# Options for Enhanced Coordination of Field Courses in British Columbia

**by Steven Earle, PhD,**

**for the British Columbia Council on Admissions and Transfer**

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# Acknowledgements

The initiative for this project originates with the committees representing the business deans and the deans of arts and science programs at British Columbia post-secondary institutions. I would like to acknowledge their foresight in raising this issue and their continued support.

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The results achieved would not have been possible without the cooperation of the various articulation committees, and especially the committee chairs, who set aside time in their busy meeting agendas to discuss field courses and field-course coordination and to provide valuable suggestions and feedback.

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Cover photo: University of Victoria geography students, by Heather Earle, 2016, used with permission

# Executive summary

Field courses are a critical component of many post-secondary programs in British Columbia and an important option in many others. They are widely recognized for their pedagogical value, mostly because it has been found that students generally achieve more high-level learning, and they retain more of what they learn, in a field-course setting than in a classroom. This is especially significant at a time when many institutions are striving to increase the experiential content in their programs.

The major impetus for this report stems from a recommendation in a previous BCCAT study on field school transfer credit that recommended joint operation of field schools by institutions and the creation of a centralized information site where information on field schools could be exchanged (McQuarrie, 2013). This project identifies ways to enhance the degree and extent of coordination and cooperation on field courses amongst institutions in British Columbia so that field courses can be made more readily accessible to students. The major activities included an assessment of the current state of field courses at BC institutions, research into existing models of field-course collaboration, and a series of meetings with administrators (mostly deans), and faculty (primarily at articulation meetings) to get their views on the importance of field courses and on how it may be possible to enhance coordination.

There are over 200 field courses currently offered at BC institutions. Most are in disciplines such as anthropology, biology, geography, earth science, and tourism. Few of these courses have ever been made available to students from outside of the institutions where they are offered, even though some of them have spaces that could be used by other students, and every year some have to be cancelled due to under-enrolment.

There is significant enthusiasm amongst faculty and deans for enhancing field-course coordination. A majority of those surveyed expressed strong support for the concept, and indicated that greater coordination would be beneficial both to the departments involved and to the students affected.

This research suggests that there are several ways to enhance coordination of field courses amongst institutions. The following actions are recommended:

- groups of faculty members (initiated by articulation committees) should work to create field course databases that: include the majority of courses offered in BC within their discipline, are kept up to date, and provide enough information for students to decide whether a course meets their interests and provides the credit they need;
- administrators should develop initiatives to encourage more bi-institutional and multi-institutional cooperation on field courses; and
- groups of faculty members (again initiated by articulation committees) should work towards facilitation of the type of collaboration exemplified by the Ontario Universities Program in Field Biology, in which there is a template for a standard type of field course within a discipline and a mechanism for ensuring transferability, so that students can select from a wide range of courses offered at various institutions.

In order to make progress towards enhanced coordination of field courses BCCAT Transfer Innovations funding is available to articulation committees and related discipline-based groups. A driving force for any forward momentum is most likely to come from the administration level, and should be facilitated by the committees representing the deans of arts of science and the deans of business programs. BCCAT and BCCIE could also play a pivotal role in instigating, supporting, and communicating efforts to move this important initiative forward.

# Institutional Acronyms Used in the Document

| Institution | Abbreviation |
|---|---|
| British Columbia Institute of Technology | BCIT |
| Camosun College | CAM |
| Capilano University | CAPU |
| College of New Caledonia | CNC |
| Douglas College | DOUG |
| Kwantlen Polytechnic University | KPU |
| Langara College | LANG |
| North Island College | NIC |
| Nicola Valley Institute of Technology | NVIT |
| Northwest Community College | NWCC |
| Okanagan College | OC |
| Quest University | Quest |
| Selkirk College | SEL |
| Simon Fraser University | SFU |
| Thompson Rivers University | TRU |
| Trinity Western University | TWU |
| University of British Columbia (Okanagan) | UBC-O |
| University of British Columbia (Vancouver) | UBC-V |
| University of the Fraser Valley | UFV |
| University of Northern British Columbia | UNBC |
| University of Victoria | UVIC |
| Vancouver Island University | VIU |
| Yukon College | Yukon |

# Contents

# 1 Introduction

This report is the product of a research project commissioned by the BC Council on Admissions and Transfer (BCCAT) in late 2016 as a follow-up to recommendations in a previous BCCAT report on transferability of field school credit (see McQuarrie, 2013). The general objectives of the project are to examine options for collaboration and information sharing on field courses with respect to feasibility, cost, time required, benefits, transfer, and articulation with an overall goal of creating ways to make field courses more available to students attending BC post-secondary institutions. Some of the specific activities included:

- a summary of existing field courses at BC institutions;
- a review of the current practice of field course coordination in BC and elsewhere;
- consultation with the articulation committees of disciplines in which field courses are important (including anthropology, biology, criminology, earth science, environmental studies, forestry, geography, tourism, hospitality, and business);
- consultation with the deans of business and arts and science;
- consultation with managers of repositories of information related to field courses (such as BC Council for International Education (BCCIE) and BCCAT);
- conversations with individual faculty members; and
- identification of issues and potential solutions related to the coordination of field courses.

The project deliverables include:

- specification of potential web-based repositories of field course information including the suggested information required such as location, cost, instructor name and contact information, duration, and course objectives;
- design of templates or models for joint field course offerings;
- guidelines for safety protocols, timetabling, risk management, joint management of field courses, and out-of-province participation and partnerships; and
- delineation of options for articulation and transfer including but not limited to: course shells, second year prerequisites, upper level transfer, shared course outlines, and curriculum, and transcripting.

## 1.1 Definition of a field course

"The operational definition of "field school" used in this report is a short-term (less than one semester) off-campus activity conducted for academic credit by a program or institution" (McQuarrie, 2013, p. 2). The terms "field course" and "field school" are considered to be synonymous in this document. A field course is a stand-alone university or college credit course in which at least 50% of the instruction takes place outside of a classroom and away from an institution's usual facilities.

Most field courses involve intensive sessions that extend over several days or weeks. There is no reason that a field course could not be spread out over a longer period, for example one day a week

for an entire term, although such a course probably lacks some of the pedagogical value of an intensive course.

As described below, field courses can include those focused on learning and practising field study methods, and those focused on field experiences in settings that are of particular importance to the discipline. A practicum or internship is not considered to be a field course in the context of this project, even if it takes place mainly in the field.

## 1.2 Types of field courses

Various types of field courses exist, and those that are commonly offered by British Columbia institutions are summarized in Table 1.1. They include field methods courses, problem-oriented field courses, and experience-focused field courses. Field methods courses are common in disciplines such as archaeology, biology and earth science where students are expected to gain experience in specific techniques for investigations that are carried out in field settings (Figure 1.1). Problem-oriented field courses are designed to give students an opportunity to apply specific problem-solving techniques or strategies studied in other courses in an intensive field setting. Experience courses are intended to provide students with educational experiences that they cannot access in the immediate area around their institution's campus. There is a wide range of experience-focused field courses. Some involve studying a specific physical environment (e.g., in geography) or a bio-region (biology), while others involve experiences in specific cultural, historical, linguistic, or business environments. Experience-focused field courses normally involve travel to a specific environment or location, often in another country (Figure 1.2).

### Table 1.1 A summary of different types of field courses

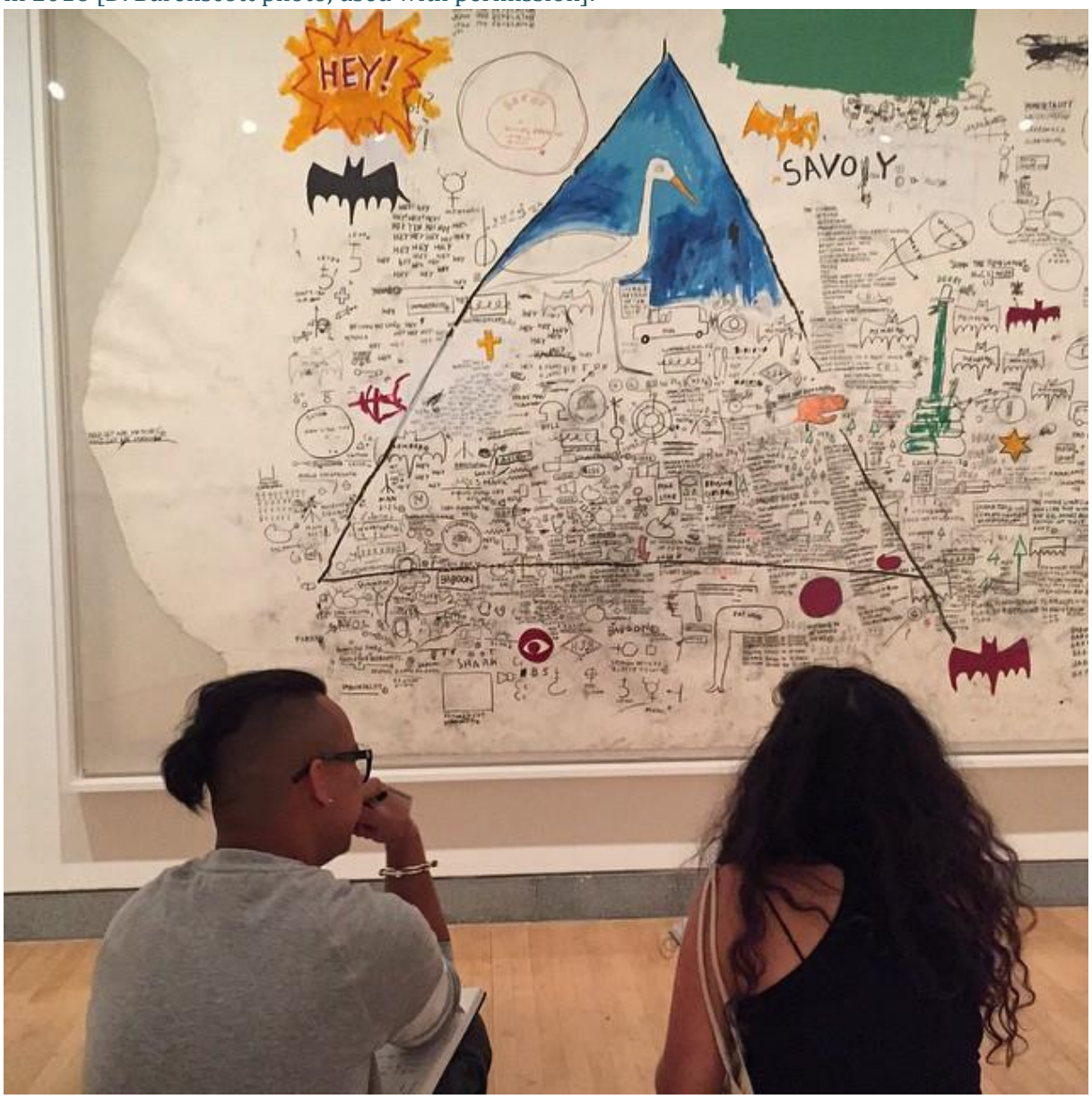
| Type of field course | Description | Examples |
|---|---|---|
| Field methods course | An intensive course in the application of field techniques that are relevant to a discipline (*Field methods courses may be required for degree completion).* | ANTH-211 (SEL): Archaeological field methods<br>EASC-416 (SFU): Field techniques in hydrogeology |
| Problem-oriented field course | An intensive field experience in which students apply techniques learned in other courses to solve specific problems. | GEOG-470 (UFV): Advanced field studies in geography |
| Physical environment experience | An *in situ* study of a specific physical environment. | GEOL-390 (VIU): Active volcanic regions of Hawaii<br>GEOG-424 (UVIC): Field studies in coastal geomorphology |
| Biological environment experience | An *in situ* study of a specific environment with unique biological features. | BIOL-395 (VIU): Tropical biology in Belize<br>BIOL-362 (TWU): Marine ecology |

| | | |
|---|---|---|
| Cultural environment experience | An *in situ* study of a region with unique cultural or historical features. | LBST-322 (VIU): Renaissance locations in Italy<br>HIST-1190 (LANG): Historical sites in Greece |
| Business environment experience | An *in situ* study of a location where specific business activities are carried out. | TRMT-391 (VIU): Recreation & tourism management study tour |
| Language experience | An immersion experience in a region or country with a specific language. | FREN-320 (SFU): Special topics in French |

Figure 1.1 Vancouver Island University students practising field methods and learning about glacial sediments on Quadra Island [Steven Earle photo, used with permission].

Most field courses do not fit neatly into any one of these categories. For example, most field methods courses also provide rich field experiences and require strong problem-solving skills, and most experience courses involve the application and understanding of field investigation methods and also involve problem-solving. In addition, most field experience courses span many of the various sub-categories listed in Table 1.1, including the physical and biological environments, and the cultural and linguistic, and business environments.

Figure 1.2 Kwantlen Polytechnic University students at the Museum of Modern Art in New York in 2016 [D. Barenscott photo, used with permission].



# 2 The importance of field-based education

The literature—across many disciplines—on the value of field courses in post-secondary education suggests that there is a broad consensus that getting students engaged in field studies is significantly beneficial to their learning. However, most of the work published in this area has relied primarily on opinions and anecdotes; very little is based on reliable empirical evidence (see Fleischner et al., 2017; Gold et al., 1991; Mytum, 2012; Sauer, 1956; Simm & David, 2002; Stoddard & Adams, 2004; Stokes & Boyle, 2009). Two examples of empirical research are outlined below.

McKenzie and White (1982) divided 141 school students into three groups, where one group remained in the classroom, a second group was given a guided tour of a field site, and a third group was engaged in active enquiry-based field work. Both of the groups taken to the field performed better than the classroom students on knowledge tests carried out immediately after the session, and those engaged in enquiry-based field work showed significantly greater retention of information than the others when tested one year later. In a study involving 68 students, Kern and Carpenter (1984, 1986) found that while lower-level learning (information recall) was not significantly different between students who were provided with field experiences in geology and those with only classroom experiences, deeper learning (comprehension, application, analysis, and synthesis) was significantly greater in the field-experience group. Easton and Gilburn's (2012) study of 148 biology undergraduate students indicated that field course attendance could increase the likelihood of attaining a higher degree classification.

# 3 Field courses at BC institutions

The availability of field courses at BC Transfer System institutions as well as at the Native Education College was determined by searching through course titles and descriptions on institution websites, from relevant field-school compilation websites, and through feedback from faculty at articulation meetings and during other conversations. Identification of courses that meet the criteria given in Section 1.1 was based on the course descriptions provided. Because courses are not always well described in course descriptions, and some institutions do not provide comprehensive course descriptions on their web sites, there is a strong likelihood that not all existing field courses were discovered in this search, and also that some of those identified as being field courses do not actually meet the criteria given. It is also possible that some of the institution websites are out of date, so some of the courses listed might no longer exist, and also that some existing new courses may not be listed. Therefore, the data should be viewed with caution.

A "snap-shot" of field courses offered in the 2016/2017 academic year showed over 200 field courses offered at 23 BC Transfer System institutions (Table 3.1). If we assume that there is an average of 15 students per course, this represents over 3,000 students in total. The number may be higher because of the likelihood that not all field courses have been identified, or lower if some of the identified courses are not offered but have not been delisted.

Anthropology has the greatest number of field courses, including archaeological field methods courses, along with numerous ethnographic experience and problem-solving field courses and international experience field courses. Biology (including 10 courses offered at the Bamfield Marine

Science Centre)[1], geography, earth science, and tourism and hospitality offer significant number of courses. The research-intensive universities offer mostly upper-level (3rd and 4th year) field courses, while the colleges offer mostly lower-level (1st and 2nd year) field courses, and the distribution of upper vs. lower-level field courses lies in between for teaching intensive universities.

Table 3.1 Summary of field-course offerings at BC institutions in the 2016/2017 academic year*

| Institution | Anthropology | Art | Biology | Criminology | Earth Science | English | Environmental std. | First Nations std. | Fisheries | Forestry | Geography | Global studies | History | Horticulture | International std. | Languages | Liberal studies | Nursing | Physical education | Political science | Business/Mgmt | Marketing | Resource mgt. | Sociology | Tourism/hosp. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BCIT | | | | | 2 | | | | 1 | | | | | | | | | | | 1 | | | | 1 | 5 |
| CAM | 1 | | | | | 2 | 4 | | | | 2 | | | | 1 | | | | | | | | | 1 | 11 |
| CAPU | 2 | | | | | | | | | 1 | | | | | | | | | | 2 | | | | | 5 |
| CNC | 1 | | | | | | | | | | | | | | | | 1 | | | | | 1 | | | 3 |
| DOUG | 3 | | | 1 | 2 | 1 | | | | 2 | | 1 | | | | | | 2 | | 3 | | | 1 | | 16 |
| KPU | 2 | 4 | | | | | | | | | | | | | | | | | | | | | | | 6 |
| LANG | 4 | | 1 | | | 1 | 1 | | | 2 | 3 | 1 | | | | | | | | 2 | | | | | 15 |
| NIC | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 |
| NVIT | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 |
| NWCC | 2 | | 1 | | | | | | | 1 | | | | | | | | | | | | | | | 4 |
| OC | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 |
| Quest | | | 5 | | 2 | | | | | | | | | | | | | | | | | | | | 7 |
| SEL | 2 | | | | | | 3 | | | 2 | | | | | | | | | | | | | | 2 | 9 |
| SFU | 2 | 3 | | 2 | 4 | 3 | | | | 2 | | 3 | | 1 | 3 | 3 | | | | | | | | | 26 |
| TRU | 2 | | 2 | | | | | | | 1 | | | | | 1 | | | | | 1 | | 2 | | 5 | 14 |
| TWU | | | 2 | | | | | | | | | | | | | | | | | | | | | | 2 |
| UBC-O | 2 | | 3 | | 3 | | | | | 1 | | | | | | | | | | | | | | | 9 |
| UBC-V | 1 | | 1 | | 3 | | | | 2 | 3 | | | | | | | | | | | | | | | 10 |
| UFV | | | | 3 | | | | | | 3 | | | | | | | | | | | | | | | 6 |
| UNBC | 6 | | 1 | | | | | 1 | | 1 | | 1 | | | | | | | 1 | | | 1 | | 7 | 19 |
| UVIC | 2 | | 11 | | 2 | | 3 | | | 8 | | 1 | | | | | | | | | | | 1 | | 28 |
| VIU | 3 | | 2 | | 3 | | | | 2 | 1 | 3 | | | 2 | | | 7 | | | | 3 | 1 | 2 | 2 | 2 | 33 |
| Yukon | 2 | | | | 2 | | 2 | | | | | | | | | | | | | | | | 2 | | | 8 |
| Total | 37 | 7 | 29 | 6 | 23 | 7 | 13 | 1 | 2 | 7 | 29 | 5 | 7 | 2 | 1 | 5 | 10 | 1 | 2 | 1 | 12 | 1 | 8 | 5 | 18 | 239 |

*The search for field courses included the websites of all of the BC Transfer System institutions. Qualifying field courses were not found on the websites of BC Transfer System member institutions not listed above. The results of the website scan should be used with caution as there is no guarantee that all courses were found.

[1] These courses at the Bamfield Marine Sciences Centre are available at all the participating universities (UVIC, UBC and SFU).

# 4 Results of consultations

During the course of this project, consultations (including face-to-face meetings, telephone conversations, and e-mail conversations) were carried out with a number of organizations associated with post-secondary education in BC and elsewhere. The general goal of these consultations was to discover the types of field course being offered, to learn about existing examples and mechanisms of field-course coordination, to explore the potential for enhancing field-course coordination, and to assess the types of barrier that are preventing more field courses from being offered and inhibiting greater coordination amongst institutions. Face-to-face meetings were also held with the deans of business programs and arts and science programs, with the BCCAT Transfer and Articulation Committee, with articulation committees representing twelve different disciplines, and with a few individual post-secondary faculty who have specific perspectives on field courses that were not included in the articulation meetings attended. The results of those consultations are summarized below. The questionnaires that the articulation committee participants and deans were asked to complete are provided in Appendix A.

## 4.1 Post-secondary organizations

One goal of the BC Centre for International Education (BCCIE) is to promote the registration of international students at BC institutions. A secondary mandate is to encourage BC students to broaden their education through international educational experiences, including international field courses. Issues related to field-course coordination were discussed at a meeting with BCCIE staff in February 2017.

BCCIE maintains the BC Study Abroad (BCSA) website (http://www.bcstudyabroad.ca/), which provides information on international field course opportunities offered by BC institutions. An important feature of the BCSA database is that it is searchable by region, institution, discipline, and start date. As of late May 2017 there were 10 international programs (some that include two or three courses) offered by BC institutions listed in the “Search Programs” section of the BCSA website. Considering that there are nearly 60 field courses that are identified as being “international”, and probably other international courses that aren’t identified as such, it seems that not many BC institutions are taking full advantage of this opportunity to have their courses promoted to prospective students at other institutions. There may be a number of reasons for this as discussed in Section 5.1. It may be because the site is seen more as a source of information about studying abroad for students than as a place where they and faculty can find out about opportunities and register for them.

The Transfer and Articulation Committee (TAC) of BCCAT provides advice to articulation committees and to BCCAT on issues of articulation and transfer, and also on projects designed to enhance transfer at BC post-secondary institutions. The preliminary results of this project were presented to TAC members at their meeting in May 2017. Committee members had numerous questions about issues such as coordination of health and safety protocols for field courses that are offered jointly by two or more institutions, and about the potential for streamlining registration requirements for students at one institution taking a field course at another institution.

The results of conversations and communications with representatives of the Bamfield Marine Sciences Centre and the Ontario University Program in Field Biology are summarized in section 5.

## 4.2 Deans

Short presentations were made to the BC post-secondary business deans and to the deans of arts and sciences programs at their meetings in April 2017 in Prince George. The deans were also asked to complete a short questionnaire (Appendix B) and 28 responses were received. More than half of respondents (57%) considered enhanced province-wide sharing of field-course information and opportunities to be "very important", while 93% considered this to be either "somewhat important" or "very important." Slightly fewer than half of respondents (46%) felt that inter-institutional collaboration on field courses would be "very beneficial" to students, and 86% considered this to be either "somewhat beneficial" or "very beneficial" (Table 4.1). The majority of dean respondents (82%) indicated that they would consider encouraging instructors in their Faculty to collaborate with another institution in organizing a field course. About two-thirds (64%) would encourage the creation of discipline-specific common field-course templates to aid in transferability of field experiences.

Table 4.1 Summary of the level of support for collaboration on field courses among the deans and the faculty attending articulation meetings.

| Question | Response | Faculty (n=143) | Deans (n=28) |
|---|---|---|---|
| Do you feel that enhanced province-wide sharing of field-course information and opportunities is important? | "very important" | 65% | 57% |
| | "very important" or "somewhat important" | 84% | 93% |
| Do you feel that inter-institutional collaboration on field courses would be beneficial to students in your Faculty? | "very beneficial" | 64% | 46% |
| | "very beneficial" or "somewhat beneficial" | 83% | 86% |
| Would you encourage the creation of discipline-specific common field-course templates to aid in transferability of field experiences and options for students in your Faculty? | "yes" | 70% | 64% |

## 4.3 Articulation committees

The author attended and made presentations at meetings of the articulation committees in the following twelve disciplines during May and June 2017:

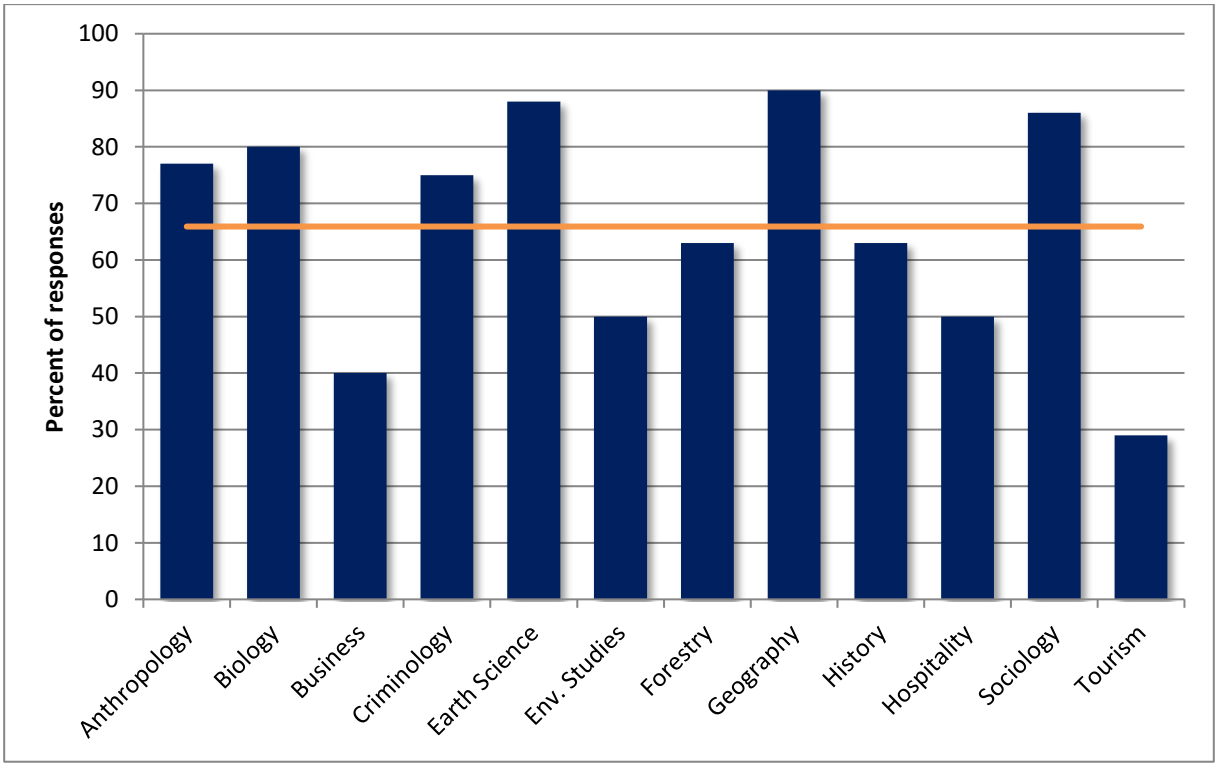
| Discipline | No. of faculty responding/ no. of institutions attending |
|---|---|
| Business | 10/13 |
| Tourism | 10/13 |
| Hospitality | 4/11 |
| Biology | 23/28 |
| Criminology | 13/16 |
| Geography | 13/16 |
| Environmental Studies | 7/16 |
| History | 20/21 |
| Anthropology | 9/11 |
| Sociology | 15/18 |
| Earth Science | 11/13 |
| Forestry | 8/8 |

At each meeting some of the issues relevant to field courses in BC were summarized in a brief presentation, and the participants engaged in a discussion on field schools in their discipline with an emphasis on coordination issues. The faculty representatives were invited to complete a short questionnaire focusing on issues related to field-course coordination (Appendix A). A total of 143 questionnaires were completed.

On average, two-thirds of respondents (66%) mentioned that spaces existed that could be used by students from other institutions. For biology, earth sciences, geography, and sociology articulation committees, the proportion exceeded 75% (Figure 4.1). In other words, there is significant potential for sharing in existing field courses.

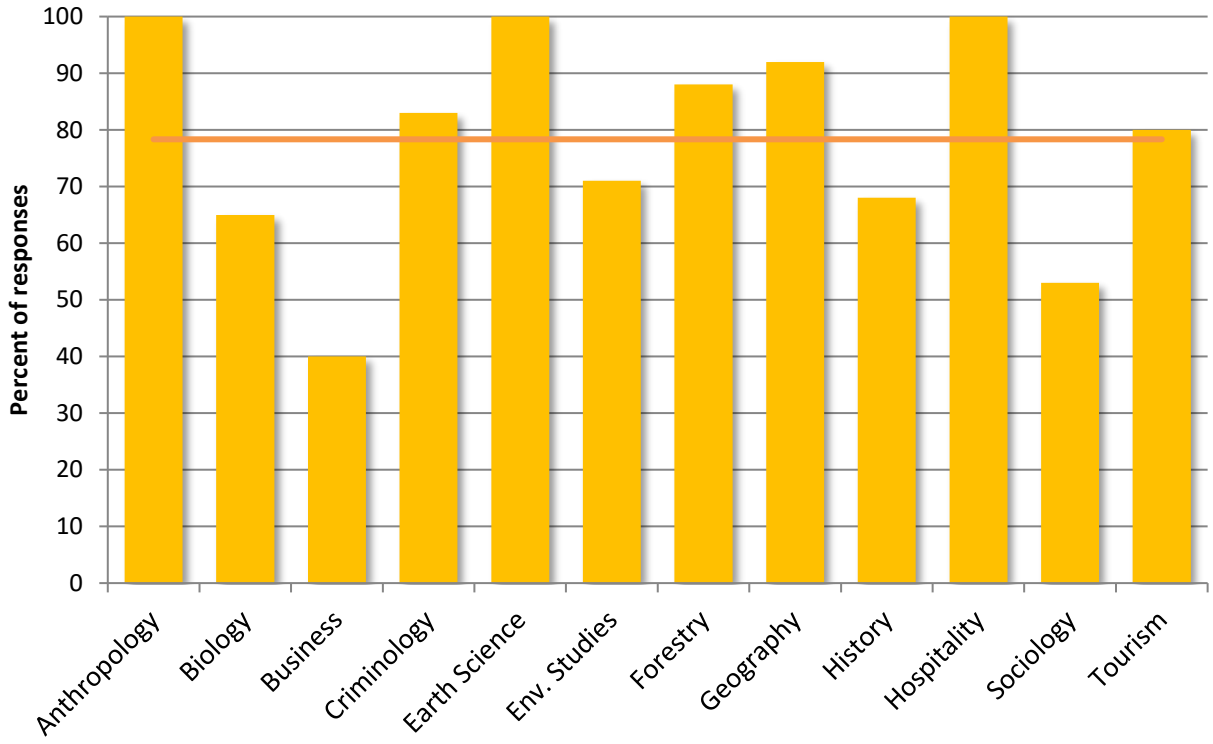
It is important to recognize that the results described below are based only on the faculty members attending the articulation meetings (and who chose to respond to the survey), who are neither fully representative of all institutions (as some institutions were not represented) nor necessarily representative of the rest of the faculty in their home departments. These statistics should be considered only as a general indication of the opinions of faculty members on the questions asked.

Figure 4.1 Proportion of faculty indicating that spaces have existed in their field courses and could have been made available to students from other institutions (horizontal line is average for all responses).



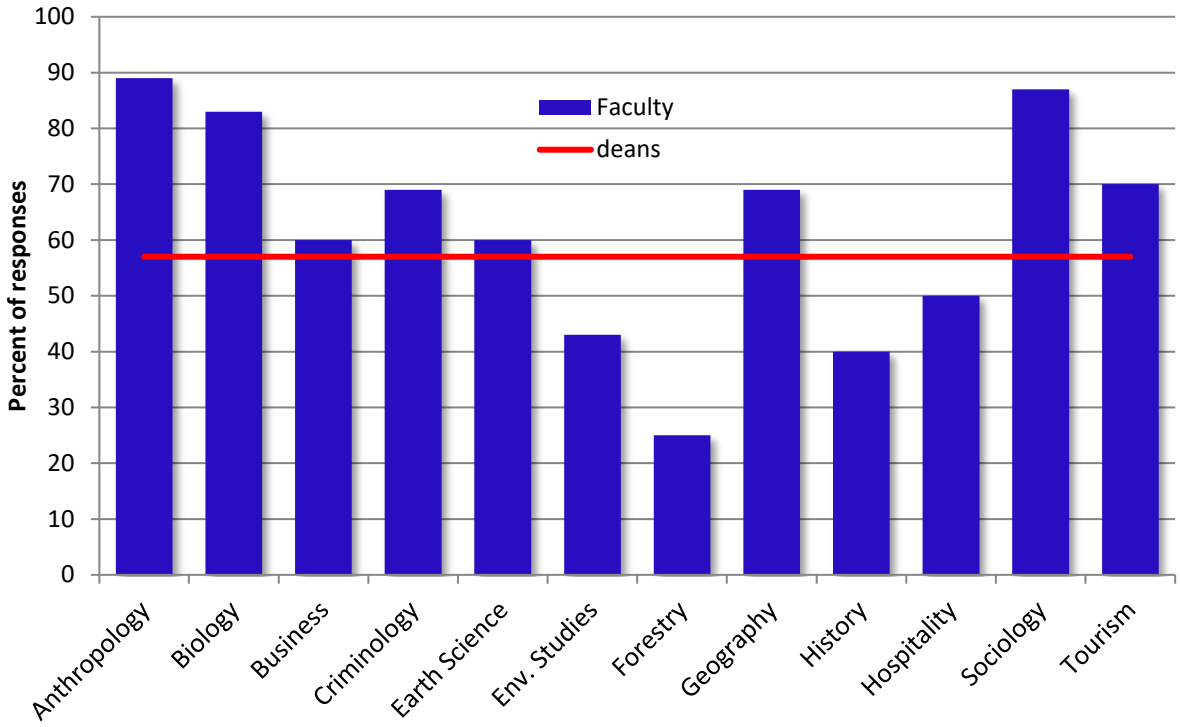
The articulation committee members reported varying levels of collaboration in field courses between departments at their institution: from 14% of respondents in environmental studies to over 50% of respondents in anthropology and geography. The average was 35%. The respondents were asked if they were willing to collaborate with other institutions to organize field courses: on average, 78% said “yes", and in four disciplines (anthropology, earth science, geography, and hospitality) the proportion was over 90% (Figure 4.2).

Figure 4.2 Proportions of faculty indicating that they would be willing to collaborate with another institution in organizing field courses (horizontal line is average for all responses).




The responses to a question about enhanced province-wide sharing of field-course information and opportunities are summarized in Figure 4.3. On average 65% of respondents felt that this is “very important,” with the highest levels of agreement amongst anthropology, biology, and sociology faculty. In response to a similar question, 57% of the deans said that province-wide sharing is “very important.”

Figure 4.3 Proportions of faculty and deans indicating that province-wide sharing of field-course information is "very important."




The articulation committee members were also asked whether inter-institutional collaboration on field courses is beneficial to departments and their students; 64% replied "very beneficial" and a total of 83% replied with either "very beneficial" or "somewhat beneficial." The highest proportion of agreement was amongst faculty from anthropology and geography. In comparison, 46% of the deans responded with "very beneficial" to this question and 86% with either "very beneficial" or "somewhat beneficial."

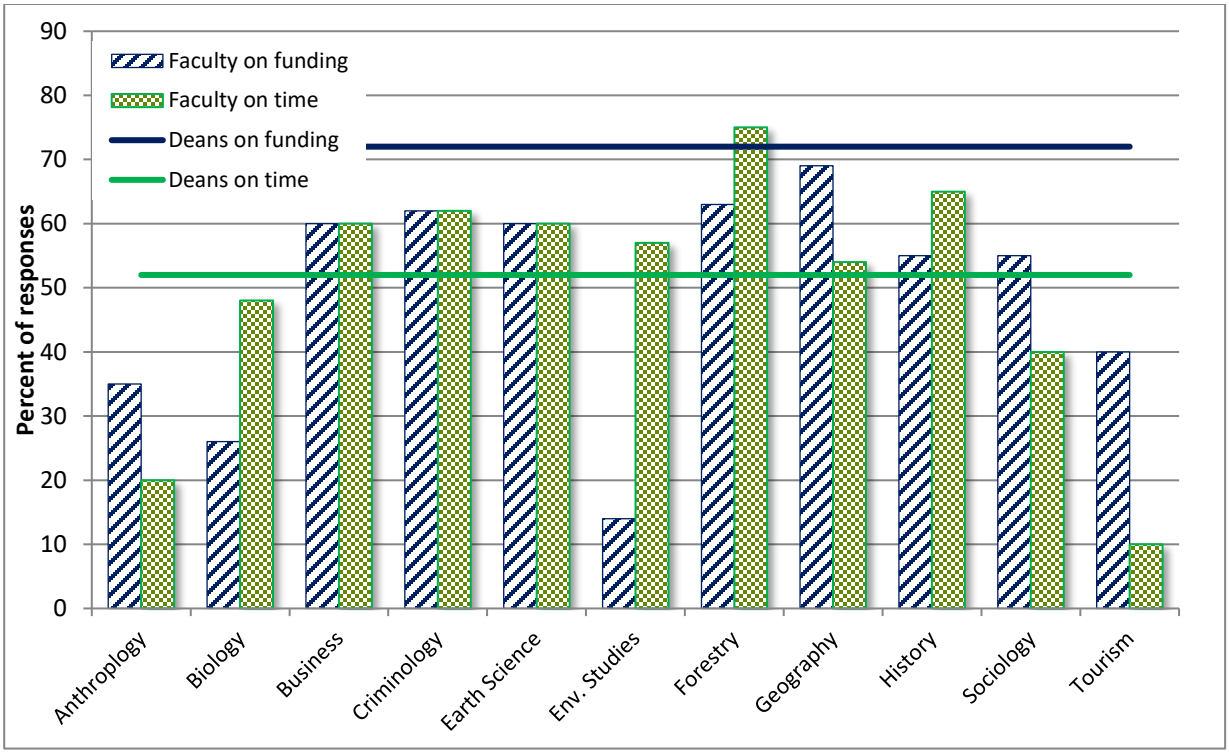
A number of BC institutions have already collaborated with other BC institutions and with other Canadian and international institutions and recently organized joint field schools. Examples include the following.

- The Department of Hellenic Studies at SFU has recently (May-June 2017) run a field school in Greece that was organized in conjunction with the History Department at Douglas College. Three courses were offered in the seven-week program. Douglas students were required to register and pay tuition to SFU, although it is not clear whether they will get academic credit from Douglas or from SFU.
- In February 2017 Langara College and Capilano University collaborated on a 10-day business administration field school to London, UK. In this case only one course was offered (CAP, BADM 321) and all students were required to register at Capilano.
- Selkirk College and Spokane Community College are currently working on the development of a joint field course in history and environmental studies. The concept is that students would take equivalent courses at both institutions and then come together to participate in a

10 day field school on the Columbia River (half the time in Canada and half in the United States) to apply their learning in the field (pers. comm., Takaia Larsen, Selkirk). As of June 2017 the organizers are facing some barriers around the different timing of semesters on the two sides of the border, and are also finding it challenging to get enough Selkirk students to fill the courses (pers. comm., Allison Lutz, Selkirk).

Faculty were asked if they would be willing to work with other institutions to develop a set of standards that would facilitate the transferability of field courses in their discipline. Approximately 70% responded positively to this idea, with some of the highest levels of agreement in anthropology, criminology, Earth science and hospitality. 64% of the deans responded positively to the idea of working with other institutions to develop standards (Table 4.1). Some concerns were raised about the amount of work needed to update the existing courses to a new template/ website requirements.

Figure 4.4 Proportions of faculty (and deans) indicating that funding and faculty time are limitations to their ability to offer field courses.



# 5 Models for coordination of field courses

Several different models exist for the inter-institutional coordination and sharing of post-secondary courses in general and of field courses in particular. Those that are relevant to this study are summarized below.

## 5.1 Field course database

Online field-course databases were discussed in the articulation meetings attended, and although there was no specific question about this topic on the survey instrument, there were some comments that indicated high level of support for promoting this idea in British Columbia, especially in anthropology (50%) and sociology (90%). A useful field-course database would have to have a robust updating system so that it could be kept up to date, and a strong search tool so that students could find the type of course they want, as discussed in Section 6.3.

There are several existing web-based resources that provide information to students and faculty about field courses offered by British Columbia institutions. In any review of existing web-based resources, an important consideration is whether the resources are intended for use by students, by faculty or by both groups. A student-oriented website might list field school opportunities, provide information about registering and cost, give hints for having a successful experience, and indicate what credit (transferable or not) the student would gain as a result. A faculty-oriented website would be geared more towards possibilities for allowing students from other institutions to participate and would provide information on registration, liability, safety, faculty management and/or credit transfer opportunities. Obviously, the interests of students and faculty in this regard overlap but having a sense of the primary purpose of the site would help in determining the information that is necessary and where it should be located. For example, the BCCIE site is easily accessible to students while the UVic one is geared more towards faculty usage and is much less accessible generally.

BCCAT hosts and maintains a provincial credit transfer database with hundreds of thousands of articulation agreements—the BC Transfer Guide (http://www.bctransferguide.ca/). The BC Transfer Guide is specifically designed to allow students to check on course-by-course and block transfer articulation agreements; it is not restricted to field courses, and its search tool does not allow one to specifically find field courses. It also doesn't provide any detailed information about a course (not even a course title), so is of limited use to students looking for field-course opportunities. While the course-by-course transfer guide is extremely useful to students seeking to determine if a course they are aware of is transferable to another institution, this repository is not designed to assist students looking for field courses, and it would not be sensible to try to adapt it to that purpose. However, the BC Transfer Guide also hosts other transfer-related information such as program-specific transfer matrices and agreements, degree pathways, and degree partnerships. It may be possible to add information on field schools by discipline in the Transfer Options section, contributed to and maintained by articulation committees.

As already described, the BCCIE's BC Study Abroad website includes a listing of international field programs offered by BC institutions (http://www.bcstudyabroad.ca/programs). The website is maintained by BCCIE based on information provided by the participating institutions. There is no fee for including listings on the BCSA website, and participating institutions are reminded two or three

times a year to update their listings. One of the strengths of this repository is that it can be searched by location, discipline, institution, and date. However, since the number of courses listed is quite small, the search function isn't particularly valuable. There is a potential that the BCSA website could be adapted or used as a model for a field course repository, especially in view of its search function and ongoing administration by BCCIE. Although the website provides considerable provincial exposure for field courses, it does have its limitations. The listings by institution is in a separate section from listings by program and region. Of the thirty-eight field schools listed on the site as of November 1, 2017, nineteen are for 2017 or earlier. Of the nineteen 2018 listings, all are listed by SFU or BCIT, eight are unique, and the rest are duplicates. For example, the SFU field school in Hellenic studies is listed under Greece in the regions section and under history, interdisciplinary, and cultural and ethnic studies in the programs section. The detail on the listings varies, from a brief listing of courses for credit, website, duration, with a five-sentence description, to complete detail including courses and credits, dates, website, information sessions, contact persons, cost, itinerary, prerequisites, and classes. In some cases, the institution offering the field school is explicit in the title, and in other cases only the website address indicates the school offering it. The BCCIE website also contains a significant amount of information on study abroad and provides a mixture of student- and faculty-oriented material.

The Starzomski Lab of the School of Environmental Studies at the University of Victoria maintains a website of field courses that may be relevant to students in biological and environmental programs. As of late May 2017, the site (http://bcfieldschools.weebly.com/) had listings for 49 courses, but represented only five post-secondary institutions, even though 13 institutions list field courses in biology and environmental studies. The list includes all of the courses at the Bamfield Marine Sciences Centre (described below) as well as several other bioscience courses, plus a number of courses in environmental studies, geography, forestry, geology, and anthropology. A few of the courses listed do not qualify for post-secondary academic credit. Although the website provides very useful information about selected field courses, it does not have the functionality that would ensure it could be kept up to date and comprehensive, and it does not have a tool for students to search for the type of course they want—it is essentially a long list of courses offered by institution.

The Canadian Archaeological Association maintains a web listing of archaeological field courses in Canada and overseas at: http://canadianarchaeology.com/caa/student-resources/field-schools. As of late May 2017 the listing included seven field courses offered by Canadian institutions (including two in British Columbia), plus two courses from non-Canadian institutions. A few of the current listings are for field courses that took place in 2016. This website does not have the functionality that would make it useful for this application.

The Canadian Association for Physical Anthropology maintains a website of anthropology field courses listed by topic at http://www.capa-acap.net/resources/career-development/field-schools-research-opportunities. The site (visited in May 2017) does not seem to be particularly useful, however, as some of the listings are well out of date (as old as 2014) and some of the links do not work. Again, this website does not have the functionality that would make it useful for this application.

The main weakness of the course repositories described here is that they do not provide a comprehensive catalogue of the field course opportunities that are available to students at BC post-

secondary institutions. Not only are all disciplines not represented, but none of the repositories includes a full list of the courses available in any specific discipline. This is a significantly limiting factor because faculty and students wanting to find out what field courses are offered in their discipline will not likely be attracted to a list that is only partial. The most effective way to ensure that field course repositories are comprehensive is to engage the departments and faculty members from all relevant institutions in the process of planning, implementing, and updating the database. Although the ultimate goal should be a system-wide field course database, the project should be initiated on a discipline-by-discipline basis, and the best way to start the process is through the articulation committees. A recommended approach is provided in Section 6.3.

## 5.2 Bamfield Marine Sciences Centre

The Bamfield Marine Sciences Centre (BMSC)[2], on Barkley Sound, Vancouver Island, is owned and operated by five western Canadian Universities (University of Alberta, University of Calgary, UBC, SFU, and UVIC) and offers field-oriented courses (most in marine biosciences) that are accepted for credit at all of those institutions (Figure 5.1). Over 200 students registered in BMSC summer and fall courses in 2017. Field school listings for the summer are posted in calendar form and by date with links to brief descriptions and an online application form. The website also contains information on how to apply, tuition and fees, financial aid, and preparation.

Figure 5.1 Students on a Bamfield Marine Sciences Centre field course [BMSC photo by R. Palmer, used with permission].


[2] Information about and registration numbers for BMSC programs have been provided by Beth Rogers, BMSC University Programs Coordinator and Librarian.

Most of the students taking BMSC courses represent the five major institutions that operate the Bamfield Centre, but students from other institutions can also participate in BMSC courses, although they must apply as visiting students to UVIC, and then transfer the credit back to their home institution. In 2017 a total of 11 students from VIU, LANG, TRU, BCIT, NWCC, and Quest registered in BMSC courses through the University of Victoria. In addition there were students from nine other Canadian institutions outside of BC, and from five foreign institutions.

Students from the five universities pay their course registration fees to their university, and students from other institutions pay their registration fees to UVIC. All students pay the course-cost fees (accommodation, meals, lab fees, etc.) directly to BMSC.

One advantage of courses like those offered at BMSC is that there is an eclectic mixture of students from many different and widely distributed institutions. This has the potential to contribute to rich learning experiences for all students in the courses.

Existing BMSC courses have been reviewed and approved for credit at all five institutions by the Western Canadian Universities Marine Sciences Society, a BMSC body that includes administrators, deans and biology department chairs from the five participating institutions. New courses are first reviewed and approved at UVIC, and then submitted for approval at the other institutions.

## 5.3 The Ontario Universities Program in Field Biology (OUPFB)

The Ontario Universities Program in Field Biology—a joint initiative of the biology departments of the major universities in Ontario (http://www.oupfb.ca/)—has been operating successfully for several decades[3]. The objective of the program is to make a wide range of ecology-focused field courses available to students from all of the participating institutions, and to increase the likelihood that field courses are sufficiently well-subscribed to run successfully. A key feature of OUPFB is that the courses offered conform to a set of specific standards: a minimum length of 12 days in the field, pre-course reading assignments, field research expectations, and a comprehensive report to be submitted after the end of the course. All courses have a certain number of spaces that are reserved for the host institution and the rest are available to students from other member institutions. Unfilled spaces in OUPFB courses have also been made available to students from other institutions, including those from outside of Ontario[4].

There are currently 15 participating institutions in OUPFB, and in 2017 they offered a total of 30 different field courses at locations around the world and with a wide range of different topics (Figures 5.2 and 5.3). One key outcome is that students in biology programs in Ontario can choose field courses that suit their interests, their time constraints, and their budget. Another is that—as is the case for the Bamfield programs—participants have the opportunity to work with both students and faculty from other institutions, and inevitably they gain new perspectives and insights and discover new ways of thinking about ecosystems.

[3] Information about OUPFB has been provided through written communications and conversations with Rebecca Woodsworth and Marvin Gunderman (McMaster University), Nigel Waltho (Carleton University) and Beren Robinson (University of Guelph).

[4] Personal communication, Eric Demers, Vancouver Island University

Field school opportunities are presented as a simple grid of key information. The title links to a one-page information sheet including instructor, dates, location, cost, prerequisites, enrolment, a paragraph description, and evaluation. Students can download an application form for registration at their home institution. Interestingly for the BC context, the welcome page notes that the selection of field courses, ". . . would be inconceivable without the pooling of field course offerings among cooperating universities. Furthermore, this variety is available to you without the hassles associated with transfer credits."

| Module | Title | #Weeks | Host | Location | 2017 Dates | Availability<br>SA = # of Seats available<br>F = Full X = Cancelled |
|---|---|---|---|---|---|---|
| 2016/30 | Field Ecology & Conservation of Brazilian Marine Mammals | 2 | Waterloo | Brazil | Feb 10 - Feb 22 | 14 |

Figure 5.2 Students spot a ringed kingfisher on a University of Windsor OUPFB field course in Costa Rica in 2012 [photo by D. Mennill, U. of Windsor, used with permission].

Figure 5.3 Students at a University of Ottawa OUPFB course on alpine ecology based at the Rocky Mountain Biological Laboratory in Colorado [Photo by J. Forrest, U. of Ottawa, used with permission].

OUPFB courses are pre-approved for credit at all participating universities at an annual meeting held in December. At that same meeting institutional representatives are able to bid on seats in courses offered by other institutions (up to the number of seats that they have made available to the consortium in their own courses). The costs and time associated with running the OUPFB program, including hosting the annual meeting, maintaining the website, and reconciling student fees, are borne collectively by the biology departments at the participating institutions.

Students taking OUPFB courses register and pay a course fee for a placeholder course at their home institution (and this fee is retained by the home institution), and they pay the host university only the amount that represents course expenses (e.g., travel, field costs, accommodation, meals). Final marks are provided by the host institution upon completion of the course. The pre-approval of all of the offered courses means that student participation is almost seamless, and the extra step of registering at the host institution is avoided. This could have implications for liability in the case of injury or accident, and the participating institutions are currently engaged in discussions on standard practices and policies related to health and safety in the OUPFB courses.

The OUPFB program was discussed in the meetings with articulation committees, and although there wasn't a specific question about OUPFB on the survey instrument, there were numerous unsolicited favourable remarks about it in the comments section of faculty in the biology (50% of participants) and geography (22% of participants) meetings.

# 6 Recommendations

There are several mechanisms through which BC post-secondary institutions could increase the level of sharing of field course opportunities so as to provide more options to students and to increase the likelihood that field courses will attract enough students to run. This section also includes a discussion of limitations to increased collaboration, and some recommendations on how to circumvent those limitations.

It is likely that some institutional changes will be required to facilitate more field-course coordination amongst institutions. These changes might include relaxing registration requirements for external students, re-imagining programs to allow for more flexibility in field experiences, and modifying existing field courses (or creating new ones) so that they conform to the requirements of more than one institution.

## 6.1 Increase the rate of articulation of field courses

It is recommended that institutions themselves take steps to remind faculty and deans of the importance of field courses, and that it would be beneficial to students if more effort were made to articulate these courses. As suggested by McQuarrie, "institutions should consider timetabling field school courses as regular or standardized courses wherever possible . . . [,] consider submitting all field school courses for articulation" through the Transfer Credit System (TCS), and avoiding cross-listing (2013, p. 10).

## 6.2 Encourage students to seek out field-course opportunities

Increasing rates of field-course articulation would only be the first step in getting more students to discover opportunities for field courses. A second step would be for advisors, faculty, and others to encourage students to look for relevant opportunities in other departments at their current institution or at other institutions. A comprehensive and up-to-date web-based listing of field courses is a critical tool for facilitating the discovery of courses by both faculty and students. A model for such a tool is described in the next section. A coordinated communication strategy would aid in pointing students towards whatever model is adopted.

## 6.3 Create a field course database

One of the consistent observations made at the articulation meetings attended was that many faculty were not even fully aware of the field courses offered in their own departments, let alone what types of field courses exist in their discipline at other institutions. To enhance field course coordination and provide more options for students, resources are needed to enable administrators, faculty, and students to learn about what courses exist at their own and at other institutions, and what options they might have for sharing field-course opportunities or taking advantage of field courses available elsewhere.

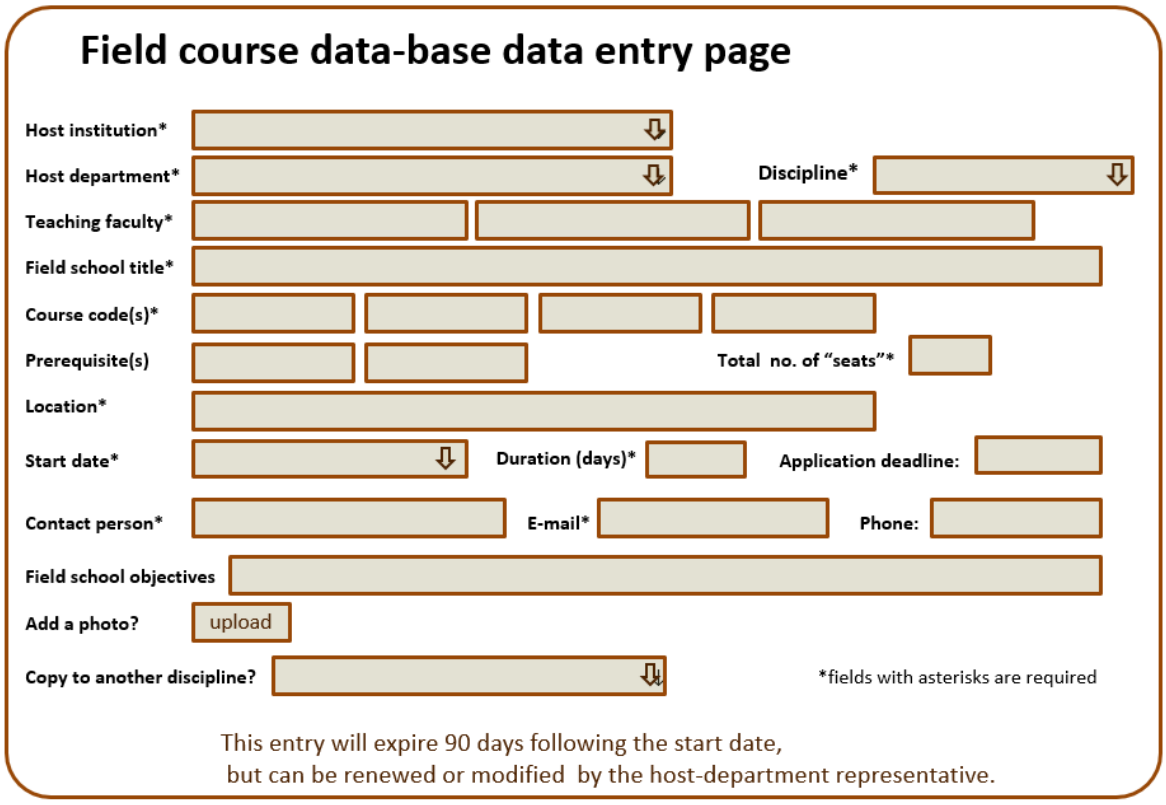
Although there are some existing repositories of field course information, such as the international field schools listed by BCCIE, the environment-related field courses listed by the Starzomski Lab at the University of Victoria, and a couple of national anthropology/archaeology sites, they are all limited in scope, lack some essential functionality, and, in general, are not particularly well used by post-secondary institutions.

The critical features of any useful web-based listing of field courses are these:

- it must include a majority of the field courses that are available in a discipline,
- it must either be discipline-specific, or searchable by discipline;
- it must be kept up to date;
- it must have built-in mechanisms for update reminders and expiration; and
- the updating process must be quick and easy;
- it should be searchable by location, institution, and date;
- it should be easily found on the internet by students and faculty;
- it should offer consistent and complete information;
- it should be owned and operated by those who have a vested interest in its use and value;
- it should have a social-media corollary to the web-based listings; and
- there should be some mechanism, incentive, or inducement for posting/sharing of field learning and experiences by institutions/programs.

A suggestion for a data-entry page for a field course database is included here as Figure 6.1. The data entry page would be password-protected and typically each academic department would have one representative responsible for ensuring that the department's listings are up to date.

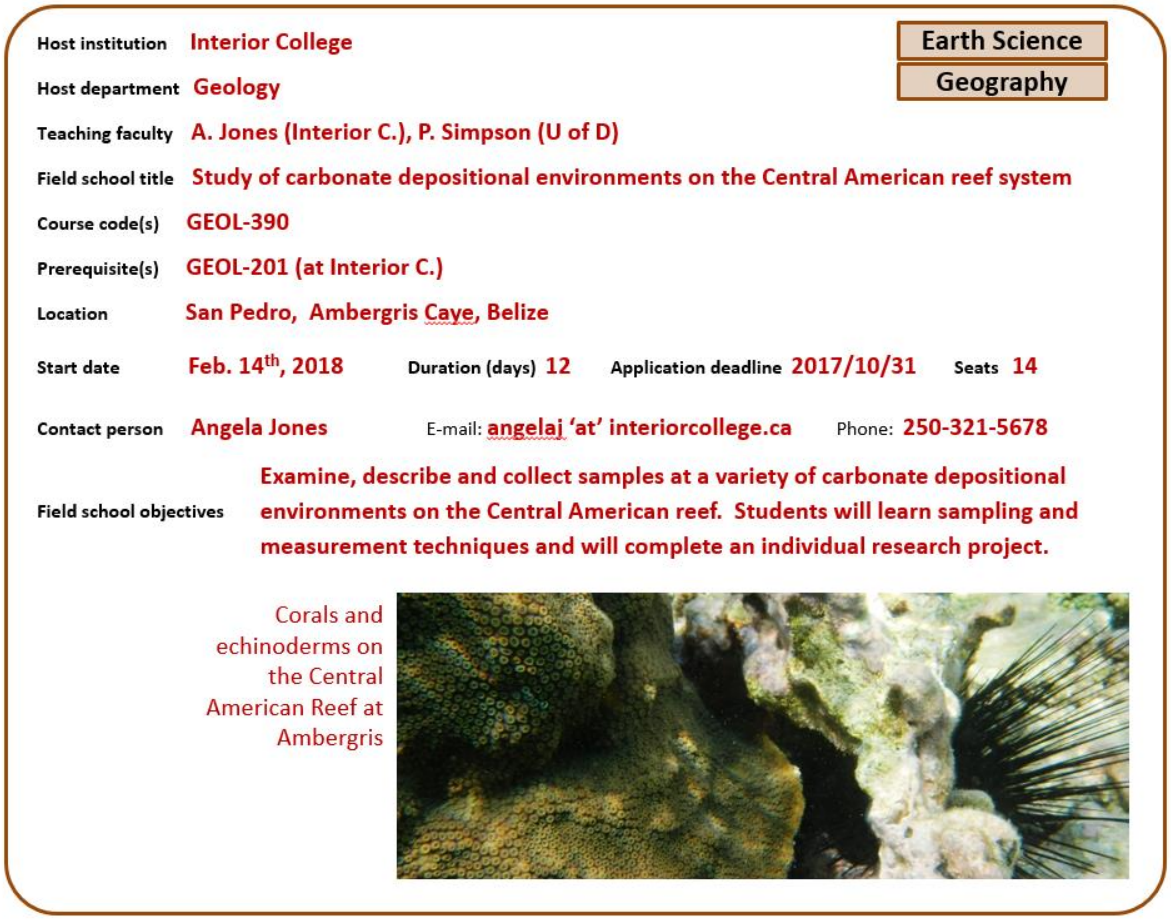
Figure 6.1 Potential data entry form for a field-course listings web site.



The critical items that must be included in every listing are the institution, department, discipline, name of at least one of the faculty-members teaching the course, course code(s), field course location, the start date and duration, the total number of seats in the course, and the contact information for someone (preferably a faculty member who is teaching the course) who can provide additional information.

The online database could be set up so that users (students or other faculty) enter search terms on a search page (similar to the BCSA page described above), or so that they can select a discipline (or disciplines) from an index page. In either case, they would then be taken to a page listing overview information (e.g., host institution, discipline, course title, start date) for all the results of that search, or for all courses listed for that discipline. Each listing would include a link to the more comprehensive information available for each course, an example of which is included here as Figure 6.2. The objectives would replicate the calendar description of the course.

Figure 6.2 Example course page in a field-course listings web site.



One question is how much detail to include on the data-entry form (and of course in the database and the information page), and this proposal is to keep it to a minimum. Some types of information can be quite complicated, and one example is the cost. In order to provide something useful the host institution would need to specify whether or not it includes travel to the field site, travel costs on the course, accommodation, meals, tuition, travel insurance, cost of materials, fees for special excursions and so on. If all the necessary information were listed on the display page, it could become very complicated. Number of credits has not been included because the way of determining them varies from institution to institution. Dates and locations of information sessions have also not been included and will be obtained by those interested as they access the institutional site.

As noted, it is imperative that a field-course database be kept up to date, and to this end any site developed should incorporate an automated mechanism for sending e-mail reminders to the contact persons in the relevant departments. One month prior to the expiry of a listing, reminders would be sent to the contact person for the course and also the department representative. Such reminders should include three options:

- edit the existing listing to change details (e.g., date, location, instructor), and then renew;
- put the listing on hold (no longer displayed online, but retained in the database) and maintain the reminder schedule in the event that the course is offered again in the future (this would be the default option if no action is taken); and
- remove the listing from the database. This could be an automatic feature 60 or 90 days after the end or start date.

The department representative should also be reminded at least twice a year to make sure that all of their current listings are accurate and up to date.

**Implementation**

The likely steps necessary to implement a field-course web resource along the lines of that described above are as follows:

1) BCCAT and/or the deans' committees would initiate a process for discipline groups (or articulation committees) to apply for Transfer Innovations funding to create a web repository. A joint proposal from more than one discipline would be acceptable.
2) BCCAT would select one of the proposals to move forward.
3) Faculty representatives from several institutions would work together to design, create and test a data-entry web tool and an interactive internet database for field courses in their discipline(s). If possible, an existing resource, such as the BCSA website, might be adapted to fulfill the database part of the project. The initial database and data-entry tool would be hosted at one of the institutions involved in its creation, and maintained by the group responsible for its creation.
4) After a trial period of several months, the data-entry web tool would be made available to other discipline groups or articulation committees interested in expanding the project to new disciplines and adding new courses to the database.
5) Once the database and data-entry processes are well established and in use by several disciplines, responsibilities for hosting and maintenance would be assumed by BCCAT, BCCIE, or the articulation committees.

It is important to reiterate that the primary purpose of the web repository concept is to increase awareness of field-course options so that students can easily find courses that meet their needs. The inclusion of a course within a repository would not imply that it has been articulated, nor that there are any agreements in place regarding sharing of tuition or faculty time or safety protocols. That said, it is anticipated that the inclusion of a course in a database might encourage institutions to work on articulation and other types of agreements.

An important element is in facilitating the transfer of credit for students from external institutions who wish to take field courses offered by other institutions for credit in their home programs. This can happen through the acknowledgement of the currently available letter of permission (LOP) process. The student in a program at a 'home' university sees a field course offered by a 'host' university, presents the course outline of the field course to her/his program head (through some administrative process), gets permission to take the course for credit in his/her home program, applies to take the course on the strength of the LOP, is accepted by the host institution, takes the course and gets a grade, and brings the host university's transcript to the home university for in-bound transfer of the credit into his/her program. This is basically the process and, with some discussion on process, could be done.

Although aspects of some of the existing web repositories described in Section 5.1 may be useful, it is possible that a field-course web repository could be developed from scratch so as to allow for inclusion of all of the important features summarized above. The following is a list of the steps required to create a web-based repository from scratch.

| | **Activity** |
|---|---|
| 1 | Set up MySQL database. |
| 2 | Create various pages for user authentication, log in, password recovery, data entry, database interrogation and result listing, and for display of comprehensive information on a selected course. |
| 3 | Write background code for uploading photos, administrator management, account request and request notification, issuing reminders, and expiration of old listings. |
| 4 | Communicate with project team regarding functionality and appearance, performance, recovery and backup, hosting and system requirements (10 hours). |
| 5 | Communicate with host institution's IT staff. |
| 6 | Prepare documentation. |

Based on a proposal submitted by Mathieu Lessard (mathieu@mathieu-lessard.com), October 2017.

## 6.4 Encourage more faculty-level cooperation on multi-institutional field courses

Development of bi-institutional and multi-institutional field courses is a relatively low-investment and low-risk way to open the door to more cooperation and coordination of field courses in general. As described in Section 4.3 above, there are already several examples of this type of cooperation in effect or in the planning stages at BC institutions.

Creation of new courses and modification of existing courses are activities that are typically carried out by faculty members (although the impetus may come from department chairs or from deans) and so it is most likely to be faculty who are in the position to initiate cooperation with other institutions on field courses.

Some of the ways that deans and department chairs could encourage faculty to engage with others on creation of inter-institutional field courses might include:

- developing institutional initiatives—or even inter-institutional initiatives—to promote field courses and inter-institutional field-course cooperation;
- ensuring that faculty are aware of the pedagogical benefits of experiential education, including field courses;
- developing or supporting a coordinated communication campaign to encourage awareness of field school opportunities and the location of field school information;
- increasing awareness of existing field courses by establishing and promoting a field-course web repository, as described above; and
- ensuring that field courses and field-course coordination are on the agenda at faculty, departmental, and articulation meetings, and at any other gatherings where faculty from several institutions are assembled.

## 6.5 Facilitate more Bamfield- or OUPFB-type collaboration

The models of field-course coordination that are represented by the Bamfield courses and by the OUPFB in Ontario require significantly broader and more carefully planned coordination than the repository initiative or the inter-institutional sharing options described above. The basis for the success of the OUPFB program is that the institutions have focused on a particular type of field course (ecosystem study), have established clear definitions of what should be included in all qualifying courses (duration in the field, types of assessments, etc.), have developed mechanisms to ensure that the courses offered are acceptable for credit at all of the institutions involved and have streamlined the process for student registration. The basis for the Bamfield model is a well-established and well-funded field station with its own complement of staff and facilities, a clearly-defined mechanism to ensure course quality, and a transparent registration process.

While Bamfield can be (and is) used for courses that are not strictly biological in nature, its facilities (e.g., classrooms, labs, accommodation, and staff) and mandate are sufficiently limited, and its location sufficiently remote, that it would not be practical to start using the BMSC for a significant number of courses in other disciplines. Although there are few facilities in western Canada that have the capacity and resources of Bamfield, there are some other sites that could become centres for

multi-institutional field courses, such as UNBC's Quesnel River Research Centre, near to Likely in the BC Central Interior (http://www.unbc.ca/quesnel-river-research-centre); UBC's Geological Field School in Oliver (https://science.ubc.ca/giving/projects/geological-field-school); and VIU's Deep Bay Field Station on Baynes Sound, Vancouver Island (https://www2.viu.ca/deepbay/).

The OUPFB model, on the other hand, does not depend on a Bamfield-type facility, and is not restricted to any particular location or type of field course. Because this model is based on interchangeable field courses, it is practical only if implemented within a single discipline at a time. There would be little to be gained by trying to create a field-course model that fits the disparate needs of several disciplines. Creation of a joint venture similar to OUPFB would require comprehensive planning by institutional representatives within a discipline in order to formulate policies and mechanisms that would determine its function. These include:

- an agreement to develop new courses or modify existing courses so that they conform to a specific theme and fit within the definitions of the placeholder courses at each institution (e.g., the ecosystem theme of the OUPFB courses, but also conceivably broader than that);
- a decision to create a series of minimum requirements for the courses (e.g., a minimum duration in the field, certain prerequisites, the types of assessments and their approximate mark allocations, the requirement for a research project);
- the creation of course shells to facilitate the transfer of credits between institutions;
- strict policies around health, safety, and liability;
- a simple registration process;
- a mechanism for collection, reconciliation, and transfer of tuition and course fees; and
- the procedures and infrastructure necessary to operate the project year after year (including a website and its maintenance, course evaluation procedures, and a forum for ongoing evaluation and modification).

Facilitating the transfer of credit for field school courses in the OUPFB model requires significant cooperation among faculty in appropriate discipline areas across institutional borders to lay out a series of field course options. These can be offered, one by one, by a variety of host institutions, but the courses themselves are approved as real offerings by each of the participating institutions, which might be many across BC. This allows the students to choose the courses as elective offerings at their home institution even though the courses themselves are built and managed by one participating 'host' institution. No transfer credit is nominally or administratively involved, even though it looks and feels a lot like a transfer credit opportunity that's simply been pre-approved.

It would make sense to focus on just one or two disciplines as a pilot for developing an OUPFB-like project. Members of the biology articulation committee expressed significant interest in this idea, and that might be a good place to start. Again, the BCCAT Transfer Innovations Fund would be a logical source of funding for such a project, and a field-course sub-committee organized by the deans would be a useful forum to get the initiative started.

**Implementation**

The likely steps necessary to implement a field-course collaboration project similar to that described above are as follows:

1) BCCAT and/or the deans committees would initiate a process for a discipline group (or articulation committee) to apply for Transfer Innovations funding to develop a field-course collaboration model.
2) BCCAT would select one of the proposals to move forward.
3) Faculty representatives from several institutions would work together to determine the theme, duration, prerequisites, assessments, and research requirements of courses that could be included in the project. The participants would also have to develop protocols for allocation of spaces in courses, student registration at the host institution, transfer of funds for tuition and course fees, inclusion of students from non-participating institutions, health and safety, and grade transfer. This might also include the creation of course shells at participating institutions, where each course would have a similar general description, level, and prerequisite list.
4) Development of a web repository similar to the one used by OUPFB (oupfb.ca) would be needed to allow students and faculty to see what course options are available. This could be hosted by one of the participating institutions or an agency like BCCAT and maintained by the articulation committee.
5) Once the collaboration has been established, and has been in use for at least one year, other groups could be invited to explore the potential for implementation of field-course collaboration in their discipline.

The protocols noted in point three above may or may not involve creation of letters of understanding (LOU) to formalize agreements between institutions. If it is decided that LOUs are required, they would have to include detailed descriptions of the various decisions that the group makes regarding allocation of spaces, registration, transfer of funds, health and safety and transfer of marks. It would be up to the committee involved in the project to reach agreement on these issues.

## 6.6 Mitigate barriers and limitations

Fleischner et al. (2017) recently described many of the barriers and limitations to offering field courses in the biological sciences at US institutions, including factors such as faculty time, interest on the part of faculty and students, resource limitations, and risk management concerns. These findings are consistent with the findings in this report. Key issues related to the coordination of field schools are listed below with suggested mitigation strategies.

Table 6.1 Limitations to increased coordination of field courses at BC institutions, and suggested solutions.

| Issue | Explanation and recommended mitigation |
|---|---|
| Difficulties around credit transfer | Ease of credit transfer is key to student mobility, choices, and success. This also applies to field courses, and there are several solutions, including increased rates of articulation of field courses and increased levels of cooperation and collaboration between and amongst institutions, that could increase options for students. In the immediate term, however, increased flexibility on the part of faculty and department chairs to accept field course credits earned at other institutions would help with student mobility. Articulation committees with significant field school |

| | |
|---|---|
| | activity could develop specific strategies to encourage transfer of field school courses, including agreement on a template for the discipline; a common field school identifier in the course code; standard naming conventions for field schools; or a multi-lateral MOU or Letter of Agreement regarding the transferability of specific ongoing or annual field school offerings. Articulation committees and/ or deans' groups could also work with the BC Registrars Association to look for ways to streamline registration requirements for students taking a field course from another institution. |
| Safety and liability concerns | Student health and safety, and the legal responsibility of institutions to minimize student risk, have become increasingly significant barriers to the ability to offer field courses, especially those to international destinations. This problem may be exacerbated if there is an increase in the number of students who seek field course credits at an institution other than their home institution. These issues can be addressed by institutional cooperation in creating comparable field-course health and safety guidelines and procedures, and in looking for standardization in the terms of liability insurance policies. If institutions can protect only students whom they have actually registered, then they should work on creating agreements to minimize the cost and streamline the process for students who are registering at an institution for only one or two specific courses. Articulation committees might address this by designating a subcommittee to gather best practices from across the discipline using the list serve and preparing a document for use by committee members and other articulation committees and posted on the BCCAT website. |
| International travel | Health, safety, and visa issues associated with international travel are also seen as increasingly significant barriers to foreign field trips, even those to the United States. These risks can be minimized by doing careful homework and avoiding dangerous regions, and insisting that students without Canadian passports confirm their eligibility to travel before registering. Most institutions have international education offices that can help with managing these risks and assist students in managing visa needs. |

## 6.7 Other issues

A number of other topics are relevant for increasing collaboration in field course organization, including timetabling, risk management, joint management of field courses, and out-of-province participation.

1. **Timetabling.** Because there are numerous issues that constrain the timetabling of field courses, agreement on when they should be scheduled in order to facilitate inter-institutional coordination is not likely or worthwhile. Many field courses start in May—shortly after the end of exams—and early enough so that students can still take advantage of summer employment opportunities. Those that take place at high-altitude or high-latitude locations typically have to be delayed to summer or even late summer. On the other hand, some field courses are scheduled to take advantage of winter conditions. These are often held over Christmas break or spring break, but in the context of field-course sharing it is important to be aware that these breaks may have different dates at different institutions. As already noted, while field courses that are spread through the regular term (e.g., one day a

week for 13 weeks) may be convenient for program purposes, they are not likely to be as effective as intensive field courses, and they are unlikely to be candidates for sharing with students from other institutions.

2. **Joint management.** There are many possible models for joint management of informal bi-institutional or multi-institutional field courses. As well as the issues such as fee sharing and credit transfer, any management arrangement should include agreement on protocols regarding health and safety and on ways to streamline the registration process for students taking three or fewer courses at an institution. The management terms for more formal multi-institutional field courses could be based on the BMSC or OUPFB models, as discussed above.
3. **Out-of-province relationships.** There is no reason why out-of-province or interprovincial joint agreements should be any different from those that are strictly within-province. Field-course agreements with out-of-country institutions may require special consideration because of the likelihood that there are differences in laws regarding liability and due diligence, differences in medical coverage, and differences in academic schedules.

# 7 Conclusion and Recommendations

Field courses are a critical component of many post-secondary programs in British Columbia and an important option in many others. They are widely recognized for their pedagogical value, mostly because it has been found that students generally achieve more high-level learning and retain more of what they learn in a field-course setting than in a classroom. This is especially significant at a time when many institutions are striving to increase the experiential content in their programs. An international field school presents additional learning opportunities afforded by exposure to cultural, linguistic, and socio-demographic diversity. The learning from the international context will vary depending on course objectives, student preparation, and faculty leadership.

There are over 200 field courses currently offered at BC institutions. Most are in disciplines such as anthropology, biology, geography, earth science, and tourism. Few of these courses have ever been made available to students from outside of the institutions where they are offered, even though some of them have spaces that could be used by other students, and every year some have to be cancelled due to under-enrolment. The research indicates that there is a willingness to explore options to coordinating field schools and information about them.

This research suggests that there are several ways to enhance coordination of field courses amongst institutions. The following actions are recommended:

- groups of faculty members (initiated by articulation committees) should work to create databases for field courses (leading ultimately to a single system-wide field course database) that include the majority of courses offered in BC within their discipline, are kept up to date, and provide enough information for students to decide whether a course meets their interests and provides the credit they need;
- administrators should develop initiatives to encourage more bi-institutional and multi-institutional cooperation on field courses;
- groups of faculty members (again initiated by articulation committees) should work towards facilitation of the type of collaboration exemplified by the Ontario Universities Program in Field Biology, in which there is a template for a standard type of field course within a discipline and a mechanism for ensuring transferability, so that students can select from a wide range of courses offered at various institutions; and
- articulation committees, deans' groups, BCCIE, and BCCAT should coordinate efforts to ensure information on field school opportunities is widely known and disseminated across the BC Transfer System.

Enhanced field course coordination would be aided by an increase in the rate of articulation of field courses, and a multi-lateral initiative—coordinated through the deans' and registrars' groups to streamline the process and reduce the cost of registration at an institution for the purpose of taking field courses—would help to increase the potential for field-course sharing.

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# Appendix A: Survey instruments used at the Articulation Committee meetings and the deans meetings

The following two pages include the survey instrument used in the Articulation Committee meetings.

# BC Field Courses Coordination Survey

1) What is your discipline: _____ your institution: _____ your role: (faculty/other) _____?

**Field courses in your department**

2) Does your department offer field courses/field schools? *(a field course (or field school) is defined here as a stand-alone undergraduate course for credit, with at least 50% instruction outside of the classroom and away from the institution's campus)*

☐ Yes ☐ No (proceed to question 7) ☐ Don't know (proceed to question 7)

3) How many field courses does your department offer annually? (0.5 if 1 every 2 years)

First or second year_____ Third or fourth Year_____

4) How many field courses are mandatory for students in your department?

First or second year_____ Third or fourth Year_____

Please list the course codes of all field schools offered by your department (e.g., ENGL-100)

| | |
|---|---|
| | |
| | |
| | |

5) Is there (or has there recently been) room in any of your field courses that could be used by students from other institutions?

☐ No ☐ Yes ☐ Don't know or n/a If yes, how many places could be (or have been) available? _____

6) Is there (or has there recently been) collaboration on field courses between departments in your faculty?

☐ No ☐ Yes ☐ Don't know If Yes, what form does that take?

_____

7) Would you ever encourage your students to enrol in a field course (for credit) at another institution?

☐ No ☐ Yes ☐ Yes, but only for articulated courses ☐ n/a Provide comments below (if any)

_____

8) Would you (or your department) consider organizing a field course in collaboration with another institution?

☐ No ☐ Yes ☐ Don't know If Yes, please indicate under what conditions

_____

**Provincial coordination**

9) Do you feel that enhanced province-wide sharing of field-course information and opportunities is important?

☐ Very important ☐ Somewhat important ☐ Neutral ☐ Somewhat unimportant ☐ Very unimportant

10) Do you feel that inter-institutional collaboration on field courses would be beneficial to your department & students?

☐ Very beneficial ☐ Somewhat beneficial ☐ Don't know ☐ Not beneficial

11) Would you or your department be willing to work with other institutions to create a set of common field-course standards to facilitate the transferability of field experiences and increase options for students in your discipline?

☐ Yes ☐ No ☐ Don't know

Explain: _____

See Over

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# BC Field Courses Coordination Survey

**Factors limiting your ability to offer field courses**

12) Which of the following factors could or do significantly limit your department's ability to offer field courses? (Please mark all that apply, and provide an explanation if that would be helpful.)

a. Risk management (mark all that apply)

- ☐ Student health
- ☐ Student safety
- ☐ Student behaviour issues
- ☐ Institutional limits on risk
- ☐ Legal liability issues
- ☐ Visa requirements
- ☐ Political stability in country to be visited
- ☐ Other (specify below)

_____

b. Having to provide for… (mark all that apply)

- ☐ Students with limited means
- ☐ Students with mental or physical disabilities
- ☐ International students
- ☐ Other (please specify) _____

c. Lack of sufficient funding. ☐ Explain: _____

d. Lack of available faculty (or faculty time). ☐ Explain: _____

e. Credit and transferability issues. ☐ Explain: _____

f. Scheduling or timetabling issues. ☐ Explain: _____

g. Prerequisite requirements. ☐ Explain: _____

h. The need for an interview. ☐ Explain: _____

i. Residency requirements. ☐ Explain: _____

**Comments**

13) Do you have ideas on how best to encourage field-course coordination and cooperation at the provincial level? Are there any other comments that you would like to make regarding the coordination of field courses?

_____

_____

_____

_____

_____

_____

_____

Additional comments can be sent to: steven.earle@viu.ca, or add your e-mail and I will contact you: _____

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The following 2 pages include the survey instrument used in the Deans Committee meetings.

# BC Field Courses Coordination Survey

BCCAT

1) What is your faculty: _____ your institution: _____ your role: (Dean/other) _____?

**Field courses in your faculty**

2) Do departments in your faculty offer field courses or field schools? *(A field course/field school is a stand-alone undergraduate course for credit, with at least 50% instruction outside of the classroom and away from the institution's campus.)*

☐ Yes ☐ No (proceed to question 4) ☐ Don't know (proceed to question 4)

3) Is there any collaboration on field courses…

a) between departments in your faculty?

☐ No ☐ Yes ☐ Don't know If Yes, what form does that take? _____

b) between your faculty and other faculties in your institution?

☐ No ☐ Yes ☐ Don't know If Yes, what form does that take? _____

c) between your faculty and institutions?

☐ No ☐ Yes ☐ Don't know If Yes, what form does that take? _____

4) Would you consider encouraging instructors in your faculty to collaborate in organizing a field course …

a) with another department within your in institution?

☐ No ☐ Yes ☐ Don't know If yes, under what conditions? _____

b) with another post-secondary institution?

☐ No ☐ Yes ☐ Don't know If yes, under what conditions? _____

**Provincial coordination**

5) How important is enhanced province-wide sharing of field-course information and opportunities for your faculty?

☐ Very important ☐ Somewhat important ☐ Neutral ☐ Somewhat Unimportant ☐ Very Unimportant

6) How useful is inter-institutional collaboration on field courses for courses/programs in your faculty?

☐ Very useful ☐ Somewhat useful ☐ Neutral ☐ Not useful

7) Would you encourage the creation discipline-specific common field-course templates to aid in transferability of field experiences and options for courses/programs in your faculty?

☐ Yes ☐ No ☐ Don't know

Explain: _____

Over →

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# BC Field Courses Coordination Survey

**Factors influencing the feasibility of offering field courses in your faculty**

11) Which of the following factors influence your faculty's ability to offer field courses? (Please mark all that apply, and provide an explanation if that would be helpful.)

a. Risk management (mark all that apply)

☐ Student health ☐ Institutional limits on risk ☐ Other (specify below)
☐ Student safety ☐ Legal liability issues _____
☐ Student behaviour issues ☐ Visa requirements _____

b. Having to provide for… (mark all that apply)

☐ Students with limited means ☐ Students with mental or physical disabilities
☐ International students ☐ Other (please specify) _____

c. Lack of funding ☐ Explain: _____

d. Lack of available faculty (or faculty time) ☐ Explain: _____

e. Credit and transferability issues ☐ Explain: _____

f. Scheduling or timetabling issues ☐ Explain: _____

g. Prerequisite requirements ☐ Explain: _____

h. The need for an interview ☐ Explain: _____

i. Residency requirements ☐ Explain: _____

**Comments**

12) Do you have ideas on how best to encourage field-course coordination and cooperation at the provincial level? Are there any other comments that you would like to make regarding the coordination of field courses?

_____

_____

_____

_____

_____

_____

_____

Additional comments can be sent to: steven.earle@viu.ca, or add your e-mail and I will contact you: _____

*This instrument has been approved by BCCAT for the 2017 "Field School Coordination Feasibility" study by Steven Earle*