

**Department of Biology Course Outline**

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| SC/BIOL 1500 3.00 Introduction to Biology  Winter 2018 |

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| 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. 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. |

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| Prerequisites |
| none |

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| Course Instructors and Contact Information |
| Course Director: Dr. Tanya Da Sylva  Email: [b1500lec@yorku.ca](mailto:b1500lec@yorku.ca)  Office: 210 Bethune  Office Hours: Posted to Moodle  **Email must include your full name and student number and should include a descriptive subject line.** Email is NOT a substitute for office hour attendance. Emails regarding administrative details will be answered by the first year administrative assistant, Dharti Patel. Expect an average response time of two business days. Email will not routinely be replied to on weekends or holidays. |

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| Schedule |
| Tuesdays 2:30 – 4pm in VH B and Thursdays, 2:30pm – 4pm in VH C |

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| Evaluation |
| **\*Midterm #1:** February 8th, 2018 (20%)\*  **\*Midterm #2:** March 20th, 2018 (20%)  **\*Final Exam:** Date and time set by Registrar’s office. (30%)  **Virtual Labs:** Throughout term, see *Virtual Lab*s outline on Moodle for details (10%)  **+Learning Activities:** Throughout term, see the *Activities* outline on Moodle for details. (5%)  **+Mini-Assignments:** Throughout term, see *Mini-Assignments* outline on Moodle for details (15%)  *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 Mini-Assignments will take place throughout the term. They will be completed both in class and through Moodle. Points are earned for completing Activities (completion only, not accuracy) while Mini-Assignments are marked according to a given marking scheme. |

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| Important Dates |
| Classes Start: January 4th, 2018  Reading Week (no class): February 17th – 23rd,2018  Drop Date: March 9th, 2018 (course does not appear on transcript)  Last Day of Classes: April 6th, 2018  Course Withdrawal Period: March 10th –Apr. 6th (course appears on transcript with W notation)  Exam Period: April 9th – 23rd (inclusive)  NOTE: 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 |

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| 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 midterm and final exam grades.  **Labster Virtual Labs:** Registration and access to Labster Virtual Labs is required; completion of virtual labs and associated activities/assignments are part of your grade. This semester access to Labster Virtual Labs will be free thanks to the eCampusOntario EdTech Sandbox Program (funded by the Government of Ontario). Instructions on how to register are posted to Moodle.  **Textbook (Required):** Custom Package CPS BIO 1500 Introduction to Biology with Connect Access Card Package ISBN 9781259455278  Alternative eBook option with Connect: Connect Access Code for *Biology: The Essentials, 2nd Edition*, by Hoefnagels, can be purchased separately at the York Bookstore (this includes a full e-text that can substitute for the hardcopy textbook).  The custom text is a shortened version of *Biology: The Essentials*, 2nd *Edition*, by Hoefnagels (McGraw-Hill publishers). The custom is cheaper than buying a new copy of *Biology: The Essentials*, but if you have access to the full textbook either the 1st or 2nd edition is acceptable.  **Note: The Connect platform is not required.** Connect is an adaptive learning platform provided by your textbook publisher (McGraw-Hill). Students have used Connect in the past and have given very positive feedback but it is not a necessary course component this term. |

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| 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 outcomes by section will be posted to Moodle.* |

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| Course Content |
| Readings and additional information can be found on Moodle. |

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| Experiential Education and E-Learning |
| **Virtual Labs: Labster** (labster.com)**.** Labster is a series of online simulations that will allow you to learn & practice scientific techniques, conduct ‘real’ experiments, and test your knowledge through the use of the embedded quiz questions. The virtual labs will be followed up with in-class and Moodle based activities to help you connect your lab experience to course content.  **Active learning** aids comprehension and retention of concepts. In your virtual labs, 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 experiential education, e-learning and active learning components make up a significant portion of your final grade.   * Labster virtual labs, and associated lab activities will be marked and are worth 10% of your final grade. * You will have the opportunity to earn activity points for non-lab activities completed in class or on Moodle. Activity points are usually given for active participation not accuracy; Learning Activities are worth 5% of your final grade. In-class activities will not take place every class and warnings may not be given for when activities will occur. * Graded active learning Mini-Assignments (non-lab based) will be given throughout the term. Mini-assignments will be completed in-class or on your own time and submitted through Moodle. Mini-Assignments are graded (a marking scheme will be provided) and are worth 15% of your final grade. |

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| 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 numbers).    * 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 material presented in class and associated textbook sections. The textbook is your resource and will help you understand this material. It contains many of the visuals presented in the lectures. 3. 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. Therefore recordings CANNOT be uploaded to public websites or otherwise shared publicly. Students in violation of these policies may have legal action taken against them. 4. The midterms will consist predominantly of multiple-choice but may include short answer, fill-in, matching, calculating and drawing type questions. 5. Your cumulative final will be given during the official exam period and will have the same type of questions as the midterm and may have essay questions. **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. 6. All test, lab and assignment grades will be posted to Moodle when available. Do not email asking when grades 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); a final activity point summary will be posted to Moodle at the end of term. 7. 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. |

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| 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. * Religious accommodations must be arranged at least 3 weeks prior to the midterm/exam period (see general course policies below for guidelines).   **For Midterms:**   * You MUST fill in the *Missed Test Form* on Moodle within 5 business days of missing the test. * Valid and appropriately detailed documentation supporting the events (typically medical or emergency related) 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 been scheduled for the make-up and have a valid reason for why you cannot attend the weight of the midterm will be transferred to the final exam. 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 (e.g. medical emergency, death of an immediate family member) **you must request deferred standing and notify the course director 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 your Course Director **within 5 business days of the missed exam**. * **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). If you do not use the current form you will be asked to return to your physician to have the correct form filled in. * 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.   **Incomplete/Late Course Work Policies:**  Extensions on course work deadlines (Virtual Labs, Learning Activities and Mini-Assignments) **will normally not be granted**.   * Activity points will be earned from in-class activities and through Moodle. Your grade will be calculated out of 80% of the maximum points available throughout the term (to a maximum Activities grade of 100%). * Virtual labs must be completed by the start of class on the dates indicated in the *Virtual Labs Outline* (on Moodle) for full marks. Your lowest lab mark will be dropped (see the outline on Moodle for more information). * Mini-Assignments will be given throughout term; some will be completed in class, some through Moodle. For mini-assignments completed outside of class late penalties will apply if not submitted in time (see *Assignments Outline* on Moodle). For mini-assignments completed in class, you may miss one without penalty and without any reason given (weight redistributed across other assignments). If you miss more than one in-class mini-assignment please follow the same procedure as missed midterms. A make-up assignment or reweighing of the remaining mini-assignments may be possible, at my discretion. |

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| 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/  **Access/Disability**  York University is committed to principles of respect, inclusion and equality of all persons with disabilities across campus. The University provides services for students with disabilities (including physical, medical, learning and psychiatric disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and programs at York University.  Student's in need of these services are asked to register with disability services as early as possible to ensure that appropriate academic accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with each professor to discuss your accommodation needs. Please note that registering with disabilities services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs.  Additional information is available at the following websites:  Counselling & Disability Services - http://cds.info.yorku.ca/  Counselling & Disability Services at Glendon - http://www.glendon.yorku.ca/counselling/personal.html  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/ |