

BIOL 225/4 Form and Function of Organisms

2015-2016 academic year, winter semester (January - April 2016)

3 credits, lecture 02: Tuesday and Thursday 11:45-13:00 in SP-S110 (Loyola campus)

Prerequisite: CEGEP Biology 301 or 101-NYA or Concordia University BIOL 201.

Animal Form and Function (first 13 lectures: 7 January - 18 February)

Dr. Ian M. Ferguson, Senior Lecturer

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Office Hours: Wednesday and Thursday 10:15-11:15, or by appointment

Plant Form and Function (last 13 lectures: 1 March - 12 April)

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Office Hours: by appointment

Please do not ask questions about course material by e-mail, there are too many of you.

Welcome to Biology 225. This course is meant to explore the anatomy and physiology of animals and plants, with an emphasis on how these relate to survival, growth, communication, and reproduction. These topics are considered in the context of the relationships among organisms within each group. The two parts will be taught in succession. Dr. Ferguson will cover animal form and function, Dr. Lee will cover plant form and function. **Please note that not all of the course material will be covered in lecture time, and it is expected that you come prepared by reading the assigned chapters in the textbook before each lecture, and any additional material that the instructors may provide or request that you read.**

Examinations: One quiz (20%) during the animal section and one quiz (20%) during the plant section. One final exam (60%) at the end of the term in April, covering all animal and plant sections lectures. Types of exam may be: Multiple choice; fill in the blanks; match words and statements; true or false statements; labelling diagrams; short definitions or notes. Bring your pencils, note that the use of electronic devices of any kind is not allowed. Quizzes and final exam are compulsory (failure to write a quiz/exam results in '0' for that quiz/exam in the absence of a documented valid reason).

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

Tentative Lecture schedule:

Class Dates	Lecture Topics	Chapters
7 Jan	introduction, An Overview of Animal Diversity	32
12 Jan	Basic Principles of Animal Form and Function	40
14 Jan	Animal Nutrition	41
19 Jan	Animal Nutrition	41
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21 Jan	Circulation and Gas Exchange	42
26 Jan	Circulation and Gas Exchange	42
28 Jan	Circulation and Gas Exchange	42
2 Feb	The Immune System	43
4 Feb	Osmoregulation and Excretion	44
9 Feb	Hormones and the Endocrine System	45
11 Feb	Neurons, Synapses, and Signaling; Nervous Systems	48, 49
16 Feb	Animal Reproduction; Animal Development	46, 47
18 Feb	QUIZ - animal section	
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1 Mar	Plant intro and structure	35
3 Mar	Plant cell architecture	35, 6
8 Mar	Plant cell architecture	35, 36
10 Mar	Transport and translocation of water and solutes	36

15 Mar	Transport and translocation of water and solutes	36
17 Mar	Plant nutrition and photosynthesis	37, 10
22 Mar	Photosynthesis	10
24 Mar	QUIZ - plant section	
29 Mar	Plant growth and development	35, 38
31 Mar	Plant growth and development	35, 38
5 Apr	Plant sensory systems, signals, and responses	39
7 Apr	Plant sensory systems, signals, and responses	39
12 Apr	Plant environment and agriculture	38

* 19 Jan: last day to withdraw with refund (DNE), or to register for course

** 22-26 Feb: Midterm Break

*** 13 Mar: last day for academic withdrawal from course (DISC)

The Final Exam for the combined animal and plant sections will be scheduled in the exam period: 15 April - 1 May.

Optionally students may submit answers to assigned questions at the end of each chapter for a total bonus for the semester of up to +2% (+1% for the animal section, +1% for the plant section). The submission deadline is the start of the first lecture following the one in which the chapter is finished (answers will not be accepted after this).

The required text book is available at the Concordia University Loyola Bookstore:
Campbell Biology, Canadian Edition (Reece et al, 2014)

The course website is available through your MyConcordia portal. It provides this course outline, some lecture note templates, exam marks when available, etc.

Marking

Quiz - animal section:	20%
Quiz - plant section:	20%
Final Exam (combined animal and plant sections):	60%
end of chapter questions	bonus of up to +2%

Grading

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-).

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. We 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 we call on you: we will do our best to call on you quickly but we may wish to finish a point first, or if we are pressed for time we 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 we are 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.

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>

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^a).

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.