



BIOL*4700 Field Biology

Winter 2019

Section(s): C01

Department of Integrative Biology

Credit Weight: 0.50

Version 1.00 - December 12, 2018

1 Course Details

1.1 Calendar Description

Students may apply for 2-week courses in the OUPFB (Ontario Universities Program in Field Biology). This program offers a diversity of field courses in biological subjects ranging from the Arctic to the Tropics, microbes to mammals, and covering marine, freshwater and terrestrial habitats. Costs include food and lodging and may include transportation. Detailed information is available from the Department of Integrative Biology.

Pre-Requisite(s):

BIOL*2060

Restriction(s):

Permission of the course coordinator. Instructor consent required.

1.2 Course Description

- **IMPORTANT:** Guelph students who wish to take field courses offered by Guelph faculty **DO NOT** sign up for the field course using these course numbers, which are reserved solely for use by students taking field courses offered through **OTHER** universities. Guelph students should sign up for Guelph field courses using specific Guelph Field Course numbers; see: https://www.uoguelph.ca/ib/field_courses
- If you are uncertain about experiential learning field resources available to you, please start at the experiential learning courses decision tree: <https://www.uoguelph.ca/ib/sites/uoguelph.ca.ib/files/public/Experiential%20Learning%20Cour>

1.3 Timetable

- One annual Field Course information session is held at U of G in the evening

during the month of November. For information about this event, please see flyers posted in the Department of Integrative Biology or check the the local OUPFB field course coordinator.

- Various two-week long field courses are available through the OUPFB that occur over a range of dates from roughly late April to the following December. Travel to and from the field site is not considered instructional time. In some cases, for remote locations, it can be substantial. In rare cases, including travel time, modules may run for up to 3 weeks, but the maximum credit earned per course is 0.50. This information should appear on, or be apparent from, the descriptions of the individual modules.
- In most cases, all assigned work for a module(s) is completed on site or relatively early in the semester immediately following the field component. In some cases, restrictions at particular participating schools, or the necessity for instruction prior to leaving for the field, may require that students attend introductory (or, rarely, follow-up) meetings at the school that offers the particular module. Typically, these will be easier for students to attend if their “home university” is in close proximity. In some cases, instructors will oblige “long-distance” students the opportunity to attend courses without attending initial (or follow-up) meetings, or make other arrangements; in other cases, it is not recommended, and this will restrict the opportunity for some students to take some modules. This information should appear on, or be apparent from, the descriptions of the individual modules. You may contact individual instructors for clarification about information for each module. DO NOT ask the module instructor to sign you into the module. ALL procedures for applying to take OUPFB modules are carried out through the local OUPFB coordinator as described below.

1.4 Final Exam

Exam time and location is subject to change. Please see WebAdvisor for the latest information. Note that most field courses do not have a final exam but rather a final report. Please see the descriptions of individual modules for information about course evaluation.

2 Instructional Support

2.1 Instructional Support Team

Course Co-ordinator:	Dr. Sarah Adamowicz Associate Professor
Email:	sadamowi@uoguelph.ca
Telephone:	519-824-4120 ext. 53055
Office:	SSC 2447

2.2 Additional Contacts

- Connie Davison, Department of Integrative Biology: davisonc@uoguelph.ca
 - Field Instructor: As shown on the OUPFB website: <http://www.oupfb.ca/>
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3 Learning Resources

3.1 Course Resources

Are determined by individual instructors associated with each field course. Consult the individual course outlines at the OUPFB website for details: <http://www.oupfb.ca/>

4 Learning Outcomes

These reflect general outcomes across most OUPFB field courses. Specific learning outcomes for each field course may be different and are available from each instructor. See OUPFB course descriptions: <http://www.oupfb.ca/>

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. Appreciate novel natural ecosystems and explore and discover what factors regulate the distribution, abundance, diversity, or other features of local organisms
2. Develop a research program using your current understanding of ecological processes (from BIOL*2060, BIOL*3110 or BIOL*3060) in order to advance understanding of or answer a question about ecological processes in a natural system local to the field site
3. Pursue process-oriented research (why is it there? mechanistic/ process/causal understanding) as distinct from descriptive research (who/what is there?) by applying the scientific method, which develops hypotheses and testable predictions, and demonstrate facility in making observations through sampling techniques
4. Evaluate the quality of evidence for statistically-based conclusions using your understanding of applied statistics (from STAT*2040 or STAT*2230), and independently apply standard statistical methods to effectively summarize, compare, and communicate patterns in collected data that are used to test predictions and infer ecological process
5. Exhibit critical thinking and make judgements and conclusions based on logic and evidence rather than opinion during all stages of your research, including: identifying research goals; expressing your thinking and judgement in oral and written form; evaluating information in the face of uncertainty; identifying and using relevant scientific literature to motivate and contextualize your research

6. Collaborate effectively and pro-actively in your research group and with course instructors to solve problems related to performing your research, to critique the work of others in a constructive manner, and manage timely completion of group projects
 7. Communicate effectively in written and oral forms, exhibited through writing up field notes, oral presentations of research proposals, and writing about your original research contribution
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5 Teaching and Learning Activities

5.1 Costs

- Each Field Course has additional costs for any of equipment, travel, room and board, and other expenses as specified on the OUPFB website (<http://www.oupfb.ca/>) or through the contact organizing a non-OUPFB field course.
- Registration for OUPFB field courses requires a non-refundable \$350 deposit per module except for compassionate circumstances, or if we are able to fill the slot that you vacate with another student.
- Students taking Field Courses for credit must be enrolled at the University of Guelph and so must pay normal U of G registration fees.

5.2 Course Registration

- You CANNOT register for a Field Course through WebAdvisor because you need Instructor's Consent.
- You DO NOT register for an OUPFB Field module by contacting the specific non-U of G field course instructor identified on the OUPFB website.
- You CAN register for all Field courses with the assistance of the local U of G coordinators listed below. Please read through ALL of the information before contacting the local course coordinators.

5.3 Course Content

- Typically, the ability of any one university to offer a selection of courses in field biology is limited by the expertise of the available instructors to restricted plant or animal taxa or specific kinds of environments, and/or by available resources (e.g., equipment, access to field stations, faculty time). To increase the

availability and variety of field courses offered to students interested in field biology at Guelph, students can take field courses offered through other schools or institutions, and receive credit for them using these Field Biology course numbers.

- You may choose from about 30 OUPFB courses per year. You may also find Field courses offered by other accredited post-secondary institutions elsewhere and from other recognized academic organizations. To evaluate the eligibility of non-OUPFB field courses, see the Decision Tree on the Field Course Webpage: https://www.uoguelph.ca/ib/field_courses
- Students can study plants, invertebrates or vertebrates in aquatic ecosystems from marine to freshwater, and in terrestrial ecosystems from desert to montane. Courses are offered from the tropics to the arctic (latitudinally), and from Indonesia to Iceland (longitudinally). Course content ranges from natural history surveys to those with strong emphasis on the design and execution of field experiments. Depending on the student's program, there can be opportunity to take several field courses. Two-week long OUPFB field courses are generally offered at natural field locations (field station, field site, field camp, tent, back of a truck etc.) away from U of G and away from the university that employs the instructor. See OUPFB website for details (<http://www.oupfb.ca/>). Eligible non-OUPFB field courses may be longer or shorter.
- OUPFB strives for uniformity of approach to try to ensure equity among workloads across courses. Most courses are approximately two weeks in the field and worth 0.5 credits. Course content varies with instructors, but, in general, the strong emphasis is on working and evaluating students in field environments. The intent is not simply to duplicate a normal classroom experience in a remote location. Many courses, nevertheless, typically have some components of evaluation take place after the return from the field setting, such as report writing. Students can obtain specific information about individual courses at the OUPFB website (<http://www.oupfb.ca/>) and should consult with the local OUPFB coordinator for more information (contact information above).
- At present, the maximum number of Field Biology credits that Guelph students can take, if not limited by other program requirements, is 5 for a total of 2.0 credits. Students may take up to 3 2-week modules each worth 0.5 credits (BIOL*4700, 4800 and 4900).

5.4 Important Dates

- October

- Browse the latest version of the OUPFB website (<http://www.oupfb.ca/>) or websites of other institutions offering field courses for an idea of the range of field courses that are typically offered in the coming year, where they are offered and at what cost. About 70% of the OUPFB modules listed are offered annually; about 30% “turnover” each year. If you have questions about a particular module, such as whether it will be offered the year you want to take it, whether the cost or the dates will be the same, and so forth, you can contact the individual instructors whose e-mail addresses are listed with the modules. DO NOT ask the module instructor to sign you into the module. ALL procedures for applying to take OUPFB modules are carried out through the local OUPFB coordinator as described below.
- by mid November
 - Annual U of G information session for students interested in Field Course options for the next cycle running roughly April (in the following year) to December. For information about when the information session will be held, check for flyers posted in the Department of Integrative Biology, on the field course website (https://www.uoguelph.ca/ib/field_courses), or with the local OUPFB coordinator.
- By December 1
 - Identify one or more OUPFB modules that satisfy your interests and your program requirements. Provide this information to local Field Course Registrar (Connie Davison: davisonc@uoguelph.ca) in advance of the annual OUPFB steering committee meeting (by Dec. 1st). Your local coordinator may have an opportunity to reserve spots in modules if she/he is alerted to your particular interests before the annual OUPFB organizational meeting, held in early December each year. All course assignments are on a first-come-first-served basis, and so students need to plan well ahead to improve their chances of getting into courses that are their first choices.
- December - 1st week
 - Annual OUPFB steering committee meeting to organize the next cycle (April - December) of field course modules.
- by mid December
 - The field course modules offered in the next cycle (April - December) are made available on the OUPFB website (<http://www.oupfb.ca/>).
- January - first week of classes
 - During the first week of classes, completed applications for OUPFB field courses (see step by step instructions) can be submitted to Connie

Davison, Department of Integrative Biology. Dates, times, and locations for receiving applications are posted on the IB field course website (https://www.uoguelph.ca/ib/field_courses) and on bulletin boards in the department. Registration in OUPFB modules is on a first-come-first-serve basis.

- by the last Friday of January
 - Last day applications normally accepted for OUPFB Field courses.
- February - 4th week
 - Students will be notified of the results of the application process by late February. Until this time, DO NOT contact module instructors with questions about the fate of your application. They are NOT involved in the selection procedure, and do NOT have any information to share about it (even if they think they do). Instructors find out which students have been assigned to their modules when students do. After this time, students can make contact, or resume contact, with the instructors of the modules to which they have been assigned. In particular, students will need to find out how and where to pay the balance of the cost of the module, which is paid to the school that offers the module.

5.5 Module Specific Dates

After being registered in a specific field course module, you will consult with your specific Field Course instructor and course outline for all subsequent important dates related to required pre-travel deadlines, your travel times, times in the field, and post-travel deadlines.

6 Assessments

6.1 Methods of Assessment

Consult specific course outlines available through the OUPFB (<http://www.oupfb.ca/>) or other Field Course website for information about specific evaluation procedures.

7 Course Statements

7.1 Important Registration Details

- There are two ways to enroll in Field Biology and receive credit for field courses taken elsewhere.
 - If the field course is taken at an accredited partner in OUPFB, then the

following procedures apply. OUPFB provides students with opportunities to take field courses offered through other Ontario universities, or their affiliates (such as the Huntsman Marine Science Centre in New Brunswick, which has a long association with Ontario universities), for credit at the University of Guelph without the need for letters of permission or other formal means of transferring credits; the participating schools have agreed that any field course offered by any school is considered of adequate quality and equivalent experience to those at any other school, and are therefore completely substitutable. Please download and follow the step by step instructions for OUPFB registration.

- If the field course(s) is NOT taken through an accredited partner school/institution in the Ontario Universities Field Program in Biology (OUPFB), then the normal procedures to transfer credits to Guelph (letters of permission, etc.) will apply. It is the student's responsibility to make these arrangements with their Program Counselor and to advise the coordinator of Field Biology courses that she/he has enrolled in Field Biology courses on letters of permission. This is to ensure that grades can be submitted and credits obtained with minimal disruption. To see how to determine which category a field course falls in, and how to register for it, please see the flow chart.
- You must be a registered U of G student: For reasons relating to liability, only registered in-course students may register in these Field Biology courses, the same as any other university course. Students need not be enrolled and taking other courses in the semester during which they take a field module (since most are taken in the spring/summer semester) but students MUST be pre-registered in one of the Field Biology courses before they are allowed to attend. When you drop off your application, you will be asked to fill out two registration forms: a Course Add form, and a Course Waiver Request form. We will then register you into the course with the appropriate course code and into the appropriate semester.
- Semester of registration: There are two ways to have the credits earned in Field Biology courses applied to your transcript. Keep this in mind as you decide among modules to which you'd like to apply.
- To apply the credit(s) in the same semester in which you go to the field. Typically, this is the option used by students in their last undergraduate semester AND when that semester is the Winter/Spring. In this case, you must take a module for which all assigned work will be completed and graded in time for module instructors to submit grades to the local OUPFB coordinator to report to the registrar. It is the policy of OUPFB that all course work should be

completed within 4 weeks of return from the field and marks available to students 4 weeks after that. However, due to course-specific variability, these guidelines are sometimes forgotten and not practicably enforceable, so students should make inquiries to particular module instructors as to that instructor's intent with respect to sending grades to students' home universities. Failure to do so could result in a grade submission of 'no mark received'. As a rule of thumb, if the field course ends by the middle of June, you should be able to register for it in the Summer semester as the grades should be available in time for Guelph's final grade uploading deadline. Modules after mid-June will have to be registered for in the following Fall semester.

- Typically, students participate in a field module(s) in one semester (spring/summer) and enroll in one or more of the U of G Field Biology courses in the next (fall) semester and apply the credit(s) then. In rare instances, enrollment in a Field Biology course can be deferred longer, but there is no advantage to this and should only be an option if students had to withdraw from the semester immediately following the semester during which they attended a module.

7.2 Foreign (non-Canadian) Field Site Requirements

Senate mandates that all U of G students taking field courses abroad MUST take an orientation course offered through the University's Centre for International Programs (CIP). There is no cost associated with the course. Once registered, students will be given a password in order to complete the course on-line. For more information, students should visit: <https://www.uoguelph.ca/cip/guelph-students-preparing-study-and-travel-abroad/pre-departure-orientation>

7.3 Grading

Because students are taking these Field courses away from the University of Guelph, grading and late penalties are determined by the local course instructor as specified in their course outline. All issues related to grading and associated penalties for lateness are negotiated between the student and the local Field Course instructor.

7.4 Drop Dates

- In addition to the drop dates associated with these University of Guelph courses (BIOL*4700, 4800, 4900) below, you may also be subject to drop date restrictions by the non-U of G institution and instructor organizing the specific field course. It is the student's responsibility to be aware of and abide by these drop dates and penalties.
- The last date to drop one-semester courses, without academic penalty, is the 40

th class day of the semester. To confirm the actual date please see the schedule of dates in the Undergraduate Calendar. For regulations and procedures for Dropping Courses, see the Undergraduate Calendar: <http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

8 Department of Integrative Biology Statements

8.1 Academic Advisors

If you are concerned about any aspect of your academic program:

- Make an appointment with a program counsellor in your degree program. [B.Sc. Academic Advising](#) or [Program Counsellors](#)

8.2 Academic Support

If you are struggling to succeed academically:

- Learning Commons: There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist. <http://www.learningcommons.uoguelph.ca/>
- Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: <http://www.lib.uoguelph.ca/get-assistance/studying/chemistry-physics-help> and <http://www.lib.uoguelph.ca/get-assistance/studying/math-stats-help>

8.3 Wellness

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. <https://www.uoguelph.ca/counselling/>
- Student Health Services is located on campus and is available to provide medical attention. <https://www.uoguelph.ca/studenthealthservices/clinic>
- For support related to stress and anxiety, besides Health Services and

Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations.
<http://www.uoguelph.ca/~ksomers/>

9 University Statements

9.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

9.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

9.3 Drop Date

Courses that are one semester long must be dropped by the end of the fortieth class day; two-semester courses must be dropped by the last day of the add period in the second semester. The regulations and procedures for course registration are available in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

9.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

9.5 Accessibility

The University promotes the full participation of students who experience disabilities in their

academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

More information can be found on the SAS website
<https://www.uoguelph.ca/sas>

9.6 Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity, and it is the responsibility of all members of the University community—faculty, staff, and students—to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff, and students have the responsibility of supporting an environment that encourages academic integrity. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

9.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

9.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>
