seem logical and useful, enabling a better response to local community needs and providing a broader range of professional service.

TABLE I: Sites and Enrollments
of SFU Professional Development
Programs

Dawson Creek	15 students/yr.*
Prince George	45 "
Kamloops	30
Salmon Arm	15
Vernon	30
Kelowna	30
Penticton	15
Nelson	15
Cranbrook	15
Chilliwack	15
Mount Currie	15 Native Indian Students on a two-three year program.

* The figures cited are typical figures based on the number of Faculty
Associates/site. In some years they are higher, in some, for
particular sites, lower.

5. THE ROLES OF THE UNIVERSITIES

It is perhaps natural for those involved in planning to believe that their proposal is the best one. We believe that our approach offers significant opportunities for each university to participate effectively; that it is the only proposal offering degree-completion opportunities for all residents of the province and that it offers an unusual opportunity to develop a novel interdisciplinary program which would give each major community its own Centre of university studies, unique in the province. Potential spin-offs in regional development clearly exist. Further, we believe that it is cost effective over all.

Are the Schools viable? Our experience and research indicate that they are. At SFU our Faculty of Interdisciplinary Studies offers certain unique undergraduate degree programs in Communications, Criminology, Fine and Performing Arts, Kinesiology and Computing Science. Each of these departments is staffed by faculty with different disciplinary backgrounds. In many ways each is very similar to a School as we have described it. And they work: their students are in demand; their research activities are strong and well focussed. Our Master of Pest Management program is largely independent of the university departments and is carried on in the field to a significant degree. After four years it is world renowned and its enrollment includes professionals from seventeen countries. This experience leads us to believe in our proposals. We believe that these programs would work outside the university.

UBC has traditionally had major programs in professional development in the Interior. Its professional schools are a provincial resource. Its non-credit offerings are widely known.

Expansion of these programs, within a coherent plan throughout the Interior, is a needed and important role. U.Vic. has assumed responsibility in the south of Vancouver Island for credit programs, and plans to offer some professional programs oriented to the non-metropolitan areas.

Our strengths lie in our established performance in offering degree-completion work in the Interior, our success in establishing new types of interdisciplinary programs at SFU and our flexible credit transfer system. The developing orientation of U.Vic. professional Schools are very compatible with our model--where we have no comparable programs. UBC has long experience and expertise in the professional development and non-credit extension areas, not available at SFU or U.Vic. Programmatic division of responsibility along these lines requires no compromise of our respective strengths and requires no compromise in the delivery of exciting programs to the residents of non-metropolitan areas of British Columbia.

DISTANCE EDUCATION PROGRAM

The opportunity to complete a university degree can be provided to every person in British Columbia, regardless of place of residence or work schedule. In the past decade there has been considerable world-wide experience with the development of programs which teach at a distance. The best known of these is the Open University, but there are other successful distance education programs, such as in Australia and the United States which, unlike the Open University, have to respond to social and demographic features much like those in our province. Analytical and descriptive studies of programs conducted elsewhere, combined with our experience with correspondence and other external programs, provide a good foundation for creating an effective and high quality distance education program for British Columbia.

The term "distance education" is used here to describe an education program where the student undertakes to complete a course of studies with material prepared by teachers who remain, for the most part, at a distance from him. In most cases the student is responsible for determining the place and time of his study. Instructional materials may include a full array of media, from print to video cassettes. Two-way communication between teacher and student occurs through written and printed words, telephone, and recorded information. Students may be assisted by local tutors and other students and, depending on course requirements, may meet the teacher in intensive seminars, short courses, or laboratory sessions.

In British Columbia, limited distance education opportunities have been provided by the correspondence courses of UBC and SFU. With some reason, "correspondence course" has certain negative connotations. But as many students who have completed correspondence courses know, they offer better instruction than may be generally believed. The courses have been prepared by regular university faculty who have conscientiously identified content and references, and who grade assignments and exams by the standards applied to resident students. As far as can be ascertained, those students who complete a correspondence course do as well as resident students. But the completion rate for the traditional correspondence course is relatively low - perhaps half of the on-campus rate - and that is one of its principal weaknesses. Moreover, students enrolled in UBC and SFU courses cannot complete a degree, or a major part of a degree, through correspondence study or through a combination of correspondence study and intensive, on-campus classes.* These deficiencies need to be rectified. But most important, the academic standards of a distance education program for British Columbia must be beyond question. And, in addition to providing each qualified individual with the opportunity to complete a degree program, we should support his or her efforts with as much commitment as we support campus students. These objectives suggest four basic program requirements:

(1) A coherent curriculum expressly designed for distance education.

The selection or creation of individual courses for distance education should be guided by a carefully formulated curriculum

* UBC limits the amount of degree credit that can be earned by correspondence to 15 units. Simon Fraser does not have such a regulation, but offers an insufficient number of courses for degree-completion.

with explicit objectives. These objectives would concern the structure of various disciplines, student interest and community need, the sequences required for program completion, the program requirements of the proposed University Regional Schools, the need to integrate the courses of several different programs, and overall efficiency. Or, in other words, distance education courses ought not to be selected in an ad hoc fashion. Effective planning should allow us to provide a maximum number of program options with any limited number of courses. Each course potentially could contribute to several programs. Conceivably, the curriculum that would be offered would include majors and minors in a number of conventional, high enrollment disciplines, as well as some interdisciplinary, occupationally-focused programs. It would be expected, for example, that there would be considerable interest in degree-completion programs in the fields of English, Psychology, Sociology, Economics and Commerce, Geography, History, and Political Science, as well as in some programs (degree or diploma) with an occupational focus.

(2) Academic department responsibility for the quality and supervision of its program.

Course responsibility must go beyond the individual faculty author. Program quality will be assured only if the distance education program with which a department is concerned becomes an integral part of that department's structure and responsibility. Curriculum development, course production, course and student supervision, assistance to tutors, and course updating are some

of the activities which departments should assume and for which they should be provided adequate support. Presumably each department would have a committee chairman for its distance education program. Similar academic authority over the program would be required at the Faculty and university levels as well.

(3) Empirically-based course development procedures.

Research into instructional practice has yielded certain "principles" which, when incorporated into a course of instruction, maximize its effectiveness. These principles can be employed quite deliberately and systematically in the design of "pre-packaged" instruction. In fact, distance education can make optimal use of instructional psychology and technology, as demonstrated by the Open University and others. Some of the instructional principles considered important concern a modular approach to course design, the clear explication of anticipated learning outcomes, the provision of appropriate practice activities, and feedback on the adequacy of that practice. Another important course development procedure - one that some organizations consider the most critical - is the field-testing and revision of a course prior to its being made generally available. Because distance education students do not have the same opportunities as campus students to clarify questions and pick up classroom cues, it is particularly important that packaged courses are evaluated for clarity and effectiveness. It has been demonstrated that an empirical approach to course development can increase student retention and completion

rates, improve learning effectiveness, and heighten student interest.

(4) The provision of local tutorial and administrative support services.

The careful design of instructional materials, as suggested above, can accommodate the kinds of two-way communication required for students to complete their courses quite independently. But for many, if not most students, learning is facilitated and is more enjoyable when face to face contact with other persons is part of their course activity. Many of those who made a submission to the Winegard Commission and who anticipated the need for distance education programs made this point. So did many persons in SFU's meetings with college groups. It is expected that some courses or programs, especially those in the sciences, will require attendance at some regional centre or university for intensive instruction or laboratory experience. But as demonstrated elsewhere, most courses can be completed without face to face contact. Wherever possible, however, contact with other persons ought to be provided. To achieve this, we foresee two types of support service at the local level. One would be provided by a regional co-ordinator of distance education programs. This person would attend to concerns such as registration, informational counselling, library services, the appointment of tutors, opportunities to meet with faculty and other distance education students, and study problems. The regional co-ordinator would likely have his office at a university centre where there would be a School, or at close

proximity to a regional college. Secondly, course tutors would be appointed to assist students with course content and assignments. It is expected that in each region where there is a college, tutorial services would be well provided, particularly for high enrollment courses. In less-populated centres where there is no college, tutorial services would be less well provided, but use would be made of itinerant tutors and the telephone. In addition to tutorial services, consideration should be given to the organization of regional and provincial seminars of an intensive nature where students could interact with distance education program faculty. As a general principle, we are of the opinion that, given a limited budget, any given amount of funds directed towards providing tutorial services and student-faculty contact would have greater payoff and student acceptance than having those funds directed towards elaborate media, such as broadcast or cablecast television.

If one were to generalize about the above requirements for a quality distance education program, it would be that the focus of our attention should be on learners and learning, not on processes. It would be unwise, we feel, to tie distance education to any one particular methodology or means of delivery, such as to the tutorial or television, and work from that point in constructing programs, courses, and such. It is our position that we must begin with what is to be learned (the curriculum), and move from that point to selecting the procedures and media that will best achieve the curricular objectives at the lowest cost.

Currently there are over one thousand students in British Columbia completing one or more courses by correspondence. A distance education program with features such as those outlined above ought to enroll at least five thousand students, or one thousand full-time equivalent students. Based on experience here and elsewhere, we expect that most students will be between twenty and forty years old; that women will slightly outnumber men; and that most students will enroll to upgrade their qualifications for occupational reasons. Since distance from conventional classrooms is a function of life style and life responsibilities, as well as space, about half of the expected five thousand students will be from metropolitan areas. Though some students will study full-time, the vast majority will not. Most distance education students will have some full-time preoccupation other than being a student.

In conclusion, it is important to emphasize that organizing distance education requires a developmental, open-minded approach. While there is now considerable experience throughout the world with distance education programs, practice is not yet a science complete with verifiable laws, and it likely never will be. Also, British Columbia is not the United Kingdom or Australia. Our province, its citizens, and our institutions are in many respects unique. We think the basic concepts outlined above are sound, but they should not go unexamined. And, as we develop the program, we need to monitor and assess both operational procedures and outcomes, especially as they relate to students and their learning.

REGIONAL UNIVERSITY SCHOOLS
AND UNIVERSITY CENTRES

The preceding paper outlined the basic elements of a distance education system which would provide all residents of British Columbia with the opportunity of completing a university degree. This system would offer conventional "majors" and "minors" in a variety of disciplines as well as programs structured to meet specific interests and needs of students.

This paper proposes the establishment of, (1) Regional University Schools (classroom-based programs) and, (2) University Centres which would provide administrative support to the distance education program, to the Schools, and to non-credit and professional development courses offered by all British Columbia universities.

THE REGIONAL UNIVERSITY SCHOOL

The colleges throughout British Columbia offer first and second year university transfer courses, but they are not intended to provide the specialized degree-completion programs and research functions which characterize a university. We propose, therefore, the development of university units in several interior locations which would establish a university presence, offer classroom-based instruction to students within commuting distance, and serve as foci for research and regional development. We will call these academic administrative units Regional University Schools. Each School would offer one or more focussed interdisciplinary degree-completion programs. Over time, and in response to demonstrated community needs and interests, a particular location or University Centre might establish additional Schools. Each School would have about ten to

twelve full-time resident faculty, with visiting faculty from time to time for varying periods.

In the development of the Schools' programs, a curriculum will be designed to meet the unique needs of the region. The teaching and research functions would complement each other. The programs would normally have a quasi-professional/job market orientation, relating to job opportunities in the region, or more generally throughout the province. They would be of high quality. The research should take advantage of the opportunities and problems presented by the region. The Schools would have a level of autonomy so that each could develop its own academic character. Because of the uniqueness of the School, it is anticipated that students would be attracted from all of British Columbia, including the lower mainland, and perhaps from other provinces as well. The problems associated with marginal student populations in any one region should thus be minimized.

A basic criticism of the Winegard proposal to establish mini-universities is that the faculty members appointed to teach a specific discipline would have to operate in relative isolation from others in their discipline. It is difficult to see how faculty in such situations could maintain themselves, or be seen as maintaining themselves, as up-to-date specialists. Interaction with colleagues having similar interests is a necessary condition for the critical analysis of research issues, which is one of the prime functions of a university. Institutions with only one or two specialists in each of six or more disciplines are unlikely to be seen as high quality; more importantly, the actual quality of education provided to students, particularly in the third and fourth year levels, must inevitably deteriorate with time as individ-

uals become less and less familiar with the most recent research in their area of specializations.

In contrast to the "mini-university" model, a central concept of the Regional University School is the identification of one interdisciplinary theme where individuals whose backgrounds are in distinct disciplines have similar research interests. In this way, it should be possible to reach a critical mass of faculty with similar research interests, whereas a similar number of faculty spread over many independent disciplines would be far below such a threshold.

The research interests of the School should provide appropriate training for regional employment, solutions to regional problems and potentially spur industrial development. None of these potential benefits is necessarily associated with a conventional liberal arts program, or with the "mini-university" as proposed by Winegard.

THE UNIVERSITY CENTRE

The University Centres, which house the Schools and provide administrative services for the distance education programs, should be located on or adjacent to college campuses. This proximity is desirable in order to make the most efficient use of library, registrarial and other support services. Also, the interaction of college and university faculty should benefit both groups. The Schools would offer upper division courses while the colleges would provide the first two years of academic programs. Articulation between these two programs will be necessary and should be deliberately structured. Further, the distance education programs will be designed to complement and support (such as through the provision of service and optional courses) the programs of

the Schools. The curriculum of the Schools should also be designed to facilitate transfer opportunities among the various School programs and the programs of the three coastal universities. In addition, students enrolled in the distance education (liberal arts) programs would have the opportunity to enroll, as well, in the classroom-based courses offered by the Schools. We also anticipate that each School, once established, would have extension responsibilities beyond its own region, so that other non-metropolitan regions would benefit from the School's resources and expertise.

To summarize, we propose a number of University Centres, located on or close to college campuses in the most populous areas of the interior of British Columbia. These centres would have four main functions. They would provide classroom-based upper-level instruction in focussed interdisciplinary study areas for students within commuting distance; they would provide a research capability oriented to the specific opportunities and problems presented by the region in which they are located; they would provide regional centres for the administration of the distance education program through the organization of tutorial services and intensive classroom-based instruction; finally, they would provide administrative support for non-credit and professional development courses offered by any British Columbia university.

PROTOTYPE SCHOOLS

To illustrate the possible range and specialization of programs within the Schools, we have developed eight examples or prototypes. These School prototypes, each of which is described in detail in an Appendix, have the following specializations:

- School of Resource Management: principles of resource management in agriculture, forestry, fish and wildlife and mining.
- School for Professional Education: programs for pre-service training, teacher continuing education, and research and development services.
- School for the Arts: community-focussed degree study in the fine and performing arts such as music, theatre, dance, film, creative writing and the visual arts.
- School of Humanities: to study the traditional humanities' disciplines of history, literature and philosophy, together with interdisciplinary topics broadly described as the History of Ideas.
- School of Management Studies: a degree program specifically oriented to administration and management in small business and local government.
- School of Applied Social Sciences: regular social science courses combined with applied streams in social welfare, criminology and community development.
- School of Appropriate Technology and Energy Science: broadly-based training in applied science and experience in applying this training to practical problems.
- School of Active Health Sciences: to provide basic and specialized training in the various subdisciplines needed by the active health science and sports science professional.

These examples suggest some possible themes and are intended to indicate how the programs might be designed and administered. A major intent, however, is to stimulate discussion and the development of other possible

orientations which might be more suitable in specific regions of British Columbia.

LOCATION OF SCHOOLS

At this stage in the planning, when even the concept of the School has not been approved, we are not in a position to determine where any particular School should be located. However, discussion with the College regions over the past few months would suggest possibilities and options such as the following:

<u>School</u>	<u>Potential College Region/Location</u>
1. Applied Social Sciences	Kamloops, Kelowna, Prince George
2. Resource Management	Anywhere
3. Professional Education	West Kootenay, Vernon, or anywhere
4. Fine Arts	West Kootenay, Vernon
5. Appropriate Technology and Energy Science	Trail/Castlegar, Prince George, Kamloops
6. Humanities	Vernon, or anywhere
7. Management Studies	Anywhere (decentralized model)
8. Active Health Sciences	Vernon, East Kootenay, West Kootenay

SINGLE COLLECTION/DELAYED OWNERSHIP: A PROPOSAL
FOR THE DELIVERY OF LIBRARY SERVICES
IN SUPPORT OF INTERIOR DEGREE COMPLETION

Whenever a discrete political or educational jurisdiction requires library services, it usually builds a discrete library for itself. Thus, over time, university, college, public and regional libraries are proliferated in kind. In British Columbia, as in other places, this pattern of development has been so consistent that one would like to believe it persists for the best reasons. Unfortunately, it does not.

An established library of any kind can be expected to display the following characteristics: a well-developed acquisitiveness protected by labour-intensive Interlibrary Loan (ILL) regulations (these books were bought for our readers, but you may borrow a few for a short time, if you don't mind the work and the wait); unique call numbers on individual but commonly held items; a unique circulation system and loan policy; and an increasing number of still-useful books that circulate with decreasing frequency (less true for public than for university and college libraries). Dragging its inevitable impoverishment like a millstone, the new library arrives on a scene populated by libraries like the one above and immediately appeals to them for help. And these libraries, embarrassed by riches and chastened by the public conscience (but convinced finally by extra government funds) respond by opening their ILL doors a little wider. In fact, and sorry to say, they cannot do much more even if they are willing, because ILL is the only available vehicle for bypassing those perpetual characteristics that constitute discrete library status.

It is true that in British Columbia we have had some moderate

success at doing more: reciprocal borrowing amongst the Greater Vancouver Library Federation (GVLF) libraries, and the shared cataloguing and collection rationalization programs of the three university libraries are examples; for the public good they represent laudable attempts to overcome uniqueness. Nevertheless, such efforts are analogous to a group of communal grain farmers who, having already built expensive and unnecessary fences, are now taking pride in their invention of stiles. The model being presented here is designed to avoid unnecessary fence building.

THE BASIC PLAN

We propose that all material bought for the specific support of interior Schools be bought and catalogued so as to be indistinguishable from our own (hence, Single Collection); that a record of the account used for each such purchase be captured and held in our history file in anticipation of the eventual separation of the interior programs from Simon Fraser (hence, Delayed Ownership); that our automated circulation system be used to record and control delivery of materials between Burnaby and the Schools, and between the Schools themselves; that manual replication of our loan system, or in some cases that of an associated College, be used by the School to circulate and control material loaned to individuals.

SOME SPECIFICS

1. Communications and Delivery Systems

These have been worked out in some detail and involve the establishment of Telex and Telephone links and the use of commercial, government and institutional delivery services.

2. Books

Prior to the first semester:

- (a) books needed to support the course offerings of a school would be identified.
- (b) the collection of the associated College would be examined to see if any of the required books were available there for use (as part of a reciprocal service arrangement).
- (c) the Burnaby collection would be searched for duplicates of the required titles.
- (d) the remaining titles would be purchased.
- (e) the specially-selected core collection resulting from "c" and "d" would be loaned to the School.

During the semester:

- (a) additional books, both new and from the existing collection, would be sent to the School in response to requests from faculty, the librarian(s) and students.
- (b) our RECALL system (i.e., any borrower may recall General Collection material which is already on loan) would operate equally from all points of service.
- (c) low-use material would be taken from the School and from the Burnaby collection and "loaned" to Storage.

The preceding pattern of activity would become a continual process involving every School.

3. Periodicals

- (a) consistent with current SFU practice, selected articles would be copied and placed On Reserve at each School.
- (b) a limited number of current periodicals would be supplied for faculty and student use at each School.

(c) access to periodical backfiles would be provided in two ways:

- i. free photocopies from the Burnaby collection to the requestor, as is done now in support of the Kelowna program.
- ii. the purchase, for location at the Schools, of microform backfiles in limited numbers as warranted by demand.

4. Reference and Literature Search Services

(a) only modest numbers of reference works would be bought for the Schools; the answers to complex reference questions would be transmitted from Burnaby by Telex and telephone.

(b) SFU's present link via terminal to a growing number of Science and Social Sciences literature data bases would be used to assist faculty research at the Schools.

5. Catalogues

(a) Computer Output Microform (COM) catalogues would provide each School with bibliographic access to the total collection; the circulation system would produce frequent listings of material "on loan" to each School.

6. Distance Education

(a) to enhance the quality and independence of the distance education program, we would give serious consideration to the idea of accompanying each course with a small paperback collection; each book uncatalogued but stamped with a message something like, "This book belongs to everybody who uses the Simon Fraser Collection. Please return it to your tutor when you have completed the course." Where justified by a concentration of students in a non-School area, mini-collections can

be established after the pattern already in place in support of our PDP program. Not to be discounted in this respect is the possibility of following the OPEN SHELF practice of the Library Development Commission.

7. Personnel

It is assumed that the Schools and the SFU Library would be adequately staffed with librarians and support staff.

ADVANTAGES OF THE MODEL

1. School faculty and students would have immediate access to specially-selected collections, and quick (next day service) access to the total collection (the Burnaby campus collection alone now contains approximately 700,000 books and bound periodicals).
2. The capital and material costs would be much less than those associated with traditional models, because the School collections would be kept relatively small but active through a continual semester by semester process of special selection and weeding, and by dedicated adherence to what would become the standing anti-duplication rule: Ownership is expensive, so if what you need can be delivered by truck, telex, telephone or post from another point in the Library, do not buy it!
3. The flexibility of the SFU loan policy and its attendant automated circulation system allows for either tentative or ambitious extension of library services to the interior, whichever is dictated by money and the academic plan.
4. The bulk of the model's collection and operating apparatus exists

now at Simon Fraser.

5. A significant portion of any University Library collection is only moderately used. The model provides an efficient, socially responsible way for the SFU collection to earn its keep.

DISADVANTAGE OF THE MODEL

1. Students and faculty located at the Schools will not be able to browse through the Burnaby collection.

NOTE:

The major aspects of this model will be tested in cooperation with the Okanagan College Library during the period September 1, 1977 to March 21, 1978. In addition, and because our two libraries already share the closest possible working relationship with respect to our use of their space and circulation system, SFU's monograph collection and reference service will be open to College faculty and students at Kelowna.

ADMINISTRATIVE STRUCTURE

GENERAL PRINCIPLES

The implementation of the proposals for Regional University Schools at several locations in the Interior and for a Distance Education Program to serve the whole province will require the development of a new administrative structure. The structure must be such that the programs developed are and are seen to be of the same high quality as those offered on the SFU campus. The programs must also be and be seen to be responsive to the needs of the Interior. Thus the structure must ensure as much local autonomy as possible, consistent with the application of the quality control required for curriculum development. Moreover, the administrative structure of the Schools must be such that, when appropriate, their eventual separation from SFU is not a complex task of re-organization, but rather a natural phase in the Schools' development.

SCHOOL STRUCTURE

The day to day operation of each School will be the responsibility of a Director. This senior faculty appointment will be similar to that of a Department Chairman and will normally involve a half-time commitment to administration and a half-time commitment to teaching and scholarship. The Director will have an Administrative Assistant who will supervise the office staff and carry out many duties normally handled by the Registrar's and Bursar's offices. It is expected that the School Director will establish a close liaison with an adjacent college and with the community in which the School is located.

The faculty of the School will function in a manner analogous to

the faculty of departments for the purpose of course development, faculty selection and promotion and tenure considerations. During the development of the School it will be necessary to supplement curriculum, appointments and tenure committees with senior faculty from relevant departments on the Burnaby campus.

The School Directors will report to the Dean of University Regional Schools. This Dean will function in the same way as a Faculty Dean and will be responsible to the Vice-President, Academic. Since the Dean of University Regional Schools will be the senior SFU administrator with exclusive responsibility for Interior programming, there would be obvious advantages to having his office located in the Interior. On the other hand, the Dean will have to spend a substantial portion of his time representing the Regional University Schools on the various SFU Senate Committees. While his principal office might initially be at SFU, it should be moved to an Interior location as soon as practicable.

DISTANCE EDUCATION STRUCTURE

Because of the breadth of resources required to develop a high quality Distance Education program, SFU departments will need to assume responsibility for both academic and program management functions. The coordination of course development, production, and administrative support systems will be the responsibility of a Director of Distance Education, who will report to the Dean of Continuing Studies. Each Interior college region will have a Coordinator of Distance Education who will provide a range of student services and arrange tutorials. In order to do his job effectively, each Regional Coordinator of Distance Education will need to establish close working relationships with the School (if one is in his region) and the regional college.

PROTOTYPE SCHOOL BUDGETA. OPERATING COSTS1. School

1 Director	\$ 35,000
12 Faculty	348,000
1 Departmental Assistant	18,000
1 Secretary	14,000
2 Technicians	36,000
2 Clerical Staff	24,000
1 Librarian	17,000
2 Library Assistants	24,000
1/2 Computing Assistant	8,000
Part-time help	<u>10,000</u>
	\$534,000
Benefits @ 12%	<u>64,000</u>
TOTAL SALARY AND BENEFITS	\$598,000
Operating/Library	26,000
Operating/Teaching Staff	143,000
Computing Leases/Telephone	<u>12,000</u>
TOTAL OPERATING COSTS	\$779,000
Books (First year)	73,000
Books (Subsequent years)	<u>33,000</u>
TOTAL SCHOOL OPERATING COSTS (First year)	\$852,000
(Subsequent years)	\$812,000

2. SFU Costs

Bursar's Office	\$ 15,000
Registrar's Office	25,000
Library	27,500
Computing Centre	20,000
1/5 Dean and Secretary	<u>16,000</u>
	\$103,500

TOTAL SCHOOL & SFU OPERATING COSTS	(First year) \$955,500
	(Subsequent years) \$915,500

(Cost/FTE based on 150 FTE = \$6100)

B. CAPITAL COSTS

Space - 9000 sq. ft. at \$60/sq. ft.	\$540,000
Equipment (Stacks, furniture, etc.)	<u>48,000</u>
TOTAL CAPITAL COSTS	\$588,000

DISTANCE EDUCATION PROGRAM BUDGET

A. PROGRAM MANAGEMENT & ADMINISTRATION

Director	\$ 35,000
Administrative Coordinator	20,000
Secretary	12,000
Senior Clerk - Registration	13,000
Junior Clerk - Distribution	11,000
Stenographer	12,000
Benefits @ 12%	12,000
Equipment & Supplies	7,000
Field Travel	<u>4,000</u>
	\$126,000
	\$126,000

B. PROGRAM DEVELOPMENT & OPERATION

Faculty	\$150,000
Technical Coordinator	24,000
Benefits @ 12%	3,000
Consultant - External Evaluation	4,000
Tutorial Services	
- Coordinators	65,000
- Tutors	80,000
- Telephone	25,000
- Travel (tutors & faculty)	30,000
Training of Authors and Tutors	12,000
Materials (books, courses)	10,000
A.V. Services & Graphics	25,000
Printing & Photocopying	25,000

PROGRAM DEVELOPMENT & OPERATION (Cont'd)

A.V. Equipment	\$ 20,000
Technician - 2 @ 15,000	<u>30,000</u>
	\$503,000
	<u>\$503,000</u>
	\$629,000
	<u>\$629,000</u>

C. SUMMER & REGIONAL SCHOOLS \$ 60,000 \$ 60,000
\$689,000

D. COURSE SUPERVISION

Costs to be offset by program revenue

E. LIBRARY

Librarian	\$ 20,000
Clerk - 2 @ 12,500	25,000
Benefits @ 12%	5,000
Equipment	5,000
Postage	20,000
Regional Assistants	20,000
Acquisitions	<u>60,000</u>
	\$155,000
	<hr/>
	\$844,000

F. BURSAR

Cashier	\$ 14,000
Clerk	12,000
Part-time Help	2,000
Benefits @ 12%	<u>3,000</u>
	\$ 31,000
	<u>\$ 31,000</u>
	\$875,000
	<u>\$875,000</u>

G. REGISTRAR

1 1/2 Admissions Clerk	\$ 18,000
1 Filing Clerk	10,500
2 1/2 Records Clerk	27,500
1/2 Systems Analyst	12,000
Benefits @ 12%	8,000
Computing Costs	20,000
Office Services	<u>27,000</u>
	\$123,000
	<u>\$123,000</u>
	\$998,000
	<u>\$998,000</u>

LIBRARY AQUISITIONS

Book Acquisitions (First year) \$200,000

(Subsequent years) \$ 60,000

SUMMARY OF OPERATING COSTS FOR DISTANCE EDUCATION

Program Management & Administration	\$126,000
Program Development & Operation	503,000
Summer & Regional Schools	60,000
Course Supervision (Offset by fees)	
Library	150,000
Bursar & Registrar	<u>154,000</u>
TOTAL OPERATING COSTS	\$998,000

(At 600 FTE/Year, Cost/FTE = \$1660)

APPENDIX

SCHOOLS

RESOURCE MANAGEMENT

PROFESSIONAL EDUCATION

ARTS

HUMANITIES

MANAGEMENT STUDIES

APPLIED SOCIAL SCIENCES

APPROPRIATE TECHNOLOGY AND ENERGY SCIENCE

ACTIVE HEALTH SCIENCES

SCHOOL OF RESOURCE MANAGEMENT

There is no program of post-secondary education more relevant to British Columbia than one centered about the orderly development and management of British Columbia's natural resources. British Columbia is heavily dependent for its prosperity upon exploitation of its natural resources. Hence, there is a clear and urgent need to ensure that the resources of this province are developed, husbanded, and conserved in a wise and informed way, and in a manner that serves long-term as well as short-term goals. The appearance, quality and productivity of British Columbia environments and the prosperity and health of British Columbia citizens will increasingly depend on resource management decisions that are being made now and that will be made in the next decade.

Yet unfortunately, there is no aspect of public policy in British Columbia that is less understood than the principles of resource management. A body of trained resource management personnel and a citizenry informed regarding the characteristics of their land, the principles of its ecology, and the potentialities and limitations of its productivity are essential if wise proposals are to be made and supported.

A Regional University School situated in the Interior of the province is proposed as a means to develop a strong teaching programme and a specialized research program centered on natural resources and their management.

GOALS AND OBJECTIVES

There are three main objectives.

1. To provide a curriculum of courses leading to a first degree in the principles of resource management in the fields of Agriculture, Forestry, Fish and Wildlife management, and Mineral Resource management. Graduates of this School should improve the management standards of local resource-based industries.
2. To provide citizens of the province with a means of achieving a better appreciation of their natural environment and of resource development policies. This could be achieved through extension courses and specialized seminar series at different locations in the province, depending on the resource under consideration.
3. To provide the nucleus of a research program to enhance the knowledge of important British Columbia resources. This research would be an integral part of the duties of faculty of the School. At some later date a graduate program could be developed.

PROGRAMME

The mastery of a single academic discipline is a full time occupation for an undergraduate student and usually requires, as well, several years of graduate study. The management of a single resource requires the integration of many disciplines. A resource manager, therefore, should be a person capable of appreciating the imperatives and limitations of several pertinent disciplines. How can such a person

be developed within the period of a normal undergraduate programme?

There are two suggested ways:

1. Subject a student highly trained in a single discipline to further training and experience in complementary disciplines.
2. Attempt to develop a generalist: one who is exposed to general concepts of many disciplines but to the rigorous details of none of them.

The first of these is clearly a graduate school operation and would not fit the constraints of the Regional University School model.

We have rejected the second as non-viable. A person trained in such a way would be inadequately familiar with any of the relevant disciplines. We doubt if such a person would be employable in a resource management capacity.

Our solution is a compromise between those two models. We require a substantial base of general discipline courses in the first two years. This is followed by two further years of core courses in disciplines allied to resource management, supplemented with optional practical courses in one of four optional resource specializations.

A suggested curriculum is outlined below.

FIRST YEAR) At Community College or University
SECOND YEAR)

THIRD YEAR) At Regional University School
FOURTH YEAR)

The first two years would be based upon a core of science, economics, and geography courses.

The third and fourth year program would have a common core

but develop emphasis in one of four resource options.

Transfer credit with other Colleges and Universities in British Columbia for all of the first and second year courses and for many of the third and fourth year courses would help facilitate flexibility and quality.

The program is designed for four years to culminate in a Bachelor's degree. However, it would be possible for students to take identified packages of courses that would provide a Certificate for specialists or other interested individuals.

FIRST TWO YEARS

Completion of 60 hours of credits at a recognized Community College or University, to include courses in the following areas:

Calculus	
Introduction to Statistics	
Chemistry	
Physics	
Biology	
Physical, Economic and Social Geography	Total of
Cartography	
Macroeconomics	60 hours
Microeconomics	
Genetics	
Introduction to Ecology	
Electives in Humanities	

THIRD AND FOURTH YEARS

Resource management programs directed toward four resource options:

Agricultural Resources
Forest Resources
Mining Resources
Fisheries and Wildlife Resources

This part of the program would require 4 semesters of 12 weeks each of full time study to complete. Part-time evening students should

be able to complete the program in about 10 semesters. This time could be reduced by taking short, intensive presentations of certain courses which might be presented from time to time in summers.

YEAR 3 - Semesters 5 & 6

Core courses - required of all students:

R.M. 3XX)	one of	Watershed Analyses	3
3XX)		Terrain Evaluation	
3XX)	one of	Geomorphology & Surficial Geology	3
3XX)		Geology of Western Cordillera	
3XX		Ecology	3
3XX		Population Dynamics	3
3XX		Small Business Management	3
3XX		Natural Resource Economics	3
			18 hours

In addition each student would be required to take 4 optional courses selected from the following:

R.M. 3XX	Ecology of Exploited Environments	3
3XX	Alpine Environments - geomorphology, climatology and biogeography	3
3XX	Environmental Geology	3
3XX	Flora and Fauna of British Columbia	3
3XX	Fish Biology	3
3XX	Biology of Birds and Mammals	3
		12 hours

Selection of the optional courses should be made with consideration to the fourth year option it is desired to pursue.

YEAR 4 - Semester 7 & 8

Core courses - to be taken by all students:

R.M. 4XX	Environmental Law	3
4XX	Local and Regional Planning	3
4XX	Public Policy	3
4XX	Environmental Impact of Development	3
4XX	Principles of Pest Management	3
4XX	Practicum	3
		18 hours

I Agricultural Option

RMA. 4XX	Culture, Markets, and Economics of British Columbia Crops	3
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These would be mini-courses of about 4 weeks duration, each worth 1 hour of credit, and each dealing with a specific group of crops. Students would select 3 mini-courses.

1. Vegetables and small fruits
2. Cereals
3. Orchard crops
4. Forage crops
5. Livestock
6. Range-lands

RMA	4XX	Diseases and Pests of Agricultural Crops	3
	4XX	Agricultural Chemicals in Environment	3
	4XX	Farm Management and Agricultural Marketing	<u>3</u> 12 hours

II Forestry Option

RMF.	4XX	Forest Products, Economics & Marketing	3
	4XX	Forest Trees of British Columbia, Silvics and Silviculture	3
	4XX	Forest Fire, Diseases and Pests	3
	4XX	Forest Inventories, Mensuration and Technology	<u>3</u> 12 hours

III Fish & Wildlife Option

RMFW	4XX	Limnology	3
	4XX	Management of Natural Populations I Aquatic Populations	3
	4XX	Management of Natural Populations II Terrestrial Populations	3
	4XX	Wildlife Legislations and Conservation	<u>3</u> 12 hours

IV Mining Option

RMM	4XX	Mineral Exploration	3
	4XX	Introduction to Mining	3
	4XX	Economics of Mineral Resources	3
	4XX	Social and Environmental Impact of Mining Operations	<u>3</u> 12 hours
			30 hours

TOTAL 120 hours

FACULTY/RESEARCH BASE

The School would have about a dozen faculty, which includes these types of experts:

Economist
Regional Planner (Environmental Biology)
Geologist
Hydrological Geomorphologist
Forester
Agronomist
Fish and Wildlife Biologist
Pestologist
Biological Ecologist

Such experts would be able to initiate the third and fourth year teaching program, interact closely with the Community Colleges and the local community and industry. They would also be responsible for developing over the subsequent years the research base that is so essential for the vigour and quality of the Regional University School.

SCHOOL FOR PROFESSIONAL EDUCATION

The Professional Development Programme at SFU was conceived and has been operated to produce a novice, generalist teacher for the elementary or secondary schools of the province. While we know that our students are competent novices, who are successful on the provincial "job market", we are aware that the need for new teachers is declining, as a consequence of a decline in the enrollment of new students in provincial kindergarten and primary grade levels. In general, analyses of population-age structure reveals that within 5 to 10 years there will be as many 50 year olds as 5 year olds in the population. There is, however, no indication that the need for educational services will decline, given increased trends toward adult education of all types: recreational and social programmes, programmes in vocational and labour fields, and programmes dealing specifically with the educational needs of older persons. Thus, while the number of jobs for "conventionally" trained and oriented public school teachers may decline, the need for persons with skills in teaching and in the development and planning of learning experiences will not decline. The implications for professional education are as follows:

- (1) There will be a reduced need for generalist teachers for conventional public school classrooms.
- (2) There will be a need for new/replacement teachers who are trained to work in a number of different educational contexts, including some outside of North America, and with people of age levels outside the 5 to 18 year spectrum of present public schooling.

- (3) There will be a general need for the re-education and re-training of teachers currently holding public school appointments so that they can be re-deployed within public school systems or re-located in other types of educational programmes.
- (4) There will continue to be a need for degree completion education of some 5,000 British Columbia teachers who now hold only standard certificates and who do not possess undergraduate degrees.
- (5) There will be a need for the development of special programmes of teacher education to equip teachers to deal with specific local or regional needs: Intercultural Education, Environmental Education, and English as a Second Language Programmes are all examples.
- (6) There will be an interest on the part of many persons who function as teachers on an avocational level in refining or developing teaching skills.

STRUCTURE, FUNCTIONS AND CONTEXT

This proposal outlines the structure, functions, and context of an Interior School for Professional Education. This School would be a logical extension of the present Interior Professional Development Programme, but it could also become the focus of a new direction for teacher education in this province. It could also provide many opportunities for research in teacher education, adult education, and in specific educational areas.

It is assumed that the proposed School would most likely be

developed in an Interior location where the present Professional Development Programme already has a functioning "external" site offering pre-service teacher education.

In this context, the School could offer the following types of services and programmes:

- (1) Pre-service education for persons intending to become public school teachers. Such students would meet present SFU Professional Development Programme admissions criteria and their programmes would be structurally similar to current external Professional Development Programme programmes.
- (2) Up-grading or teacher continuing education programmes for teachers in the region who presently hold appointments in the public schools or who wish to re-enter the profession.

This would include:

- special short courses, seminars and workshops (credit and non-credit);
- degree-completion course work in upper division education courses;
- certificate and diploma programmes related to specific fields of teacher education (e.g., learning disabilities);
- post-graduate studies for a limited number of students wishing a Master's degree, possibly also with a specific focus (e.g., educational administration).

- (3) Provision of a special programme for teachers who hold

the equivalent of a British Columbia Teaching Certificate, but with the emphasis on teaching in non-school settings. This programme would be based on local needs such as: labour education, community recreation, adult basic education, or environmental education. A major clientele for an initial programme might well be faculty of regional colleges who seek specific teacher education as part of their professional development.

- (4) The School would conduct research programmes based on local educational problems and community needs. An example might well be the evaluation of a school district reading programme with the development of a new district reading programme for children, adolescents, and adults as an outcome. Such community-based but generally significant research might also involve or include teachers enrolled in programmes under (2) above, or student teachers under (1) above. Research associated with counselling, teacher effectiveness, supervision and teaching improvement are other examples of potentially useful and important research at a local level.
- (5) The School faculty would also provide services to assess local educational needs in areas such as: English as a Second Language, adult basic education, inter-cultural education, etc.
- (6) The School would act as a focus for the co-ordination and delivery of distance education programmes.
- (7) The School could offer instructional training to persons

who function as instructors in avocational or non-school vocational settings.

It should be noted that while the School would extend some existing credit courses to the region, it also would act as a developmental agency for the design of new credit courses more suited to the needs of interior communities. It would also offer non-credit courses and programmes specially designed for the region.

DEVELOPMENTAL CRITERIA

- (1) The School should offer programmes and services to meet the needs of students from a wide variety of educational backgrounds, ranging from non-degree students to those holding post-graduate qualifications. This would greatly enhance the value of the School to the community and would make it more cost-effective. In short, the School would have a broad "catchment" of potential students. It would offer both credit and non-credit programmes, but with an initial focus on credit programmes.
- (2) Pre-service teacher education programmes must fit the requirements for a British Columbia Teaching Certificate (even for persons not directly interested in public school teaching).
- (3) In-service programmes must relate to regional, community needs or to the levels of the Teacher Qualification Service or of the British Columbia Teacher Certificate scheme.
- (4) The School should offer programmes using a variety of

time-paced and methodological formats: short courses, distance learning packages, local radio and TV, etc.

- (5) The School should operate using both resident faculty specifically recruited and appointed for an assignment of this type and campus-based SFU faculty on a "fly-in" or assignment basis.
- (6) Where practical and economical, the School should use campus-based administrative support services.
- (7) The School should have a definite and clearly visible local identity and style.
- (8) The resident faculty at the School would most likely be persons qualified in certain generic fields in teacher education, especially programme development and evaluation, curriculum, analysis of teaching, or educational administration. In addition, faculty with expertise in fields such as inter-cultural education, early childhood education, or critical curriculum fields such as reading and language arts would also be appropriate initial staff. The Faculty Associate positions would be held by experienced teachers on leave from school systems (or from teaching posts in non-school settings) who would work specifically in the supervision of student teaching.

STAFF REQUIREMENTS

Staff requirements would include the following:

1 Director

5 Faculty

3 Faculty Associates

1 Secretary

SUMMARY

In any community, education takes many and diverse forms. Many persons teach, quite aside from those now formally certified as public school teachers. The proposed School can provide an important community service by attending to the education of all who are involved in or interested in teaching, whatever the context. The development of such a School also offers a rich opportunity for both pure and applied research in many aspects of teaching and learning. The School is a logical development of the current role played by the SFU Faculty of Education's Professional Development Programme. It can establish a vital role in the life of the community where it is located.

TABLE 1

PRESENT OPERATIONS OF THE SFU FACULTY OF EDUCATION
IN THE BRITISH COLUMBIA INTERIOR

I. PRE-SERVICE TEACHER EDUCATION

Dawson Creek.....	15	students/yr.*
Prince George.....	45	" "
Kamloops.....	30	
Salmon Arm.....	15	
Vernon.....	30	
Kelowna.....	30	
Penticton.....	15	
Nelson.....	15	
Cranbrook.....	15	
Chilliwack.....	15	
Mount Currie.....	15	Native Indian Students on a two-three year programme.

II. GRADUATE PROGRAMME IN EDUCATIONAL ADMINISTRATION

Vernon.....	15	(M.A. Ed.)
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III. SUMMER INSTITUTE IN ENVIRONMENTAL EDUCATION

Kamloops.....	70-85	students/ yr. since 1971
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* The figures cited are typical figures based on the number of Faculty Associates/site. In some years they are higher, in some, for particular sites, lower. No site enrolls fewer than 11 Professional Development Programme students at any time.

TABLE II

RELATIONSHIP BETWEEN PROGRAMME TYPE OR COURSE OFFERING OF THE
 PROPOSED SCHOOL FOR PROFESSIONAL EDUCATION
 AND THE TYPE OF STUDENT LIKELY TO ENROLL.

<u>PROGRAMME TYPE</u>	<u>STUDENT GROUP LIKELY SERVED</u>
i. Pre-service teacher education	<ul style="list-style-type: none"> • Regional or current graduates of regional colleges. • Mature students with minimum qualifications re-entering education for vocational purposes after a period out of the educational system. • Graduates of other universities or colleges, attracted to the region by the programme structure or format or by regional economic or geographic features.
ii. In-service teacher education	<ul style="list-style-type: none"> • Teachers holding standard certificates, and seeking degree-completion. • Teachers holding professional or standard certificates and seeking upgrading. • Teachers seeing graduate studies in education. • Non-teaching professionals seeking training in education.
iii. Special programmes: i.e., special programmes for teaching in non-school settings	<ul style="list-style-type: none"> • Regional college faculty. • Medical professionals and para-professionals in health education and public health. • Social workers. • Community recreation workers. • Adult education instructors. • Trade union educators. • Vocational and military instructors.

SCHOOL FOR THE ARTS

PRELIMINARY CONSIDERATIONS

The idea of a School for the Arts in the Interior, involving degree study in two or more of music, theatre, dance, film, creative writing and the various visual arts, is a powerful one. There is a burgeoning interest in the arts throughout the province. A School for the Arts, if carefully planned, could create an attractive alternative to the opportunities for fine arts study currently available in British Columbia, could take advantage of local strengths, and could become an important community and province-wide resource.

In spite of these attractions, there are significant constraints that should govern the planning of such a School from the outset and that may make the following proposal more tentative in outline than the other models under development. First, precisely because of the widespread interest in the arts, there is likely to be a much more complex problem of coordination with local institutions than will be the case with other Regional University Schools. Not only the community college, but also community music or theatre groups or other programs special to an area will have a strong interest in any possible new establishment. In our view it is imperative that such arts organizations as may exist in the designated area be encouraged rather than subverted in any way, and it is part of the essence of our plan to do this. However, the desire for a close working relationship with other institutions also means that some major choices about the form of a School cannot be made until a decision regarding its location has been made.

A similar constraint is imposed by the physical requirements of the fine arts. Fine arts facilities can be very expensive, and it is probably unreasonable to expect the rapid development of specialized space and equipment. This again implies that a choice among disciplines to be emphasized, at least initially, and among potential programs within disciplines, would be governed to a significant extent by the available physical resources within a community.

A third constraint on our initial planning should be noted. Although it is easy to view the various fine and performing arts as constituting a single and coherent focus for an educational enterprise, there can be large differences among them. Although the various arts housed within a single administrative unit at some universities (notably at Simon Fraser), Faculties of Fine Arts (as at Victoria) are fairly usual, as are a series of separate departments (e.g. UBC). Departmental separation, whether within a faculty structure or not, recognizes the differing requirements of the arts but at the cost of estrangement among them. A single structure, on the other hand, must have a fairly strong philosophical coherence in order to weather the inevitable tensions among the arts. These considerations are relevant to the establishment of a School in two ways. First, whatever the eventual administrative structure of the School, if it is to be conceived as a single entity some strong central ideas should govern all its activities; the arts within it should be brought together by more than physical proximity. Secondarily, the articulation of these ideas must be responsible to the needs of the individual arts; it would be unwise at this time to attempt to build a model curriculum for each of the potential disciplines.

What can usefully be accomplished here then, is the presentation of a set of ideas which we feel have validity in relation to fine arts education and applicability to a wide range of arts within a School's concept. Although we do not make the applications to individual arts within this paper, except by brief example, we can set out some implications of the central ideas for both curriculum and administration.

THE IDEA

We start with some assumptions: that the relevant environment for the study of art is neither a city nor a university, but a community; that that community is one in which the arts are already flourishing; that it is important to the community to support the forms of creative expression that exist there, rather than simply to impose conventional areas of study. At the same time, a university degree should recognize a high standard of learning and achievement. Any community will be best served by a School which gains genuine academic credibility.

A School for the Arts then, should build upon the arts that are actually practiced in the community, whether these might normally be classified as "high" arts or popular arts, "fine" arts or crafts. This does not imply that students should simply be encouraged in the practice of what they already know; instead each student's talents and previous experience should be extended into new areas of creative activity, but with a fundamental recognition of the continuities between the familiar and the new. Rather than identifying forms of creativity as truly "artistic" and therefore exclusively worthy of attention within a university level program, the School would deliberately encourage

exploration of a spectrum of activities. The talented and experienced potter, for example, would have the opportunity to acquire a relatively sophisticated knowledge of ceramics, to study design, and to work in abstract forms. Conversely, the sculptor would be required to experiment with making articles of use. In an important theory component of the curriculum, both would be asked to consider the relationships between functional and expressive forms, and the social aspects of artistic productivity. The course of study would not aim to convert the potter to abstraction nor the sculptor to utilitarianism, but to enrich the creativity and enlarge the understanding of both of them.

There are some important extensions from this concept of a program which develops from the creative base in the community and in the individual students. One is that the curriculum should centre around the making of art; there should be study of the arts of other times and places, but primarily as a resource for the development of imagination and taste. Another is that the artistic products should, insofar as possible, be brought back to the community as a whole: a repertory theatre, a resident orchestra or chorus, a literary journal, a store for the exhibition and sale of arts and crafts - all these are institutions which a School could either augment or establish. The idea of a Summer Festival of the Arts may be particularly appealing in some locations. It is also desirable that each student have some active role in relating the School to the community, whether by performing in local elementary or secondary schools, arranging publicity for theatre productions, or staffing a gallery and store.

It is possible to schematize these basic ideas by identifying six required components of each student's course of study. These

components would not necessarily be separated off from each other in a course structure, but the place each might assume in a curriculum can be suggested.

1. Practice - each student should identify a single sub-discipline - acting, singing, painting, weaving - and over a period of two years practice the relevant skills intensely under expert guidance. Provided good use could be made of community resources and visitors, it would not be necessary to limit the possible sub-disciplines strictly to those in which resident faculty were expert, but each student should have a through-line of practical work at the core of his studies.
2. Performance - each student should be required to perform or exhibit work at a substantial level of achievement at the culmination of the course of study. This requirement could fit well with the idea of a Summer Festival. If a fifth semester was a usual part of the curriculum, perhaps for earning an honors B.A., graduating students could devote a summer to their final exercises. This arrangement could help to avoid a false emphasis on the grading of practical work on a course by course basis, and could conveniently provide a mechanism for some external adjudication of the level of achievement.
3. Application - this component is crucial to our concept, but might be actualized in a wide variety of ways. Each student should extend his practical work into another area of practical inquiry. Very often, this would involve the kind of interplay between useful and expressive forms discussed above. There are

other ways in which the making of art and the applications of art could be explored, however: a weaver might be required to study and to perform exercises in fashion design, for example, or a theatre student to undertake a practicum in theatre administration. By insisting on this component of study, yet organizing it flexibly on a project basis, the School could open career and further study opportunities to its students without itself becoming a School of Applied Arts.

4. Exposure - each student should build over time a substantial familiarity with the work of other artists. The School should not attempt to provide such exposure through conventional courses in art history, with their implicit establishment of critical authority, although such courses might be available through the college or the distance education program. Instead, students should be required to survey a range of work, whether through slides, recordings, films, playscripts, or live performances, identify work to which they respond personally, and to move toward the fullest possible contact with that work and its background. This "research" approach to the study of other artists should prove less costly than a more conventional approach, even if it occasionally involved some student travel. More importantly, it should at once help to develop independent critical acumen and provide a stimulus to creativity.
5. Theory - there should be significant study of art theory in a way which reinforces the basic concept of the School - broadly stated, this would involve a sociological emphasis in theoretical studies: What is the function of art within a community or a

larger society? What are the relationships between "high" arts and popular, folk and applied arts? Is there validity to the notion of regional expression and what are its appropriate relations with international art culture or the entertainment industry? - these and cognate questions should be addressed in various ways, both within disciplines and across them.

It should not be assumed that theory would always be separated from practice: a collective theatre piece on a local controversy could provide significant insight into theoretical issues.

There are also possibilities for ethnographic study and research, on such topics as the place of the arts in tribal cultures, that could provide a powerful reflection upon the arts in our society. Other courses might be developed on the model of the "context" courses presently in place at Simon Fraser, in which the interrelationships among the arts of a particular period or place are studied.

6. Service - the course of study should entail a service obligation for each student, with emphasis on relating the School to the community. This could be managed as an ungraded requirement, which would in yet another way encourage the student to recognize some practical extension of artistic activity.

CURRICULUM AND ADMINISTRATION

Without detailing a model curriculum, it is possible to indicate a rough pattern from what has been stated. Approximately one third of a student's time would be spent in the practice component. This would be surrounded by courses or groups of individual projects

related to the areas of theory, application, and exposure, and would culminate in an intensive and examined production activity. Along the way one or more service requirements would be met. Although a course structure seems inevitable, and though at least some courses should be designed for relatively large groups, curriculum arrangements should allow for a fairly large proportion of directed study opportunities, in order to permit both the needed flexibility and the desirable continuities between areas of study.

One necessity for a program that concerns university level fine arts over a two-year period is an audition or portfolio requirement for entrance. Simon Fraser at present avoids a fine arts audition process only by the design of a four-year program with a very sharp cut-off following the first year of studies. Although such a requirement may appear excessively restrictive in relationship to the establishment of degree-completion opportunity, the effect of it will actually be to increase the flexibility of the admissions requirements. Only through such a system can a talented and experienced artist with sufficient academic background but no formal fine arts training be brought into a program. Only through such a system can a reasonable discrimination be made between the relative merits of applicants from the community and those from elsewhere. It is a reasonable presumption that the applicants for the program would substantially exceed the number of places available. Selection on the basis of demonstrated talent is a far more just system, whatever its pitfalls, than any other available system.

It is also important even at this preliminary stage to address the question of transfer of credit to Coast universities and elsewhere. It appears from the preceding discussion that the curriculum

envisioned bears no close relationship to the programs of study under development in the Centre for the Arts at Simon Fraser. Although it is true that the concept for the School entails a distinct emphasis of study and that such a curriculum cannot be constructed simply from present or planned Simon Fraser courses, the actual mix of theoretical and practical work is not dissimilar from what is planned here. The careful articulation of both programs as they develop should provide for a very high level of potential student interchange between programs, and avoid any difficulty regarding certification of the School programs. It should be noted that transfer of credit is more than usually complex in fine arts areas, and it is often accompanied by or superceded by audition requirements. The combination of theoretical and practical work that is proposed, however, should earn a very high proportion of transferable credit at the other Coast universities.

Like the curriculum, the staff requirements of the School cannot be specified until a selection of location and disciplines is made. It should be possible to mount such a program, however, with a director and a small administrative staff and approximately three resident faculty for each discipline offered. The faculty in each area should include at least one individual with a strong performance orientation, such as a conductor or theatre director, who could assume leadership in the production activities. The total faculty complement should include one or two generalists who could provide continuity on the theoretical side of the program. Whatever the initial prescriptions, the real form of the School as well as its quality would and should be determined by the resident faculty. Hopefully, a faculty could be assembled that would augment the resources in the community and could

together create a coherent and stimulating environment for study of the arts. The faculty strength should be supplemented on a regular basis by visitors, particularly those with substantial professional qualifications in a given art. Professionally seeded performance groups would enhance both the training of students and the cultural life of the region.

SCHOOL OF HUMANITIES

1. OBJECTIVES OF THE SCHOOL

The purpose of the School of Humanities is to permit students to study the Humanities at an Interior location in a classroom-based learning situation. The School would offer a mixture of traditional courses in Humanities disciplines (History, Literature, Philosophy) and multi-course interdisciplinary units falling under the general rubric of History of Ideas. While the traditional courses would provide nothing unique beyond the location of instruction, none of the interdisciplinary units exist in similar form at any British Columbia university.

No claim can be made that this School is "career-oriented" or that its graduates would enhance their job opportunities. The Humanities are, however, fundamental in a liberal education and it seems important that the opportunity to study in the Humanities should be considered in developing degree-completion programs for the Interior.

2. CURRICULUM

a. Entering Students

Lower division course requirements could be left relatively unstructured. Students might be required to complete 30 hours of course work in the three Humanities disciplines, with at least one course from each discipline.

The Humanities preparation of students transferring from first and second year in the four major Interior Community Colleges could be made fairly standard, although there might be problems with the second year. Appropriate coordination efforts could presumably solve these. The only

obvious present curriculum gap is the absence of Philosophy courses at Cariboo College and Selkirk College. Students transferring from universities should not face any problems.

b. Traditional Disciplinary Courses

Students would be required to take 3 upper division courses in each of the 3 disciplines. Using 4-hour courses (assumed throughout this paper), this would account for 36 of the final 60 hours. Another 16 hours would be required in interdisciplinary courses with the remaining 8 hours to be chosen in electives from other School courses, disciplinary or interdisciplinary, or from distance education courses.

Two solutions are available to meet the traditional requirement of breadth and choice in a liberal education. One is to combine SFU course topics so as to present the same breadth of material in less depth. The other is to keep the SFU level of specialization and to augment the School's disciplinary course offerings with distance education courses. The second solution seems preferable; the first would likely provide a poorer quality of education and make it more difficult for faculty to maintain a connection between research and specialization and teaching.

It is suggested that 36 disciplinary courses be offered each year -- the actual list would depend on the competence and interests of faculty appointed to the School and on student demand. This would provide a choice of upper division courses that would be rather less than half that offered in the present SFU curriculum. It would, however, be extended by distance education and would represent, we believe, a reasonable range.

c. Interdisciplinary Units

We propose the offering of three interdisciplinary units. As was stated earlier, all come within the general area of History of Ideas. Each could include major contributions from at least two of the Humanities disciplines. Each unit consists of four interdisciplinary courses, to be offered once in a 2-semester year, and to be team-taught. It is envisaged that full teaching credit would be given for participation in these courses and thus they would represent the equivalent of 24 single semester courses per year. The interdisciplinary units could be amended or replaced from time to time and would be more focussed than the "Survey of Western Civilization" variety found in many interdisciplinary programs in the Humanities. The three units are described in some detail below.

A. The Nature of Man

The following courses will investigate the relationships which exist between thought and culture. Art, literature, society and philosophical views of the world will be compared with the complex body of human feelings and emotions which give rise to difference and innovation, tradition and continuity in the attempts of individuals to express and define the human condition.

This unit stresses the nineteenth and twentieth centuries in order to avoid the broad sweep approach and in order to stress the availability of these ideas for the student. Other centuries could be modelled on the same plan, but if course 1. were truly a course that dealt with many centuries that would be unnecessary.

The four courses:

1. World Hypotheses and the Nature of Evidence

Particular views of the world emerge in different cultures and in different historical circumstances. The nature of "human nature" which emerges from such world views, or world hypotheses, presupposes the selection and valuation of certain experiences over others. This course will explore the beliefs, myths, patterns of feeling, intellectual assumptions and moral demands inherent in various world views. Traditional aspects of philosophical thought will be seen in the light of both literary events and historical situations, and these aspects will be explored across time as world views change or develop. The main theme -- that the shaping of ideal identities emerges from world views -- will stress the transformation of hypotheses into assumptions about human nature.

Possible and probable course topics would be: Idealism, organicism, primitivism, naturalism, mechanism, realism.

2. Nineteenth Century Studies: The Development of the Modern Consciousness

The literary, social and intellectual developments in the nineteenth century emancipated the individual from previous systems of thought and feeling. At the same time the tensions created between freedom and experience produced a variety of conflicting and related works both theoretical and creative which sought to express and define this new image of the individual and his culture.

By focussing on a range of works, authors, themes and problems this course will explore some of the key developments which created modern consciousness.

a) Darwin, Marx and Freud and their Literary Counterparts

This course will stress the development of a nineteenth century critique of civilization. Comparative developments in the nineteenth century novel which reflect and parallel the intellectual critique of character, society, class, and the nature of the image of the human will be found in Dickens, Dostoevsky, Balzac, Hardy, George Eliot and Flaubert. Other major figures can be included: Rousseau, Carlyle, J.S. Mill, Goethe.

b) Romanticism and its Developments

This course will stress the Promethean and Faustian heroic revolt against the Enlightenment. Works of literature and thought in England and Europe embodying the period 1780-1850 will be discussed. Poetic and intellectual activity accompanying the development of a critique of civilization and the rise of utopian thought will be stressed. Particular emphasis will be placed on the sense in which authors and works saw the autonomy of the mind threatened by external forces. Heroic views of a common destiny facing the human species will be placed against the revolutionary developments in science, politics and art.

3. Twentieth Century Studies: The Nature of the Self in Modern Times

The development of the modern state, bureaucracy, mass communication, the growth of cities, the complexity of the artistic forms through which art remade itself in order to reflect peculiarly modern alienation characterize the modern period. This course will examine the estrangement of human consciousness from the activities of society, community and creativity. Specific focus on the forms of self-consciousness and self-scrutiny, the isolation of the artist from society, and the nature of extreme situations (industrialism, concentration camps, mental illness, anomie) will also be stressed. Specific artistic movements which, along with philosophical and psychological thought, sought to provide a synthesis between imagination and critical feeling will be stressed. Examples of these are: surrealism, expressionism, theatrical innovation and radical poetic experimentation.

4. Special Topics in Criticism

This course is designed to identify special problems related to the humanities and the arts, or humanities and specific trends in thought. Current problems which have their roots in the disciplines outside of the humanities may be explored in order to determine the relevance of the humanities to the solving or understanding of issues and problems. Topics which might be used are listed below, but one of current interest would be the

"Nature of Literacy".

Other topics:

- Sex in Society
- Authority and delinquency in the modern state
- The development of new artistic forms (film)
- "Economism" in modern critical theory
- Language analysis
- Psychoanalysis
- Pornography and obscenity
- Literacy and the institutionalization of writing

B. History and Philosophy of Science

The proposal for this unit is based on the following general considerations.

- 1) The history of science and the philosophy of science taken separately are each interdisciplinary. Therefore the integration of the two disciplines in a single course is not necessary to insure the interdisciplinary nature of courses in the history of the philosophy of science.
- 2) Only a very small proportion of potential faculty who are competent in the one field are also competent in the other.
- 3) If the courses in this interdisciplinary unit are to be taught by a philosopher who is not trained in history and an historian not trained in philosophy, it will be a considerable burden on each of them to teach together a fully integrated course in the history and philosophy of science. Therefore the unit should consist of two courses in the history of science and two courses in the philosophy of science.

The four courses:

1. History of Science: Archimedes to Newton
(no prerequisite)
 - 1) Classical Images of Nature: Greek Mathematics, Pythagoras, Archimedes and Euclid: Atomism, the World Systems of Aristarchus, Aristotle and Ptolemy.
 - 2) The Medieval World View: The Aristotelian-Thomistic Synthesis; Medieval Architecture; Inventions of the Middle Ages (e.g., clocks, compass, gunpowder, printing, distillation); Mechanics of the Schoolmen, Alchemy.
 - 3) The Renaissance: the Rise of Biological and Medical Science; Metallurgy and Chemistry.
 - 4) The Copernican Revolution; Harvey and the Circulation of the Blood, Galileo, Kepler, Tycho de Brahe, The Justification of the Heliocentric System. Newton, The Principia, Opticks. Scientific Societies; the flowering of Newtonian Mechanics, LaPlace, LaGrange.
2. History of Science: Newton to 20th Century Physics
(no prerequisite)
 - 1) The Microscope; the Barometer, the Vacuum, the Development of Pneumatics; 18th Century Chemistry.
 - 2) Technology behind the Industrial Revolution; Mining, Mechanization, Steam Power, Steel and Electricity.
 - 3) Priestley, Lavoisier, Dalton, Davy. Chemistry in the 19th Century. Electricity and Magnetism, Faraday and Maxwell.

- 4) Darwin and the Theory of Evolution; Mendel; 19th Century Geology.
- 5) The Revolution in Physics; the Convergence of Science and Technology.
3. Philosophy of Science: Aristotle to Mach
(prerequisite: 1. or 2.)
 - 1) Introduction to classical views: Aristotle - the inductive-deductive method, the Pythagorean view of nature, Euclid-deductive systems the model for empirical systems?
 - 2) 16th and 17th century philosophy of science: Anti-Aristotelian philosophies, Galileo's version of Aristotelian methodology, Francis Bacon, R. Descartes and the rationalist viewpoint mechanical world views.
 - 3) Newton
 - 4) 18th century philosophy of science: Hume and Kant.
 - 5) Early 19th century philosophy of science; theories of scientific procedure: J. Herschel the continuation of the empirical tradition, W. Whewell the Kantian tradition and the philosophy of science based on historical studies, Naturphilosophie - the Divine plan of Nature.
 - 6) Inductivism; pro and con:
J.S. Mill, S. Jevons, C. Hempel
 - 7) Mid-Late 19th century philosophy of science:

- a) Darwinism its effect on the Platonic doctrines of ideal form and on Aristotelian final causes.
- b) E. Mach sensationalism, conventionalism, the critique of Newtonian philosophy.

4. Contemporary Issues in Philosophy of Science (prerequisite: one course in logic, one course in epistemology, course 3. and either 1. or 2.)

- 1) The nature of scientific explanation.
- 2) The logic and structure of scientific theories.
- 3) The nature of scientific laws.
- 4) The challenge -- by Kuhn and others -- to the logical empiricist conception of the scientific enterprise.

C. The Humanities in Context: The Canadian Experience

No British Columbia university offers a group of courses that attempts to present an integrated treatment of the relationships between Literature, the Arts and Canadian historical experience.

The four courses:

1. Frontier and Settlement in Canadian History
2. Images of Canada in Literature
3. Images of Canada in the Visual Arts
4. Canada and Its European Origins

d. Degree.

The degree would be a B.A. (Humanities) and would require at

least 3 upper division courses from each of the three disciplines (History, Literature, Philosophy) represented in the school. In addition, students would take at least four interdisciplinary courses. This would, using 4-hour courses, amount to 52 hours of the total 60 hours of upper division work. The remainder would be electives to be chosen from other School courses, disciplinary or interdisciplinary, or from correspondence courses. Lower division requirements would be 30 hours of courses in Humanities disciplines.

3. Faculty

About 15 faculty would be required to mount the program (68 course equivalents per year) described above. More of them would be in Literature and History than in Philosophy but, following a specified disciplinary distribution in faculty, hiring is less important than selecting faculty who combine a strong competence in one discipline with real commitment and ability to work in an interdisciplinary program.

SCHOOL OF MANAGEMENT STUDIESASSUMPTIONS AND RATIONALE

The concept of a School of Management Studies for the interior of British Columbia is an exciting idea. It is clearly much in demand. Preliminary discussions in interior communities suggest, moreover, that such demand is not confined to one or two regions of the province but is common across regions. The demand also appears to cut across community groups: managers in business and industry together with those in federal, provincial and local government (and related agencies) seem to want the opportunity to improve their knowledge and practice of management; so too do students and community members. Finally, the demand seems to be for both full-time and part-time study, for either a full B.A. program with a major in Management Studies or for a Diploma in Management Studies.

Awareness of these tentative but plausible assumptions regarding the demand for a School of Management Studies yields a set of principles governing the design of the proposed School:

1. Principle of Decentralization

Given that locating the proposed School in just one community will only partially meet the demand,

The School of Management Studies should be decentralized so that third and fourth year courses sufficient for a "major" would be offered at each of 3 or 4 locations.

2. Principle of Core Courses

Given the restricted array of courses implied in principle #1, and

the likelihood of wide diversity of professional experience and personal aspiration among prospective students,

The curriculum of the School should emphasize generic or core elements of management in the third year with some specialization in the fourth year.

3. Principle of Academic Excellence

Given the likelihood that most prospective students will want to enroll in the School primarily to improve their practice of management as well as to earn a degree,

The curriculum of the School should integrate theory with practice in programs that remain rigorous and analytic.

4. Principle of Program Flexibility

Given the likelihood that students will enter the School with wide differences in educational backgrounds and professional experience,

The design of the programs should be flexible enough to serve the needs and aspirations of applicants, in part by providing both full degree and advanced certificate/diploma qualifications.

What follows does not develop principles #2 and #3 in terms of a recommended curriculum. The proposal to decentralize the School of Management Studies to several (three or four) communities is a different model from those offered in the other Regional University Schools. The purpose of the following statement is to outline how such a School might operate and seek reaction to this before formulating more specific curricula proposals.

A DECENTRALIZED SCHOOL OF MANAGEMENT STUDIES

A decentralized School of Management Studies operating in several communities might have the following general characteristics:

Faculty

The full-time, regularly-appointed faculty members appointed to the School would number, say, twelve. These persons, selected because of their demonstrated competence in the required fields of study, their willingness to participate in a non-traditional School, and the congruence of their research interests with non-metropolitan regions of the province, would serve as Provincial Lecturers in their areas of specialization. Their responsibilities would include: developing third and fourth year courses and associated curriculum materials in their areas of specialization; providing instructional leadership in these courses at each site; working with the Program Coordinator in each community to involve local people with suitable expertise in the courses; and identifying suitably qualified persons at the local level for appointment as Adjunct Professors to effect the integration of theory with practice through guest lectures, weekend seminars and workshops, and practicum supervision.

Program Coordinators would be resident in the communities where the School operates. Other faculty members would need to be willing to travel from site to site.

Program

We envisage the School's program containing sufficient courses for a student to complete a "major" field of concentration in Management Studies with some specialization, for example, in Personnel Management or in Marketing in the fourth year. So one route would be for a student

to enter the program with the first two years from a community college, complete third and fourth year, and receive the degree of B.A. (Management Studies).

Another route would be for persons with grade 12 and professional managerial experience to enter the program, complete designated college courses (prerequisites) and a core of third and fourth year courses and receive a Diploma in Management Studies.

The program would be designed to complement and support the Diploma in Municipal Administration as proposed by the University of Victoria.

SCHOOL OF APPLIED SOCIAL SCIENCES

1. OBJECTIVES OF THE SCHOOL

The purpose of this Regional University School would be to offer students at an Interior location a more integrated and cohesive structure for applied Social Science education than is presently available at British Columbia universities. The School would combine a core of regular courses in the Social Sciences with three applied Social Science "streams", each with a particular career orientation. The three streams are Social Welfare, Criminology, and Community Development.

Graduates from this program should be suited to career opportunities in applied Social Science occupations, particularly in the British Columbia Interior or other non-metropolitan areas. Also, graduates would be able to proceed from this School to graduate academic programs in the Social Sciences and to related graduate professional programs such as Law and Community and Regional Planning. The School would achieve these objectives by offering a mix of basic Social Science courses and career-oriented applied courses. Programs would be designed to prepare students for government and private sector occupations in social service and community development at the para-professional level.

A distinctive theme of the School of Applied Social Sciences would be a research and curriculum focus on inter-ethnic relations. This focus is suggested by problems of relationships between and with minority groups and the need to prepare "non-minorities" to work more effectively with minorities and to prepare minority group members to work in the applied Social Sciences. These problems are hardly unique to the B.C. Interior, but they are present in many communities and will increase in

scope and severity with increases in population.

2. CURRICULUM

a. Entering Students

Lower division course requirements for transfer from community colleges or universities would be as follows:

Anthropology	9 hours
Economics	6 hours
Psychology	9 hours
Sociology	9 hours
Other Social Sciences	6 hours
Accounting	3 hours
Electives	18 hours

This might seem to constitute an exceptionally restrictive program but the range of choice within the requirements is fairly broad. It should be feasible, scheduling problems aside, at any of the major community colleges in the Interior. This statement assumes that more second-year courses would be offered by the local college, in cooperation with the School of Applied Social Sciences, than is always now the case. Students wishing to pursue the Criminology stream would have to take at least 12 hours of lower division Criminology courses and would be permitted to substitute these for the required courses shown above.

b. Basic Disciplinary Courses

Students would be required to take at least 6 disciplinary upper division 4-hour courses from at least two of the disciplines represented in the School. In addition, students would take at least 6 courses (4-hour) from at least two of the applied interdisciplinary streams. This

would amount to 48 hours of the total 60 hours of upper division work. The remainder would be electives to be chosen from other School courses, disciplinary or interdisciplinary, or from distance education courses.

The basic disciplinary courses would be modelled on those in the SFU curriculum. In line with the inter-ethnic theme identified earlier, there would be a heavier emphasis on Anthropology, Psychology, and Sociology than on the other Social Science disciplines. Wherever possible, disciplinary boundaries would be merged and it is hoped that a number of appropriate cross-disciplinary courses could be developed.

About 30 basic disciplinary and cross-disciplinary courses would be offered each year. The actual courses would depend on the specific needs of the applied streams, the competence and interests of faculty in the School, and general student demand. The choice of upper division Social Science courses would be less than that offered in the present SFU curriculum. However, augmented by distance education courses, it should be sufficient to satisfy the objectives set out in section 1. of this paper. It is also proposed that a small core of administrative studies courses be offered to serve the three applied streams. These would include general courses in public administration, organization behaviour, personnel management and program design and evaluation.

c. Interdisciplinary Streams

Three applied interdisciplinary streams are suggested. All have some relevance to expressed or perceived needs in Interior communities and one of them is not available in any form in a B.C. university at the present time. Since all the streams are intended to prepare graduates for careers in what might be called "social service", they all draw their major basic support from the same social science disciplines.

Each stream would consist of about 10 courses. There would need to be a strong emphasis on field/community based experience and on developing links between the three streams. Although the minimum requirement for work in the applied streams would be 6 hours, students with particular career interests would be advised to commit their electives to serve these interests.

A. Social Welfare

The objective of this unit would be to prepare graduates for careers in public and private social service agencies. Most undergraduate professional degree programs in Social Welfare require two years of applied courses. Students in this stream would have available only a maximum of one year's equivalent in applied courses. This would be compensated, in terms of career preparation, by the opportunity to obtain exposure to a wider range of related applied courses.

There is no specification of a curriculum for this applied stream. The absence of Social Welfare specialists at Simon Fraser would make it necessary to engage outside consultants should this School proposal be carried closer to implementation. The emerging School of Social Welfare at the University of Victoria was designed with the particular aim of serving non-metropolitan needs for social work professionals. We should have close cooperation with them so that unnecessary duplication of programs can be avoided. Perhaps one of their Interior "field teaching centres" could be expanded to provide courses for this stream.

B. Criminology

The Criminology stream would be designed to serve two areas

of Criminology, Corrections and Law Enforcement, for which need has been identified in the Interior. Five or six courses would be offered in each stream. Special attention would have to be given to the preparation of students because the lower division of the Criminology major at SFU includes 21 hours of required Criminology courses. Community college students might be able to proceed to upper division work, however, with 12 hours of lower division courses.

The Law Enforcement area would have a particular focus on the problems of law enforcement in areas with the geographical and social features common in the B.C. Interior. The following applied course topics would be included:

- Criminality of particular groups
- Specific types of crime
- Criminal procedure and evidence
- Techniques of crime prevention
- Decision making in criminal justice
- Victimology

The Corrections area would be designed with the view of serving new penal institutions to be established in the Interior. It would have a general focus. The following applied course topics would be included:

- Techniques of correctional practice
- Techniques of criminological treatment
- Techniques of evaluations and prediction
- Correctional administration and planning

C. Community Development

Graduates from the Community Development stream would be available for careers to serve in facilitative and informational roles to assist non-metropolitan communities and their residents to make the most of their human, environmental and locational potential. In the literature and practice of international development, community development is quite prominent. It has been defined as:

...a planned and organized effort to assist individuals to acquire the attitudes, skills, and concepts required for their democratic participation in the effective solution of as wide a range of community improvement problems as possible in an order of priority determined by their increasing levels of competence.

The objective of the Community Development stream is to equip people to encourage and facilitate this process. One of the objectives would be to prepare graduates for careers in cooperatives, credit unions, and economic institutions where participative management is emphasized. The development of an indigenous regional economy in the service industries would, hopefully, be encouraged by the presence of this program.

As in the case of the Social Welfare stream, a detailed curriculum cannot be specified. However, the following listing of existing Simon Fraser courses gives an indication of the scope of an applied Community Development program, although without the integration and field practice that would be important characteristics of such a program.

Commerce 477	Seminar in Small Business Administration
Geography 343	Geography of Transitional Societies
Political Science 423	B.C. Government and Politics
Political Science 356	Public Administration
Psychology 360	Social Psychology
Sociology and Anthropology 310	Urban Sociology
Education 431	Analysis of Educational Concepts
Education 441	Cultural Differences and Education
Communications 320	Communication Processes and Interpersonal Behavior I
Communications 332	Problems and Techniques in Social Documentation
Communications 336	Social Change and Community Radio

d. Degree

The degree would be a B.A. (Social Sciences) or Bachelor of Applied Social Sciences. It would require 6 upper division basic discipline courses from at least 2 of the disciplines in the School and 6 applied interdisciplinary courses from at least two of the streams. The remaining 12 hours would be electives. Lower division requirements would include 39 hours in the Social Sciences as specified earlier and 3 hours in Accounting.

e. Certificate and Diploma Programs

It would be important to make available Certificate programs for persons with little or no post-secondary academic education who were interested in improving their career preparation in one of the streams.

Similarly, persons already having a non-applied Bachelor's degree would find a Diploma program useful.

f. Career Opportunities

The major scope for career opportunities for graduates of the School of Applied Social Sciences exists in anticipated rapid population growth in the B.C. Interior, not from a large number of presently unfilled existing positions. However, many persons now holding jobs in applied Social Sciences fields have no special educational background for them and this group should be a major source of part-time students for the School.

3. FACULTY

a. School Program Structure

The following program structure (in semester-hours) is a useful guide to the faculty needs of the School.

	<u>Stream</u>	<u>Basic Courses</u>	<u>Adminis- trative Studies</u>	<u>Social Welfare</u>	<u>Crimin- ology</u>	<u>Develop- ment</u>	<u>Community Elec- tives</u>
A. Social Welfare		24	8	20	4	-	4
B. Criminology		24	4	4	20	-	8
C. Community Development		24	12	-	-	20	4

The programs shown for each stream are only suggestions--the degree requirements, which are more flexible, are controlling.

b. Faculty Requirements

About 60 courses would be taught each year. Allowing for some team-taught cross-disciplinary and applied courses and for extra demands

of field work courses, the annual course-equivalent total would be about 72. This would require about 18 faculty members. Hiring would be a very demanding and difficult process in that most academics in the Social Sciences lack competence and interest in the applied fields proposed here and most applied practitioners lack academic qualification. The hiring of a core of experienced faculty would have to precede the initiation of this School.

1. OBJECTIVES OF THE SCHOOL

The educational program of this Regional University School is based on the premise that there is a need for university graduates with a broadly based training in applied science and experience in applying their training to the practical problems of the business and industry of this province. Further, it is believed that by concentrating on programs emphasizing "Appropriate Technology" and "Systems Design" we can develop a School which will not only meet the needs of the community but will be economically and educationally viable. Indeed, it is hoped that the development of this School will encourage the development of industry in the surrounding region.

The theme of the educational program of the School is inspired by the work of E.F. Schumacher who in his book Small is Beautiful stated:

"What is it that we really require from the scientists and technologists? I should answer: We need methods and equipment which are:

- cheap enough so that they are accessible to virtually everyone;
- suitable for small scale application; and
- compatible with man's need for creativity."

While accepting Schumacher's theme, we do not reject the most advanced technology if it is applicable to our problems. This leads to the research focus of the School. Canada in general and British Columbia in particular are relatively rich in energy; however, costs of non-renewable fuels are rising as supplies diminish and distribution causes difficult political and economic problems. At a time when the federal government is investing new funds in energy research, has just created a Renewable Energy Resource Branch and is investing billions in insulation of homes

it is most appropriate to assemble a multidisciplinary research team to focus on all aspects of our energy problems. Hence a "School of Appropriate Technology and Energy Science" is proposed.

This School would offer third and fourth year courses to allow students to complete a Bachelors degree with a number of different emphases in applied science. Broadly-based core courses at the third year level would lead to two general areas of specialization in the fourth year: Appropriate Technology and Systems Design. These two areas represent different approaches to the application of science to practical problems and within these two approaches a range of emphases are possible; however the proposed courses show strong biases towards problems related to energy and to the technology of production. A third much narrower specialization is proposed - Digital Electronics. This specialization is timely because of the rapid developments in digital electronic technology and is only one example of how other specialized technical areas might be added later.

The research emphasis of the School would be jointly on Appropriate Technology and Energy Science. These two themes lead to common approaches to a variety of problems in energy utilization but this does not inhibit independent work, for example, on theoretical aspects of energy or on the organization of small industry. The research in a School such as that proposed here would benefit greatly from a graduate program. It might be possible to start a small M.Sc. program at the same time as the Bachelors program.

2. The Curriculum

It is proposed that the degree program be based on a common core

of third year courses. Since all students would be required to take ten of the fifteen core courses a broad base with fairly high course enrollments is ensured. The fourth year program would provide specialization in two general areas and one specific area. All students working towards a degree would complete 60 credits in the School.

2.1 Entering Students

Normally, all entering students would have completed two years in science at a College or University. The basic premise is that any student who could transfer to a science or applied science department in a British Columbia university should be eligible for admission to this School. The third year core courses would be designed with this in mind and would have a minimum of specific prerequisites. It is hoped that students holding diplomas from College Technology programs would be able to transfer into the School with a minimum of make up courses.

2.2 Core Courses

The core program comprises fifteen courses ranging from biology through chemistry, physics, mathematics, and computer science to economics. However, there is a preponderence of courses in the areas of applied physics normally indentified as electrical and mechanical engineering. While all of the courses shown are new, some are very similar to existing SFU courses, others are related to existing courses, and others have no equivalent at SFU. The intent is that all courses would be taught at a high level but that the emphasis would be on the application of science to practical problems.

All students working towards a degree in the School would be required to select ten of the fifteen core courses. This would mean that

while a biologically-oriented student will have to take more mathematics and applied physics than his counterpart at SFU, the student specializing in mechanics or electronics would have to choose some courses from biology, chemistry and/or economics.

2.3 Broad Specializations: Appropriate Technology and Systems Design

The educational philosophy of the School would be to give students a broad base in applied science and to develop their problem-solving skills in applying this to real world problems. Two different but overlapping sets of fourth year courses would be provided to achieve these goals.

The Appropriate Technology courses introduce students to the notions popularized by E.F. Schumacher and to applications of these ideas in a general way in courses concentrating on energy resources, energy utilization, materials, structures and machines. (This approach is also referred to as "small", "intermediate" or "applicable" technology.) The result should be students who are resourceful problem-solvers capable of applying the fundamental principles of science to a wide variety of problems, particularly those where capital as well as technical resources are limited.

The other general specialization is Systems Design. This in no way contradicts the aims of Appropriate Technology but provides students with a number of highly sophisticated tools - optimization, computer simulation and modeling - which taken together with courses in business management, production technology and human factors allows them to attack a wide variety of problems encountered in small, medium and even large scale industry. The focus of the Systems Design option is a two-semester sequence of two five-credit seminars in which students work individually

and in teams on a number of design problems from local industries. This option is similar to the successful undergraduate program in Systems Design at the University of Waterloo.

2.4 Narrow Specialization - Digital Electronics

As an alternative to the broad specializations offered by the School, a more technically-focussed specialization will be offered in Digital Electronics. This specialization is seen as being typical of others which might be added at an appropriate time in the future.

Digital Electronics has been chosen for several reasons. First, the technology itself has developed to a point where it is economical to incorporate micro-computers into many pieces of business and industrial equipment, ranging from cash-registers to automobiles. It has also become economic to customize the design so that micro-computers can be designed for a few hundred dollars to meet the special requirements of small industry. However, there is a need for trained personnel to implement the designs. Other reasons for choosing this specialization are the relatively modest cost of setting up laboratories, the intrinsic interest of this topic for students and the potential for stimulating industrial development.

2.5 The Degree - Bachelor of Technology

It is proposed that a new degree, Bachelor of Technology (B. Tech.) be created to give a distinctive identity to the graduates. While this is seen as the most desirable choice other alternatives include: (a) a new B.A.Sc. degree - although this might cause confusion with existing B.A.Sc. programs, (b) a simple B.Sc. degree - this also would lack distinction from the many existing B.Sc. programs, and (c) a B.G.S. degree as specified in

the existing SFU curriculum. Whatever the name of the degree, the acceptance of the School's graduates will ultimately depend on their performance.

2.6 Employment Potential of Graduates

It is impossible to predict the employment opportunities for graduates from the proposed program. On one hand, it can be argued that the training offered would suit the graduates for employment in a wide variety of roles in industry or government. Certainly, the practical orientation with education to the level of a B.Sc. should make them attractive to those currently employing either B.C.I.T. technologists or graduate engineers. The counter-argument is that employers prefer to have engineering graduates from established programs.

The relatively unique emphasis of the proposed degree on the problems of smaller organizations should, in the long run, provide job opportunities not only in British Columbia but across Canada and overseas.

3. Faculty

The 38 proposed courses result in a total of 120 credit hours per year if each course is offered every year. Thus, twelve faculty would teach about ten credit hours per year - i.e. about three courses. This would give sufficient time within the normal faculty teaching load for course development and the initiation of a modest graduate program.

The faculty might be chosen from the disciplines shown and might have the research interests indicated.

<u>Number</u>	<u>Discipline</u>	<u>Research</u>
1	Biology	Biomass/biogas
1	Chemistry	Conversion of fuels
8	(Physics/Mechanics (Electrical Engineering (Mechanical Engineering	Topics in energy, design optimization, materials research
1	Mathematics	Energy
1	Economics/Commerce	Energy

4. Courses

4.1 Core Courses in Applied Science

These are new courses designed to be taken in the third year of a degree program. All students are expected to have completed two years in science with courses in biology, chemistry, physics and mathematics but specific prerequisites have been kept to a minimum. The numbers of existing Simon Fraser University courses which are approximately equivalent are given in parentheses.

A.S. 300-3 Physical and Chemical Aspects of the Environment
(BISC 300-3)

A.S. 303-3 Microbiology
(BISC 303-3)

A.S. 310-3 Applied Organic Chemistry

A.S. 313-3 Applied Physical Chemistry

A.S. 320-3 Applied Mechanics - Vibrations

A.S. 322-3 Thermodynamics and Heat Engines

A.S. 324-3 Fluid Mechanics

A.S. 330-3 Optics and Electromagnetic Radiation

A.S. 331-3 Electrical Circuits

A.S. 332-3 Electronic Circuits and Devices
(PHYS 334-4)

A.S. 334-3 Control Theory

A.S. 340-3 Mathematical Methods
(MATH 310-3 and MATH 312-3)

A.S. 345-3 Statistical Methods
(MATH 302-3)

A.S. 350-3 Advanced Programming
(CMPT 201-4, 301-3, and 302-3)

A.S. 360-3 Micro and Macro-Economic Theory
(ECON 301-5, 305-5)

A.S. 370-3 Engineering Strength of Materials

4.2 Appropriate Technology Courses

These fourth year courses allow the student to explore the theory and practice of applying appropriate technology to a variety of problems. The technical problem solving skills developed in these courses are not unique to the problems studied. However, these courses also present a philosophical approach to the application of technology in society. The courses have a strong emphasis on energy technology.

A.T. 400-3 Appropriate Technology Seminar.

A discussion of the philosophical, political, economic and technological developments in small, intermediate and appropriate technology.

A.T. 410-3 Renewable Alternative Energy Sources.

Technical studies of solar, wind power, biomass and biogas, wave, tide, geothermal sources. Energy requirements of tasks. Physics and chemistry of basic processes. Generators and collectors. Storage and release. Modes of operation. Engineering and

basic economics, costs and cost-benefit analyses.

Uses examples drawn from current operating systems.

Possibly field trips, demonstrations.

A.T. 415-3 Solar Energy Systems.

Thermodynamics and thermal processes. Collector design and evaluation. Pumping and piping. Heat engines, heat pumps, heat exchangers, absorption coolers, auxiliary heaters. Choice of working fluids. Storage techniques. Design of a typical small residential system and a crop drying system. Costs and economic evaluation. Architectural engineering of solar systems. Codes. Accompanied by a practical hands-on lab.

A.T. 417-3 Biomass and Biogas.

Energy flows into biomass, available energies. Systems to cultivate and extract power from biomass. Wastes-disposal. Characteristics of wastes (plant, animal, human). Aerobic and anaerobic digestion. Septic tanks and fields, compost heaps, manure pits. Anaerobic manure digestors and methane. Gas drying and purification, compression and storage. Safety and operation.

A.T. 418-3 Nuclear Energy.

Basic nuclear physics; Fission processes. Design principles for fission reactors. Analysis of safety and performance of different systems. An introduction to fusion processes.

A.T. 420-3 Materials in Appropriate Technology.

Properties and characteristics of materials commonly used in A.T. Wood, logs, soil-cement, cements (inc. fly ash, etc., cements). Plastics (e.g. transparent for greenhouses and solar collectors; reinforcing in concrete; panels). Commonly employed metals in A.T. Novel materials - forest industry wastes (e.g. lignin liquors, etc.). Oriented towards practical uses in construction - loads, environmental properties, etc.

A.T. 430-3 Structures for Appropriate Technology.

Design of structures. Architectural considerations. Energy considerations - heating, cooling and ventilating. A.T. design using lumber, logs, soil - cements and alternative cements. Barns, sheds, greenhouses, animal houses, cabins and small residential houses. Codes and regulations. (Should enable students to design small structure safely; be knowledgeable enough to fully discuss larger studies with architects, engineers, contractors).

A.T. 440-3 Low Cost Mechanization and Machine Design.

The design of production machinery. The mechanization process with emphasis on cost-effective processes for small scale manufacturing.

4.3

Systems Design Courses

These fourth year courses give the student an opportunity to apply the tools of applied science, computing and economics to practical

design problems. The core courses are the two five credit Systems Design Seminars.

S.D. 400-5 Systems Design Seminar I

S.D. 401-5 Systems Design Seminar II

In this two-semester sequence students apply their problem solving skills to five small and two large design problems.

S.D. 410-3 Optimization: Theory and Practice.

S.D. 415-3 Computer Simulation and Modeling.

(CMPT 305-3)

S.D. 420-3 Business Management I

Oriented to small company operation. Managing financial assets, financial analysis, liquidity, profitability, raising long term and short term capital. Marketing theory and research, assessment of demand, mechanics of distribution, sales organization, advertising. New product development.

(See COMM 312/343)

S.D. 425-3 Business Management II

Commercial law, partnership and corporation law, contracts agency and negotiable instruments. Industrial relations, collective bargaining, labour relations law, trade unions.

(See COMM 386/393)

S.D. 430-3 Product Technology

Factory location and plant layout, product design,

production methods, materials handling, control of output, quality, cost, inventories and production flow. Time and motion study and work analysis.

(See COMM 373-5)

S.D. 440-3 Human Factors in the Working Environment

Practical and theoretical consideration of principles involved in the creation of optimal working conditions. (KIN. 480-3)

4.4

Digital Electronics Courses

These are all existing Simon Fraser University courses (third and fourth year). They would allow a student to complete a specialization in digital systems.

MATH 306-3 Automata Theory.

MATH 401-3 Switching Theory and Logical Design.

PHYS 381-4 Modern Physics.

PHYS 461-4 Solid State Physics.

CMPT 390-3 Digital Circuits and Systems.

CMPT 400-3 Hardware-Software Architecture I

CMPT 401-3 Hardware-Software Architecture II

5. Research - Energy Science and Appropriate Technology

It is foreseen that the School would have two co-existing research foci. "Energy" can provide topics for all disciplines and a co-operative effort between physicists, engineers, biologists, chemists, mathematicians and economists could indeed be exciting. However, this focus overlaps one of the major interests in Appropriate Technology - the development of

economic technology to utilize alternative energy resources. Other research in "Appropriate Technology" not directly related to energy might involve, for example, novel materials and structures, or the study of organizational patterns in small industry.

SCHOOL OF ACTIVE HEALTH SCIENCES1. GENERAL PHILOSOPHY AND RATIONALE

In countries of continuing material prosperity we have become used to measuring almost everything in terms of production figures and consumption successes. Technical progress, economic growth and social security, however, depend on the efficiency of the individual and the vitality of the people.

An increasing concern in our society is with the inadequacy of life style, health and physical vigour of the majority. There is also the pressing need and much enthusiasm for the preparing of top-notch athletes and fostering first-class athletic competition for the nation's elite athletes.

Many recent major federal publications such as:

The Lalonde Report
Nutrition Canada
Employee Physical Fitness
Fitness and Health
The Art and Science of Coaching

have focused on these problems.

Provincial and Federal programs have resulted in service 'action' groups such as Action B.C., Participation, the Coaching Association of Canada and the branches of the Fitness and Amateur Sport Directorate within the Department of National Health and Welfare being set up. Also, national Centres for Occupational Safety and Health and Quality of Working Life are planned by the Federal Department of Labour.

There is a general lack of knowledgeable professionals in the country able to plan or run effective programs of fitness assessment,

exercise prescription, dietary counselling or athletic analysis.

It is pertinent at this time therefore:

- to propose serious study both of the problems of a sedentary society and of the competitive athlete respectively
- to consider the establishment of a Regional University School which would offer coherent, basic and specialized training in the various subdisciplines needed by the Active Health and Sports Science Professionals.

2. GOALS AND OBJECTIVES

The School of Active Health Science would have as its goals:

- a. The Development of a program of courses aimed at providing specialized training to the following types of people:

- Community College graduates with an orientation towards the Active Health Sciences;
- professionals in public health and rehabilitation, e.g. public health nurses and physiotherapists;
- elementary and secondary school teachers;
- recreation and community planning specialists, e.g. industrially based safety officers and individuals who set up activity programs to optimize work environments;
- research scientists in allied disciplines interested in the perspective of active health sciences.

- b. Establishment of an applied internship program or practicum (in hospitals, community centres, YMCA's, etc.) which would allow the interfacing of core programs and professional training.

with practical internship experience.

c. Development of continuing education and certification programs for professionals already in the field who need to upgrade or revise their knowledge.

d. Provision of residential training facilities for provincial and national (and ultimately international) athletes and teams backed by resources and personnel from sports medicine, sports science and physiotherapy in addition to technical and coaching staff.

e. Establishment of research and development into areas such as:

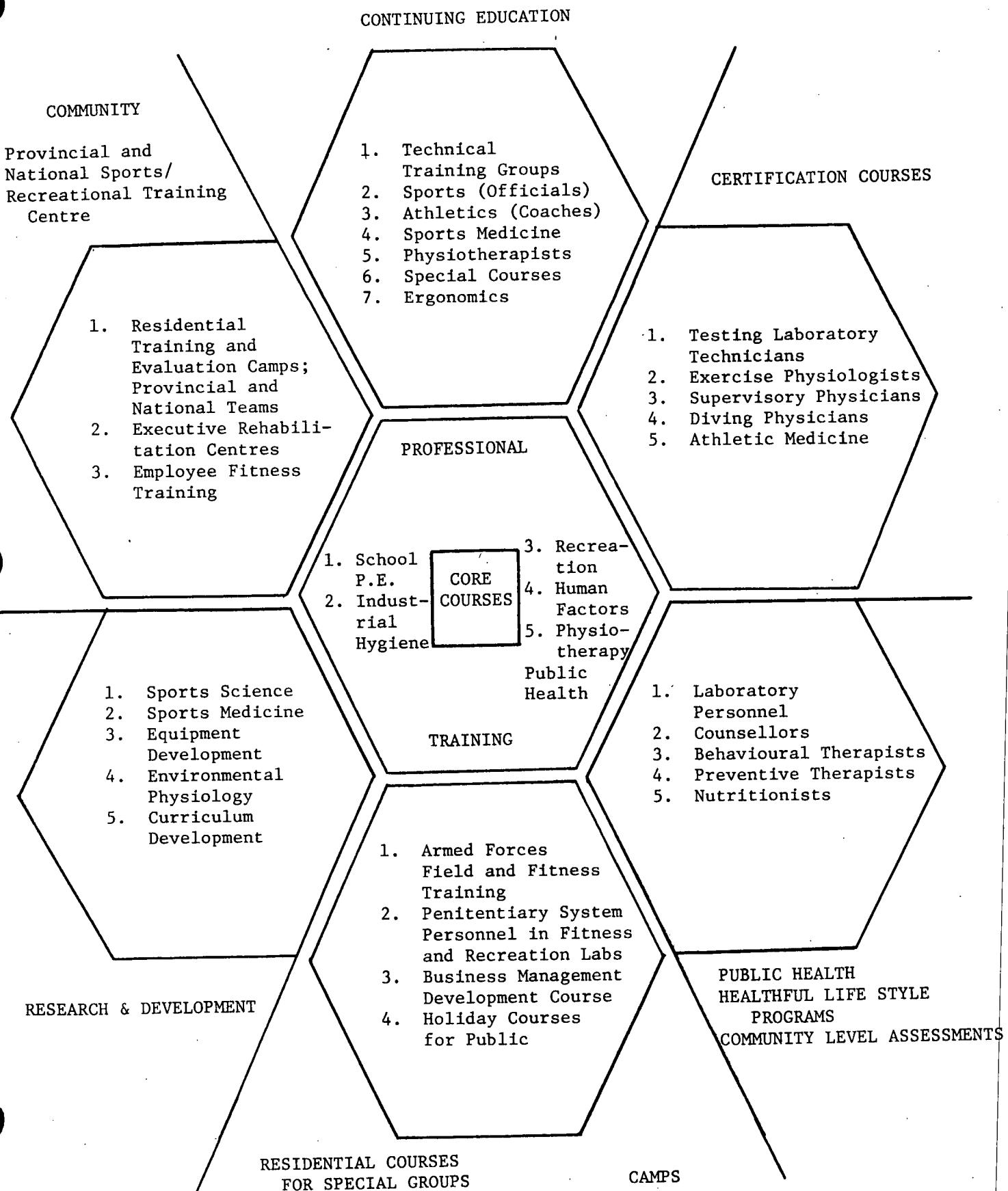
- Risk Factor Assessment and Preventive Medicine
- Cost Effectiveness of Employee Physical Fitness Schemes
- Active Health Curricula for Schools
- Ergonomics, Safety, and Human Factors Engineering in Industry
- Fatigue
- Computing Modelling and Prediction of Athletic Performance
- Diet and Nutritional Aspects of Performance
- Effect of Alien Environments on Work Capacity-
Hot, Cold, Hypoxia, Underwater, Hyperoxia
- Treatment of Athletic Injuries
- Sports Science

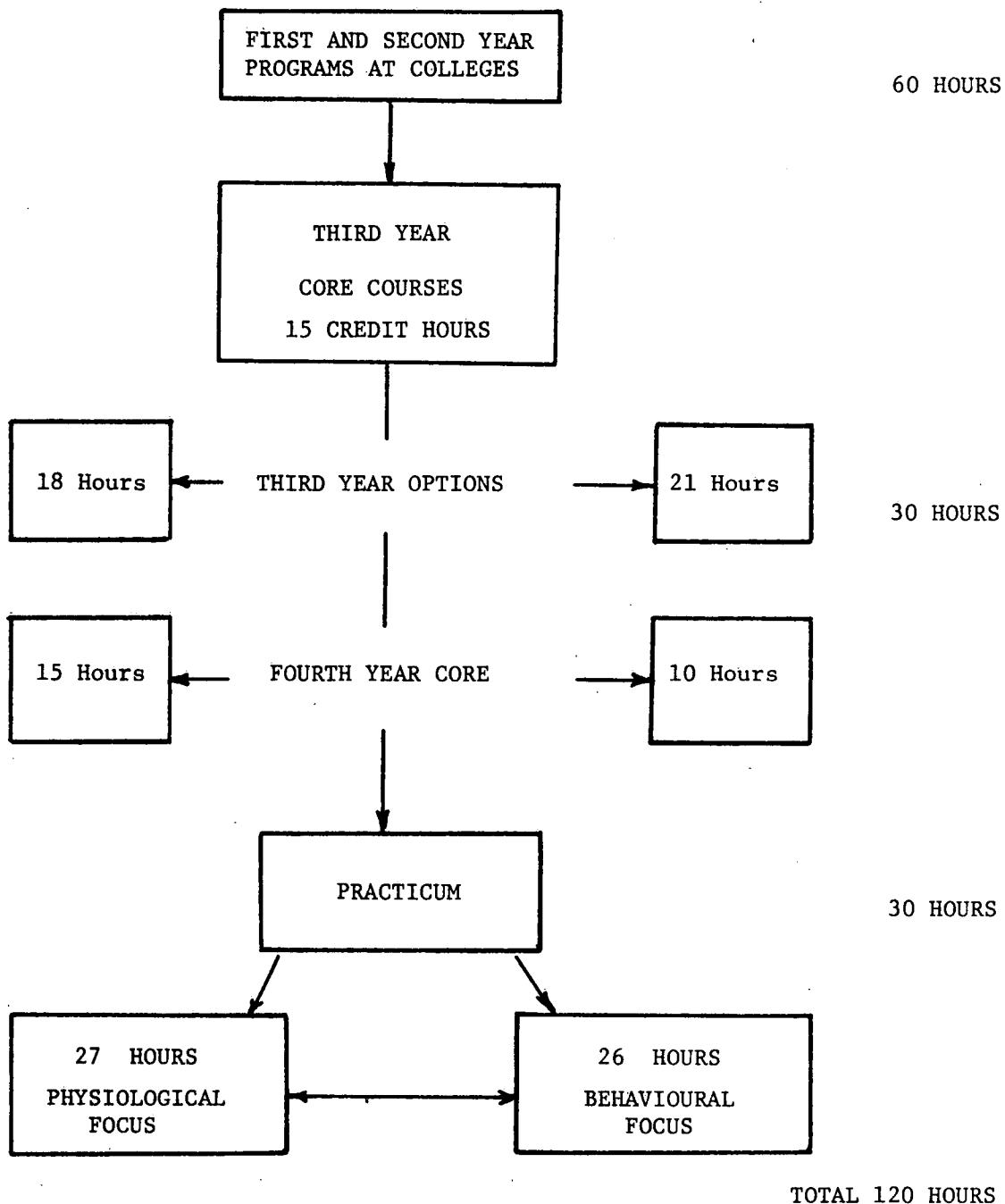
- Rehabilitation Techniques in Respiratory and Cardiovascular Disease
- Activation Techniques and their Effectiveness in the Elderly
- Behaviour Modification
- Motor and Skill Learning
- Development of New Prostheses for the Limbless and the Blind

3. CONCEPTUAL MODEL OF A SCHOOL OF ACTIVE HEALTH SCIENCES

Potential School programs, activities and groups to be serviced are presented qualitatively on the next page.

CONCEPTUAL MODEL OF A SCHOOL OF ACTIVE HEALTH SCIENCES



4. PROPOSED PROGRAMa. General Design

(The arrows indicate the possibilities for changing emphases at any point in the degree program.)

b. Curriculum

FIRST YEAR	At Community College or Uni-
SECOND YEAR	versity

THIRD YEAR	At Regional University School
FOURTH YEAR	

The first two years would be based upon a core of Science, Kinesiology and Psychology courses.

The third and fourth year program would have a common core but develop emphasis in either the physiological or behavioural options which would be supported by an internship/practicum.

Transfer credit to other Colleges and Universities in B.C. for all of the first and second year courses and for many of the third and fourth year courses would help facilitate flexibility and quality.

The program is designed for four years and to culminate in a Bachelor's degree. However, it would be possible for students to take identified packages of courses that would provide a Certificate for specialists or other interested individuals.

FIRST TWO YEARS

Completion of 60 hours of credit, at a Community College or University with emphasis on Science and Psychology. Courses in the following subject areas would be included:

Introduction to Biology

Cell Biology

Developmental Biology

General Chemistry

Organic Chemistry

Calculus

General Physics
 Programming Language
 Introductory Psychology
 Research Methods in Psychology
 Data Analysis
 Introduction to Sociology
 Introduction to Social Research
 Electives in Humanities

60 hours

THIRD AND FOURTH YEARS

The third and fourth year programs would receive 4 semesters of full time study. Part time evening students should be able to complete the program in 10 semesters. This time may be reduced by taking short, intensive presentations of certain courses which may be presented from time to time in summers.

The curriculum consists of courses which are a combination of existing SFU courses and newly-designed courses appropriate to this School. They do not preclude changes nor do they ignore the possibility of assimilating related offerings from UBC and U.Vic.

(i) THIRD YEAR

<u>Core Courses required of all students</u>		<u>Credit Hours</u>
Kin.	303 Kinanthropometry	3
320	Cultural Aspects of Human Movement	3
367	Psychology of Motor Performance and Skill Acquisition	3
Psyc.	304 Motivation	3

Biol. 305 Animal Physiology

3

15

Optional Courses

Fifteen credit hours from either or both the Physiology or Behavioural focus.

1. Physiological Focus

Kin.	326	Functional Anatomy	3
	330	Human Energy Metabolism	3
	336	Microscopic Anatomy (histology)	3
	343	Fitness Appraisal and Guidance	3
	370	Biomechanics in Motor Performance	3
Psyc.	380	Physiological Psychology	3

2. Behavioural Focus

Crim.	381	Techniques of Criminological Treatment and Social Reinte- gration I	3
	342	Dynamics of Interpersonal Relationships	3
Kines.	320	Cultural Aspects of Human Movement	3
Psyc.	347	Motivation and Work	3
	351	Child Psychology	3
	360	Social Psychology	3
Socio.	315	Sociology of Leisure	3

Credit Hours - end of third year 30

(ii) FOURTH YEAR

<u>Core Courses</u> - 15 hours required for all students	<u>Credit Hours</u>
---	---------------------

The core courses can be selected from either
of the two foci.

1. Physiological Focus

Kin. 4XX Mechanics of Human Movement	3
4XX Physiology of Motor Activity	3
4XX Principles of Physiological Regulation	3
4XX Personality Factors in Human Performance	3
4XX Motivational Techniques	3

2. Behavioural Focus

Kin. 470 Motor Activities Lab (Individual)	2
471 Motor Activities Lab (Team Activities)	2
4XX Assessment of Community Programs in Health and Recreation	3
4XX Techniques of Measurement and Evaluation	3

PracticumOptional Courses (Choose 15 hours)1. Physiological Focus

Biol. 4XX Experimental Techniques	3
Chem. 4XX Clinical Chemistry	3
Kin. 4XX Techniques of Rehabilitation	3
407 Human Physiology Lab	3

442	Biomedical Systems	3
480	Human Factors in Working Environments	3
4XX	Activation Techniques for the Elderly	3
4XX	Athletic Assessment and Technical Analysis	3
4XX	Exercise and Environmental Physiology	3

2. Behavioural Focus

Biol.	410	Comparative Ethology	3
Crim.	441	Techniques of Criminology Treatment and Social Reintegration II	3
Educ.	422	Learning Disabilities	4
	424	Learning Disabilities Lab	4
Kin.	4XX	Psychological Factors in Physical Rehabilitation and Public Health	3
	4XX	Environmental Health Factors in Human Performance	3
	4XX	Curriculum Development in Active Health Programs	3
	4XX	Planning Community Facilities in the Urban Environment	3
Total Fourth Year Credit Hours			30

TOTAL 120 Hours

5. FACULTY RESEARCH BASE

The school would be initiated with about a dozen faculty which would include typically the following kinds of professionals:

Physicians
Public Health Nurses
Exercise Physiologists
Sociologists
Histologists
Bio-Engineers
Motor Learning Psychologists
Behavioural Psychologists
Bio-mechanics
Urban Planner

They would establish research and development into such areas

as:

1. Environmental Physiology
2. Curriculum Development for Schools, Colleges and Universities
3. Ergonomics, Safety Engineering
4. Sports Medicine
5. Behaviour Modification of Life Style
6. Public and Industrial Fitness Schemes
7. Rehabilitation and Activation Programs

SIMON FRASER UNIVERSITYINTERIOR PROGRAMS PLANNING COMMITTEEMEMBERS

Dr. B. Wilson, Vice-President, Academic (Chairman)
Dr. J. Blaney, Dean of Continuing Studies (Co-Chairman)
Dr. J. Ellis, Dean of Education
Dr. J. Webster, Dean of Science
Dr. J. Munro, Dean of Arts
Dr. T. Calvert, Dean of Interdisciplinary Studies
Mr. T. Dobb, Deputy Librarian

SUPPORT
STAFF

Dr. W. Wattamaniuk, Executive Assistant to the
Committee

Mr. R. Walker, Research Assistant

Ms. T. Glanfield, Office Coordinator

ADDRESS

Interior Programs Planning Committee

Simon Fraser University

Burnaby, British Columbia V5A 1S6

Telephone: 291-4740

The Report of the Planning Committee on Interior Programming-- Implications for SFU and its Faculty

The basic proposals include the development of a province-wide distance education program based on SFU departmental programs and courses, most of which are as yet undeveloped in correspondence form. Another major proposal is the development of several interdisciplinary Schools to be located in areas of major population density in University Centres. The latter would also provide decentralised administrative support for the distance education system as well as programs offered by other universities.

Each of these proposals will impact on SFU in a variety of ways and this paper will review some of the implications of these possible developments.

General

The call for "bold innovative programs" by the NDP government in 1974 has been followed with the appointment of the Winegard Commission in 1976 by the Social Credit government. Subsequently \$3 million was included in the 1977/78 budget for "Interior Programming", as a separate line item in the Ministry of Education Budget. These political decisions reflect a widely held view that the "Interior" (those areas of B.C. outside the GVRD and Greater Victoria) has been short-changed by the public universities in the past. Opinions expressed at the various College centres visited by the Interior Program Planning Committee were consistent with this view. It appears clear that, somehow, university programs will be introduced into the Interior but that, at least for the present, a fourth university will not be started. SFU responded to Government action in 1974 by offering some credit courses at college locations leading to the commencement in 1975 of a three year experimental program at Kelowna which includes degree completion programs in Psychology and Biological Sciences, as well as by developing a distance learning program which, in summer 1977, had 400 enrollees. In 1977 we have extended to three additional locations our PDP program and are preparing to increase the scale of our distance learning program. In addition we may extend our current successful evening offerings into the Fraser Valley. All of these efforts are extensions of current practice -- the proposals in the Report, however, are either new ventures or major extensions of very limited 1977 offerings.

Universities are currently facing financial constraints unmatched since the early '60s and few are optimistic that conditions will improve in the near future. Consequently a major concern about proposals to extend the university is the possible financial impact on the SFU campus. The evidence suggests that increasing funds will be applied to extension of degree completion and professional development programs outside the metropolitan areas. Whether these funds will come

off the top of the budget for the three university system or will augment them is unknown. However the degree of caucus support for higher education in general will inevitably be linked to the perceived value of these programs in a large number of constituencies and it is reasonable to suppose that there will be a positive relationship between the overall level of support and our efforts. Further, SFU's share of the three-university total may well be affected by positive feedback from our extended services.

Provided then that its external programs are funded outside the normal operating budget, it seems financially advantageous to attempt to provide quality programs in the "Interior".

The Distance Learning Program

Of the two major proposals, the distance learning program is likely to have the greatest impact on departments at SFU. The Committee believes that, in order to maintain university quality, its programs offering degree completion at SFU must become the responsibility of departments. At present courses are developed by interested faculty members on an ad hoc basis for an overload stipend with administrative support from Continuing Studies. Assignments are marked by the author for a fee. Such a mechanism is not possible to develop and maintain 100 or so courses on a continuing basis, let alone handle an estimated 5000 enrollees per semester in a few years time.

Many universities hire a separate faculty to carry this load and develop a kind of second university in Continuing Education. Unfortunately this can lead to perceptions of second class degrees whatever the dedication of the instructors. The proposal suggests that a better alternative is to involve departments and their faculty with additional financial support being applied there rather than developing a separate structure. Inevitably there must be some coordination of such activities in and between the Faculties as well as of the tutorial and delivery system, but this should be facilitative rather than policy-oriented. It is anticipated that the preparation of courses would become part of a teaching load rather than an "overload" responsibility so that in many departments additional faculty would be required.

Estimates of the financial impact on administrative services have been included in the Appendices. It is not expected that there would be a major impact on the Library by this program.

The Schools

The interaction between the Schools and SFU is expected to be very different from the distance education program. In the latter, SFU would develop and run the program from Burnaby with some decentralization of the delivery system. Schools, on the other hand, would develop to be semi-autonomous units with their own faculty living in external communities. They would be responsible for the development of curriculum and faculty in a manner analogous to that of a department at SFU although the academic and quality control would still be exercised by SFU Senate and normal tenure and promotion policies and procedures.

A possible administrative model is set out in the Report but no attempt has been made to elaborate it in detail. However, in the initial stages of development, faculty from relevant departments on the Burnaby campus would be involved in committees charged with the development of curriculum, appointments and the implementation of renewal, promotion and tenure policies. This parallels the development of interdisciplinary departments on campus.

It has been suggested that the Directors of the Schools (analogous to department chairmen) would report to a new position, the Dean of University Regional Schools. This individual would be charged with the development and coordination of activities between the regional Schools and with cognate SFU departments on campus and would function in the same way as the Faculty dean. It may be that if the program expanded significantly, in the future, the status of this appointment might be reviewed with the possibility of development of a division of University Regional Schools, responsible to a Vice-President.

The impact on faculty will be largely of a consultative and advisory nature although the potential for interdisciplinary research, particularly research related to non-metropolitan problems, will be enhanced by the injection of a significant number of newly appointed academics.

The Schools will also have an impact on the administrative and academic-administrative areas of the University since they will be integral units of the University. A novel approach to the development of high quality library services has been included as a separate section of the report. While some concern has been expressed about the potential availability of monographs in senior Arts courses, these problems would certainly be exacerbated if the mini-faculty or mini-university model was adopted for Interior centres. The impact on areas such as the Bursar's office, Registrar's office and the Computing Centre can be sustained with appropriate allocation of money from the Interior Programming budget.

The development of university centres in which Schools would be located will serve to facilitate the delivery of the distance education program and should not impact SFU directly.

SIMON FRASER UNIVERSITY

S.77-1016

MEMORANDUM

To..... Senate.....

From..... B. G. Wilson.....
Vice-Chairman,
Senate Committee on Academic
Planning

Subject Report of the Planning Committee
on Interior Programming

Date..... September 24, 1977.....

At its meeting on September 21st, 1977, the Senate Committee on Academic Planning considered the report of the Simon Fraser University Planning Committee on Interior Programming. A copy of this report is enclosed. Also enclosed is a summary of the discussion which ensued at the meeting of the Senate Committee on Academic Planning regarding this report. While the summary of the SCAP meeting has been reviewed and approved by several members of SCAP, there was insufficient time to permit all members of the Committee to review and approve this document. The third enclosed document is a report prepared by the Simon Fraser University Planning Committee on Interior Programming which sets forth in some detail the implications for SFU faculty and departments of the proposals contained in the Planning Committee's report.



B. G. Wilson

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S.77-101c

SUMMARY OF THE MEETING OF THE SENATE COMMITTEE ON
ACADEMIC PLANNING HELD ON SEPTEMBER 21, 1977

INTRODUCTION

The purpose of this document is to set forth the discussion of the Senate Committee on Academic Planning regarding the report of the Simon Fraser University Planning Committee on Interior Programming.

BACKGROUND

At its meeting on November 29th, 1976 the Senate of Simon Fraser University approved the following motion:

SIMON FRASER UNIVERSITY IS WILLING TO ACCEPT IN PRINCIPLE RESPONSIBILITY FOR OFFERING UNIVERSITY PROGRAMS IN NON-METROPOLITAN AREAS AND IS PREPARED TO APPOINT A DIRECTOR AND APPROPRIATE STAFF TO DEVELOP SPECIFIC PLANS BY DECEMBER 1977, PROVIDED THAT FUNDS FOR SUCH DEVELOPMENT WILL BE MADE AVAILABLE BY THE GOVERNMENT. ANY PROGRAM IMPLEMENTATION BY SIMON FRASER UNIVERSITY WOULD REQUIRE PRIOR APPROVAL BY THE UNIVERSITY'S SENATE AND BOARD OF GOVERNORS, TOGETHER WITH ASSURANCE OF AN APPROPRIATE LEVEL OF FUNDING.

The Senate motion was subsequently considered by the Board of Governors of Simon Fraser University at its meeting on December 14th, 1976. At that meeting, the S.F.U. Board approved the following motion:

SIMON FRASER UNIVERSITY IS WILLING TO ACCEPT IN PRINCIPLE RESPONSIBILITY FOR PLANNING UNIVERSITY PROGRAMS IN NON-METROPOLITAN AREAS AND IS PREPARED TO APPOINT A DIRECTOR AND APPROPRIATE STAFF TO DEVELOP SPECIFIC PLANS BY DECEMBER 1977, PROVIDED THAT FUNDS FOR SUCH DEVELOPMENT WILL BE MADE AVAILABLE BY THE GOVERNMENT. ANY PROGRAM IMPLEMENTATION BY SIMON FRASER UNIVERSITY WOULD REQUIRE PRIOR APPROVAL BY THE UNIVERSITY'S SENATE AND BOARD OF GOVERNORS, TOGETHER WITH ASSURANCE OF AN APPROPRIATE LEVEL OF FUNDING.

The Board motion differed from the Senate Motion in the substitution of the word "planning" for "offering" in the first sentence of the motion. This position was forwarded to the Universities Council with a request for funding the planning of a "grand design." The planning which culminated in the present report began in January, 1977 with the establishment of the S.F.U. Planning Committee on Interior Programming. The summary of the SCAP discussion on the report follows.

SUMMARY OF SCAP DISCUSSION ON THE REPORT OF THE PLANNING COMMITTEE ON INTERIOR PROGRAMMING

It was noted that the report had been transmitted to the newly established Interior University Programs Board who is charged with examining and evaluating the reports of the three provincial universities regarding interior programming and making appropriate recommendations to the Universities Council regarding the role to be undertaken by each. The document is being presented to the Interior University Programs Board solely as the report of the Planning Committee on Interior Programming and not as a formal Simon Fraser University proposal. While the document is not an official proposal from the University, it would be helpful to the Planning Committee on Interior Programming to know whether the Senate Committee on Academic Planning and the Senate of the University support the concepts and principles contained in the report. For this reason, the report is being circulated to both the Senate Committee on Academic Planning and the Senate for "in principle" approval prior to formal discussion with the Interior University Programs Board. It was emphasized that Senate approval does not imply full or partial implementation of any part of the proposals contained in the report since such implementation is contingent upon subsequent Senate and Board of Governors approval in detail, together with assurance of an appropriate level of funding.

Concerns were expressed by members of the Committee regarding institutional arrangements which are not spelled out in the report. In response to a series of questions, it was noted that the present transfer regulations of Simon Fraser University applied and that, to the extent permitted by such regulations, courses offered in interior locations would be transferable to the main campus of Simon Fraser University. Such transferability should be facilitated since all programs offered in the interior as well as the courses associated with such programs would have the prior approval of the Simon Fraser University Senate. As regards curriculum design, course preparation, etc. it was noted that such will be developed by the Directors of each school in consultation with current faculty members of our existing departments. Curriculum and course proposals would then proceed via the normal route of approval, i.e., SCAP, SCUS, and Senate. It is anticipated that the design of a curricular program to be associated with one of these schools would follow the model previously utilized in developing new programs at Simon Fraser University, e.g. Criminology and Computing Science.

It was suggested that the report is contradictory for while it, on the one hand, is critical of the mini-Faculty or mini-University proposal on the grounds that there would be an insufficient number of faculty with common research and intellectual interests to maintain a high quality research/academic environment, similar criticism appears to be equally applicable to the School concept espoused in the report. While it is true that there would not likely be more than one or two faculty in a particular discipline associated with any of the schools, the primary difference is that the faculty members of a mini-Faculty would have research interests spread over several fields while the faculty of a school would have research interests in common. Clearly, the theme of a particular school would provide the common focus and both demand and facilitate interaction among the faculty pursuing their research interests. Hopefully, this will lead to innovative research and scholarship and a reputation for excellence in a particular area as good as in the parent university.

Were Simon Fraser University to be given responsibility for the development of four to six Regional University Schools in interior locations, it is anticipated that implementation would proceed initially with the development of two schools, the location of which would have to be determined by the Interior University Programs Board. The full development of such schools could take anywhere from three to five years.

In the same context it was also acknowledged that the development of Regional University Schools will have some impact on all three provincial universities. Such impact is likely to be greater at U.B.C. and U.Vic. than S.F.U. because a larger proportion of their undergraduate student body is drawn from interior locations. With specific regard to the proposed Resources Management Program at S.F.U., no competition is envisioned between it and the proposed School of Resource Management since the former will be at the Masters level and the latter at the undergraduate level. Finally, it is anticipated that while the proposed Regional University Schools will influence the academic program offerings of the colleges, such influence will be not more or less than that which is presently extant between the University's programs and those of the colleges.

The viability of the proposal for bringing library resources to the interior of the province was challenged on the grounds of the lack of duplicate materials for upper division courses in certain areas in conjunction with the excessive cost of acquiring duplicate materials at current prices. While it is not easy to speculate on such matters at this stage, some difficulties are envisioned but these are considerably less than those that would be encountered were new and independent collections to be established at each of the Regional University Schools.

As regards the role of interior communities in decisions relating to both the location of schools and the themes of such schools, it was noted that the locations and themes suggested in the report were based on discussions with representatives in each of the college regions.

Finally, it was agreed that there is a need for a larger discussion of the faculty role within this University vis.a vis. the proposals contained in the report of the Planning Committee on Interior Programming. Given this widely expressed concern, it was agreed that a separate report would be prepared by the Planning Committee on Interior Programming designed to specifically address these concerns. It was further agreed that this report should be distributed to members of Senate in conjunction with their consideration of the report of the Planning Committee on Interior Programming.

Based on the above discussion, it was MOVED and SECONDED:

"THAT THE SENATE COMMITTEE ON ACADEMIC PLANNING ENDORSE THE CONCEPTS CONTAINED WITHIN THE MAIN REPORT OF THE PLANNING COMMITTEE ON INTERIOR PROGRAMMING AND RECOMMEND THAT SENATE TAKE THE SAME ACTION."

Question was called and a vote taken.

In Favour	12
Abstentions	1

MOTION CARRIED.