

Department of Biology Course Outline

SC/BIOL 1500 3.00 Introduction to Biology
Winter 2019

Course Description

An introductory course in biology for students needing adequate preparation for SC/BIOL1000 and SC/BIOL1001. The course explores underlying theories and the unity and diversity of life. Topics include evolution, cell theory, introductory biochemistry, inheritance, biodiversity, and ecology.

Prerequisites

None; NOTE: May not be taken by any student who has taken or is currently taking another university course in biology. Note: Not eligible for Biology credit towards a Biology, Biochemistry or Environmental Biology program.

Course Instructors and Contact Information

Course Director: Dr. Tanya Da Sylva

Email: b1500lec@yorku.ca

Office: 151A Farquharson

- Office Hours: Posted to Moodle; Office hours are times when you can drop-in (no appointment necessary) and ask questions or discuss course matters.

Email must include your name and student number and should include a descriptive subject line. Email is NOT a substitute for office hour attendance. Emails regarding administrative details may be answered by the first year administrative assistant. Expect an average response time of three business days. Email will not routinely be replied to on weekends or holidays.

Schedule

Tuesdays and Thursdays, 2:30pm – 4pm in LAS C

NOTE: Class is cancelled Tuesday, October 1st

Evaluation

***Midterm #1:** October 10th, 2019 during class-time (20%)

***Midterm #2:** November 14th, 2019 during class-time (20%)

***Final Exam:** Date and time set by Registrar's office. (25%)

Course Project: December 3rd, 2019 through Moodle (5%)

***Learning Activities:** Throughout term, see the *Activities* outline on Moodle for details (10%)

***Assignments:** Throughout term, see *Assignments* outline on Moodle for details (20%)

Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles

*A 2-stage testing format will be used for the midterms and final exam whenever possible

*Learning Activities and Assignments will take place throughout the term. There will be both online (Moodle) Learning Activities and in-class Activities. You will not normally have in-class time to work on assignments. Points are earned for completing Activities (completion only, not accuracy) while Assignments are marked according to a given marking scheme.

Important Dates

Classes Start: Wednesday, September 4th (our first class is Thursday, Sept. 5th)
Fall Reading Week (NO CLASS): October 12th – 18th
Drop Date: November 8th
Last Day of Classes: Tuesday, December 3rd
Course Withdrawal Period: November 9th – December 3rd (course appears on your transcript without a grade and with a “W” notation)
Exam Period: December 5th – 20th (inclusive)*

*** It is your responsibility as a student to ensure that you are available to sit for examinations during the entire exam period.**

NOTE: Class is cancelled Tuesday, October 1st

NOTE: Important dates may change to verify and for additional important dates such as holidays, refer to the “Important Dates” section of the Registrar’s Website at <http://www.yorku.ca/yorkweb/cs.htm>

Resources

Course Website: *Please check Moodle often.* Announcements may be posted on Moodle before they are communicated in class. Moodle will also be where you can view your grades.

Textbook (Required): Biology: The Essentials, 3rd Edition, by Hoefnagels (McGraw-Hill publishers). An alternative eBook option can also be purchased at the York Bookstore (this includes a full e-text that can substitute for the hardcopy textbook). Note: The Connect platform is not required (a learning platform provided by the textbook publisher).

The library (Steacie) will have a copy of the textbook on reserve.

iClicker: In-class Learning Activity points will be gained mainly through responding to questions using iClicker Reef. iClicker allows you to use your laptop, phone, or tablet to submit answers to questions. It is free for all York students. See here for more information: <http://its.info.yorku.ca/polling-student/>

Learning Outcomes

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

- Discuss the process of evolution and describe how evolution is used to explain the unity and diversity of life.
- Describe the properties and processes of life and the differing scales at which life is studied.
- Discuss the process of science and biological inquiry.
- Describe the chemical nature of life and how biological macromolecules interact at a cellular level.
- Describe the major cellular processes of replication, metabolism and communication (with other cells and the environment), relating form and function in multiple cell types (animal, plant, prokaryote).
- Discuss the role of genetic information and the environment in shaping an organism’s phenotype.
- Relate genetic principles to population structure, speciation and evolution of organisms.
- Describe the evolution of biological diversity and identify major features and properties of prokaryotes, protists, fungi, invertebrates and vertebrates.
- Describe the biosphere and identify defining features of aquatic and terrestrial biomes.
- Discuss principles of population ecology, community structure and ecosystem structure, placing them in an evolutionary context and applying them to modern conservation and restoration ecology.
- Work effectively, within a group and individually, to gather, review, analyse and present biological information.

Detailed learning objectives will be posted to Moodle.

Course Content

Readings and additional content information can be found on Moodle.

Experiential Education and E-Learning

Active learning aids comprehension and retention of concepts. Through Moodle, and during class you will be engaging in activities that promote analysis, synthesis of the course content, application to 'real-life' experiences and reflection on your learning process. Sometimes this will take the form of individual work, but often you will be participating in small group discussions or analysis.

To encourage participation and accountability, these components - experiential education, e-learning and other active learning - make up a significant portion of your final grade.

- You will have the opportunity to earn points for weekly reflective activities on Moodle and by participating in class using iClicker Reef. Other activities may also be given in-class and on Moodle. Activity points are given for active participation not accuracy; Learning Activities are worth 10% of your final grade.
- Graded active learning assignments will be given throughout the term. Some assignments are integrated with in-class group work (see assignment outline on Moodle). Assignments are graded (a marking scheme will be provided) and are worth 20% of your final grade.
- There will be a final project that will help you reflect on what you've learned throughout the course and relate it to issues you encounter regularly. The project is worth 5% of your final grade.

Other Information

1) Information on 2-stage Testing:

- Numerous educators have used 2-stage tests as a way to turn the assessment process into a learning experience. 2-stage tests involve writing tests both as an individual and in a group. When your group disagrees on an answer you get to discuss the subject right away perhaps correcting your own misconceptions before you leave the exam room. **We will use 2-stage testing for our midterms and final exam** whenever possible.
- You will arrive for your test and write the 1st stage - individual test; this will be like a traditional test. You will hand in your scantron and test booklet when you are done but remain seated until the end of the 1st stage. Once everyone's tests have been collected you will assemble into groups of four.
- In your groups you will be given another test booklet to begin the 2nd stage (group test) - this test will be similar to the one you just completed by yourself. You will now have additional time to complete the test again in groups. You will not be allowed to write the group test by yourself or in groups of less or more than 4 people (unless unavoidable due to class size).
- Your mark will be calculated as follows - 85% individual score plus 15% group score. However if your individual score is higher than your group score you will simply have your individual score (100%).
- Students who normally write with Alternate Exams have been able to join the class for the 2nd stage (group). However, if you have any concerns about the testing format or joining the main room please let me know and we can discuss alternative accommodation.

2) **You will be responsible for meeting the detailed learning objectives (provided on Moodle). To reach these objectives you will combine material presented in class and textbook readings.**

3) The textbook is your best out-of-class resource and will help you understand material. It contains many of the visuals presented in the lectures. A reading guide is posted on Moodle and readings should be done before class. After class you may have to read beyond what is listed in the guide to meet the learning objectives.

- 4) Audio recording (ONLY audio) of the lecture is permitted. Recordings can only be shared with students enrolled in the course and section the recording was made of.
- 5) The midterms and final exam will consist predominantly of multiple-choice but may include short answer, fill-in, matching, calculating and drawing type questions.
- 6) Your cumulative final will be given during the official exam period. **It is your responsibility as a student to ensure that you are available to sit for examinations during the entire exam period.** Under no circumstances will makeup exams (midterm or final) be provided because of conflict with vacation plans or work conflicts. **York will post the final exam schedule online; it is your responsibility to keep track of your exam schedule**
- 7) All test, and assignment and project marks will be posted to Moodle when available. Do not email asking when marks will be posted or for your grade; these emails will not be responded to. You should keep track of activity points on your own (active participation = points earned).
- 8) It is your responsibility to earn your grade. **Individually adjusting a student's grade without academic merit is unethical. All requests for grade "bumping" will be ignored.**

Course Policies

Grading and Policies for Missed Tests

Grading: The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (for a full description see the York University Undergraduate Calendar – <http://calendars.registrar.yorku.ca/2012-2013/academic/grades/index.htm>)

Missed Midterm/Exam – General Policies: Students must have an **urgent reason** for missing a course exam, such as illness, compassionate grounds, etc., which may need to be confirmed by appropriate supporting documentation (e.g., attending physician's statement).

- Midterms/exam will be cancelled due to weather ONLY if the University officially closes/cancels classes/exams. In all other cases, **it is YOUR responsibility to get to class on time**. You will not be allowed extra time to write a test if you arrive late.

For Midterms:

- **You MUST fill in the *Missed Test Form* on Moodle within 5 business days of missing the test.**
- Supporting documentation may be required. See instructions in the *Missed Test Form* (on Moodle).
- To be eligible to write the make-up you must follow the instructions above and be granted permission. I will try my best to be fair and will consider many situations (not just illnesses) but **NOT all situations will be accommodated**, meaning that a zero will be earned on the missed test

There will be only one make-up test for each midterm. If you have a valid reason for missing both the original test and the make-up, the weight of the midterm will be transferred to the final exam. Make up tests may occur anytime before the end of the last class (i.e., the make up for midterm 1 may happen *after* midterm 2). Further extensions or accommodation will require students to submit a formal petition to the Faculty.

For the Final Exam (different than for midterms!):

- ***It is your responsibility as a student to ensure that you are available to sit for examinations during the entire exam period.***
- If you miss the final exam for a valid reason **you must request deferred standing and notify me within 5 business days of missing the exam.**
 - See <http://myacademicrecord.students.yorku.ca/deferred-standing> for additional information.
- To request deferred standing **you must complete and submit a Deferred Standing Agreement Form** (found at the link above) **along with supporting documentation to me within 5 business days of the missed exam.** Scanning all forms and emailing to b1500lec@yorku.ca is preferred.
- **Requests submitted after this time will be denied and you must formally petition for further accommodation.**
- Doctor's notes are NOT sufficient for missed final exams; **you MUST have your doctor fill out the Attending Physician's Statement** included in the petitions package (please make sure you are using the current version of the Attending Physician's statement form – no other versions will be accepted).
- Contact me to determine the appropriate documentation required for other circumstances.

- If I approve the deferred standing request the date and time of the deferred exam is at my discretion. If you miss the deferred exam will have to formally petition for further accommodations.
- If I deny your deferred standing request you must submit a petition for further accommodation. An academic committee will decide whether or not permission to write will be granted based on the situation and evidence presented. Denied petitions will result in a zero on the final exam
 - See <http://myacademicrecord.students.yorku.ca/academic-petitions> for information regarding academic petitions.
- Religious accommodations must be arranged at least 3 weeks prior to the exam (see general course policies below for guidelines).

Incomplete/Late Course Work Policies:

Extensions on course work deadlines (Learning Activities, Assignments and Project) **will not normally be granted.**

- *Learning Activity* points will be earned from activities conducted in-class and on Moodle. They are marked based on participation. All missed submissions will receive a zero grade; no late submissions will be accepted. However, the way your *Activities* grade is calculated **allows you to miss some of the learning activities without penalty.** Please see the *Learning Activities* outline on Moodle for more information.
- You will be able to complete most components of the *Course Project and Assignments* on your own time and submit them through Moodle. You are encouraged to plan ahead; do not leave completion to the last minute! Individuals with extenuating circumstances can contact me via b1500lec@yorku.ca.
- All late submissions, without permitted extensions, will be penalized as noted in the *Course Project and Assignments* outlines.

Exam marks & reviewing exams:

- Midterms and Exams in this class follow a 2-stage format (more information can be found on Moodle) and marking typically takes ~ 2 weeks. Marks will be posted on Moodle as soon as possible. Marks are not negotiable. Please see below if you believe there has been an error in your mark calculation.
- Midterms and Exams will not be handed back, but you will have opportunities to review your tests. These dates will be posted to Moodle, if you cannot attend the posted dates you may have to wait until the end of term to view your test(s).

Remarking of tests/exams or assignments:

- If you believe a written answer on a test or assignment was marked incorrectly you must submit a written rationale (based on academic merit*) and the paper (if handed back to you) for remarking to me within 1 week of the test/assignment being made available to you. Note: only answers in ink are eligible for remarking and remarking can result in the mark being raised, confirmed, or lowered.
- To be fair and consistent to the entire class, individual grades are not negotiable. There are no 'extra credit' assignments, and grades are not "curved".

**academic merit means you make an academic argument for why your answer is correct – you cannot compare your answers to other student's assignments it MUST be correct on its own; statements such as "this grade doesn't reflect how hard I studied" or "I really know the material well and I should have a better grade" are not academic grounds.*

Forum Code of Conduct:

Students are encouraged to participate in the online Moodle Forums to discuss course concepts, organize study groups, and ask questions relating to Biology. Discussions should be polite and respectful, and students are expected to follow these guidelines while using the forums:

- Use a clear, informative subject line. Try to be as specific as possible so that other students and the instructor can respond appropriately.
- Post comments appropriate to the particular discussion. Off-topic posts may be moved or deleted.
- Be respectful! Posts containing personal insults/attacks/intimidation/inappropriate language/profanity will be removed. I will be monitoring for disruptive behaviour and also encourage you to email me immediately if you notice inappropriate behaviour in the forums. You must follow the York University Student Code of Conduct at all times (<http://www.yorku.ca/oscr/codeofrr.html>).

- While you may engage in debate/discourse on biological topics, such discussions should be respectful and evidence-based. Evidence should be from trusted sources (<http://www.yorku.ca/webclass/module4a.html>)

- Any posts that appear to violate this code of conduct, and any post at all, may be edited, moved to a hidden forum, or deleted at the discretion of instructors/moderators. If posts contain violations of academic honesty or the York University Student Code of Conduct further action will be taken
 - If you notice any inappropriate posts, please contact me (T. Da Sylva) immediately.
- Disclaimer: While Moodle moderators/instructors attempt to remove/edit objectionable/inappropriate material as quickly as possible, it isn't always possible to review every post in a timely manner. **All posts made on the forums express the views and opinions of the post's author and the instructor/moderators cannot be held liable.**

Note: While the instructor/moderators review posted material they may not correct wrong answers or incorrect information. **You are responsible for judging the accuracy of the information provided.**

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 (<http://secretariat-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/>

Important Note: 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 chosen to ignore the reasonable likelihood of supporting plagiarism in this manner.

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.

Additional Information:

Counselling & Disability Services - <https://counselling.students.yorku.ca/>

Counselling & Disability Services at Glendon - <https://www.glendon.yorku.ca/counselling/>

York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

Ethics Review Process

York students are subject to the York University *Policy for the Ethics Review Process for Research Involving Human Participants*. In particular, students proposing to undertake research involving human participants (e.g., interviewing the director of a company or government agency, having students complete a questionnaire, etc.) are required to submit an *Application for Ethical Approval of Research*

Involving Human Participants at least one month before you plan to begin the research. If you are in doubt as to whether this requirement applies to you, contact your Course Director immediately.

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 an Examination Accommodation Form, which can be obtained from Student Client Services, Student Services Centre or online at

http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf (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/>