

## Department of Biology Course Outline

### SC/BIOL 1500 3.00 Introduction to Biology Fall 2017

#### Course Description

An introductory course in biology for students needing adequate preparation for SC/BIOL 1010 6.00. The course explores underlying theories and the unity and diversity of life. Topics include evolution, cell theory, introductory biochemistry, inheritance, biodiversity, and ecology. NCR 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.

#### Prerequisites

NONE

#### Course Instructors and Contact Information

**Instructor:** Dr. Vladimir (Kyle) Belozero

**Contact:** Chemistry Bldg. Room 358  
(416)736-2100 ext. 66643  
vbelozer@yorku.ca (**communication by e-mail is HIGHLY preferred**)

**Office hours:** Tuesdays and Thursdays between 4:00 pm – 5:00 pm.

#### Schedule

**Lectures:** Tuesdays and Thursdays, 2:30 pm – 4:00 pm, Lassonde C

#### Evaluation

|  |            |
|--|------------|
| Midterm 1 (October 5, 80 min).....               | <b>20%</b> |
| Midterm 2 (November 9, 80 min).....              | <b>20%</b> |
| Activity points*.....                            | <b>10%</b> |
| 10 Pop-quizzes**.....                            | <b>10%</b> |
| Connect assignments.....                         | <b>5%</b>  |
| Final exam (cumulative, date TBA, 180 min) ..... | <b>35%</b> |

\* *Activity points: In order to earn full activity points (10% of course total), you must participate in at least 50% of in-class activities. These activities include pre- and post-quizzes, iClicker questions during lectures, etc. Pop-quizzes and midterms do not count toward in-class activities. If you participate in fewer than 50% of activities, your activity points will be proportionately reduced. Your in-class participation will not be graded – you earn points simply for attending and being engaged during classes. You can opt out of participating in in-class activities, and then the weight of your activity points will be moved to the final exam, making it worth 45% of the final grade.*

\*\* *Pop-quizzes will be given without prior announcement throughout the semester. Each pop-quiz will be 5 min long and will consist of 4-5 multiple-choice questions. Pop-quizzes may be given at any time during lecture. Pop-quizzes are designed to be answered using iClicker, however, you may write down your answers on a sheet of paper, if your iClicker device is not available.*

## Important Dates

First class – September 7, 2017  
Last class – November 30, 2017  
Drop deadline – November 10, 2017

NOTE: for additional important dates such as holidays, refer to the “Important Dates” section of the Registrar’s Website at <http://registrar.yorku.ca/enrol/dates/fw17>

## Resources

Textbook: “Introduction to Biology” Custom Publication for York University. The text includes selected chapters from “Biology: The Essentials”, 2<sup>nd</sup> edition, by M. Hoefnagels. The textbook is available at the YorkU bookstore, and includes a unique access code to CONNECT from McGraw-Hill Education.

## Learning Outcomes

### **By the end of the course you should be able to:**

- 1) Discuss the process of evolution and describe how evolution is used to explain the unity and diversity of life.
- 2) Describe the properties and processes of life and the differing scales at which life is studied.
- 3) Discuss the process of science and biological inquiry.
- 4) Describe the chemical nature of life and how biological macromolecules interact at a cellular level.
- 5) 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).
- 6) Discuss the role of genetic information and the environment in shaping an organism’s phenotype.
- 7) Relate genetic principles to population structure, speciation and evolution of organisms.
- 8) Describe the evolution of biological diversity and identify major features and properties of prokaryotes, protists, fungi, invertebrates and vertebrates.
- 9) Describe the biosphere and identify defining features of aquatic and terrestrial biomes.
- 10) 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.
- 11) Work effectively, within a group and individually, to gather, review, analyse and present biological information.

## Course Content

Lecture slides, iClicker questions, readings, and lesson-specific learning outcomes, as well as any other additional information pertaining to the course will be posted on Moodle.

## Experiential Education and E-Learning

### **E-Learning components:**

- Moodle Website
- McGraw-Hill CONNECT platform
- iClicker Cloud (Macmillan Learning)

## Other Information

N/A

## Course Policies

1. **No makeup tests will be offered.** Those students who missed a test with a legitimate documented reason will need to submit the Attending Physician's Statement (APS) and/or a completed DSA form to the course instructors within 5 business days of the missed test. If your request is approved, the weight of the missed test will be added to your final exam. Only a "York Attending Physician's Statement Form" or a similarly detailed doctor's note (i.e. not a form stating that you visited a clinic) will be accepted for medical excuses. Booking holiday airfare coinciding with exam dates will not be considered a legitimate excuse.
2. Tests and exams will follow a mixed format, e.g. multiple-choice, short-answer, problem, diagram, etc. When a test/exam includes a written component, you will be given specific instructions on the possibility of re-marking these components.
3. Standard accommodation policies as set by the university will be followed in the course.
4. All students in the course must be familiar with York University's policies on academic integrity. Please consult the following website for more detail:  
<http://www.yorku.ca/academicintegrity/students/index.htm>

## 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.

Students 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](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/>