

Department of Biology Course Outline

SC/BIOL 2030 4.00 Animals Section M WINTER 2021/2022

Course Description

A study of the diversity of animals, their structure, physiology and evolution. Three lecture hours, three laboratory hours. One term. Four credits.

As of January 21st, this course has become a mixture of virtual and in person activities. Lectures are virtual pre-recorded and posted on eClass until February 14th.

Beginning Feb. 14th Lectures are scheduled to be in-person in Lassonde lecture hall A. Labs are scheduled to be in-person in Lumbers 124 and will Start on January 31st.

The Grading criteria, policies on tests, exam and labs, as well as dates for the assessments have been specifically designed for an in-person delivery of this course.

These may have to be altered if Toronto Public Health and York's Case Management office enforce changes to the course schedule should there be occurrences of COVID -19 cases and/or suspected exposures associated with this course.

Everyone is expected to follow York University's mandated usage of YUScreen and abide by the directions provided in YUScreen.

Prerequisites

SC/BIOL 1010 6.00 or SC/BIOL 1000 3.00 and SC/BIOL 1001 3.00. Course credit exclusions: SC/BIOL 2030 5.00, SC/BIOL 2031 4.00, SC/BIOL 2031 3.00.

Course Instructo	ors and Contact Information		
Course Director:	Dr. Andrew Donini 205 Lumbers Building	adonini@yorku.ca	
Lab Coordinator:	Britney Picinic, PhD Candidate	wb2030@yorku.ca	
Technical Staff:	Krystina Strickler		

Schedule

Lecture Times: Tuesday and Thursday: 8:30 to 10 AM in Lassonde A

Lab Times: There are 12 lab sections. You MUST attend the section that you are officially enroled in. Lab sections are:

Mon, Tues, Weds, Thurs: 6:30 to 9:30pm in Lumbers 124 Tues, Weds, Thurs, Fri: 10:00am to 1:00pm in Lumbers 124 Tues, Weds, Thurs, Fri: 2:30 – 5:30pm in Lumbers 124 Labs are a mandatory component of BIOL 2030 and you <u>must</u> attend the lab section in which you are registered. No exceptions.

Evaluation	
Laboratory Work (quizzes, lab performance, graded dissection):	40%
Term Test 1:	10%
Term Test 2:	10%
Final Exam (In April Formal Exam Period)	40%

Important Dates

Term Test 1:Tuesday, February 8th, 2022Term Test 2:Thursday, March 10th, 2022Laboratories:Labs are Mandatory.There is a lab each week, consult the detailed schedule under
course content in this course outline and/or the laboratory manual

Drop Deadline:March 18th, 2022 (last day to drop without course on transcript)Course WithdrawalMarch 19th to April 10th (course still appears on transcript with "W")

NOTE: for additional important dates such as holidays, refer to the "Important Dates" section of the Registrar's Website at https://registrar.yorku.ca/enrol/dates/

Resources

Textbook: Hickman, CP, SL Keen, A Larson, D Eisenhour. Animal Diversity, 9th (2021) or 8th (2018) Editions. McGraw Hill, Toronto.

Laboratory Manual: YORK SC/BIOL 2030 4.0 Animals Winter 2022 Laboratory Manual Course Director: Dr. Andrew Donini Lab Coordinator: Britney Picinic

eClass website: Lecture slides will be posted AFTER class. Extra Lab Resources are posted for each lab.

Learning Outcomes

Upon successful completion of this course, students should be able to:

- 1. Describe what is an animal using specific characteristics that unify the group.
- 2. Describe the diversity of animals in terms of structure and habitats.
- 3. Define the major animal phyla based on their respective major unifying characteristics.
- 4. Describe, with specific examples, how animal body form and structure relates to function.
- 5. Describe, using examples, how animals can impact human health.
- 6. Describe the evolution of vertebrate animals from aquatic ancestors to terrestrial forms.
- 7. Explain physiological mechanisms that specific animals have evolved for ion and water balance.
- 8. Explain the reproductive strategies that specific animals possess.
- 9. Describe the different developmental and life strategies that animals possess.
- 10. Possess hands-on skills in the following areas:
- Procedures related to microscopic observation and determination of unicellular eukaryote morphology, size and architecture as well as metazoan size, morphology and architecture
- Procedures related to the microscopic observation of animal cell and tissue types
- Procedures related to macroscopic observation of animal size, morphology and architecture, including

the isolation, identification and arrangement of internal organs and organ-systems

Course Content

The purpose of this course is to introduce you to the diversity of animals. We discuss the lifestyles of animals, relationships between structure and function, and the evolutionary history of the kingdom Animalia. In this course, we consider both living and fossil forms, surveying the basic approaches to living, across a range of phyla. General topics for consideration include phylogeny and development, as well as the systems involved in support, locomotion, feeding, digestion, circulation, communication, osmoregulation, gaseous exchange, reproduction and sensory operations.

Veek:	Class	Торіс	Lab
1	Jan. 11	Introduction	None
	Jan. 13	Animal Classification and Architecture	
2	Jan. 18	Unicellular Eukaryotes	None
	Jan. 20	Porifera	
3	Jan. 25	Cnidaria	
	Jan. 27	Acoelomate Bilateria I	
4	Feb. 1	Acoelomate Bilateria II	Lab 1
	Feb. 3	Pseudocoelomates	Unicellular Eukaryotes
5	Feb. 8	TERM TEST 1	Lab 2
	Feb. 10	Mollusca	Porifera, Cnidaria
6	Feb. 15	Annelida	Lab 3
	Feb. 17	Arthropoda I	Nematodes, Platyhelminthes
7	Feb. 21	READING WEEK	
8	Mar. 1	Arthropoda II	Lab 4
	Mar. 3	Echinodermata	Mollusca
9	Mar. 8	Vertebrate Beginnings	Lab 5
	Mar. 10	TERM TEST 2	Annelida Marked Dissection 1
10	Mar. 15	Fishes I	Lab 6
	Mar. 17	Fishes II	Arthropoda
11	Mar. 22	Amphibians	Lab 7
	Mar. 24	Reptiles	Echinodermata & Chordata I
12	Mar. 29	Birds	Lab 8 and 9
	Mar. 31	Mammals	Chordata This is a virtual Lab with eClass quiz
13	Apr. 5	Review	Spare
	Apr. 7	Spare]

Experiential Education and E-Learning Accessory Laboratory materials (images, videos), Lecture slides on eClass

Other Information

Who do I ask what?

The **Course Director** (Dr. Andrew Donini) will be teaching the course and is the person to ask any questions pertaining to the lectures. Dr. Donini can also help with lab material related questions BUT students are encouraged to first ask your TA about lab related material.

The **Lab Coordinator** (Britney Picinic) organizes the labs, lab scheduling, lab marking, TA meetings ahead of labs, student attendance in labs.

Take note of your **TA's** name! Your TA runs your lab section, administers your quizzes, decides your lab performance grade, marks your graded dissections. Your TA is the first person you should ask lab material related questions to.

Course Policies

Term Test Policy: READ CAREFULLY and ENTIRELY

- There are 2 term tests, Term Tests 1 & 2. Term Test 1 is on February 8th 2022 and Term Test 2 is on March 10th 2022. Both Term Tests will be held during regularly scheduled class time and will examine students on lecture material only (i.e. no lab material). Term Test 1 is virtual on eClass. Term test 2 is in person.
- There are NO make-up tests for Term Tests 1 and 2
- The combined weight of Term Tests 1 & 2 is 20% of the final course grade.
- If you write both tests, the test in which you earn the higher grade will be worth 15% of the final course grade and the test in which you earn the lower grade will be worth 5%.
- If you miss <u>either</u> Test 1 (on Feb. 8th) or Test 2 (on Mar. 10th) (but not both), the test you wrote will continue to be worth 10% and the weight of the missed test will be transferred to the final exam (Final exam worth 50%).
- If you miss both tests you will earn a ZERO for 10% of the final course grade and your final exam will be worth 50%.

Note: No documentation or reason is requested or required if you miss either (or both) Term Tests 1 and/or 2 and there are <u>no make-up tests</u>. If you choose to enter the test room and then leave before completing the test, your test will be graded and you will receive the determined grade for the test. The Final Exam will have lecture material evenly sourced from the entire term.

Policy for a Missed Final Exam:

- If you miss the final exam you must petition for deferred standing. Information and instructions with forms can be found at http://myacademicrecord.students.yorku.ca/deferred-standing
- You Must hand the deferred standing form to the course director within 7 days of missing the exam along with an explanation for the reasons for missing the exam.
- The format for a deferred final exam may be different from the original format of the exam.

Policy for Laboratories: READ CAREFULLY AND ENTIRELY

LABORATORIES ARE MANDATORY AND YOU MUST ATTEND THE LABORATORY SECTION THAT YOU ARE OFFICIALLY ENROLLED IN.

There are 8 labs which you are required to complete. **As of January 6**th there are 7 in person labs and 1 virtual lab with a virtual test (Labs 8 and 9 in the lab manual have been combined into 1 virtual lab).

• Each in person lab will be graded out of 10 (lab quiz worth 5, lab performance worth 5). The combined virtual lab will be graded by the virtual test. If you complete all 8 labs, the 2 labs in which you received the lowest grade will be dropped and the remaining 6 labs will be used to calculate your overall lab grade which is worth 37% of the final course grade.

- Lab 5 also includes a graded dissection marked out of 10. Hence, Labs 5 is graded out of 20. The graded dissection is worth 3% of the final overall course grade.
- There are No make-up labs and No make-up graded dissections for individual students.
- Make-up labs or make-up graded dissections may be run on the last week of classes where an entire lab section's lab has been cancelled during the term due to unforeseen circumstances (ie. snow cancellation; under the order of Toronto Public Health)

What if I have to miss a lab because of YUScreen guidance (illness):

- No documentation or reason is requested or required for up to 2 missed labs.

- If 2 or fewer labs are missed your lab grade will be the average of all completed labs (in person and virtual) (unless you don't miss any labs then see above)

- If more than 2 labs are missed, then a zero will be earned on every subsequent missed lab (beginning with the 3rd missed lab, this applies to in person and virtual). If you fall into this category you are encouraged to contact the lab coordinator to discuss.

- If the graded dissection is missed your overall lab grade will be applied to the missed graded dissection.

COVID-19 Related Disruptions to the Delivery of this course:

It is plausible that sometime during the delivery of this course a disruption to parts (ie. specific lab sections) or the entire course may occur. If this happens every attempt will be made to accommodate all that are affected in a fair and reasonable method; however, please keep in mind that we cannot offer any make-up labs or make-up marked dissections for individual students because we don't have the capacity to do so.

University Policies

Academic Honesty and Integrity

York students are required to maintain the highest standards of academic honesty and they are subject to the Senate Policy on Academic Honesty (<u>http://secretariat-</u>

policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/). The Policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and of the student to abide by such standards.

There is also an academic integrity website with comprehensive information about academic honesty and how to find resources at York to help improve students' research and writing skills, and cope with University life. Students are expected to review the materials on the Academic Integrity website at - http://www.yorku.ca/academicintegrity/

A note on sharing assignments, tests, exams:

Numerous students in Faculty of Science courses have been charged with academic misconduct when materials they uploaded to third party repository sites (e.g. Course Hero, One Class, etc.) were taken and used by unknown students in later offerings of the course. The Faculty's Committee on Examinations and Academic Standards (CEAS) found in these cases that the burden of proof in a charge of aiding and abetting had been met, since the uploading students had been found in all cases to be wilfully blind to the reasonable likelihood of supporting plagiarism in this manner. Accordingly, to avoid this risk, students are urged not to upload their work to these sites. Whenever a student submits work obtained through Course Hero or One Class, the submitting student will be charged with plagiarism and the uploading student will be charged with aiding and abetting. Note also that exams, tests, and other assignments are the copyrighted works of the professor assigning them, whether copyright is overtly claimed or not (i.e. whether the © is used or not). Scanning these documents constitutes copying, which is a breach of Canadian copyright law, and the breach is aggravated when scans are shared or uploaded to third party repository sites.

Access/Disability

York University is committed to principles of respect, inclusion and equality of all persons with disabilities across campus. The University provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and

programs at York University.

Student's in need of these services are asked to register with disability services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with each professor to discuss your accommodation needs. Please note that registering with disabilities services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs.

Additional information is available at the following websites:

Counselling & Disability Services - http://cds.info.yorku.ca/

Counselling & Disability Services at Glendon - <u>https://www.glendon.yorku.ca/counselling/</u> York Accessibility Hub - <u>http://accessibilityhub.info.yorku.ca/</u>

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. Should any of the dates specified in this syllabus for an in-class test or examination pose such a conflict for you, contact the Course Director within the first three weeks of class. Similarly, should an assignment to be completed in a lab, practicum placement, workshop, etc., scheduled later in the term pose such a conflict, contact the Course director immediately. Please note that to arrange an alternative date or time for an examination scheduled in the formal examination periods (December and April/May), students must complete and submit an <u>Examination Accommodation Form</u> at least 3 weeks before the exam period begins. The form can be obtained from Student Client Services, Student Services Centre or online at http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf

Student Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at - http://secretariat-policies.info.yorku.ca/policies/disruptive-andor-harassing-behaviour-in-academic-situations-senate-policy/