

Syllabus BIOL339

General Course Information

BIOL 339: Animal Physiology 3.0 CR Pre-requisites: BIOL 205/3.0 or BCHM 218/3.0

Instructor Information

Information on the teaching team is available via the course website, accessible to all students enrolled in the course.

Important University Dates

Visit <https://www.queensu.ca/artsci/events> for an up-to-date list of important dates. At present, these are the dates available to us.

- September 1, 2023 **Fall Term begins**
- September 4, 2023 **Labour Day** (no class)
- September 5, 2023 **Fall term classes begin**
- September 18, 2023 **Last date to drop Fall Term classes without financial penalty**
- September 18, 2023 **Last date to add Fall Term classes**
- October 9 to October 13, 2023 **Fall mid-term break**
- October 30, 2023 **Last date to drop Fall Term classes without academic penalty**
- November 7, 2023 **Last date to apply for accommodation for an official examination conflict for the December examination session.**
- December 5, 2023 **Fall term classes end**
- December 6, 2023 **Fall Term study period**
- December 7, 2023 to Thursday December 21, 2022 **Fall Term examinations**

Welcome Message

Welcome to Animal Physiology. On behalf of the teaching team, I am very happy to be back in person and look forward welcoming students back to the classroom. I very much favor approaches that let a student choose how they want to engage with the material. However, at the end of the course, the expectation is that you have learned the basic principles of animal form and function and are able to apply them to novel situations.

Equity, Diversity, and Inclusivity Statement

Queen's University recognizes that the values of equity and diversity are vital to and in harmony with its educational mission and standards of excellence. It acknowledges that direct, indirect and systemic discrimination exists within our institutional structures, policies and practices and in our community. These take many forms and work to differentially advantage and

disadvantage persons across social identities such as race, ethnicity, disability, gender identity, sexual orientation, faith and socioeconomic status, among other examples.

Land Acknowledgement

We acknowledge that Queen's is situated on traditional Anishinaabe and Haudenosaunee territory. We are grateful to be able to live, learn and play on these lands. – [Four Directions Indigenous Student Centre, Queen's University](#)

Expectations

Throughout this course, there will be opportunities for you to interact with your instructor and your classmates. It may not seem like it, but I am thrilled when students want to engage me on the material, and happy to have students drop in to my office to chat about the course or their academic interests. My hope is that students are willing to put in the effort necessary to learn the material and see the opportunities in applying what they have learned to novel scenarios.

Students will interact with their peers and have opportunities to learn from their colleagues during learning activities that include collaborative quizzes. You are expected to behave with integrity and respect at all times both in face-to-face interactions and when engaging with each other online. See the netiquette and discussion guidelines below which I expect each of us to adhere to when interacting with one another whether in person or online.

The nature of the support in the course depends on the problems students encounter. There are OnQ Discussion forums to post most questions about how the course runs as well as general questions about the material. We emphasize these forums so that the whole community can learn together.

Course Learning Outcomes

The goals of Biology 339 are to provide students with a comprehensive appreciation of physiological processes under the unified themes of following:

1. Identify the components of the different physiological systems and their chemical and physical basis.
2. Discuss how systems arise from the integration of processes at different biological levels of organization, spanning molecular, cellular, organs, and whole animals.
3. Explain how homeostasis is maintained in various systems through hormonal regulation and feedback pathways.
4. Discuss the evolutionary diversity in specific physiological systems of animals.
5. Explain how animals deal with environmental stress, particularly temperature, water, osmotic and oxygen limitations.
6. Compare and contrast short-term and evolutionary solutions to physiological challenges.

Course Materials

The following textbook is recommended, with an e-version available from the campus bookstore. **Moyes, CD and Schulte PM. 2016. Principles of animal physiology. Third edition. Pearson. San Francisco.**

The Core Content of the course will be available via recorded lectures, with slides and transcripts available. These are provided to save students the trouble of writing down what is said in the lecture and to minimize confusion about specifics. However, the notes should be treated as a starting point for you to collate and reorganize in ways that support your learning. Students often augment scripts with their own notes, adding in comments, hyperlinks, definitions - anything that helps you flesh out the story.

Live lectures will be supported by slides posted in advance. These lectures are not recorded but are examinable. The point of this approach is to promote your ability to listen and distill lectures into the important ideas.

Course Timeline

The specific events in the course are available on the course homepage, but an abbreviated version is below.

- Week 1 Introduction to Physiology
- Unit 1: Weeks 2 & 3 Physiological Principles
- Unit 2: Weeks 4 & 5 Nervous systems
- Unit 3: Weeks 6 & 7 Energy, Muscles and locomotion
- Unit 4: Weeks 8 & 9 Cardiorespiratory physiology
- Unit 5: Weeks 10 & 11 Homeostasis
- Week 12 Final Assessment

Suggested Time Commitment

In this course, you should expect to invest on average 8 to 10 hours per week. This will include the time you spend in class, studying course material, and completing weekly homework or preparing for your assessments. You are encouraged to use a term at a glance and a weekly study schedule (visit [SASS](#)) that distributes the 8-10 hours per week and avoid 'cramming'. This way you will be more likely to complete the course successfully and remember what you learned longer.

Timing of Final Examinations

The exam dates for each Term are listed on the Faculty of Arts and Science webpage under [Important Dates](#). Student exam schedules for the Fall Term are posted via SOLUS immediately prior to the Thanksgiving holiday; they are posted on the Friday before Reading Week for the Winter Term and for the summer term, they are individually noted on the Arts and Science Online syllabi. **Students should delay finalizing any travel plans until after the examination schedule has been posted. Exams will not be moved or deferred to accommodate employment, travel/holiday plans or flight reservations.**

Assessment

- **Content Quizzes:** 25 marks from 5 End-of-Unit Quizzes. These are based on your mastery of the recorded lectures, which we treat as the Core Content. The quizzes are open for several weeks, and must be completed by the deadline of Wed, 5 PM.
- **Collaborative Quizzes:** 45 marks from 5 quizzes. The first 3 are Group Quizzes, worth 5 marks each. For these, you work in a group of your choosing and submit a single Group Answer sheet. The last 2 quizzes (15 marks each) begin with a brief discussion phase, before completing the quiz on your own.
- **Midterm Assessment:** 30 marks for an in-class midterm coming after Unit 3.
- **Final Exam:** There is no required final exam for students who have completed everything. There is a final exam set up to be available for students who missed up to 35 marks worth of assessments.

Essential requirements and flexibility to succeed

Assignments in this course have been designed with flexibility for academic consideration for all students. We encourage all students to complete the various assessments. With the exception of the OnQ Content Quizzes, all other assessments are in-class, and completed without the aid of notes or internet.

- The Content Quizzes have wide windows and firm deadlines, and no extensions are possible.
- If a student misses other activities by choice or circumstance, they will be entitled to make up those missed marks via a final exam. There is no need to secure paperwork, and no need to confirm with Prof Moyes. However, there is a limit of 35 marks worth of missed activities.
- If you have long-term issues that prevent you from completing more than 35 marks worth of activities, these will be handled on a case-by-case basis but will require supporting documentation.

Grading Scheme and Grading Method

All activities in this course will be assessed with a numerical grade. Your course average will then be converted to a final letter grade according to Queen's Official Grade Conversion Scale:

Grade	Numerical Course Average (Range)	Grade	Numerical Course Average (Range)
A+	90-100	C+	67-69
A	85-89	C	63-66
A-	80-84	C-	60-62
B+	77-79	D+	57-59
B	73-76	D	53-56
B-	70-72	D-	50-52
		F	49 and below

Questions about the Course and Contacting the Teaching Team

Please post any questions about content and logistics to the appropriate Help forum, where everyone can benefit from the exchanges. Requests that are confidential or urgent should be directed to the Course Coordinator, via the email posted on the course website.

Course Announcements

Any changes to the course or any other form of announcements are made via the course homepage. Students in the course are encouraged to sign up to automatically receive a notice that an new announcement has been posted.

Course Feedback

At various points during the course, I may ask you to take part in a variety of feedback activities, such as surveys, questionnaires, and exit tickets. This feedback enables the teaching team to make any adjustments necessary to improve your learning environment. Additional feedback will be sought throughout the course. All surveys are anonymous and are directly related to activities, assessments, and other course material.

Accommodations for Disabilities

Queen's University is committed to achieving full accessibility for people with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all their academic activities. The Senate Policy for Accommodations for Students with Disabilities was approved at [Senate in November 2016](#). If you are a student with a disability and think you may need academic accommodations, you are strongly encouraged to contact the **Queen's Student Accessibility Services (QSAS)** and register as early as possible. For more information, including important deadlines, please visit the [QSAS website](#).

For students with Letters of Accommodation for time- and space-based considerations, these apply to the Midterm (and Final, if needed). The Collaborative Quizzes, by their nature, require interacting with other students in class, and as such, space-based accommodations are not appropriate. However, extra time will be available to all students.

Academic Consideration for Students in Extenuating Circumstances

For this course, most students can dispense with all of the paperwork that is typically needed to support extenuating circumstances. Students can miss any activities, by choice or circumstance, and make up those missing marks via a Final Exam to a maximum of 35 missed marks.

Academic Integrity

Many of the activities in the course are designed around peer-based learning. We create these activities to help you engage each other in a collaborative setting. With other activities, you are expected to demonstrate your individual mastery of the material, and because of this, you are expected to complete the work on your own.

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments and conduct conform to the principles of academic integrity. Information is available in the Arts and Science Calendar¹ (see on the Arts and Science website², and at Biology's website³. Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulations on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

Copyright of Course Materials

Unless otherwise stated, the material on the course website is copyrighted and is for the sole use of students registered in BIOL339. The material on the website may be downloaded for a registered student's personal use but shall not be distributed or disseminated to anyone other than students registered in this course.

Technology Requirements

We do not foresee using Turnitin or remote proctoring.

¹ <http://www.queensu.ca/artsci/academic-calendars/regulations/academic-regulations>,

² <http://www.queensu.ca/artsci/academics/undergraduate/academic-integrity>

³ <http://www.queensu.ca/biology/undergrad/integrity.html>