

S.73-57

SIMON FRASER UNIVERSITY

MEMORANDUM

To SENATE

From SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Subject. MINOR IN ENVIRONMENTAL EDUCATION

Date. APRIL 18, 1973

MOTION: "That Senate approve, as set forth in S.73-57,
the Minor in Environmental Education."

S.73-57

SIMON FRASER UNIVERSITY

MEMORANDUM

To SENATE
Subject Minor in Environmental Education

From Senate Committee on Undergraduate Studies
Date April 18, 1973

On the recommendation of the Faculty of Education, the Senate Committee on Undergraduate Studies has approved the proposal for a Minor in Environmental Education, as set forth in SCUS 73-10, and forwards it to Senate for its consideration. This submission contains the following information:

- (a) description of the minor;
(b) definition of, and rationale for, environmental education; and
(c) Calendar description.

It should be noted that this proposal is one of a number of minor programs, emanating from the Faculty of Education and envisaged in the reorganization of that Faculty undertaken in the Summer of 1971. The question of whether or not such a program constituted a new program and would therefore have to be submitted to the Academic Planning Committee before transmission to Senate was discussed in SCUS and referred to the Chairman of Senate. His ruling was that, since the submission of such minor programs had been envisaged in the reorganization of the Faculty and that this program constituted, with one exception which was designed principally as a supplement to an existing course, a rearrangement of existing courses to fulfil a specific purpose, it would not have to be submitted to the Academic Planning Committee but must be approved by Senate before it could go into effect. The Senate Committee on Undergraduate Studies therefore submits this proposal to Senate for its approval.

I. Mugridge (handwritten signature)

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SCUS 73-10

SIMON FRASER UNIVERSITY

(as updated Apr. 6, 1973)

MEMORANDUM

Faculty of Education

From Undergraduate Programs Committee

Subject Minor: Environmental Education

Date February 19, 1973

Motion:

That the Minor in Environmental Education described in paper FE 73-8 be approved.

PROPOSAL FOR A MINOR

TITLE: Minor in Environmental Education

ORIGINATOR: Dr. Milton McClaren, Associate Professor,
Faculties of Education and Science, Acting
Director, Division of General Studies.

FACULTY: Dr. M. McClaren and Consultants.

<u>ACTION</u>	<u>DATE</u>	
1. Undergraduate Programs Committee	Feb. 7, 1973	M. S. O'Connell <i>M.S.O.</i>
2. Dean's Executive Committee	Feb. 19, 1973	D. R. Birch <i>DRB</i>
3. Faculty Meeting	Feb. 23, 1973	D. R. Birch <i>DRB</i>
4. Senate Committee or Undergraduate Studies		
5. Senate		

FACULTY OF EDUCATION

Proposal for a Specific Minor

1. Title: Minor in Environmental Education
2. Originator: Dr. Milton McClaren, Associate Professor, Faculty of Education, Faculty of Science (Biosciences) and Acting Director, Division of Continuing Education.

3. Faculty & Resource Personnel:

The following list includes SFU faculty who have been involved in planning and teaching courses and special topics offering in the fields of environmental and outdoor education since the summer of 1971. In addition, it includes the names of consultants and visiting appointments who have been involved specifically in this field since 1971.

- Coordinator: Dr. Milton McClaren, Associate Professor:
Biosciences/Education
- Dr. Glen H. Geen, Associate Professor & Chairman,
Biosciences
- Dr. A.H. Turnbull, Professor, Biosciences, SFU
- Dr. T. O'Riordan, Associate Professor, Geography, SFU
- Dr. W.B. MacDermott, Assistant Professor, BSF; SFU
- Dr. K. Taylor, Science Faculty (Biology), Cariboo College
- Mr. W.D. Williams, Science Faculty (Biology), Cariboo College
- Mr. Brian D. Herrin, Intermediate Consultant, S.D. #39
(Vancouver)
- Mr. H.L. Walker, Social Studies Department Head, Magee
Secondary School, Vancouver
Member, B.C.T.F. Environmental Education
Task Force
Executive Member, Provincial Social Studies,
PSA
- Mr. E. Dowling, Science Department, Howe Sound Secondary
School
Faculty Associate in Education, SFU 1972-73
Executive Member, Science Teachers' PSA
- Mr. Stan King, Architect & Planner, King Graphics Ltd.,
Vancouver
- Mr. Ib. G. Hansen, Architect
- Mr. Ralph L. Shaw, Principal, Bert Edwards School, Kamloops
Chairman, B.C.T.F. Environmental Education
Task Force
Executive Member, B.C. Wildlife Federation
Secretary, McQueen Lake Environmental
Studies Center Committee

4. Purpose: The purpose of this minor is to develop teachers who have the general competencies of classroom teachers but who have additional skills in the following areas:
- (1) The design and operation of environmental and outdoor education programs from grades K-12.
 - (2) The organization and operation of:
 - day center outdoor education programs:
 - residential outdoor education programs.
 - Wilderness outdoor recreation programs.
 - Urban studies and other interdisciplinary environmental education school programs.

The first emphasis of the program will be on the development of the fully competent classroom teacher.

The development of this minor should provide a pool of trained manpower to meet the needs of the 21 school districts in B.C. now organizing or operating environmental or outdoor education programs (McClaren, M. & Ramsay, M., 1973).

In addition it should support the recommendations regarding teacher in-service and pre-service education made by the B.C. Committee on Outdoor Education and the B.C.T.F. Environmental Education Task Force, as well as by the Althouse Conference (U.N.E.S.C.O., 1972).

5. Pre-requisites: Completion of the minor in Environmental Education requires the completion of nine semester hours (minimum) of courses selected from the following:

Biology 102-4: Introductory Biology
Biology 204-3: Ecology
Biology 003-3: The Biology of the Population Explosion

Kinesiology 042-3: Man & Movement
Kinesiology 044-3: Esthetic Forms of Human Movement

Geography 001-3: The Geography of the Technocratic Society
Geography 101-3: General Geography
Geography 211-3: Physical Geography
Geography 221-3: Economic Geography

Economics 100-3: Introduction to Economics
Economics 152-3: History of Economic Development (B).

Philosophy 120-3: Moral Philosophy

PSA 121-3: Social Structure
PSA 221-3: Social Structure of Industrial Societies

Psychology 106-3: Social Issues

(Substitutions only with permission of the Supervisor of the Minor or the Director of the Undergraduate Programs, Faculty of Education).

6. Courses Required to Complete the Minor:

Education 462-4: Environmental Education

Education 452-4: Field Studies and Case Studies in Environmental Education

In addition to the two courses listed above, students are required to select a minimum of six semester hours from the following recommended courses.

Education 442-4: Contemporary Issues in World Education

Education 471-4: Curriculum Development

Education 474-4: Designs for Learning, Social Sciences

Education 476-4: Designs for Learning: Natural Sciences

Education 479-4: Physical Education

Behavioural Sciences 427-5: Behavioural Sciences and the Study of the Future

Biological Sciences 404-3: Plant Ecology

Biological Sciences 409-3: Field Ecology

Biological Sciences 304-3: Animal Ecology

Biological Sciences 336-3: Vascular Plants

Biological Sciences 326-3: Non-Vascular Plants

Geography 314-3: Climatology I

Geography 315-3: Biogeography I

Geography 344-3: Geography of Contemporary Industrial Societies

Geography 349-3: Human Microgeography

Geography 431-5: The Landscape in Science, Music and Literature

Kinesiology 320-3: Cultural Aspects of Human Movement.

(Substitutions only with permission of the Supervisor of the Minor or the Director of Undergraduate Programs, Faculty of Education.)

7. New Course(s) Recommended to Strengthen the Minor:

Education 452-4 Field Work and Case Studies in Environmental Education

This course will emphasize the application of concepts and methods to problems of environmental education program operation under actual school setting conditions.

Pre- or Corequisite: Education 462-4: Environmental Education.

Value: 4 semester hours. Vector Description: 2-0-4.

8. Field Work:

Field Work is integral to Education 452-4 and is a major component of Education 462-4. Special Teaching Placements may be arranged for some students during half of Education 405, where these are appropriate to the students' experience and are recommended by Faculty Associates. Special placements during Ed. 405 are not a requirement for the Minor.

9. Timetable or Sequence of Course Offering:

Education 462 and 452 will normally be offered as part of Education 404, although scheduling preference will be given to the Summer Session period so that they are accessible to in-service teachers as well as to Minor students. Education 462-4 may be offered in the Fall and Spring Semesters, if this seems appropriate and student demand warrants it. Education 452, because of its field work requirements, will normally be offered only during the summer semester, or in special format in field locations in other semesters.

10. Present Faculty Resources:

Dr. Milton McClaren: Associate Professor.
3-4 Associate Positions in Science Education.
3-4 Associate Positions in Social Studies.
1-2 Associate Positions in Environmental Education, with subsidiary emphasis in other fields.

In addition, the faculty is at present authorized to recruit one additional permanent faculty member in Science Education and this position should also support this Minor.

Faculty Associates 1972-3: C. Murray, A. Whitney, E. Dowling,
C. Sigmund, J. Sjvold, J. Collins.

In addition, the faculty and resource people listed in the proposal have all indicated their willingness to assist in the planning and operation of this Minor.

Other Resources: The Minor has received equipment support from:

- . The Department of Biological Sciences, SFU.
- . Cariboo Regional College, Kamloops.
- . School District # 39, Vancouver.
- . School District # 44, North Vancouver.
- . School District # 24, Kamloops (McQueen Lake Environmental Studies Center).
- . Planning Department, Vancouver City.
- . Department of Education: Province of Ontario.
- . Department of Recreation & Conservation: British Columbia.
- . The B.C. Committee on Outdoor Education.
- . The B.C. Teachers Federation.

This support in terms of personnel and logistic support is expected to continue with the development of the Minor, as a supplement to resources now available at SFU. We have also proposed to the Provincial Government the addition of a 200 acre field study site adjacent to the present SFU campus lands. This application is pending, but it is not essential to the operation of the Minor.

11. Number of Students that could be Accommodated:

60 per year maximum.

12. Transcript Notation:

Environ. Educ.

SIMON FRASER UNIVERSITY

MEMORANDUM

Dr. M.S. O'Connell
 Director of Professional Programs
 Faculty of Education.
 Subject.....

From Dr. Milton McClaren, A/Director
 Division of Continuing Education
 Date March 22, 1973

You have asked me to supply the Senate Committee on Undergraduate Studies with two additional pieces of data with respect to the proposal for a minor in Environmental Education. These are: (a) definition of Environmental Education, and (b) a rationale for Environmental Education.

Environmental Education is a difficult field to define, hence, I can understand those concerns. Environmental Education is a generic term for a group of rather diverse specific educational programs. Included in the genus are: Outdoor and Wilderness Education, Outdoor Recreation, School Adventure Programs (Outward Bound and its derivatives), Urban Studies, Environmental Science, Ecology and in particular Human Ecology. Perhaps the best way to view Environmental Education is to take the approach preferred now by Curriculum groups such as the Group for Environmental Education in the Environmental Studies Project in the U.S., or more recently by the Worth Commission on Education in Alberta, and to view Environmental Education as a theme or strand which is woven through the curriculum from K12 and into adult education. This concept is important, because most curriculum theorists who have written about Environmental Education, including myself, have taken the position that, in fact, Environmental Education must not be seen as another "course" or "unit" in the curriculum because this would be dysfunctional of the attainment of the objectives. Many of the recent B.C. Curricula (e.g. the Elementary Science program; the elementary socials curriculum, and the senior socials curriculum have sections which deal with the human environment, either on a personal, regional, or global basis, but unfortunately most teachers do not know how to deal with topics requiring an interdisciplinary or integrative approach. It is our objective in developing a minor in Environmental Education at S.F.U. to educate teachers who will have expertise in both the field of Environmental Education per se, but more importantly, who will be able to design and operate integrated programs in co-operation with teachers from other disciplines.

The program which we have created at S.F.U. has been a leader in this field in Canada, and has been externally assessed as such by both Professor J. Passmore of the University of Toronto in his recent survey, Outdoor Education in Canada, and by the Federal Department of the Environment. The approval of this minor, with its single attendant new course is essential to the continuation of this leadership position. I am attaching for the information of the committee the "Rationale Statement" on Environmental Education which was prepared by the B.C.T.F. Environmental Education Task Force and which was accepted by the Curriculum Directors of the Teachers' Federation. I also attach some additional information from other sources. I would greatly appreciate the opportunity to speak to this matter at the next meeting of SCUS.

Yours very truly,

M. McClaren

M
rd Dr. Milton McClaren

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Encl.

"We must meet at least two minimal needs - the need for environmental education of a scope never before undertaken, and the need for a man-centred environmental ethic."

George B. Hartzog, Jr.,
National Park Service.

"It is incumbent on every individual of every age to improve the quality of the environment in which man lives. Education's role is critical. We must provide the leadership in a developing an aware and enlightened citizenry equipped with a basic understanding of environmental problems, the knowledge and skills to solve these problems and a basic motivation and desire to act upon them."

Don Morrison, President
National Education Assoc.

"Education must become the number one priority of the world. It is no longer enough to understand the past or even the present. Man must learn to anticipate direction and change, and teachers must help students acquire knowledge, ethical standards and life styles which recognize man's personal responsibility to qualify environment."

Jim Roady, President 71-72
Association of Classroom
Teachers
National Education Assoc.

A widely used method of teaching environmental education, the strand approach, is advocated by the NPS in its National Environmental Study Area (NESA) program. This method weaves strands of environmental information through regular subjects and incorporates environmental experiences and encounters with the inquiry method to create an integrated education program. The NPS believes that the strand approach will lead students to a good understanding of the uses and abuses of their environment.

"Environmental education is not just a new fad of education or a new fad of citizen concern. It is not just another element added to our curriculum. Environmental education is a fundamental element of education, of community action, and of life. We educators value environmental education because of the educational imperatives it represents. To do otherwise would be shallowness of educational theory and practice. The importance of environmental education can be deduced either through a consideration of the education crisis or a consideration of the environmental crisis. It is time to map out a program for action, a program that will not be just an instant response to a temporary human need. We need an agenda for action that will help produce a new environmental ethic, a program that will relate education integrally to cardinal virtues recognized by all mankind - peace and love, and environmental quality, without which neither of the other cardinal virtues is attainable."

From: Weidner, E.W. in
"Processes for a Quality
Environment." University
of Wisconsin, Green Bay, 1971.

THE FOLLOWING STATEMENT WAS PREPARED FOR THE
B.C. TEACHERS' FEDERATION TASK FORCE ON
ENVIRONMENTAL EDUCATION.

● In Developing a rationale for environmental education, we are conscious of certain facts. First, the schools are continually called upon to respond to social problems via the development of educational programs. Within recent time alone, schools have been asked to deal with sex and morality issues, drug abuse, ethnic/cultural problems, poverty, and many other contemporary social concerns. Second, the schools do not have infinite human, physical or financial resources. Thus, teachers, school administrators, parents, and students must examine any rationale statement supporting the involvement of the public educational system in environmental education in the light of the many competing demands placed upon schools, and must attempt to determine the position of environmental education in contemporary educational priorities. Moreover, any statement of a rationale must outline the role to be played specifically at the schools in the total process of environmental education. It is with these facts in mind that the Task Force has developed a statement of a rationale for environmental education.

- First, should environmental education be considered to have a high priority for public education? It is now widely recognized by the global community of scholars and increasingly by political agencies throughout the world that environmental problems of very serious magnitude threaten the biosphere. Principal among these problems may be overpopulation and environmental pollution, but certainly environmental problems are not restricted to these two areas. It is not productive to overemphasize the potential "crisis" situation inherent in environmental problems, but it is important to realize that concerted action is necessary now if these problems are to be eliminated and if the process of environmental deterioration is to be reversed.

No matter how environmental problems are viewed, it should be obvious that many of these problems are deeply rooted in contemporary and historical human values and attitudes: these values and attitudes must be understood if they are to be changed. We must also fully appreciate the implications of changing them. The solution to environmental problems does not lie in superficial measures, but will be found only in fundamental alterations in human life style and behavior.

It is, therefore, our contention as a Task Force, that not only are environmental problems both real and grave, but that they can be attacked at least in part through education. It is our opinion that environmental education should have a high priority at all levels of public education.

- In terms of the second item for consideration, namely the specific role of the schools in environmental education, we advance certain proposals: the role of schools in environmental education must not solely be that of transferring or distributing information. Environmental education programs in schools must teach people to examine information critically, to consider alternatives, to make decisions and to evaluate consequences, and to devise and operate effective strategies. Moreover, the first task of environmental education in schools must be the systematic examination of human values and attitudes in regard to man and his total environment. The goal of this process must be the development in the students of an awareness of their own attitudes and values.

It may be that many agencies in society can provide information more effectively than can the schools. Many other forces in society can and do shape and develop values and attitudes, but few, if any other social agencies, can provide people with the tools which they need, in order to cope intelligently with information, and to systematically become aware of their values and of influences upon these values.

● It is our contention, therefore, that school environmental education programs must have certain components if they are to satisfy this rationale. These are:

- a) They must be multi-disciplinary emphasizing the inter-relationships in the environment.
- b) They should focus on contemporary problems, rural and urban, man-made and natural.
- c) They should use formal and informal education processes in a variety of settings (especially those outside the classroom).
- d) They should emphasize the development of attitudes and values as well as the dissemination of information.
- e) They must be concerned with all age groups and should be a continuing process.
- f) Programs of environmental education should themselves present and represent new forms of learning environments so that students may actively explore alternatives, make decisions, and evaluate the consequences of their actions.

It should further be noted that environmental education is a broad term, and will include programs in urban studies, field ecology, outdoor education, nature study, and so on. Environmental education is not a "curricular box" or "cell," but is rather a strand woven through many parts of the existing curriculum. It may also be viewed as a process of developing awareness of the total human environment.

It is our hope that informed citizens will guide and insist upon the development of wise public policy with respect to environmental problems. But it is also hoped that effective programs of environmental education will produce citizens who are prepared to make the personal changes which will be required of us all, if we are to achieve a quality environment.

CALENDAR DESCRIPTION: MINOR IN ENVIRONMENTAL
EDUCATION.

Minor in Environmental Education.

A minor in Environmental Education may be taken in conjunction with the Bachelor of Education degree. The minor will normally be accompanied by an academic major, but students seeking the B.Ed. degree may complete degree requirements by completing two academic minors, each taken in an Arts or Science department or program. This latter option is acceptable only with the written permission of the Dean of Education (see "Requirements for the B.Ed. degree")

Requirements

Students may enrol in the minor program only with the permission of the Director of Undergraduate Programs, Faculty of Education. While there are a number of ways to complete the minor requirements, student programs must be approved by the Faculty of Education. Students seeking more information about the minor should contact the Director of Undergraduate Programs, Faculty of Education.

Lower Division Courses.

A total of nine semester hours (minimum) of lower division courses to be selected from the following:

Biological Sciences: Bio.Sc.102-4, Bio.Sc.204-3, Bio.Sc.003-3.
Geography: Geography 001-3; Geography 101-3; Geography 211-3;
Geography 221-3.
Economics: Economics 100-3, Economics 152-3
Philosophy: Philosophy 120-3
Kinesiology: Kines. 042-3; Kines. 044-3.
Political Science, Sociology & Anthropology: PSA 121-3;
PSA 221-3.
Psychology: Psych. 106-3

(Substitutions of non-listed courses may be made only with written consent of the Director of Undergraduate Programs).

Upper Division Courses

A minimum of 14 semester hours of courses are required to complete the Upper Division requirements of the minor. Education 462-4: Environmental Education, and Education 452-4: Case Studies and Fieldwork in Environmental Education, are required of all students seeking the minor. The remaining 6 hours (minimum) should be selected from the following courses:

Education: Educ.442-4; Educ.471-4; Educ.474-4;
Educ.476-4; Educ.479-4.

Behavioural Sciences: BSF 427-5

Biological Sciences: Biol.404-3; Biol.409-3; Biol.304-3
Biol.336-3; Biol.326-3

Geography: Geog.314-3; Geog.315-3; Geog.344-3;
Geog.349-3; Geog.431-5

Kinesiology: Kines.320-3.

Notes: Students may not use credit from a single upper division course to satisfy the requirements of both an academic major or minor, and of the Education minor. Substitutions may be made with the written permission of the Director of Undergraduate Programs.

Special Teaching Placements

Students completing the minor in Environmental Education may be placed in special teaching placements during part of the Education 405 portion of the Professional Development Program. However, such special placements are not a requirement of the minor.

Transcript Notation

"Minor in Environmental Education."