CBIOL 1101: Biology 1 with Lab, Fall 2014
4 Credits, University Hall 2-142, MW 8A – 10:30A
Instructor: Albert Liau, aliau@lesley.edu, 617-528-9552
    University Hall 2-124, office hours Tuesdays 5 - 6P & by appointment
Teaching Assistants: Todd Neill, toddrneill@gmail.com, office hours by appointment
    Lexi Giusti, agiusti@Lesley.edu, office hours W 1-2P & by appointment
Course Prerequisites: None

Course Description
This course will immerse you in Biology, the prevalent, crucial language of life so when you
encounter it, you can get a sense of what's going on and even join the conversation.

We will start by getting acquainted with the nature of scientific inquiry and the properties of life,
and then examine a range of fundamental topics including ecology, cellular structure and
function, genetics and evolution. Throughout the semester, laboratory activities, class
discussions, videos and projects will give you ample opportunities to use the language you will be
learning. While it takes years to gain fluency in biology, this class provides you with the chance to
get talking.

Required Text
This book is also available as an electronic textbook from Inkling.com. If you plan to continue the
study of Biology beyond this course, you should consider purchasing the 10th edition, which is
the most current version.

Recommended Texts
*E.O. Wilson's Life on Earth* (iBooks electronic textbook)

Additional Materials
- Assorted news stories, journal articles, documentaries and TED talks to be provided via the
course blog
- Course Blog: LesleyFallBio1.wordpress.com
- Instructor's slides, available on slideshare.net/apparentlyalbert/presentations

Objectives/Outcomes/Expectations
Through this course, students will gain familiarity with fundamental concepts in biology that will
enable them to understand and further explore a variety of biological phenomena. By the end of
the course, diligent students should be (1) familiar with the mechanics of the scientific process,
(2) able to explain a range of phenomena in terms of basic Biology concepts, and (3) comfortable
pursuing the further Biology-related studies, should they choose to do so.

Flipped Classroom Approach
Class time will be spent largely working in a flipped-classroom format, meaning students will be
expected to come to class having done the reading and any homework assigned as preparation
for class discussions and activities; accordingly, a large portion of the final grade will be based on
participation and professionalism (see below).

Textbook Readings
Reading assignments are critical to understanding the course material and to performing well. As
mentioned above, you are expected to come to class having done the assigned reading. The
class discussions will clarify or expand upon the readings, but are not a substitute. Material from
the readings may appear on midterm/final exams even if not explicitly covered in lecture.
**Attendance**

Students are expected to attend all classes. Missing a class without a legitimate reason (e.g. illness, personal emergency, field trip for another class, etc.) will result in a decrease in the Professionalism portion of the grade with three unexcused absences resulting in a full letter grade reduction of the student’s final grade for the semester. Students are allowed 2 unexcused absences before the final grade is impacted.

*Students arriving 30 minutes past the start of class time will be counted as absent.*

Students with legitimate reasons for missing class should contact the instructor or a teaching assistant (TA) ASAP and be prepared to show the proper documentation, such as a doctor’s note or letter from an academic advisor.

For missed classes, students should make arrangements to access materials used in class (such as videos) and perform any activities (such as looking at samples with microscopes) to ensure they are fully prepared for exams.

**Professionalism (and Participation)**

Students will very likely be in professional situations throughout their careers and the ability to act accordingly in such situations is important. We will take the time we spend together in this course as an opportunity to exercise our ability to act professionally. Participation can be thought of what (or how much) a student contributes to the class. Professionalism is how a student contributes to the class. Please be thoughtful of both.

Students should exercise professionalism by showing consideration for everyone in the classroom by engaging the material and not being distracted, or worse, disruptive during class. In efforts to encourage engagement and maintain a professional environment, computer and cell phone use is not permitted during class time unless class activities or important circumstances require their use (details below).

*Students who do not conduct themselves professionally will have their grades immediately and severely impacted.*

Conduct positively influencing a student’s professionalism portion of the participation grade include respectful treatment of peers (e.g. giving them the attention and courtesy they deserve), approaching presentations and projects with due seriousness (e.g. being prepared, communicating conscientiously with peers and the instructor when needed, contributing fairly to group efforts, etc.) and general efforts to be responsible and accountable. At the end of the semester, each student’s professionalism portion of the grade will be determined on the basis of peer feedback and instructor observation of a student’s conduct during class time and group work.

**No-Device Policy**

During class time, we will follow a strict no-device policy. To minimize distraction and encourage engagement, computers, tablets and cell phones may not be used during class time except for urgent circumstances or specific class activities (during which the instructor or TA will make it clear that the use of devices is permitted). The use of any of these devices during class time will immediately result in a full letter grade reduction in the final grade for the semester.

If you need to take a call or respond to an important message, please step out of the classroom for privacy and to be considerate of your peers. If you have made accommodations to use technology in the classroom (e.g. for note taking), please let the instructor or TA know ASAP.
Late Work Policy
Assignments, lab write-ups and projects will not be accepted after their due dates, unless there is a legitimate reason (e.g. illness, personal emergency) for late submission. Students should let the instructor or TA know ASAP if an assignment needs to be submitted late.

Communications Guidelines
Many of the homework assignments during the semester can be turned in electronically if you do not wish to print them out. The email address for submitting homework assignments electronically is bio1homework@lesleybio.net.

The most effective way to communicate with the instructor and course assistant is in person after class, during the break, during office hours or by appointment. The instructor will endeavor to answer student emails promptly, but due to the sheer volume of email generated at Lesley University as well as scheduling constraints such as other classes and meetings, students should expect emails to potentially go unanswered for 36 hours. Please note that the instructor does not check email after 7pm but makes an effort to regularly check a few times during the day.

Emails regarding the class should be sent to both the instructor and course assistant with the following subject line
Bio 1: [insert specific topic here]
(for example, an email inquiry about homework should have a subject line like Bio 1: 3-Source Project Question).
This way the instructor and course assistant will know the nature of your inquiry or concern. If you are emailing about a truly important matter, please add URGENT to the subject line of your email. Emails without an appropriate subject line might be missed by the instructor or course assistant or handled less promptly.

Grading
Final grades are based on all work done during the semester with the following weightings:

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<th>Component</th>
<th>Weighting</th>
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<tr>
<td>Exams</td>
<td>30%</td>
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<tr>
<td>Projects</td>
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<tr>
<td>Assignments</td>
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<tr>
<td>Lab Activities</td>
<td>10%</td>
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<tr>
<td>Professionalism</td>
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Grading Scale (from the CLAS catalog)

Exams
The format/specific topics covered by the midterm and final exams will be discussed in class as the date of the exam nears. Exams will be mainly or exclusively comprised of multiple-choice and short-answer questions to be answered during class time. If scores are low are either exam, the instructor may choose to curve the exams or offer students other options to make up points.

Rough Outline by Topic

Scientific Inquiry and Life
Biology chapter 1
Life of Earth chapter 1

Basic Chemistry: Atoms, Molecules and Water
Biology chapter 2
Life on Earth sections 2.1, 2.2

Biological Macromolecules
Biology chapter 3
Life on Earth sections 2.3, 2.4
Machinery of Life chapter 2

Cells
Biology chapters 4 and 5
Life on Earth chapter 5, sections 6.1, 6.2, movies 6.1, 6.2, 6.4
Machinery of Life chapter 5

Heredity & Genetics
Biology chapter 12
Life on Earth, chapter 11
The Cartoon Guide to Genetics

Chromosomes
Life on Earth chapter 9, movie 9.5

The Central Dogma
Biology sections 14.1-4 and 15.1-3, 15.6-8
Life on Earth chapter 10, sections 1-4
Machinery of Life chapter 3

Biotechnology
Biology chapter 17
Life on Earth chapter 13

Evolution
Biology sections 21.1-5, 22.4-5
Life on Earth chapters 3 and 4

Group Selection
The Social Conquest of Earth, chapter 6

Behavior
"Life's beauty: the kindest act towards you in your life may come from an outsider not interested in reciprocation."—Nassim Nicholas Taleb
Biology sections 55.1-6, 55.8-12
Life on Earth chapter 38

Ecology
Biology chapter 56
Life on Earth chapter 37

Viruses
Biology chapter 27
Life on Earth sections 26.1-5,

Academic Responsibility
Unless prior approval is granted by the instructor, all work submitted for this course is to be the student’s (or students’ in the case of projects done in groups) own original work completed
specifically for this course and not previously or concurrently submitted to any other instructor. All infractions of this policy will be taken seriously and pursued accordingly. Please refer to the Student Handbook for more specific policy guidelines.

**Disability Services for Students**
Lesley University is committed to ensuring that all qualified students with disabilities are afforded an equal opportunity to participate in and to benefit from its programs and services. To receive accommodations, a student must have a documented disability as defined by Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA), or the Americans with Disabilities Act Amendments Act (ADAAA), and must provide documentation of the disability. Eligibility for reasonable accommodations will be based on the documentation provided.

This syllabus and other course materials are available in alternate format upon request.

If you are a student with a documented disability, or feel that you may have a disability, and you wish to discuss possible accommodations, please find contact information below.

**Learning Disabilities and Attention Disorders for On-Campus Students**
Maureen K. Riley, Director of Academic Support Services for Students with LD/ADD Services
Doble Hall, 2nd Floor
Phone: 617.349.8464 • Fax: 617.349.8324
mkriley@lesley.edu

Physical, Sensory, and Psychiatric Disorders
Ruth Bork, Director of Access Services
11 Mellen, 1st Floor
Phone: 617.349.8194 • Fax: 617.349.8558 • TTY: 617.349.8544
rbork@lesley.edu

**Learning Disabilities and Attention Disorders for Off-Campus Students**
Dan Newman, Lesley University ADA/504 Coordinator
Doble Hall, 2nd Floor
Phone: 617.349.8572 • Fax: 617.349.8324
dnewman@lesley.edu

For students and faculty with general questions about Disability Services, please contact Dan Newman.

**Computer Support Services**
University Technology – UT ut@lesley.edu; Online Help Center at www.lesley.edu/ut

University Technology assists Lesley students, faculty and staff with technology-related questions. More information about UT’s mission and list of computer classes can be found at the UT webpage http://www.lesley.edu/ut/index.html. The UT phone number is 617-349-8770. MyLesley technical support at 1-888-myLesley.

Lesley University Library Services & Resources: Students are encouraged to use the Lesley University Library for high-quality academic information for their assignments. The myLibrary tab on myLesley (http://my.lesley.edu) offers access to services and resources for academic research, including:
FLO library catalog (http://endeavor.flo.org/vwebv/searchBasic?) for information about books, tests, videos, media equipment, and teaching resources
Library Databases (http://research.lesley.edu/databases) for access to online journal articles and e-books (myLesley login required)
Media Resources (http://research.lesley.edu/Media) such as online and local videos, DVDs, and production aids
Searchpath library tutorial (http://mail.lesley.edu:81/searchpath/) to learn about academic library research
Research Guides (http://research.lesley.edu/index.php) by subject area
Ask-A-Librarian (http://www.lesley.edu/library/guides/asklib.html) for personalized research help by email, IM or phone
APA Citation Format (http://research.lesley.edu/apa)/ MLA Citation Format (http://research.lesley.edu/mla)
Interlibrary Loan (http://www.lesley.edu/library/services/interlibrary_loan.html) for requesting materials not found at Lesley
Services to off-campus and online students (http://www.lesley.edu/library/guides/offcampus.html)

Students are encouraged to visit the three library facilities for hands-on resources, computers, study space, and expert help from library staff - Sherrill Library on the Brattle Campus (the main university library), Art Institute of Boston Library in Kenmore Square (for specialized art resources), and the Kresge Media Center at University Hall (for media production and equipment)--hours (http://www.lesley.edu/library/information/hours.html)/Google map