

# BIOL 201/2 (01 and 02) Introductory Biology

2016-2017 academic year, fall semester (September - December 2016)

3 credits

All lectures and labs are on the Loyola Campus:

lecture 01: Tuesday and Thursday 11:45-13:00 in CC-204

lecture 02: Tuesday and Thursday 08:45-10:00 in CC-310

lab 01L: Tuesday 13:30-17:30 in SP-380.02

lab 02L: Wednesday 13:30-17:30 in SP-380.02

lab 03L: Thursday 13:30-17:30 in SP-380.02

lab 04L: Friday 13:30-17:30 in SP-380.02

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Office Hours: Wednesday 12:00-13:00, Thursday 10:15-11:15

Please take advantage of the Office Hours for help with any aspect of the course. If you are not able to come then, I am sometimes available at other times. Telephone and e-mail may be used to set up appointments.

Teaching Assistants (TA's) will assist in the lab.

## Course Topics

Fundamentals of plant and animal biology: basic physics and chemistry of life; cell and tissue structures and functions; anatomy and physiology of human systems; survey of plant and animal taxonomy, ecology, heredity, and evolution.
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(from <http://www.concordia.ca/academics/undergraduate/calendar/current/sec31/31-030.html>)

## Course Philosophy

Biology, the science of living things, is an extremely broad field. Although this course covers diverse topics, there are two threads that run through them all. The first is the fundamental chemical and cellular basis of all living things, with a focus on structure, function, and emergent properties. The second is made up of the unifying principles of inheritance and evolution. This course is intended to provide a general introduction to the science student with little or no background in biology.

Inevitably there is a large amount of terminology that must be mastered, as well as basic information about life, but equally important are the concepts, processes, and patterns found in living systems. The tentative schedule is:

week	Tuesday lecture	Thursday lecture	all labs
5-9 Sep	course introduction, chemistry	prokaryotic cells	
12-16 Sep	eukaryotic cells	cellular respiration	1: microscope
19 Sept: last day to withdraw from course with refund (DNE) last day to register for course			
19-23 Sep	photosynthesis	cell division	2: diffusion
26-30 Sep	genetics	genetics	3: cell division
3-7 Oct	DNA	DNA and genetics	4: genetics
10-14 Oct	population genetics	evolution	5: DNA
17-21 Oct	<b>Midterm Exam</b>	natural selection	6: kingdoms
24-28 Oct	life and bacteria	protists and plants	7: plants
31 Oct - 4 Nov	plants	fungi, animals, digestion	8: tissues
6 Nov: last day for academic withdrawal from course (DISC)			
7-11 Nov	digestion, respiration	circulation, immunity	9: animals
14-18 Nov	excretion	endocrine, reproduction	10: chordates
21-25 Nov	reproduction, nerves	nervous system	lab review
28 Nov - 2 Dec	ecology	virus, prion, cancer	<b>Lab Exam</b>

The Final Exam will be scheduled in the exam period: 7-21 Dec.

The following materials are available at the Concordia University Loyola Bookstore:

Recommended Textbook: Campbell Biology, Canadian Edition (Reece et al, 2014)

Required Lab Manual: Introductory Biology BIOL 201 Laboratory Manual (Ferguson and Cronin, 2016)

A lab coat is required, but lab safety glasses are not.

The course website is available through your MyConcordia portal. It provides this course outline, suggested readings, some lecture note templates, links to library resources, exam marks when available, etc.

In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

## Marking

### Theory (50%)

midterm exam	15%	(in class 18 October)
final exam	35%	(in exam period 7-21 December)

### Laboratory (50%)

lab quizzes	10%	(at the beginning of each lab)
lab reports	20%	(written and submitted each lab*)
lab exam	20%	(in lab period week of 28 Nov - 2 Dec)

\* The report for Lab 5 is to be submitted two weeks later.

## IMPORTANT:

**Students must pass both the theory and lab parts to pass the course.**

**Attendance at all labs is compulsory.**

It is sometimes possible to attend a different lab section in the same week, for example if you are ill or have a religious commitment or sports event.

Documentation is not normally required to move to a different section, but you should contact me as early as possible to arrange for such a move and I cannot guarantee space in the alternate section.

If you miss one of the labs (do not attend the lab in any section that week), you lose all marks for that lab (3% of your total mark for the course) unless you provide appropriate documentation of a valid excuse (e.g., illness). You are still responsible for the material covered, there will be questions on the lab exam from each and every lab. Also note that **if you miss more than 3/10 labs for any reason whatsoever you fail the course**, regardless of your marks (you should contact me if you find yourself in this situation).

The first lab is in the week of 12-16 September, and there is a lab every week after that.

## Grading

To pass the course, a student must score at least 50% overall **and** at least 25/50 for the lecture part **and** at least 25/50 for the lab part **and** attend at least 7/10 laboratories. An exception may be made if a student attends at least 7 labs and passes overall by more than double what they fail one part by (e.g., if a student scores 23/25 for the lecture part, they may still pass the course if they score at least 54% overall), in such cases the student automatically gets D-. Otherwise, the letter grade is assigned based on the total mark:

%	grade	%	grade
90-100	A+	67-70	C+
85-90	A	63-67	C
80-85	A-	60-63	C-
77-80	B+	57-60	D+
73-77	B	53-57	D
70-73	B-	50-53	D-
		40-50	F
		0-40	R

Note that marks are not rounded (e.g., 79.999999% is still B+ but 80.000000% is A-).

## Academic Integrity

### Plagiarism:

The most common offense under the Academic Code of Conduct is plagiarism which the Code defines as **"the presentation of the work of another person as one's own or without proper acknowledgement"** (Article 16<sup>a</sup>).

This could be material copied word for word from books, journals, internet sites, professor's course notes, etc. It could be material that is paraphrased but closely resembles the original source. It could be the work of a fellow student, for example, an answer on a quiz, data for a lab report, a paper or assignment completed by another student. It might be a paper purchased through one of the many available sources. Plagiarism does not refer to words alone - it can also refer to copying images, graphs, tables, and ideas. "Presentation" is not limited to written work. It also includes oral presentations, computer assignments and artistic works. If you translate the work of another person into French or English and do not cite the source, this is also plagiarism. If you cite your own work without the correct citation, this too is plagiarism.

#### **IN SIMPLE WORDS:**

**DO NOT COPY, PARAPHRASE OR TRANSLATE ANYTHING FROM ANYWHERE WITHOUT SAYING FROM WHERE YOU GOT IT! DON'T FORGET TO USE QUOTATION MARKS!**

(from <https://www.concordia.ca/students/academic-integrity.html>)

## Academic Code of Conduct

### **I. Preamble**

#### **Introduction**

1. The integrity of University academic life and of the degrees, diplomas and certificates the University confers is dependent upon the honesty and soundness of the instructor-student learning relationship and, in particular, that of the evaluation process. As such, all students are expected to be honest in all of their academic endeavours and relationships with the University.

### **III. Offences**

10. Any form of cheating, plagiarism, personation, falsification of a document as well as any other form of dishonest behaviour related to the obtention of academic gain or the avoidance of evaluative exercises committed by a student is an academic offence under this Code.
11. Any attempt at or participation related in any way to an academic offence is also an offence under this Code and shall be dealt with in accordance with the procedures set out in this Code.
12. Without limiting the generality of article 10 above, academic offences include, but are not restricted to, the carrying out or attempting to carry out or participating in:
  - a. personation - assuming the identity of another person or having another person assume one's own identity;
  - b. plagiarism - the presentation of the work of another person as one's own or without proper acknowledgement;
  - c. the contribution by one student to another student of work with the knowledge that the latter may submit the work in part or in whole as his or her own;
  - d. multiple submission - the submission of a piece of work for evaluative purposes when that work has been or is currently being submitted for evaluative purposes in another course at the University or in another teaching institution without the knowledge and permission of the instructor or instructors involved;
  - e. the obtention by theft or any other means of the questions or answers of an examination or of any other University-related resource that one is not authorized to possess;
  - f. the possession or use during an examination of any non-authorized documents or materials or possessing a device allowing access to or use of any non-authorized documents or materials;
  - g. the use of another person's examination during an examination;
  - h. communication with anyone other than an invigilator during an examination or the obtention of any non-authorized assistance during an examination;
  - i. tearing or mutilating an examination booklet, inserting pages into a booklet or taking a booklet from the examination room;
  - j. the falsification of a document, in particular a document transmitted to the University or a document of the University, whether transmitted or not to a third party, whatever the circumstances;
  - k. the falsification of a fact or research data in a work including a reference to a source which has been fabricated. Falsification shall not include those factors intrinsic to the process of academic research such as honest error, conflicting data or differences in interpretation or judgement of data or of experimental design.

#### **IV. Procedures**

##### **Provisions Governing Examinations**

13. It is the duty of an invigilator to take action under the following articles when he or she becomes aware of any suspected academic offense.

##### **Centrally Supervised Examinations**

16. Where an examination is supervised by the Office of the Registrar or where another central supervisory function is available to deal with allegations of offences related to examinations, a student who is suspected of an academic offence shall be so informed by the invigilator and shall be required to leave the examination area.
19. The invigilator shall file an Incident Report with the Dean...

##### **Other Examinations**

20. Where an examination is not supervised by the Office of the Registrar or where another central supervisory function is not available to deal with allegations of offences related to examinations, a student who is suspected of an academic offence shall be so informed by the invigilator and shall be required to leave the examination area immediately. The invigilator shall file an Incident Report ...

##### **Non-Examination Related Offences**

21. An instructor who, in the course of grading a student's work or through any other means, has reasonable grounds to believe that a student in the instructor's course or working under his or her direction has committed a non-examination related offence shall complete a Code of Conduct (Academic) Incident Report ("Incident Report"). The instructor shall forward the Incident Report to the Dean as defined in article 7 of this Code. The instructor may not, on his or her own authority, impose a sanction on the student. Pending the final outcome of any proceedings under this Code, the instructor shall withhold the grade for the course, if applicable.
22. Any administrator of the University who to his or her personal knowledge or upon reliable report has reasonable grounds to believe that a student has committed a non-examination related offence shall complete an Incident Report. The administrator shall forward the Incident Report to the Dean...

## **Sanctions**

41. Within ten (10) days from the conclusion of the hearing, the AHP shall write to the student and the Dean, with a copy to the Registrar and the instructor, if applicable, indicating its decision to dismiss the charge against the student or to impose one or more of the following sanctions:
- a. Reprimand the student;
  - b. Direct that a piece of work be re-submitted;
  - c. Enter a failing grade for the piece of work in question or for the course, if applicable;
  - d. Enter a failing grade and ineligibility for a supplemental examination or any other evaluative exercise for the course;
  - e. Impose the obligation to take and pass courses of up to twenty-four (24) credits in addition to the total number of credits required for the student's program as specified by the AHP. If the student is registered as an Independent student, the sanction will be imposed only if he or she applies and is accepted into a program;
  - f. Impose specified community service at the University of up to ten (10) hours per week for a specified period of time;
  - g. Impose a suspension for a period not to exceed six (6) academic terms. Suspensions shall entail the withdrawal of all University privileges, including the right to enter and be upon University premises;
  - h. Expulsion from the University. Expulsion entails the permanent termination of all University privileges.

In the case of a student who has graduated, the only two available sanctions are i) a notation on the student's academic record that he or she has been found guilty of academic misconduct; or ii) a recommendation to Senate for the revocation of the degree obtained.

(from <https://www.concordia.ca/students/academic-integrity.html>)

Inform yourself, ignorance is not an excuse.

Please show respect for other students by remaining quiet during lectures. If you arrive late or must leave early, do your best to minimize any disruption. I encourage you to ask questions, but if you wish to ask a question or make a comment during class please raise your hand and wait until I call on you (you might have to wave to get my attention); I will do my best to call on you quickly but I may wish to finish a point first, or if I am pressed for time I may have to put off answering you until after the lecture.

Note that you have the right to submit work in French, but in such cases marking may be delayed as am I not fluent in French and will consult with others.

The university offers a wide range of services that can help you to achieve academic success, you should not hesitate to take advantage of them. Here are a few:

**Academic Advisors** are available in each department to assist students with choosing a program, selecting courses, and other issues. If you are in a biology program you can make an appointment to see an advisor by contacting Ms. Leonie Morris at (514) 848-2424 x3400 or [leonie.morris@concordia.ca](mailto:leonie.morris@concordia.ca).

**Concordia Counselling and Development** offers career services, psychological services, student learning services, etc. (they sometimes have free tutoring sessions for BIOL 201 and other introductory courses): <https://www.concordia.ca/offices/cdev.html>

**Biology Research Guide:** <http://www.concordia.ca/library/guides/biology.html>

**Advocacy and Support Services:** <http://www.concordia.ca/offices/advocacy.html>

**Student Resources:** <http://www.concordia.ca/conted/resources.html>

**Access Centre for Students with Disabilities:** <https://www.concordia.ca/offices/acsd.html>

**Student Success Centre:** <http://www.concordia.ca/students/success.html>

**Academic Integrity:** <https://www.concordia.ca/students/academic-integrity.html>

**Financial Aid and Awards:** <http://www.concordia.ca/offices/faao.html>

**Health Services:** <http://www.concordia.ca/students/health.html>