

Summer Semester 2001

EDUC 452 - 8
Environmental Education

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& David Brown
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Mondays & Fridays 8:30-16:20 in EDB 7500F
(plus various locations)

D01.00

PREREQUISITE

Educ 401/402 (or permission from the instructor)

COURSE DESCRIPTION

This course will examine the educational problems entailed in developing human awareness and understanding of the environment. The course will explore environmental issues through a multidisciplinary approach and will relate historical and contemporary issues in human-environment interactions to school curricula from the elementary to the secondary level.

COURSE OBJECTIVES

In this course students will :

- develop appropriate models and methods for the learning and teaching of Environmental Education (EE) in both formal and informal educational settings.
- critically evaluate available Environmental Education (EE) instructional materials and resources from a variety of sources including web, video and print based materials.
- compare and contrast the Integrated Resource Packages (IRPs) and Resource guidelines published by the Ministry of Education with other published EE guidelines.
- consider a variety of perspectives in the interpretation of Environmental Education (EE) including regulatory, socio-economic, legalistic, aesthetic and scientific frameworks.

REQUIREMENTS

Students will complete the following course assignments and will be graded on a Pass/Fail basis:

- Develop and present lesson plans for the educational use of EE resources.
- Prepare a written evaluation of an EE educational resource available in print or on the WWW.
- Develop a strategy for Environmental education at the classroom, school or district level.
- Compose a learning log of individual learning experiences/resources/contacts for the course.

COURSE READINGS

Readings will be provided from a variety government, on-line sources and current education journals. There will be no textbook though students should budget a small amount for copying.

ENVIRONMENTAL EDUCATION SIMON FRASER UNIVERSITY SUMMER 2000



1 *The 29th Annual Summer Institute in Environmental Education. July 3-27, 2000. (Education 452-8 SS)*

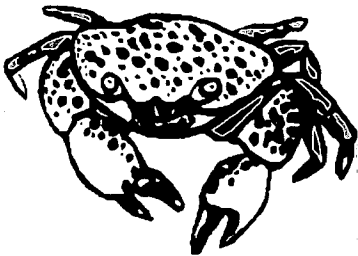
In the summer session of 2000 Simon Fraser University will offer its Summer Institute in Environmental Education in Kelowna, on the South Campus of Okanagan University College. The Institute, now in its 29th year of offering, is intended to provide teachers and other educators with an opportunity to consider the educational opportunities and implications of human-environment interactions.

The program is interdisciplinary in nature and considers the environment through the perspectives of the Natural and Social Sciences, Humanities, Economics, and the Arts. It also addresses educational programming from K-Adult levels. The programme provides a wide range of field experiences, seminars, lectures, and hands-on activities in settings ranging from wilderness to the inner city. Students live in residence at the South Campus of Okanagan University College in Kelowna and spend time at the McQueen Lake Environmental Study Centre in Kamloops during the course of this month-long intensive program.



2 *Environmental Education, SFU Campus, Burnaby Mountain. Summer Semester (May-August). (Education 452 RS)*

In addition to the residential format Summer Institute in Environmental Education Education 452 will also be offered in a Summer Semester format. This program will be based from the Burnaby Campus of SFU and will be scheduled on a full day Friday basis with field excursions on selected weekends during the semester. The approach to content and environmental education will be similar to that of the residential field school in Kelowna and will feature environmental field work in both natural and constructed environments. Course activities will include laboratory and research sessions, seminars on global environmental issues, and independent opportunities for student lead research and guided inquiry. Students will be introduced to a selection of lower mainland environments through a series of structured field trips where they will explore relationships within and among urban and sub-wilderness systems.



3 *Environmental Education in Marine Environments. (Education 393, Special Topics) Summer Session, July 3-21 (Bamfield Marine Station, Vancouver Island; July 24-28: SFU Burnaby Campus.)*

This course will be of particular interest to teachers interested in environmental education in general or to those with a desire to learn more about the seashore, intertidal and marine environments. The course will be multidisciplinary in approach and will explore a variety of coastal environments from environmental science and environmental education perspectives. The course will begin at the Bamfield Marine Station where students will live in residence and will be followed by a closing week at the Burnaby Campus of SFU where participants will engage in final project work entailing the development of curriculum materials for use in a variety of classroom or educational field work settings.

Information about application, admission, and registration to these courses can be obtained from the office of Undergraduate Programs in the Faculty of Education at SFU, at (604) 291 3614.

SUMMER INSTITUTE



in

ENVIRONMENTAL EDUCATION

SIMON FRASER UNIVERSITY,
KELOWNA, JULY 2000



The 29th Annual Summer Institute in Environmental Education.

In the summer of 2000 Simon Fraser University will offer its Summer Institute in Environmental Education in Kelowna, on the South Campus of Okanagan University College. The Institute, now in its 29th year of offering, is intended to provide teachers and other educators with an opportunity to consider the educational opportunities and implications of human-environment interactions.

The Institute is interdisciplinary in nature and considers the environment through the perspectives of the Natural and Social Sciences, Humanities, Economics, and the Arts. It also addresses educational programming from K-Adult levels. The programme provides a wide range of field experiences, seminars, lectures, and hands-on activities in settings ranging from wilderness to the inner city.

In 2000 the Institute will be offered by an Interdisciplinary Team coordinated by:

Dr. Milton McClaren, Emeritus Professor of Education, Simon Fraser University;
Dr. Bill Hammond, Florida Gulf Coast University, Fort Myers, Florida;
Mr. Kim Fulton, Vice Principal, Armstrong Elementary School, Armstrong, B.C.

Milton McClaren is the founding faculty member of the Summer Institute in EE and has coordinated the Minor Program in EE at SFU since its inception. He is a recipient of the Minister's Award for Environmental Education in B.C., and has received the Taft Campus Award in Environmental Education for his contributions to international EE. Bill Hammond was honored as US Conservation Teacher of the Year and has been recognized internationally for his work in the field of environmental and conservation education. He is currently a member of the South Florida Water Commission, the public agency having responsibility for the management and protection of the Florida Everglades. Kim Fulton has also received the Minister's Environment Award in B.C. and was awarded the Newman Award for his contributions to Aquatic Education and Fisheries Enhancement. This team will be joined during the institute by a number of other outstanding resource persons and teachers who add to richness of the experience for participants.

2000 Theme: Connecting Environmental Education Across the Curriculum.

In the summer of 2000 the Institute will address Environmental Education as a means of energizing and integrating the school curriculum while preparing students to take appropriate actions in environmental stewardship. The Institute will explore the EE connections to be found in the new IRP's for the sciences, social studies, language arts, mathematics, and other subjects. Particular attention will be paid to the integration of different subjects through environmental education themes and topics. For example, the new provincial social studies curriculum for K-11 has the environment as a major theme while emphasizing the use of Case Study and critical thinking approaches to issues and problems. The Institute will provide practical, hands on demonstrations of these approaches. Since 1994 Institute students and staff have been involved in local action projects on Brandt Creek and at the Rotary Marsh in Kelowna. In 1999 Institute students worked on the reintroduction of the Peregrine Falcon to the Okanagan Valley. If appropriate opportunities are found, similar projects will also form part of the 2000 Institute.

To Apply and Register....

The Summer Institute in Environmental Education is a credit programme of the Faculty of Education at S.F.U. Students taking the Institute enrol for Education 452-8, and receive 8 semester hours of credit on successful completion. Regular course tuition fees apply, and there is an additional field activity fee of \$35.00. Students who have not previously attended SFU must apply for admission before registering. Former SFU students should apply to register as soon as possible, because enrolment will be limited. Information about application, admission, and registration can be obtained from the office of Undergraduate Programs in the Faculty of Education at SFU, at (604) 291 3614.

Interested persons may also send email to Dr Milton McClaren (mcclaren@sfu.ca) or to Mr. Kim Fulton (kfulton@sd83.bc.ca) or Phone 546 8778 (FAX 546 8457).



Accommodation.

Students who do not live in the South Okanagan Region can arrange to live in Skaha Court residence on the KLO Road Campus of Okanagan University College. Skaha Court is within easy walking distance of the Institute's teaching facilities located on the KLO Road Campus. Room rates vary depending on the type of accommodation chosen and range from approximately \$275.00/month to 410.00/month, although these may be subject to some adjustment in 1999. Further information can be obtained from KLO Student Housing, FAX 250 861 7018 or from Undergraduate Programs at SFU. Full information about clothing and equipment will be sent to students who are accepted into the programme. Students sometimes wish to know if it is possible to camp in campsites in the Kelowna area. In general camping spaces are at a premium and the amount of time which a person can stay at provincial campsites is limited. There are some commercially operated camp grounds near the KLO Road campus, but they tend to be very crowded in the summer. Inquiries are best made directly to commercial campsite operators.



Format of the Institute.

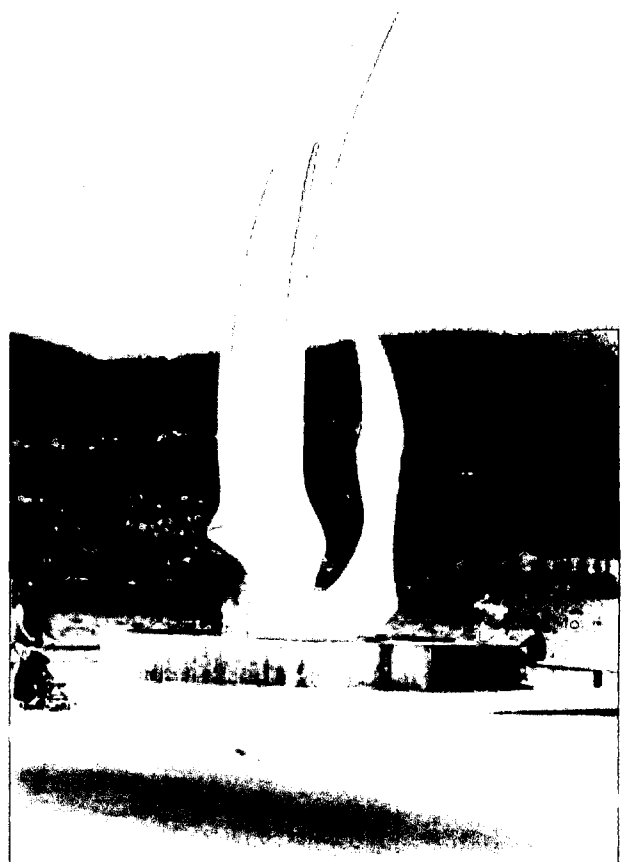
The Institute is offered as an intensive, total immersion Summer programme lasting four weeks. The session will commence in Kelowna on the South Campus (KLO Road Campus) of Okanagan University College on **Monday, July 3 and will conclude Thursday, July 27**. In a typical week students should expect to be involved in program activities from Monday-Friday, although some Monday's and Friday's are designated for optional activities. It is not normally possible to work part time or to take other courses during the Institute. Participants will spend four days in residence in the field at the McQueen Lake Environmental Study Centre (near Kamloops) during Week Two of the course (July 10-13). McQueen Lake provides basic residence and cooking facilities in a camp-type setting. Students will need basic cooking and eating utensils, sleeping bags and mattresses, and outdoor clothing and footwear. More details will be sent to successful applicants.

Recommended Pre-Reading.

Because the Summer Institute is a very intensive, total immersion experience. We recommend that registrants do some prior reading before coming to the Institute. Of particular use will be:

- Ecological Literacy, by David Orr. (Albany, NY: State University of N.Y. Press.) 1992.
- The Sacred Balance, by David Suzuki and Amanda McConnell. Greystone Books/Douglas and McIntyre, Vancouver. 1997.
- Ishmael, by Daniel Quinn. NY/Toronto: Bantam (Turner). 1992.
- The Diversity of Life, by Edward O. Wilson, N.Y. : W.W. Norton, 1992.

Teachers may wish to bring along to the Institute copies of the provincial IRP's for Science and Social Studies, in particular. They can be useful to have on hand during class sessions and discussions. Participants are also invited to bring along favourite books which address environmental topics so that these can be shared with others. Participants in the program will be given copies of the Project WILD teachers manual and also the provincial Water Stewardship Handbook in conjunction with training sessions on those programs offered as part of the Institute.



SIMON FRASER UNIVERSITY

FACULTY OF EDUCATION



BURNABY, BRITISH COLUMBIA V5A 1S6
Telephone: (604) 291-3395

Dear Summer Institute in Environmental Education 2000 Participant:

This letter is intended to provide you with some added information regarding the Summer Institute in Environmental Education for this year. You should be registered in Education 452-8, to be offered in Kelowna on the South Campus of Okanagan University College on K.L.O. Road. (There is a North Campus which is off Highway 97 near the Kelowna Airport, but we are working from the South Campus which is more central to amenities and the city itself.) As usual, the demand for the Summer Institute has been great this year. So, if for some reason your plans have changed and you aren't going to attend, please let Sally Lee in Undergraduate Programs at SFU (604 291 3614) know so she can consider people who are on the waiting list.

People who need residence accommodation should apply directly to Okanagan University College to stay in Skaha Court, the residence at the South Campus of the College. This residence is located close to the classrooms we will be using and is convenient to shops, local parks, and the beach. The college housing offers different sorts of living arrangements, ranging from private apartments to units with shared kitchens, at different price levels. In previous years they have been most helpful and the students at the institute have generally found the living situation to be acceptable. You should contact the OUC housing people directly in order to make arrangements. They may be reached at (250) 862 5422 or via the general college information number, (250) 762 5445. Some people have asked about the possibility of camping in the Kelowna area. I have checked into this in past summers and have found that camp sites are very limited in the area, and those which are available are in high demand. Additionally, the provincial park campsites, which are very limited in the Kelowna area, have restrictions on the number of days which you may stay. Thus, we advise against the camping option for this programme.

The Summer Institute in Environmental Education is based at the South Campus of Okanagan Regional College. We will be using classrooms in their main buildings, specifically lecture theatre B112 in the B (Business) building and several seminar rooms. Please see the attached map for directions to the south campus. In previous summers we used our own SFU trailers, but all the college portables are being demolished to make way for a new secondary school which will be located on the college grounds so we will be in the main college facilities this summer. Because of this we will not have a separate phone line of our own. You may however advise people that they can leave messages for you at (250) 764 8781 or FAX at (250) 764 8720. There are also several "Internet Cafe's" in Kelowna where you can check email, etc. without having a computer of your own. If you do have a laptop you may find it convenient to bring it with you, especially if you have a portable printer. At the time of this letter we are checking with the college library re the use of their computers for Internet access. However, we do expect our computer access to be more limited than it was in the past when we had our own computer lab.

Okanagan College does have a library at each campus. Students in the summer institute have used the library at the college in past years and we expect this arrangement to continue this summer, but if you have

books or other resources you wish to use or share with others, please bring them along. We will also establish a resource room in our spaces during the Institute.

The Summer Institute is an intensive, total immersion experience. We will generally meet at the college at 0830 and break from our activities about 1530-1600 each regularly scheduled day. We will be in the field during some days, but we often meet at the college first and then car pool to avoid having too many cars in use. We let students establish their own car pool arrangements for field travel and generally drivers get assistance with gas, etc. in exchange for sharing their cars. Typically people switch roles so that one person doesn't always have to drive. There is a large parking lot directly beside our building, and a parking lot at the residence as well. You may wish to bring a bike to the course, but you will want to store your bike in the residence when you are not using it and be sure you have a good lock. There is a shopping complex within easy walking or biking distance of the residence and our rooms in the college with a full range of shops including two large grocery stores (Save-On Foods and Coopers). There is a second shopping complex quite close to the campus with a produce market and a fish store. In the immediate area there is a variety of speciality shops and restaurants as well as a local pub. There is a community park and beach along Lakeshore Road, within biking or walking distance of the site as well.

During most weeks we will be involved in scheduled whole class activities Monday-Friday. Students in the Institute often arrange special field trips, games, events, discussions, etc. during the programme. These add greatly to overall experience and we certainly invite you to do likewise. If you have a skill, hobby, experience, etc. that you like to share with people, please come prepared to offer it should the opportunity present itself. **The program will begin this year at 0900 on Tuesday, July 4, in Room B112** and will conclude around 1200 on Thursday, July 27. Please be on time on the opening day. If you are travelling to Kelowna and plan to arrive on Monday, July 3 please check with the college residence people to make sure they will be there to check you in (July 3 is a holiday for many people since July 1 falls on a Saturday.) You don't want to arrive and find you can't get in to your room.

During one four day period of the programme (July 11-14) we will be at the McQueen Lake Environmental Study Centre, located NW of the city of Kamloops. This Centre offers accommodation in log cabins. We take our own food, basic cooking and eating utensils, and a sleeping bag plus some sort of foam mattress or ensolite. You can drive right to the Centre so you don't need back packing gear, but you will need the sort of clothing, sleeping, cooking, and eating gear you'd take on a camping trip. We ask students to organise themselves into groups in order to plan meals and share cooking tasks and cooking equipment, coolers, etc. The McQueen Lake Centre has propane cooking ranges in a large mess hall, and there is well water on the site. There is also a single propane fridge, but cold storage is VERY limited. While the accommodation is rustic it is very adequate and the site itself is superb for field work in fresh water, forest, and rangeland settings. So, you should plan to be away from Kelowna and the SFU site and residence for those four days. We will conclude the McQueen Lake trip on Friday, July 14 by 1200. There will be no scheduled activities for that weekend.

Regarding clothing and equipment, we recommend comfortable outdoor clothing, including a light rain jacket and a hat, running shoes or light weight boots, and sunglasses. We walk a lot, so make sure you have well-fitted comfortable shoes. A small day pack will be very useful. You will likely want a camera, a flashlight, and a water bottle. A good sun screen is advised, as is insect repellent or some form of insect protection. A clip board will be of value and a hard covered field note book may be good as well. We will

be providing all students with an artist's notebook to use as a personal journal and we emphasise the use of the journal as a reflective and experiential tool. You may wish to bring a small set of water colours, felt markers, a ruler, coloured pencils, glue stick, and other art stuff according to your preference. While binoculars aren't required they are handy. If you have access to field guides such as Petersen's Field Guide to Western Birds, or any of the popular guides to plants of the Northwest, bring them along also. You may want to bring several towels and a bathing suit. If you have particular interest in sports, you will want to bring your gear. There are several tennis courts on and near the South campus, and Kelowna has numerous Golf courses, ball fields, and volley ball courts as well.

You should be advised that because we are often working in Nature Centres or Conservancy areas that dogs are not permitted. If you have a dog, please arrange to have him/her boarded or attended while you are at the Institute. When you arrive at the Centre we will give you a fairly detailed timetable so you can advise visitors or family members of your schedule and plan your/their time accordingly.

The Summer Institute in Environmental Education is an 8 semester hour, credit undergraduate course in the Faculty of Education. Some students may be taking the course for graduate credit under separate arrangements. If you are taking the course for undergraduate credit the course number is Education 452-8. The Institute is graded on a Pass-Withdraw system, in the same fashion as Education 401/402/405 in the Professional Programme at SFU. There will be a variety of individual and group assignments and tasks during the course. Attendance and participation are required. We expect students to contribute to the experience of the programme for other students and for the instructional team members.

As pre-reading before the course you might want to check out the following:

1. Orr, David W. 1992. *Ecological Literacy*. Buffalo (NY): State University of New York. ISBN: 0-7914-0874-4
2. Quinn, Daniel. 1994. *Ishmael*. London: Penquin. (This book may have been published by another publisher as well; ask for it in Books in Print. You may find it filed as fiction, which it is, or as philosophy, which it also is, or as Nature/Ecology—which it also is.)
3. Orr, David W. 1994. *Earth in Mind. On Education and the Human Prospect*. Washington (DC): Island Press. I-55963-294-I
4. Larson, Gary. (1998). *There's A Hair In My Dirt! A Worm's Story*. NY: Harper-Collins. (This one will be in the Children's section of stores like Chapters or Duthies' but it is really written for people of almost all ages. Its wonderful!)
5. Leopold, Aldo. (1949). *A Sand County Almanac*. London/NY: Oxford. (This is a classic and has been reprinted numerous times in various editions. It is still in print.)
6. Benyus, Janine. (1997). *Biomimicry. Innovation inspired by Nature*. NY: Morrow. (A very interesting book.)

7. Suzuki, David. (1998). *The Sacred Balance. Rediscovering our place in Nature.* Vancouver/Toronto: Greystone/Douglas & McIntyre. This is a useful source of ideas concerning our species absolute dependence on the biosphere.

Obviously, you won't have time to read all these books before you come to the course. We will touch upon the themes and topics covered in all of them during the month, so if you can find a few of them, it will be helpful to have done some pre-reading as an orientation to ideas and issues. If you have your own favourite books/reprints/articles, please feel free to bring them to the course to share with others.

This summer the Institute will be taught by a teaching team comprised of:

Dr. Milton McClaren, Emeritus Professor of Education, Simon Fraser University. Milton is a co-author of the Ginn Connections series of Environmental Education texts, a co-author of the Global Change and Canadians Teachers Guide for the Royal Society of Canada, senior author of the BC Water Stewardship Handbook, a past member of the Steering Committee of Project WILD (U.S.). He received the B.C. Minister's Environment Award in 1993 and the Taft Campus Award from Northern Illinois University in 1997.

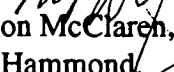
Dr. Bill Hammond, Professor, College of Arts and Sciences, Florida Gulf Coast University, Fort Myers, Florida. Bill has been a member of the South Florida Water Commission, a former member of the Steering Committee, Project WILD, US, and of the Steering Committee, Project Learning Tree, US. He was Conservation Teacher of the Year and has been recognised widely for his work in environmental education. For 35 years he taught in schools in New York and Florida and was Director of Environmental Education and Curriculum Services for the Lee County Schools in Ft. Myers, Florida.

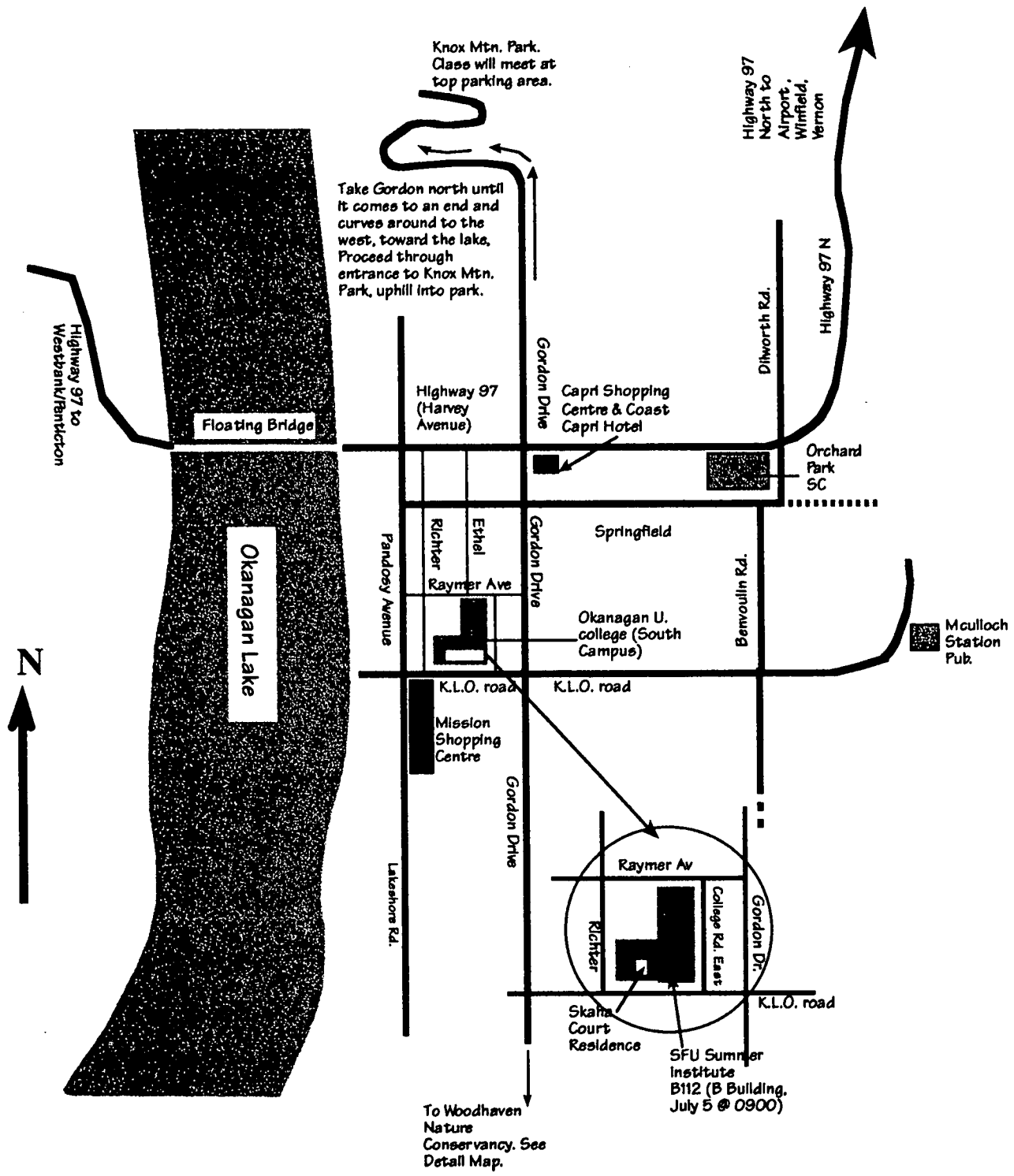
Mr. Kim Fulton, Vice Principal and Teacher Librarian, Armstrong Elementary School. Kim was coordinator of the BC Water Stewardship Programme, a co-author in the Royal Society of Canada's Global Change Education project, and a Pro-D Associate for the BCTF. He is a past recipient of the BC Minister's Environment Award and of the Newman Prize for his work in aquatic education. He is widely known online as "Dr.Fish" and was the conference moderator for the Networking the Fraser project.

The team will be joined a number of resource persons during the course of the Institutes, including Mr. Brian Herrin, West Vancouver School District, author of numerous books and papers in Science and Environmental Education and past president of the BC Science Teachers PSA as well as a recipient of the Distinguished Teachers Award from the American Chemical Society.

We are looking forward to an educational and enjoyable month at the Summer Institute and to meeting you. If you have particular questions you may address them via email to: mclaren@sfu.ca (Milton McClaren) or to kfulton@sd83.bc.ca (Kim Fulton).

Sincerely,


Milton McClaren,
Bill Hammond,
Kim Fulton



SFU Summer Institute in Kelowna: General City Area, South Campus of OUC and Services.

Education 452 200 Course Schedule (Minor Revisions May Occur)

July

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3 Check in at OUC residence (Holiday)	4 Course Starts B112 in OUC S.Campus/ Orientation etc	5 Field Experience at Woodhaven Nature Reserve	6 Urban studies Day 1	7 Urban Studies Day 2/debrief	8
9	10 Field Trips to local sites & Habitat Restoration	11 McQueen Lake/ Overnight Kamloops	12 McQueen Lake/ Overnight Kamloops	13 McQueen Lake/ Overnight Kamloops	14 McQueen Lake Finished 12:00	15
16	17 WaterShed Intro OUC-KLO Road/Global Change	18 WaterShed Intro OUC-KLO Road/Global Change	19 Water Shed Studies and investigations	20 Debrief Water Sheds	21 Field Trip Kingfisher Env. Centre - Enderby Area	22
23	24 Field Studies Kal. Forestry Vernon	25 Action Studies School Sites Sustainable Dev	26 Course debrief Course Party Evening	27 Course finale	28	29
30	31					