



BIOL*1070 Discovering Biodiversity

Winter 2022

Section(s): 01

Department of Integrative Biology

Credit Weight: 0.50

Version 1.00 - January 10, 2022

1 Course Details

1.1 Calendar Description

This course strongly emphasizes the development of learning and reasoning skills, an understanding of the nature of biological inquiry, and key concepts in evolution, ecology, and organismal biology. These include the meaning and significance of biodiversity and current issues surrounding it, the evolutionary processes through which biological diversity originates and is interrelated, the complexity of organisms and the importance of physical organization and regulatory processes, and the nature of interactions among organisms and between organisms and their biotic and abiotic environments. Students lacking Grade 12 or 4U Biology should consult with their program counsellor prior to taking BIOL*1070 in first semester.

1.2 Course Description

BIOL*1070 – Discovering Biodiversity strongly emphasizes learning and reasoning skills, biological inquiry, and key concepts in evolution, ecology, and organismal biology. Topics discussed in the course include: the meaning and significance of biodiversity, current issues surrounding biodiversity, the evolutionary processes through which biological diversity originates and is interrelated, the complexity of organisms, the importance of physical organization and regulatory processes, the nature of interactions among organisms, and the nature of interactions between organisms and their biotic and abiotic environments.

This course complements the two other first-year biology courses, BIOL*1080 and BIOL*1090.

1.3 Timetable

Please Note: All times reported in Eastern Time (Guelph, Ontario, Canada).

Lectures: Begin Monday January 10, 2022

- Live (synchronous) virtual lectures during scheduled lecture times on Monday and Wednesday, 2:30-3:20pm, using Zoom.
- After each lecture, a recording of the lecture and the lecture slides will be posted to Courselink for asynchronous viewing by students.
- Please note: these recordings are not intended to replace the synchronous learning experience. They are designed to be used for review or catching up should you miss an occasional lecture.

Seminars: Begin Monday January 10, 2022

- Seminars will be delivered either synchronously (live over Zoom) or be completed asynchronously.
- Synchronous (live) seminars will occur during scheduled seminar times, using Zoom
 - Monday-Thursday, beginning at 10:30am-3:30pm; see WebAdvisor for your specific seminar section that you are registered in.
 - Please ensure that you register for a seminar time that you are able to attend virtually when these synchronous seminars occur throughout the semester.
- Asynchronous seminars will also occur throughout the semester and be completed on your own time, ensuring assignment is handed in by the due date.
- Please see below section entitled "Seminars and their Content" for more details

This course has adopted the following practices to increase accessibility and inclusivity. If your success in learning requires additional support, please let us or your SAS counsellor know.

Accessibility and Inclusivity Practices:

- Early access to the Courselink site. We will open it up to students on January 5th,

2022. Take a look around, get to know it.

- 'Triple time' for all time-limited assessments such as tests. This means that every student will be given three times the amount of time that it would take an average class to complete a test.
- Earlier deadlines with some flexibility. All of our deadlines are set to 10 PM so that you have access to at least 8 hours of sleep between the deadline and your next early morning class. However, if you hand it in a bit after the 10 PM deadline, it's fine. Just please make sure to get some sleep.
- Student hours following class time. We did a study! It turns out that students prefer to access their professors right after class. When we were all in the same room, there used to be really long lines to talk with us. So, what we do now is schedule our students hours to follow class time. Just stay with us on the same zoom link used for lecture and join in the discussion.
- Instruction in multiple formats. Learning is hard and we are firm believers in 'just because we've said it, doesn't mean you've learned it'. To help, we have multiple ways for you to engage with the material. You can learn things on your own, using google searches and YouTube videos, you can read along with the courselink content, you can watch our instructional videos for assignments, you can join in synchronous classes (please do, they are pretty fun), or you can watch the recording at your own pace.
- We use live closed captioning for all synchronous lecture sessions.
- Slides will be posted a few minutes before class.
- You are welcome to keep your video on or off. You choose.
- We use a chat within courselink for synchronous sessions because then you can go back and read through it.
- We will develop a collaborative asynchronous study tool for each of the Topic Tests. The more of you that use it authentically, the better it will be for everyone.
- All classes will begin with some music and a collaborative colouring or puzzle activity.
- All pets must be introduced to the rest of us. You will likely meet ours.
- All family members welcome, including children. You will likely meet ours.

1.4 Final Exam

There is no final exam in this course. Instead, you will write 3 Topic Tests throughout the semester. Please ensure that you know when these tests are and have freed up a three hour block between 9am and 6pm within which to write the test. The dates are as follows: TOPIC TEST 1: February 4, 2022; TOPIC TEST 2: March 11, 2022; TOPIC TEST 3: April 8, 2022

These dates can also be found in the Course Schedule on the Biol*1070 Courselink page. The tests will be available to access between 09.00am and 06.00pm and will be open to you for 3 hours once you begin. If you would like the full 3 hour window, please make sure that begin the test by at least 03.00pm. This is to ensure that the teaching team is available to answer any questions or address technological concerns while you are taking the test.

2 Instructional Support

2.1 Instructional Support Team

Instructor: Shoshanah Jacobs
Office: virtually, using Zoom

Office Hours:

- Virtual student hours will be held immediately following lecture on Monday and Wednesday, using Zoom.
- Simply stay in the Zoom meeting for the lecture to ask your lecture or online reading related questions!
- Courselink chat will be available during lecture as an avenue for students to ask questions.

Instructor: Alex Smith
Office: virtually, using Zoom

Office Hours:

- Virtual office hours will be held immediately following lecture on Monday and Wednesday, using Zoom.
- Simply stay in the Zoom meeting for the lecture to ask your lecture or online reading related questions!
- Courselink chat will be available during lecture as an avenue for students to ask questions.

Course Co-ordinator: Belinda Ward-Campbell
Email: biol1070@uoguelph.ca
Office: virtually, using Zoom

Office Hours:

- Virtual office hours will be held immediately following lecture on Monday and Wednesday, using Zoom.

- Simply stay in the Zoom meeting for the lecture if you have any seminar-related questions!

Course Co-ordinator: Emily Martin
Email: biol1070@uoguelph.ca
Office: virtually, using Zoom

- Office Hours:**
- Virtual office hours will be held immediately following lecture on Monday and Wednesday, using Zoom.
 - Simply stay in the Zoom meeting for the lecture if you have any seminar-related questions!

3 Learning Resources

This course does not require textbooks.

Any readings or materials that you will need will be provided to you in Courselink.

However, all the information in any textbook is freely available using careful Google searches! We'll teach you how.

If you do have a budget for books and would like to dive into something that supports your learning in any course while supporting the authors who write these important books, we strongly recommend:

Kimmerer, R. (2013). Braiding sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants (First edition.). Milkweed Editions.

If you do not have a budget for books, this book is available in online format through the University of Guelph library. Check it out!

3.1 Required Resources

Courselink (Website)

- <https://courselink.uoguelph.ca>
- This course makes extensive use of Courselink, the University of Guelph's online learning environment. The course website will provide information and

updates about the course, including background information on the inquiry cases, schedules, quizzes, discussions, and tracking of your progress.

Zoom (Software)

<https://zoom.us>

- Students registered in the course must register for a free basic Zoom account in order to attend the synchronous Zoom meetings for lectures, seminars, virtual office hours, and virtual one-on-one meetings with students.
- Please visit <https://zoom.us> to register for a free basic Zoom account using your University of Guelph email address (Gryphmail).
- It is very important that you use your Gryphmail to register for your account and not any other email address (like a Gmail account) or Facebook.

MICROSOFT OFFICE - ESPECIALLY WORD AND EXCEL (Software)

- Students will require access to this entire software suite in order to complete course assignments requiring word processing, spreadsheet, and data analysis capabilities.
 - Students will be required to use the desktop version of **MS Excel** that can be downloaded from the University and is free for students
- If students use other similar software, please ensure that you save your files in the required file format according to the assignment instructions.
- Microsoft Office 365 is free for download by students at the University of Guelph. See the information on courselink and video about how to download this software.
- Chrome Book users will not be able to download the full suite onto their devices due to the limitations of the device. Computer stations are available in the library and in other locations on campus to access the software.

3.2 Recommended Resources

High speed internet connection (Equipment)

- Although high speed connection to the internet is not required, it is highly recommended so that a better online experience with the tools, videos, and other materials used in the course can be achieved.

4 Learning Outcomes

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. Explain the central concepts of biodiversity, methods of analysis, and its ecological and societal importance.
 2. Develop accurate conceptions of evolutionary processes and patterns (especially natural selection and “tree thinking”), and to correct common misconceptions about evolution.
 3. Construct a conceptual framework that explains some of the causes and consequences of forest diversity.
 4. Describe the interactions between organisms and their biotic and abiotic environments and be able to apply these concepts to real-world examples.
 5. Organize and analyze data that characterize biological variation, patterns and relationships.
 6. Interpret complex graphs and figures and be able to choose appropriate graphs and figures to illustrate different types of data.
 7. Practice the process of biological inquiry using scientific methods and reasoning using real examples.
 8. Appreciate the integrative nature of modern biological science.
 9. Develop a level of comfort with the complexity and uncertainty inherent in biological science.
-

5 Teaching and Learning Activities

The course will focus primarily on skills development and the process of inquiry entrenched within the meaning, significance, and current issues surrounding biodiversity. These will be underpinned by core concepts in the topics of evolution, ecology and physiology that will be introduced and reinforced throughout the course.

Skills:

1. To develop capabilities for independent study and research.
2. To develop the ability to assess and analyze biological information.
3. To reinforce numeracy skills by developing a broader knowledge base of data spreadsheets, statistical analyses and data presentation.

4. To understand and practice the process of biological inquiry using scientific methods and reasoning.
5. To develop skills for working in groups cooperatively and efficiently.
6. To develop effective communication skills.

5.1 Concepts

Evolution:

1. The processes by which biodiversity originates and is interrelated (evolution, with emphasis on natural selection and “tree thinking”).
2. Variability occurs at multiple levels: variation (population) vs. diversity (species) and may be visible (phenotypic) or not necessarily visible (genetic).
3. Causes and consequences of variation at population & species level.
4. The factors determining, relatedness and phylogeny, genetic isolation.
5. Adaptation and the pros/cons of specialization, invasions and radiations.
6. Consequences for competition (short-term, among conspecifics or between species), speciation (long-term), and extinction risk (long-term).

Ecology:

1. The nature of interactions among organisms and between organisms and their biotic and abiotic environments at the ecological scale.
2. Variability is expressed at different levels of organization (ecosystems, populations/species, and individuals).
3. Causes of diversity at each level can be understood by studying the processes operating in the levels below; the consequences of diversity can be examined as they affect diversity in the levels above.
4. Ecosystem diversity is known to vary both in space and time. Historical processes affect the dynamics of species diversity.
5. Understanding the complexity of variables associated with the causes and consequences of diversity.
6. Uncertainty in current dogma and the putative effects of anthropogenic change.

Physiology:

1. The complexity of organisms and the importance of physical organization and regulatory processes (e.g., information flow, structure/function, development).
2. Changes in the external environment impacts organisms. Organisms i) exchange molecules with the external environment, ii) regulate internal environment (homeostasis) through feedback mechanisms, iii) regulate, others conform to specific environmental parameters.
3. Organisms are organized in a hierarchy from cells to tissues to organs to organ systems. Structural features at all levels of organization have functional significance.
4. Plants respond to environment changes; circadian rhythms, dormancy, temperature stress.
5. Animals respond to temperature changes differently depending on their thermal group (endothermy, ectothermy): methods of heat transfer; metabolic rate changes with animal size, activity, temperature; strategies to cope with extreme cold in ectotherms and endotherms; time frame of responses (acute, chronic, evolutionary time).
6. Impacts of climate change in arctic organisms include factors such as physiological change, geographic range and ecosystem disruption.

5.2 Virtual Lectures and their Content

Please note: All times reported are Eastern Time (Guelph, Ontario, Canada).

- Two 50-minute virtual interactions per week (2:30-3:20 PM on Monday and Wednesday), with two Professors, using Zoom.
- Real-time closed captioning of these lectures will be provided to students.
- These virtual interactions will focus on discussion and application of the online readings on the topics of Evolution, Ecology, and Physiology that explore both skills and major concepts.
- The first topic: Evolution, will use a case study entitled “Invasion! Mussels of the Great Lakes Regions”, that is based on a serious and current concern about loss of biodiversity in mussel species in the Great Lakes and watersheds. Key concepts in evolution will be discussed in the context of an urgent biological, environmental and societal issue in Ontario.
- The second topic: Ecology, will use a case study entitled “Forest Biodiversity”, that is based on controversial issues surrounding species diversity in forests and

conservation biology. Key concepts in evolution and ecology will be discussed within the framework of current ideas about forests.

- The third topic: Physiology, will use a case study entitled “An Arctic Ecosystem 8° C Warmer”, that concerns climate change and the impact on arctic organisms. Key concepts in evolution, ecology, and physiology will be integrated into a discussion of the impact of temperature change in the short and long-term on individuals, populations and the ecosystem.

5.3 Seminars and their Content

Virtual, synchronous seminars during scheduled seminar times:

- **Students must register for a seminar section that they are able to attend in person or virtually.**
- These synchronous seminars will occur throughout the semester.
- Synchronous seminars will be conducted using Zoom.
- Students must register for a seminar section that they are able to attend virtually.
- Students will meet with a graduate student Teaching Assistant (GTA) and the same group of ~30 students. Students will be organized into groups of 3 students for activities and discussions during these seminars and these groups will work on group assignments in seminar together as well as a group assignment (the Interdisciplinary assignment).
- TAs will take students through the process of scientific inquiry, using a digital forest as a model for inquiry.

Please note: All times reported are Eastern time (Guelph, Ontario, Canada).

Asynchronous seminars:

- Can be completed by students on their own time, while ensuring to complete the seminar and hand in associated assignment by the due date.
- These asynchronous seminars will occur throughout the semester.
- These seminars will emphasize skills development associated with scientific inquiry, such as using Excel software for data management and analysis, as well as scientific writing skills.

6 Assessments

6.1 Marking Schemes & Distributions

Name	Scheme A (%)
Pre-lecture Reading Quizzes (11 at 1% with lowest quiz mark dropped)	10
Seminar Assignments (lowest mark of these Assignments dropped)	15
Topic Test #1: Evolution	15
Topic Test #2: Ecology	15
Topic Test #3: Physiology	15
Effect of Pesticide Project (EPP)	15
Interdisciplinary Assignment (IA)	10
Squirrel Life Project	5
Total	100

6.2 Assessment Details

Pre-lecture Reading Quizzes (11 at 1% with lowest quiz mark dropped) (10%)

Date: Throughout the semester, Online

Learning Outcome: 1, 2, 3, 4, 5, 6, 7, 8, 9

- Reading quizzes will test student knowledge of online readings in the topics of Evolution, Ecology, and Physiology.
 - Each topic is presented in parts: Evolution - 3 parts, Ecology - 4 parts, Physiology - 4 parts, with an associated reading quiz for each part of each topic (total of 11 quizzes)
- Students will read the assigned reading for each week (in Content in Courselink) and complete the associated quiz in Courselink prior to lecture on Mondays.
- Quizzes have a deadline of Mondays at 9:30 AM Eastern Time.
- Please see the Course Schedule posted in Courselink for further details.

Seminar Assignments (lowest mark of these Assignments dropped) (15%)**Due:** Throughout the semester, Online**Learning Outcome:** 3, 4, 5, 7, 9

- Various topics and skills will be assessed.
- Assignments associated with Asynchronous seminars are completed individually and are in the form of either a quiz completed in courselink or an assignment to be handed in.
- All quizzes and assignments are due on Fridays at 10:00 PM Eastern Time.
- Assignments will be submitted online for grading (to Dropbox) if applicable.
- Some seminar assignments are completed in seminar groups and due at the end of your seminar. This assignment will be submitted online for grading (to Dropbox) and all members of the group will receive the same grade on the assignment.
- Please see the Course Schedule posted in Courselink for more detail on seminar assignments.

Topic Test #1: Evolution (15%)**Date:** Fri, Feb 4, Online - Courselink Quizzes**Learning Outcome:** 1, 2

- This first Topic Test will cover the online pre-lecture readings and lectures associated with Topic #1 - Evolution
- This test will be administered through Quizzes in Courselink.
- Please see the course schedule for more details.
- More details regarding the Topic Tests will also be discussed with students closer to the dates of these tests.

Topic Test #2: Ecology (15%)**Date:** Fri, Mar 11, Online - Courselink Quizzes**Learning Outcome:** 1, 3, 4, 6

- This second Topic Test will cover the online pre-lecture readings and lectures associated with Topic #2 - Ecology
- This test will be administered through Quizzes in Courselink.
- More details regarding the Topic Tests will be discussed with students closer to the dates of these tests.

Topic Test #3: Physiology (15%)**Date:** Fri, Apr 8, Online - Courselink Quizzes

- This third Topic Test will cover the online pre-lecture readings and lectures associated with Topic # 3 - Physiology.
- This test will be administered through Quizzes in Courselink.
- More details regarding the Topic Tests will be discussed with students closer to the dates of these tests.

Effect of Pesticide Project (EPP) (15%)

Due: Fri, Mar 25, 10:00 PM, Online - Dropbox

Learning Outcome: 1, 3, 4, 7, 8, 9

- Students will apply the skills associated with scientific inquiry, numeracy, and scientific writing gained throughout the semester during seminar to complete this assignment.
- Students will collect data in the digital forest, compile this data and analyze it.
- Students will create figures to visually display the data (including figure captions), and write an abstract summarizing the findings of their scientific inquiry.
- This is an individual assignment.

Interdisciplinary Assignment (IA) (10%)

Due: Fri, Apr 8, 10:00 PM, Online - Dropbox

Learning Outcome: 1, 6, 8, 9

- This assignment emphasizes integrative thinking in the 3 topics of the course: evolution, ecology & physiology.
- This is a group assignment.
- Students will work with their seminar group members to create an infographic based on the results of the Effect of Pesticide Project (EPP) that addresses the 3 topics central to the course.

Squirrel Life Project (5%)

Date: Completed throughout the semester

Learning Outcome: 4, 5, 7, 8, 9

- The objective of this assignment is to get you involved in a citizen science data collection protocol
- This assignment also aligns with the focus of ensuring mental health in this course by providing you with the opportunity to get outside and have some fun!

7 Course Statements

7.1 No required textbooks - all readings and materials will be in

Courselink

This course does not require you to purchase a textbook!

All the information in any textbook is freely available using careful Google searches! We'll teach you how.

If you do have a budget for books and would like to dive into something that supports your learning in any course while supporting the authors who write these important books, we strongly recommend:

Kimmerer, R. (2013). Braiding sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants (First edition.). Milkweed Editions.

If you do not have a budget for books, this book is available in online format through the University of Guelph library. Check it out!

In addition, all readings, dichotomous keys and other materials you will need will be on courselink for you and/or available through Course Reserves (ARES) through the University of Guelph library.

7.2 Expectations & Grading

BIOL*1070 has a 0.5 credit weight. At the University of Guelph, this translates to an expectation of 10-12 hours of deliberate and productive work per week (<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-aload.shtml>). If you notice that you are not fulfilling this expectation, please meet with your instructors to discuss strategies.

We expect you to become familiar with the University of Guelph grading policy (<https://www.uoguelph.ca/registrar/calendars/undergraduate/2016-2017/c08/c08-grds-proc.shtml>).

Here it is clearly stated what the expectations are in accordance with each letter grade. For example, an assignment evaluated at 80% or higher has the following attributes:

80 - 100 (A) Excellent. An outstanding performance in which the student demonstrates a superior grasp of the subject matter, and an ability to go beyond the given material in a critical and constructive manner. The student

demonstrates a high degree of creative and/or logical thinking, a superior ability to organize, to analyze, and to integrate ideas, and a thorough familiarity with the appropriate literature and techniques.

If you find yourself at risk of not achieving your goals, please make sure that you seek help from any of your instructors. If you are prepared to make the effort, we will be delighted to help you.

7.3 Grading Policies

Pre-lecture reading quizzes

- Students will be introduced to online topic readings and related information online. These pre-lecture readings are intended to be completed during the week preceding when they will be discussed in lecture.
- Students will test their knowledge and understanding of the key concepts and terminology in the online pre-lecture reading in these weekly reading quizzes.
- Quizzes are due on Mondays prior to lectures and open 5 days before they are due.
- Once a quiz closes, a student will be unable to complete it.
- Having students complete the weekly pre-lecture readings and quizzes before Monday lectures is to ensure students are able to discuss and apply the concepts and terms within the weekly online reading.
- At the end of the term we will drop your lowest pre-lecture reading quiz mark and not include it in your final grade.

Seminar Assignments

- Students will explore the process of biological inquiry through directed seminar activities.
- In seminars, students will use various methods to identify organisms, discuss concepts and approaches to testing hypotheses, measure biological samples, collect and analyze data.
- Seminar assignments will primarily be completed individually (asynchronous seminars). Some seminar assignments will be completed in groups.

- The assignments associated with asynchronous seminars are due on Fridays at 10:00 PM in Dropbox.
- The assignment associated with synchronous seminar 5 will be due at the end of your scheduled seminar to Dropbox. Only 1 assignment per group will need to be submitted.
- At the end of the term we will drop your lowest seminar assignment mark and not include it in your final grade.

Topic Tests (#1: Evolution, #2: Ecology, #3: Physiology)

- Topic tests will be conducted using Quizzes in Courselink.
- These exams will consist of written answer questions that focus on concepts and skills related to the three topics of the course (Evolution, Ecology, Physiology).
- Further details regarding these tests will be discussed with students closer to each midterm.

Effect of Pesticide Project (EPP)

- Students will explore the process of biological inquiry through this digital field project focused on assessing the effect of pesticide use on an insect population.
- Students will collect data in the digital forest, analyze this data, and create figures (with figure captions) to visually represent the data. Students will also write an abstract to report their findings.
- This assignment is completed and submitted individually by students.

Interdisciplinary Assignment (IA)

- This assignment is a group assignment. Students will work in their seminar groups to create an infographic based on the results of the EPP and will address the 3 different topics in the course (Ecology, Evolution, and Physiology).

7.4 Group Work

- Seminar groups of 3 students will be pre-determined and these groups will work together to complete seminar activities and will complete some seminar assignments together.
- Only 1 assignment needs to be submitted per group.
- All group members will receive the same grade on these assignments.

7.5 What to do if you miss a course component: Absence and Illness

Missed classes:

- You are strongly encouraged to attend synchronous classes on Mondays and Wednesdays given the format of this course.
- If you miss a class, the lecture slides and video will be posted in Courslink for asynchronous viewing.
- Consider consulting with colleagues in the class to catch up on what you missed as well as ask questions in the appropriate Discussion Forum in Discussion Board.

Missed assignments or quizzes:

- Academic consideration is automatically granted for the first seminar assignment and first pre-lecture reading quiz that are missed due to the course policy that the lowest seminar assignment mark and the lowest pre-lecture reading quiz mark are dropped before the calculation of final course grades.
- IF you cannot complete a subsequent seminar assignment or pre-lecture reading quiz, please contact the course coordinator (biol1070@uoguelph.ca) as soon as possible (in advance of the deadline is preferable) to discuss the situation.
- A valid reason for missing an assignment or pre-lecture reading quiz according to University policies relating to academic consideration will allow academic accommodation to be made.
- No medical documentation will be required but clear communication with the course coordinator is expected. It is also preferable that this communication occur ahead of the deadline.

Missed Topic Test:

- There are no make-up Topic Tests!
- If you miss a Topic Test, please contact the course coordinator (biol1070@uoguelph.ca) as soon as possible (in advance of the date of the test is preferable) to discuss the situation.
- A valid reason for missing an assignment or pre-lecture reading quiz according to University policies relating to academic consideration will allow academic accommodation to be made.
- No medical documentation will be required but clear communication with the course coordinator is expected. It is also preferable that this communication occur ahead of the deadline.

7.6 Course Practices to Increase Accessibility and Inclusivity

This course has adopted the following practices to increase accessibility and inclusivity. If your success in learning requires additional support, please let us or your SAS counsellor know.

- Early access to the courselink site. We will open it up to students one week before classes begin. Take a look around, get to know it.
- A 'test your access class' to be scheduled during orientation week, before classes begin so that you can meet us, make sure all your systems are working, we can test things out, you can ask questions and participate in some 'getting to know you' activities.
- 'Triple time' for all time-limited assessments such as tests. This means that EVERY student will be given three times the amount of time that it would take an average class to complete a test.
- Earlier deadlines with some flexibility. All of our deadlines are set to 10 PM so that you have access to at least 8 hours of sleep between the deadline and your next early morning class. However, if you hand it in a bit after the 10 PM deadline, it's fine. Just please make sure to get some sleep.
- Student hours following class time. We did a study! It turns out that students prefer to access their professors right after class. When we were all in the same room, there used to be really long lines to talk with us. So, what we do now is schedule our students hours to follow class time. Just stay with us on the same

zoom link used for lecture and join in the discussion.

- Instruction in multiple formats. Learning is hard and we are firm believers in 'just because we've said it, doesn't mean you've learned it'. To help, we have multiple ways for you to engage with the material. You can learn things on your own, using google searches and YouTube videos, you can read along with the courselink content, you can watch our instructional videos for assignments, you can join in synchronous classes (please do, they are pretty fun), or you can watch the recording at your own pace.
- We use live closed captioning for all synchronous lecture sessions.
- Slides will be posted a few minutes before class.
- You are welcome to keep your video on your off. You choose.
- We use a chat within courselink for synchronous sessions because then you can go back and read through it.
- We will develop a collaborative asynchronous study tool for each of the Topic Tests. The more of you that use it authentically, the better it will be for everyone.
- All classes will begin with some music and a collaborative colouring or puzzle activity.
- All pets must be introduced to the rest of us. You will likely meet ours.
- All family members welcome, including children. You will likely meet ours.

7.7 BIOL*1070 Honour Code of Conduct

To ensure fairness and integrity, all students participating in this remote online course must agree to abide by the following code of conduct:

1. My answers will be my own work.
2. I will not make answers available to anyone else. This includes both answers written by me, as well as any official answer keys provided by the course instructors, coordinator, or Teaching Assistants.
3. I will not engage in any other activities that will dishonestly improve my results or dishonestly improve or hurt the results of others.

It's simple; it's straightforward: please behave honourably, appropriately, and with academic integrity (regardless of the course being held online).

By enrolling and participating in this course, you agree to follow the above honour code of conduct.

Please see the Academic Integrity Statement in this course outline, as well as visit the Biological Science Code of Conduct, Academic Integrity and Learning Outcomes Course in Courselink.

- Students are automatically registered in this Course in Courselink.
- Simply click on the 'Resources' Tab in 'My Courses' on your Courselink Landing Page when you log into Courselink.

7.8 Recording of Lectures and Seminars

The University of Guelph's primary mode of course delivery has shifted from face-to-face instruction to remote and online learning due to the ongoing COVID-19 pandemic. As a result, some learning activities (e.g., synchronous lectures and seminars) may be recorded by faculty, instructors and TAs and posted to CourseLink. As a result, students may be recorded during these sessions.

By enrolling in BIOL*1070, unless explicitly stated and brought forward to their instructor, it is assumed that students agree to the possibility of being recorded during "live" (synchronous) course activities such as lecture and seminar.

If a student prefers not to be distinguishable during a recording, they may:

1. turn off their camera
2. mute their microphone
3. edit their name (e.g., initials only) upon entry to each session
4. use the chat function to pose questions.

Students who express to their instructor that they, or a reference to their name or person, do not wish to be recorded may discuss possible alternatives or accommodations with their instructor.

Furthermore,

- Instructors will be recording their Zoom lectures and posting to CourseLink following each lecture.
 - Lectures will be closed captioned for students.
- Seminars may be recorded but will not be shared with students in CourseLink.
- Electronic recording of lectures or seminars by students is expressly forbidden without consent of the instructors. When recordings are permitted they are solely for the use of the authorized student and may not be reproduced, or transmitted to others, without the express written consent of the instructors.

7.9 In case of Zoom Service Disruption

- If Zoom crashes at any point during the course, students will receive an email (to their Gryphmail) within 5 minutes of the crash
- This email will provide details how the situation will be handled.

7.10 Online Behaviour - Netiquette

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students
- Using obscene or offensive language online
- Copying or presenting someone else's work as your own
- Adapting information from the Internet without using proper citations or references
- Buying or selling term papers or assignments
- Posting or selling course materials to course notes websites
- Having someone else complete your quiz or completing a quiz for/with another student
- Stating false claims about lost quiz answers or other assignment submissions
- Threatening or harassing a student or instructor online
- Discriminating against fellow students, instructors and/or TAs
- Using the course website to promote profit-driven products or services

- Attempting to compromise the security or functionality of the learning management system
- Sharing your user name and password
- Recording lectures without the permission of the instructor

7.11 Consideration of Time Zones

Please note: All times reported in this course outline and in courselink are Eastern time (Guelph, Ontario, Canada)

If you are joining us from another time zone, please ensure that you take into account the time change when registering for your seminar section, when submitting assignments, and when completing the Topic Tests. Students are also strongly encouraged to attend the synchronous lectures held on Mondays and Wednesdays from 9:30-10:20 AM

7.12 Draft Course Outline Disclaimer

- This is a draft course outline and is subject to change up to the first day of classes, in keeping with the policy described in the University of Guelph Academic Calendar.
- Please see the final version of the course outline within the Content of the BIOL*1070 Courselink Site on the first day of semester.

7.13 Collection of Information for Academic Purposes

Use of personal information:

Personal information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes. The University of Guelph's policy on the Collection, Use and Disclosure of Personal Information can be found in the Undergraduate Calendar. (<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/intro/index.shtml>)

8 Department of Integrative Biology Statements

8.1 Academic Advisors

If you are concerned about any aspect of your academic program:

- Make an appointment with a program counsellor in your degree program. [B.Sc. Academic Advising](#) or [Program Counsellors](#)

8.2 Academic Support

If you are struggling to succeed academically:

- Learning Commons: There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist. <http://www.learningcommons.uoguelph.ca/>
- Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: <http://www.lib.uoguelph.ca/get-assistance/studying/chemistry-physics-help> and <http://www.lib.uoguelph.ca/get-assistance/studying/math-stats-help>

8.3 Wellness

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. <https://www.uoguelph.ca/counselling/>
- Student Health Services is located on campus and is available to provide medical attention. <https://www.uoguelph.ca/studenthealthservices/clinic>
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations. <http://www.selfregulationskills.ca/>

8.4 Personal information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (FIPPA) <http://www.e-laws.gov.on.ca/index.html>. This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes.

For more information regarding the Collection, Use and Disclosure of Personal Information

policies please see the Undergraduate Calendar.
 (<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/intro/index.shtml>)

8.5 Course Offering Information Disclaimer

Please note that course delivery format (face-to-face vs online) is subject to change up to the first-class day depending on requirements placed on the University and its employees by public health bodies, and local, provincial and federal governments. Any changes to course format prior to the first class will be posted on WebAdvisor/Student Planning as they become available.

9 University Statements

9.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

9.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions
<https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml>

9.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

9.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

9.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

For Guelph students, information can be found on the SAS website
<https://www.uoguelph.ca/sas>

For Ridgetown students, information can be found on the Ridgetown SAS website
<https://www.ridgetownc.com/services/accessibilityservices.cfm>

9.6 Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity, and it is the responsibility of all members of the University community—faculty, staff, and students—to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff, and students have the responsibility of supporting an environment that encourages academic integrity. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

9.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

9.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>

9.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (<https://news.uoguelph.ca/2019-novel-coronavirus-information/>) and circulated by email.

9.10 Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g.. final exam or major assignment).

9.11 Covid-19 Safety Protocols

For information on current safety protocols, follow these links:

- <https://news.uoguelph.ca/return-to-campus/how-u-of-g-is-preparing-for-your-safe-return/>

- <https://news.uoguelph.ca/return-to-campus/spaces/#ClassroomSpaces>

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.
