

BIOA02H3 Y
Life on Earth: Form, Function and Interactions
Summer 2017
COURSE SYLLABUS

Objectives and Outcomes

The primary goal of this UTSC course (BIO A02) is to provide students with the strong foundation needed to become a successful biologist. During the term you will learn:

- (1) the major principles of animal physiology with the focus on structure and function;
- (2) the key concepts of ecology and evolutionary biology;
- (3) the essential skills to become an active learner of science;
- (4) some basic laboratory techniques that are required to pursue your chosen field in science;
- (5) some approaches for finding and reading relevant biology research articles;
- (6) the proper approach to collecting and analyzing data and then communicating the results using the writing and critical thinking skills presented in labs.

Overview

BIO A02H3 Y is a lecture and laboratory course designed to encourage students to think broadly and critically about some major areas of study in Biology (e.g. Animal Physiology & Ecology and Evolutionary Biology). There is one **3-hour Biology Lecture each week** and **one 3-hour Lab (Practical) every two weeks**. The **Biology Lectures** are on Thursdays 12:00 p.m. - 3:00 p.m. in SW128. The **Lab practicals** will be scheduled on Thursdays or Fridays (Lab are scheduled on Friday only if supported by class enrollment) in SW237.

Course Personnel

There are several key people you should get to know in this course:

Name	Title	How to contact ¹	Office and Office Hours ²
Dr. Connie Soros	Instructor	Email biolife@utsc.utoronto.ca (include Soros in subject)	
Karolyn Keir	Lab/Course Coordinator for BIOA02 - Contact regarding late enrollment, missed tests, missed labs, marks management and general advising as related to the course as a whole	Email biolife@utsc.utoronto.ca (include Keir and A02 in subject) ³	SW238 Hours: TU 2-3pm TH 2-3pm
	Lecture/Laboratory – Bio Help TA	(include biohelp – lecture in the subject)	Please see Blackboard.
	Laboratory TA	TBA in your first lab	

¹All emails must be sent from your university issued email account (@mail.utoronto.ca)

²All Course Personnel are only available in their offices during stated office hours.

³Karolyn Keir will only respond to emails during regular business hours (M-F, 9am-5pm)

Communication within BIO A02

Blackboard Portal

The main source for information for BIO A02 is the Course Webpage provided on Blackboard. Information such as contact information and office hours, lecture outlines and notes, assignment instructions, test dates and locations and other useful resources will be posted on Blackboard throughout the semester. Announcements and the video-taped lectures for BIO A02 will be posted on Blackboard. Exam Marks will also be posted to the Blackboard Course Webpage.

Each Lab Practical section also has its own Blackboard webpage; TAs will post information related to their Lab Practicals and course assignments on this webpage. All associated BIO A02 marks will be posted on the Blackboard Main course webpage. Please check the BIO A02 Course Webpage frequently!

Always check the BIO A02 Course Webpage for information before contacting the Instructors/Course Coordinator, or your TA.

**Students should use their UTORid to log on to BIO A02 Webpage. Log onto Blackboard by clicking the “Blackboard Portal” link on the UTSC Homepage.
NOTE: You will need a UTSC computer account in order to logon onto Blackboard.**

Intranet

Some events are visible through the Events function of the UTSC Intranet. Official announcements of these events will come through Blackboard once confirmed.

Email

To help your professors stay organized and answer your emails more quickly and effectively, one central email address serves BIO A02. To communicate with your course instructors and the Lab/Course Coordinator, please email:

biolife@utsc.utoronto.ca

Include the name of the person you wish to email the subject of the email. This will direct your email. If there is no instructor listed then **your email will not be opened or answered.**

Please do not use professors' email addresses for BIO A02 communication!
Remember to always contact the Instructors, Lab/Course Coordinator, and Teaching Assistants using your U of T issues email address.

Emails from other email addresses will not be answered.

Required Course Materials:

1. Textbook

The complete textbook package can be purchased at the UTSC Bookstore, located above Tim Horton's in the Bladen Wing. **The purchase of a textbook is required for BIO A02.**

The textbook for BIO A02 is:

Morris J, Hartl D, Knoll A, Lue R. Michael M. 2016. **Biology How Life Works (2nd ed.)** W.H Freeman & Company: Macmillan Education Imprint. 1096pp.

2. LaunchPad Access (online learning tool)

LaunchPad is an additional, online supplement to help you master the material presented in BIO A02. With this digital resource, which accompanies the Morris 2nd edition textbook, you will have access to some exciting learning resources such as animations, videos, quizzes and simulations that can help your understanding and knowledge in BIO A02. You can purchase and access LaunchPad a few different ways:

1. Packaged at no extra cost with the loose-leaf text -\$129.99 (approx.) or hard-cover text - \$172.99 (approx.) purchased through the bookstore
2. As a stand-alone item that includes the e-text for \$88.99 and this can either be purchased through the campus bookstore website or directly through the Macmillan website.

For Technical Support please call: **1-800-936-6899**

3. Lab Manual

The Lab Manual is a separate e-publication that is required for all Lab Practicals. It is titled:

Keir K., Rush S., Gladilina E., Armstrong C. 2017. *BIO A02 - Life on Earth: Form, Function and Interactions - Lab Manual for Summer 2017*. Toronto, Ontario: University of Toronto Scarborough Printing Services..

The Lab Manual can only be obtained from the Blackboard course page in the folder labelled '**BIOA02 Lab Manual Summer 2017**'. **The Lab Manual is NOT FOR SALE at the Bookstore!** Photocopies of old, and now out-of-date, lab manuals are NOT ACCEPTABLE. Lab Reports at the end of each lab for 2017 are unique to this version of the manual, and originals from the manual are required to receive credit for your Practicals. **Copies of Lab Reports will not be provided by your TA!**

Students must have their own copy of the appropriate lab information when they come to their Practical. It is the responsibility of each student to read each lab in advance and bring the manual to each of their scheduled Practicals.

4. Laboratory Coat and Protective Eyewear

Lab coats and protective eyewear are required for all Biology labs at UTSC. Lab coats and protective eyewear are sold in various locations on campus (BioSA, EPSA, Bookstore; refer to your lab manual for details). Disposable gloves and other supplies will be provided in the labs as needed. Students should bring pencils, pens, markers, rulers, erasers, and calculators to all labs. **Always check your Lab Manual for any special requirements for each of your labs.**

Course Organization

The content in **BIO A02** will be delivered through thirty-six 50 – minute lectures and six 3 – hour labs. Students will be evaluated through quizzes, assignments, a formal lab report, a midterm, and a final exam. All term tests will use a multiple – choice question and short answer format and the date/time and location will be announced later and posted on the BIO A02 Course Webpage on Blackboard.

Course Evaluation

The final grade in BIO A02 will be determined as follows:

Laboratory component of final grade = 25% (see breakdown below)

Labs: Module 1: 5 labs X 3% each = 15 % of final grade

Laboratory Assignment = 3% of final grade

(This will be handed out in Lab 1 and is due at the beginning of your Lab 2; no late assignments will be accepted)

Formal Lab Report = 7% of final grade

(Will be due on June 22 between 8:30-10:30am in SW240). Late penalty of 10% per day including weekends will apply. Your Formal Lab Report will be submitted to Turnitin through the Blackboard Portal; failure to do so or failure to submit a Turnitin readable document will **result in a grade of zero for the FLR.**

Lecture component of final grade = 75% (see breakdown below):

Midterm 35% of final grade

Final Exam 40% of final grade

Statement regarding use of Turnitin

In BIO A02S Winter 2017 we will be using Turnitin.com (through the Blackboard portal) for the submission of the Formal Lab Report. You should be aware of the following policy for the use of Turnitin at the University of Toronto.

“Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site”.

Course Content

A. Lecture Topics (*tentative; may change over course*)

Module 1: Plant Form and Function	<ul style="list-style-type: none"> • Lecture 1: Plant Cells and Tissues • Lecture 2: From Seed to Tree • Lecture 3: Transport and Physiology • Lecture 4: Tree of Life - Plants
Module 2: Animal Form and Function	<ul style="list-style-type: none"> • Lecture 5: Animal Organization and Physiology • Lecture 6: Nervous, Endocrine, and Circulatory Systems • Lecture 7: Respiratory and Digestive Systems • Lecture 8: Tree of Life - Animals
Module 3: Ecology	<ul style="list-style-type: none"> • Lecture 9: Tree of Life – Fungi • Lecture 10: Animal Behaviour and Population Biology • Lecture 11: Population Interactions and Community Ecology • Lecture 12: Ecosystem Ecology, Conservation Biology, and Importance of Human Impacts on Biological Systems

B. Lab Topics

- Lab 1:** An Examination of Vegetative and Flower Morphology of Plants/
Investigating the Effects of Nutrients on Plant Growth: Set up
for Formal Lab Report (FLR)
- Lab 2:** Behavioural Responses in Terrestrial Isopods/ Collection of
Data for FLR
- Lab 3:** Physiological Responses to Temperature using *Daphnia* spp.
- Lab 4:** Population Sampling Methods/ Population Growth Experimental Set-up
- Lab 5:** Population Growth Experiment using an Aquatic Plant Bioassay

Course Regulations

Attendance at Lectures

It is **highly recommended that you attend all scheduled lectures**. In order to get maximum benefit from the lectures in this course, students are advised:

- **to read the relevant sections in your Textbook before the Lecture** (see lecture schedule with textbook references). Do not take extensive notes or memorize the material at this stage - just read and become familiar with the terms and concepts to be covered
- **to download posted lecture material** from the BIO A02 Webpage before each lecture
- **to come to lecture and take your own notes** with the aim of understanding the main concepts covered
- to re-read the relevant sections in your textbook **as needed** after the lecture and create your own study notes; review your notes frequently
- **to arrange to see the Instructor(s) and/or Bio-Lecture help TA** during scheduled office hours or by appointment if you are having difficulties understanding the concepts covered in the lectures

Attendance in Labs

Attendance in the Labs is required to get credit for that lab and any work associated with the lab. Labs 2-5 will start with a Quiz on the Lab Background Information so **BE ON TIME!** If you arrive at your lab within 10 minutes of the scheduled start time, you may write the quiz in the time remaining. The lab door will be closed at the end of the quiz while the TA introduces the lab. **If you arrive late and the door is closed, you will have missed the pre-lab talk by the TA and will not be allowed to participate in the lab.**

If you are more than 10 minutes late for a lab or if you miss a lab entirely, you may **discuss your situation with the Course Coordinator, Karolyn Keir.**

You are only allowed to miss one lab practical with valid documentation during the course of the term. Any other labs missed will be assigned a grade of zero for any associated work. Any labs missed without valid documentation will be assigned a grade of zero.

Students who attend lab practicals that they are not registered in, without prior discussion with the Course Coordinator, Karolyn Keir, will be assigned a grade of zero for any associated work. You must attend the lab practical that you are registered in!

You will not be allowed to submit Lab Reports/Assignments for labs that you have not attended. Any Lab Reports/Assignments/Formal Lab Reports allowed to be submitted late must be given to the Course Coordinator and will be assessed the appropriate late penalty (10% of the mark per day including weekends); work will not be accepted if more than 5 days late. Times and dates to hand in late material will be posted on blackboard; assignments will not be accepted on either Saturdays or Sundays.

Tests / Exams

If you cannot attend Friday evening or Saturday Midterm Test for religious reasons, please notify the Course Coordinator, Karolyn Keir, in writing (by email) within one week of the announced Midterm Test date; an alternative time will be presented if approved by the Instructor.

Students who miss the Midterm Test, you must contact the Course Coordinator, Karolyn Keir, within 72 hours (or 3 days) of the scheduled exam (by email). Only students with a valid, documented and verifiable medical reason or a personal documented excuse (of an extreme nature) will be given any consideration for a Makeup Midterm Test. **Documentation must apply to the date/time of the originally scheduled test.** (Note: The format of the makeup term test may differ from the original, while covering the same content).

Students who miss the Final Exam must contact the Registrar's Office

(http://www.utsc.utoronto.ca/~registrar/current_students/deferred_exams) and follow the procedures outlined in order to arrange to write a Deferred Final Exam. The Deferred Final Exam will be scheduled during the December 2017 Exam Period (Note: The format of the Deferred Final Exam may differ from the original term test while covering the same content).

Required Documentation for Missed Term Work (e.g. assignments/labs/tests)

In order to be eligible for consideration for a missed Term Test or for missed lab work, students must provide a valid documented reason **to the Course Coordinator within 1 week of the missed evaluation.** **Note: Photocopies of term work will be graded ZERO; all work when handed in should be original.**

For medical reasons, **the attending physician (who must be registered with the College of Physicians and Surgeons) must complete the Standard University of Toronto Medical Certificate.** Copies of the standard University of Toronto Medical Certificate are available by following this link:

<https://www.utsc.utoronto.ca/registrar/sites/utsc.utoronto.ca/registrar/files/resource-files/UTSCmedicalcertificate.pdf>

The **date/time of the original lab/test that was missed MUST BE CLEARLY INDICATED as well as a clear statement of the medical problem.** Make sure that the student's name and student number are clearly indicated.

For other reasons (death in family, car accident/problems, transportation issues), students must provide verifiable documentation as appropriate to the situation and discuss the situation with the Course Coordinator, Karolyn Keir, as soon as possible. Students should always get valid and verifiable documentation for any situations that causes them to miss any course marked work in the course.

NOTE: Reasons such as work, vacation, sleeping-in, other tests/exams and assignments in other courses are NOT ACCEPTABLE reasons for not completing work in BIO A02.

2017 Summer Semester - Important Dates

Monday, May 1	Classes begin in F and Y courses.
Sunday, May 7	Last day for students writing deferred examinations in August to adjust their current course load (on ACORN only).
Sunday, May 7	Last day to add F and Y courses (on ACORN only).
Monday, May 22	Victoria Day → University closed.
Monday, June 5	Last day to drop F courses without academic penalty and have them removed from the transcript.
Monday, June 5	Last day to add or remove the CR/NCR mode of assessment (on ACORN) for an F section course. (Note: For details go to www.utsc.utoronto.ca/registrar)
Monday, June 12	Last day to drop UTSC F courses on eService and have them remain on the transcript with a grade of LWD indicating withdrawal without academic penalty. After this date grades are assigned whether or not course work is completed (with a '0' assigned for incomplete work) and are calculated into GPAs. (Note: See www.utsc.utoronto.ca/registrar for LWD dates for courses on other campuses.)
Monday, June 12	Last day of classes and last day for submission of term assignments in F courses.
Tuesday, June 13 - Saturday, June 17	Reading Week (Note: Classes or exams may be held on other campuses.)
Tuesday, June 13 - Saturday, June 17	Final examinations in F courses.
Monday, June 19	Classes begin in S courses and resume in Y courses.
Sunday, June 25	Last day to add S courses.
Monday, July 3	Canada Day → University closed.
Monday, July 17	Last day to drop Y courses without academic penalty and have them removed from the transcript.
Monday, July 17	Last day to add or remove the CR/NCR mode of assessment (on ACORN) for a Y section course. (Note: For details go to www.utsc.utoronto.ca/registrar)
Monday, July 24	Last day to drop S courses without academic penalty and have them removed from the transcript.
Monday, July 24	Last day to add or remove the CR/NCR mode of assessment (on ACORN) for an S section course. (Note: For details go to www.utsc.utoronto.ca/registrar)
Monday, July 31	Last day to drop UTSC S and Y courses on eService and have them remain on the transcript with a grade of LWD indicating withdrawal without academic penalty. After this date grades are assigned whether or not course work is completed (with a '0' assigned for incomplete work) and are calculated into GPAs. (Note: See http://www.utsc.utoronto.ca/registrar for LWD dates for courses on other campuses.)
Monday, July 31	Last day of classes and last day for submission of term assignments in S and Y courses.
Tuesday, August 1- Saturday, August 5	Study Break.
Tuesday, August 1- Saturday, August 19	Winter Session deferred examinations.
Monday, August 7	Civic Holiday → University Closed
Tuesday, August 8 – Saturday, August 19	Final examinations in S and Y courses.
Monday, August 14	Last day to confirm intention to graduate at the 2017 Fall Convocation.
November TBA	2017 Fall Convocation. Check "Ceremony Dates" at http://www.convocation.utoronto.ca for the date of the UTSC ceremony.

PRACTICAL SCHEDULE

Week	Lab #	Practical	Date (2017)
1	1	Odd Numbered practicals (e.g. P0001, P0003...P0005)	May 1 to May 5
2	1	Even Numbered practicals (e.g. P0002, P0004...P0006)	May 8 to May 12
1	2	Odd Numbered practicals (e.g. P0001, P0003...P0005)	May 15 to May 19
2	2	Even Numbered practicals (e.g. P0002, P0004...P0006)	May 23 to May 26
1	3	Odd Numbered practicals (e.g. P0001, P0003...P0005)	May 29 to June 2
2	3	Even Numbered practicals (e.g. P0002, P0004...P0006)	June 5 to June 9
		Reading week (NO LABS)	June 12 to June 16
1	4	Odd Numbered practicals (e.g. P0001, P0003...P0005)	June 19 to June 23
2	4	Even Numbered practicals (e.g. P0002, P0004...P0006)	June 26 to June 30
1	5	Odd Numbered practicals (e.g. P0001, P0003...P0005)	July 4 to July 7
2	5	Even Numbered practicals (e.g. P0002, P0004...P0006)	July 10 to July 14

Important UTSC Policies

The University of Toronto Scarborough is dedicated to fostering an academic community in which the learning and scholarship of every member may flourish, with vigilant protection for individual human rights and a resolute commitment to the principles of equal opportunity, equity and justice.

1. Information on Academic Integrity

Academic integrity is essential to the pursuit of learning and scholarship in a University, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters outlines behaviour that constitutes academic dishonesty and the processes for addressing such offences (see <http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>)

If you have questions or concerns about what constitutes appropriate academic behavior, research or citation methods, you can seek out additional information from your Instructor(s) or from other institutional resources (see <http://www.utoronto.ca/academicintegrity/resourcesforstudents.html>).

2. **Information Regarding AccessAbility Services at UTSC**

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach the Instructors in BIO A02 and/or the AccessAbility Services Office (**Room SW-302**) **as soon as possible**. Note all enquiries are confidential. You can contact AccessAbility Services at **416-287- 7560** or ability@utsc.utoronto.ca or visit their website (www.utsc.utoronto.ca/~ability/).

3. **Information on Religious Observances**

It is a policy at UTSC to provide special consideration for recognized holy days, which may be observed by our students. Though not all holy days require students to be absent from school, accommodations may still be necessary in some cases. As a student, it is your responsibility to check the due dates for all course work and scheduled dates for tests/exams on a regular basis. **Inform the Course Coordinator** of any potential conflicts **at least 7 days prior to the date of the test/assignment**. Failure to do so may result in special consideration not being granted; documentation may be required.

4. **Procedures regarding Final Marks**

The final mark in BIO A02 is based on term work; the evaluation breakdown is given in this document under "Course Evaluation". After the term test (for Module 3), final marks are calculated and submitted to the Department for review. Once approved, the final mark for each student in the course will be released on ROSI/ACORN.

Final marks are not negotiable and instructors are not permitted to discuss final marks with students. If students have concerns about their final mark, they should consult the proper procedures to be followed as outlined by the Registrar's Office:

http://www.utsc.utoronto.ca/~registrar/current_students/petitions#deadlines

Once final marks are posted it is an academic offense to ask for your mark to be changed. (See Academic Handbook)