

EEB204H1S – Diversity of Living Organisms

Department of Ecology and Evolutionary Biology
University of Toronto

Course Syllabus – Winter 2015

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Calendar description

- Introduction to the diversity of living organisms, including microorganisms, fungi, plants and animals, with an emphasis on evolution, ecology and conservation.
- No prerequisite. This is a course for non-science students in all years and disciplines. [Distribution Requirement: This is a Science course. Breadth Requirement: Living Things and Their Environment (4)]
- Exclusion: BIO120H1/150Y1

Course objectives

In this course you will learn:

1. How biologists study life.
2. That evolution is the universal theory of biology and the explanation for the unity and diversity of life; and that “nothing in the natural world makes sense except in the light of evolution.”
3. What is a species, how species arise, that the tree of life arose from a single common ancestor, and what determines where on Earth organisms live.
4. What are the major groups of living organisms, what key features distinguish them, how they affect humans and other organisms, and the diverse ways in which living organisms survive and reproduce.
5. Why biodiversity is important, what are the major threats to biodiversity, and what conservation efforts are required to preserve biodiversity.

Time and location

- The class meets for 12 weeks: on **Mondays 1:10-2:00** (50 minutes) and **Wednesdays 1:10-3:00** (110 minutes); see schedule on the next page.
- Location: LM 161 (Lash Miller Chemistry, 80 St. George)

Required textbook (available from the U of T Bookstore)

- The required textbook is the **CUSTOM U of T EDITION** of *BIOLOGY: Life on Earth (10th edition)* by T. Audesirk, G. Audersirk, and B. E. Byers (publisher: Benjamin-Cummings/Pearson).
- 14 chapters are required (1, 14 to 24, 29, 30) and are in the CUSTOM U of T EDITION, which is available from the U of T Bookstore for \$82.50; you should also purchase a binder to keep all pages together. (The complete hardcover textbook of *BIOLOGY: Life on Earth with Physiology 10 ed.* contains 45 chapters.)
- Pages 541-546 in Chapter 28 are also required reading; these will be provided on Portal as a PDF.

Course site on the Portal: Course information will be posted on the Portal, including announcements. Please check the EEB204 site on the Portal at least once each week.

Proposed Schedule

Week	Date	Lecture #	Lecture/Activity (Mon 1:10-2:00, Wed 1:10-3:00)	Required Chapter	Reading Quiz
1	Mon Jan 5	1	Introduction	-	-
	Wed Jan 7	2	Introduction to Life on Earth Discussion of Blog assignment	1 -	1 -
2	Mon Jan 12	3	Principles of Evolution 1	14, 15	2
	Wed Jan 14	4	Principles of Evolution 2 Charles Darwin and the Tree of Life (video)	(14, 15) -	- -
3	Mon Jan 19	5	Origin of Species	16	3
	Wed Jan 21	6	Systematics: Order Amidst Diversity	18	4
4	Mon Jan 26	Review for Test 1			
	Wed Jan 28	Test 1: Lectures 1-6 <u>and</u> associated required readings/activities			
5	Mon Feb 2	7	History of Life	17*	5
	Wed Feb 4	8	Diversity of Bacteria and Archaea	19	6
6	Mon Feb 9	9	Diversity of Protists	20	7
	Wed Feb 11	10	Diversity of Fungi	22	8
Feb 16-20: Family Day and Reading Week (no classes)					
7	Mon Feb 23	11	Diversity of Plants 1	21	9
	Wed Feb 25	12	Diversity of Plants 2 The Private Life of Plants: Flowering (video)	(21) -	- -
8	Mon Mar 2	Review for Test 2			
	Wed Mar 4	Test 2: Lectures 7-12 <u>and</u> associated required readings/activities			
9	Mon Mar 9	13	Diversity of Animals 1	23	10
	Wed Mar 11	14	Diversity of Animals 2	(23)	-
10	Mon Mar 16	15	Diversity of Animals 3	24	11
	Wed Mar 18	16	Diversity of Animals 4	(24)	-
	Fri Mar 20	-	Blog assignment due (by 5:00 PM)		
11	Mon Mar 23	17	Earth's Diverse Ecosystems 1 (& video)	29	12
	Wed Mar 25	18	Earth's Diverse Ecosystems 2 (& video)	(29)	-
12	Mon Mar 30	-	Comments to four blog entries due (by 9:00 AM)		
	Mon Mar 30	19	Conserving Earth's Biodiversity 1	30**	13
	Wed Apr 1	20	Conserving Earth's Biodiversity 2		
April 8-30: Final Exam (Lectures 1-20 and associated required readings/activities)					

* Chapter 17: sections 17.1 to 17.5 are required; section 17.6 on human evolution is highly recommended, but is not required.

** Required reading for Lecture 19 also includes pages 541-546 (available on Portal).

Evaluation

Reading quizzes (see below)	10%
Blog assignment (see below): (1) your blog is due Fri Mar 20 (5:00 PM); (2) your comments to four different blogs are due Mon Mar 30 (9:00 AM)	14%
Test 1: Wednesday, Jan. 28, 1:15-2:25 p.m. (70 minutes) in EX 100 (Exam Centre) - Lectures 1-6 and associated required readings/activities	18%
Test 2: Wednesday, Mar. 4, 1:15-2:25 p.m. (70 minutes) in EX 100 (Exam Centre) - Lectures 7-12 and associated required readings/activities	18%
Final Exam: 3 hours, during Faculty exam period, April 8-30 [date and location TBA] - All lectures and associated required readings/activities - More of the material will cover Lectures 13-20 than Lectures 1-12	40%
	100%

How to do well in this course

- I will do my best to share with you my enthusiasm for the course material, to explain concepts clearly, and to answer your questions. You will learn best in this course if you keep up with the weekly required reading, complete the weekly reading quizzes (online), attend class, and take notes.
- Attending class is important because test and exam questions cover material in lectures that may not also be in the textbook. And, although selected lecture slides are posted on Portal after class, they do not fully cover all presented material.
- Test and exam questions (most are multiple-choice, some are short-answer) assess more than an understanding of facts. To excel in this course you must also demonstrate “higher-level learning” by applying your knowledge and thinking critically.
- If you are having difficulty with class material, or have other concerns throughout the course, please do not hesitate to email, call or come to my office.

Reading quizzes

- There will be 13 quizzes covering the 14 required chapters (+ pages 541-546) from the required textbook.
- Reading quizzes are available on Portal; how to complete the Reading Quizzes will be discussed in class.
- The purpose of the reading quizzes are to encourage you to do the readings before lecture, thus each quiz is no longer available as of noon on the day that a lecture is presented.
- Each quiz is worth 1%. Your scores on your 10 best quizzes will be used to calculate your total quiz score (i.e., maximum is 10%, if you obtain perfect on 10 quizzes). Thus you can miss up to three quizzes (of 13) and still obtain a perfect 100%. You must complete a quiz within 4 hours of starting it.

Blog assignment

- A blog is a journal where others can comment on what you post.
- Each student will author **one blog** within the course’s Portal site.
- Your blog will be available for other students in the course to view and comment on.
- You can blog about any topic/issue that is related to the material covered in the lectures and textbook, such as a reflection on what you have learned, a topic in the news, or on a topic that inspires you to want to learn more and to share what you’ve discovered with your classmates.
- Your blog entry can include text, images, videos, and links, and must cite the sources of ideas, images, etc. that you include within your blog entry.
- Your blog is worth a total of 14% of your final grade.
- **Example blogs** are posted on Portal; a **grading rubric** is provided on the next page.
- Before posting your blog on Portal you will **submit your blog to Turnitin.com** (see note on next page).
- Each student is also required to provide **four (4) constructive comments** to the blog entries of other students; failure to provide four constructive comments will result in a reduction of 20% of the Blog Assignment grade (e.g., 90% – 20% = 70%).

- **Late penalty:** 5% per weekday after the Fri Mar 20 due date. Example: submitted Tues Mar 24, 10% penalty (80% – 10% = 70%). Of course, there is no penalty for a documented illness or reason.
- Optional (but highly encouraged): at the end of your blog, **introduce yourself to your classmates**, such as what program you are studying, your interest in taking this course, etc. and include a photo of yourself.
- *Note about use of Turnitin.com:* “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.”

Grading Rubric for Blog Assignment

Characteristic of an effective blog entry. Each entry:

1. is posted by the due date (Fri Mar 20, 5:00 PM);
2. is an expression of your ideas and written using your own words; and has been submitted to Turnitin.com (on or before the due date);
3. is composed paying attention to the quality of the writing (e.g., appropriate word choice and use, logical and correct sentence structures, absence of glaring spelling and grammatical errors – remember to spell-check your work);
4. has an informative title, is written for a general audience (such as your fellow students), defines uncommon terms, and, if appropriate, uses subtitles if there are obvious sections within your text;
5. is no more than 750 words in length (excluding Works Cited section); a word count is provided at the end of the entry (and before the Works Cited section);
6. contains resources (e.g., links, images, videos; especially images), where appropriate, and explains their relevance to the course/blog content; each image should have a figure caption;
7. demonstrates an accurate understanding of the material presented and makes clear connections to course content;
8. includes complete and correct citations for sources (i.e., cites the sources of ideas, images, etc.) in a section titled Works Cited, following the APA citation style;
9. shows creativity and originality, and uses more specialized sources than Wikipedia for information;
10. elicits constructive comments from others (a “constructive comment” adds additional useful information to the topic, or provides the author with useful feedback, such as which characteristics of an effective blog post are lacking).

Note: Before writing your blog be sure to consult the “**Guide to citing sources and writing using your own words**” provided on the EEB204 Portal site.

Blog grades will be assigned as follows: (your blog will be graded by the course TA)

<i>Points</i>	<i>Quality of entry</i>
80-100	Excellent to Outstanding; shows <u>strong evidence</u> of achieving <u>most</u> or <u>all</u> of above characteristics
70-79	Good; shows <u>evidence</u> of achieving <u>most</u> of the above characteristics
60-69	Adequate: shows <u>evidence</u> of achieving many of the above characteristics
< 60	Below to Far Below Expectations: <u>fails</u> to show evidence of achieving many of above characteristics