

BIOL 490/2 01 Independent Study

2016-2017 academic year, summer and fall semesters (May - December 2016)

6 credits (3 in the summer, 3 in the fall). Note that, for administrative reasons, all 6 credits are treated as being in the fall semester: if a student is taking more than 9 credits of other courses in the fall they should see an Academic Advisor about requesting a course overload.

There are no scheduled lectures or laboratories, the student works under the direction of their supervisor. Administrative responsibilities are handled by the BIOL 490 Coordinator.

Prerequisite: Sixty (60) credits in an Honours or Specialization program in the Department of Biology (not including the 30 credits of additional ECP requirements), and permission of the BIOL 490 coordinator. Students should be in their senior year or within 6 credits of it and they should have a Cumulative and Annual GPA of 3.00 or better. Students with a GPA of 2.70 or better may be considered on receipt of two letters from faculty members (other than the proposed supervisor) attesting to the student's ability to complete the course successfully.

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Office Hours, summer: irregular
Office Hours, fall: Wednesday 12:00-13:00, Thursday 10:15-11:15
Telephone and e-mail may be used to set up appointments.

In this course, the student undertakes a special research project selected in consultation with, and conducted under, the supervision of a faculty member of the Department. The project is intended to develop the student's knowledge of standard scientific procedures, including methods of researching scientific literature, the planning and execution of experimental and analytical procedures, the writing of a formal report, and the presentation of a seminar on the project.

(from <http://www.concordia.ca/academics/undergraduate/calendar/current/sec31/31-030.html>)

Course Philosophy

Although credited as a six credit course, this is a research project. It is essentially an apprenticeship under the supervision of a professor, providing the student with an opportunity to experience primary research. With the help of the supervisor, the student is expected to plan and execute experiments, collect and analyse data, and finally present the results orally and in a formal report.

Marking

research activity	25%	(evaluated by the supervisor)
oral presentation	25%	(6 December, evaluated by any faculty members present)
thesis	50%	(due 13 December, evaluated by the committee)

The oral presentation mark is the median of all those submitted by faculty present. The thesis mark is the mean of the marks submitted by the committee [supervisor(s) and committee members]. Under exceptional circumstances the committee may grant a short extension (no more than one week) on the thesis due date, but such an extension **must be granted before the due date**. Note that it is the responsibility of the student to contact the committee early enough that the request may be considered and responded to. Any thesis submitted late without *prior* approval of the committee will be penalized 2/50 (4%) per day or part thereof. The total mark may be curved if appropriate, at the discretion of the BIOL 490 Coordinator, and the letter grade is assigned based on the total mark:

<u>%</u>	<u>grade</u>	<u>%</u>	<u>grade</u>
95-100	A+	67-70	C+
90-95	A	63-67	C
85-90	A-	60-63	C-
80-85	B+	57-60	D+
75-80	B	53-57	D
70-75	B-	50-53	D-
		40-50	F
		0-40	R

Note that marks are not rounded (e.g., 79.99999999% is still B but 80.00000000% is B+).

Research Activity

The specifics of the projects vary greatly, but the supervisor will assess the competence of the student in carrying out the research (e.g., in the laboratory and/or in the field).

Oral Presentations

The schedule will be published near the end of the semester, each student will have 15 minutes for their presentation. The actual talk will be 10 minutes with 5 minutes reserved for questions. Note that PowerPoint (or similar) files should be submitted to the BIOL 490 Coordinator no later than 5 December at 16:00, and should be compatible with a "PC" computer.

Thesis

There is no specified length for the thesis, but it should be clear and concise. In general it should be similar to papers published in peer-reviewed journals. Check with your supervisor(s) and committee members about the format.

This is a six-credit course that requires a great deal of time and focus, students often underestimate how much work is involved (especially in writing the thesis). Students are encouraged to start writing the thesis as soon as possible (before experiments are completed), and to stay in touch with their supervisors as work progresses.