



BIOL-1060 PRINCIPLES OF BIOLOGY II
CLASS SYLLABUS
DIVISION OF SCIENCE & ENGINEERING
SAINT LOUIS UNIVERSITY, MADRID CAMPUS
Spring 2016

Instructor: Dr Anya M Hillery
Class Schedule: MWF 10.00-10.50
Classroom: PAH 20
Credits: 3
E-mail: ahillery@slu.edu
Office Hours: M, W 14:00-14.30; T 14.00-16.00
Prerequisites: BIOL-1040

OBJECTIVES OF THE COURSE

- BIOL-106 is the second semester of the introductory Principles of Biology sequence.
- In this course we cover major concepts in ecology, evolution, the diversity of life, and plant biology.
- Our goal is to design a course that allows you to be prepared for future courses and careers and to be an informed global citizen.
- This course is also designed to enable you to experience the *process* of science. The lecture portion of the course will emphasize key unifying concepts that will be reinforced in the laboratory portion of the course.
- We will present the latest information on important details of these key concepts and critical experiments will enhance your understanding of the scientific process in answering biologically relevant questions.
- We will incorporate active learning strategies in all portions of this course, which are designed to help you develop invaluable critical thinking skills. In lecture there will be interactive exercises that will allow you to continually assess your level of understanding.

STUDENT'S LEARNING OUTCOMES

A student successfully completing BIOL-106 should have developed:

- 1) An extensive **scholarship and knowledge** in the basic principles of biology relating to ecology, evolution, the diversity of life and plant science;
- 2) A full understanding of **the process of scientific inquiry in biology** and the ability to apply critical thinking skills to solve biologically relevant problems;
- 3) An introduction to the skills of **oral and written scientific communication** to be able to express scientific ideas and concepts clearly;
- 4) An ability to **work constructively with others** toward shared goals;
- 5) An understanding of the **ethical perspective of scientific research and communication**;
- 6) Experience in **utilizing current laboratory techniques**.

ASSESSMENT OF STUDENT'S LEARNING OUTCOMES

- Learning Outcomes 1, 2, 3, 4 and 5 will be assessed through lecture exams, quizzes, assignments, readings, as well as lab work and written laboratory reports
- Learning Outcomes 3, 4, 5, and 6 will be assessed through lab exercises, class oral presentations, and written laboratory reports.

CLASS OVERVIEW

Part 1: Ecology

1. Introduction
2. Population Ecology
3. Community Ecology
4. Ecosystems

Part 2: Evolution

1. Genomes and their Evolution
2. Darwinian Evolution
3. Evolution of Populations
4. The Origin of the Species

Part 3: The Diversity of Life

1. Phylogeny and the Tree of Life
2. Bacteria and Archaea
3. Viruses
4. Protists
5. Fungi

Part 4: Animals

Invertebrates
Vertebrates

Part 5: Plants

Plant Diversity and Structure
Plant Transport
Plant Nutrition

TEXTBOOK

- **Campbell, et al.** 2015. *Biology A Global Approach* (10th ed.). Pearson, San Francisco, CA. If you took BIOL-104 you should have this textbook already.
- **Mastering Biology (www.masteringbiology.com)**

Additional books:

- Raven, et al. 2010. *Biology* (9th ed.). McGraw Hill, New York, NY.

ONLINE RESOURCES

Extensive use of the SLU Blackboard Learning System will be employed. All lectures will be posted there and it should be checked daily for announcements. Other supporting material, including course syllabus, lecture schedule, handouts, announcements, homeworks, links to tutorials, and other materials, will also be available on the SLU Blackboard site.

EXAMINATIONS

There are three exams for this course: two mid-terms and a final. The exams are not cumulative, thus the first mid-term will examine the material covered up to this exam. The second mid-term will examine the material covered *after* the first mid-term and the final exam will examine the material covered *after* the second mid-term.

However, there is also a comprehensive final exam that examines **all** of the course material. This exam is obligatory for students who fail or miss either mid-term exam. It is voluntary for any students who, having done their mid-terms, would like to try and improve their grade (but a poor result may obviously reduce the grade).

Students who miss an exam are required to provide written documentation of the circumstances, e.g. doctor's medical certificate, letter from university counsellor, etc.

IMPORTANT DATES!

- First Mid-Term: Wednesday 17 February
- Second Mid-Term: Wednesday 16 March
- Final Exam: Tuesday 10 May (8.30-11.30)

GRADES

Your grade for the course will be based on the following:

Midterm exam 1	20%
Midterm exam 2	25%
Midterm exam 3	25%
Presentations	5%
<u>Laboratory</u>	<u>25%</u>
Total	100%

The grade you earn will be based on your performance on the lecture exams, the final exam, assignments and the laboratory. Your final grade will be calculated based on the total percentage you earn in the course.

CLASS POLICIES

- (1) Contacting Faculty Instructor:** Email is the preferred method of communication for contacting faculty. Because the relationship between faculty and students is a professional one, not a personal one, please use your SLU email address rather than a personal email account. We make every effort to respond to emails promptly; typically, you can expect a response within 24 hours, excluding evenings and weekends. If we don't respond within 24 hours, please feel free to re-send the email.
- (2) Class attendance:** Attendance at all class meetings is expected. Data from previous classes show that students who miss one or more classes earn at least one letter grade lower than those students who do not miss classes. If you do miss a class, it is your responsibility to obtain the notes from SLU Global and/or another student. We recommend that you exchange names and phone numbers with at least two other students in the class for this purpose; however, no student is obligated to share notes or other information with any other student. If you miss an assignment, quiz, graded in-class activity, etc., remember that you will not be allowed to make it up; do NOT contact the instructors to ask us to make an exception for you.
- (3)** Students are encouraged to participate in class discussions and to ask questions
- (4)** All Power Point presentations will be placed on Blackboard, as well as Announcements, Homework Assignments and Readings. Blackboard should be checked at a regular basis.
- (5)** Exam questions may come from material covered in lecture, class discussions, from the assigned reading and from any supplementary reading material provided.
- (6)** Make up exams are not given. Students who legitimately miss an exam, due to a doctor or family emergency must provide written documentation of the circumstances. A letter from the university

counselor is accepted. Exams that are missed illegitimately result in a score of F. Grades for these students will be based on the remaining exams. Missing more than one exam results in an F.

(7) Policy on Technology in the Classroom:

Cell phones or other electronic devices (e.g. iPods, iPads, Blackberrys, etc.) are NOT permitted during lecture. Please be sure that you have your device turned off or set to vibrate and stored out of sight before the start of class. If you are expecting an urgent or emergency phone call, please let your instructor know before the beginning of class.

ACCOMODATION STATEMENT

In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. Students who think they might benefit from these resources can find out more about: Course-level support (e.g., faculty member, departmental resources, etc.) by asking your course instructor. University-level support (e.g., tutoring/writing services, Disability Services) by visiting the Academic Dean's Office (San Ignacio Hall) or by going to <http://www.slu.edu/madrid/learning-resources>. Students who believe that, due to a disability, they could benefit from academic accommodations are encouraged to contact Disability Services at +34 915 54 58 58, ext. 204, send an e-mail to counselingcenter-madrid@slu.edu, or to visit the Counseling Office (San Ignacio Hall). Confidentiality will be observed in all inquiries. Course instructors support student accommodation requests when an approved letter from Disability Services has been received and when students discuss these accommodations with the instructor after receipt of the approved letter.

STUDENT WORK FOR ASSESSMENT

Saint Louis University - Madrid Campus is committed to excellent and innovative educational practices. In order to maintain quality academic offerings and to conform to relevant accreditation requirements, we regularly assess our teaching, services, and programs for evidence of student learning outcomes achievement. For this purpose we keep on file anonymized representative examples of student work from all courses and programs such as: assignments, papers, exams, portfolios, and results from student surveys, focus groups, and reflective exercises. Thus, copies of your work for this course, including MIDTERM AND FINAL EXAMS and submitted final projects may be kept on file for institutional research, assessment and accreditation purposes. If you prefer that Saint Louis University-Madrid Campus does not keep your work on file, you will need to communicate your decision in writing to your professor.

ACADEMIC HONESTY AND PLAGIARISM

The University is a community of learning, whose effectiveness requires an environment of mutual trust and integrity, such as would be expected at a Jesuit, Catholic institution. As members of this community, students, faculty, and staff members share the responsibility to maintain this environment. Academic dishonesty violates it. Although not all forms of academic dishonesty can be listed here, it can be said in general that soliciting, receiving, or providing any unauthorized assistance in the completion of any work submitted toward academic credit is dishonest. It not only violates the mutual trust necessary between faculty and students but also undermines the validity of the University's evaluation of students and takes unfair advantage of fellow students. Further, it is the responsibility of any student who observes such dishonest conduct to call it to the attention of a faculty member or administrator.

Examples of academic dishonesty would be copying from another student, copying from a book or class notes during a closed-book exam, submitting materials authored by or editorially revised by another person but presented as the student's own work, copying a passage or text directly from a published source without appropriately citing or recognizing that source, taking a test or doing an assignment or other academic work for another student, tampering with another student's work, securing or supplying in advance a copy of an examination without the knowledge or consent of the instructor, and colluding with another student or students to engage in an act of academic dishonesty.

Where there is clear indication of such dishonesty, a faculty member or administrator has the responsibility to apply appropriate sanctions. Investigations of violations will be conducted in accord with standards and procedures of the school or college through which the course or research is offered. Recommendations of

sanctions to be imposed will be made to the dean of the school or college in which the student is enrolled. Possible sanctions for a violation of academic integrity include, but are not limited to, disciplinary probation, suspension, and dismissal from the University. The complete SLU Academic Honesty Policy can be found at the following link: http://spain.slu.edu/academics/academic_advising/docs/Academic_integrity.pdf

TITLE IX SYLLABUS STATEMENT

Saint Louis University and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have encountered any form of sexual misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence), we encourage you to report this to the University. If you speak with a faculty member about an incident of misconduct, that faculty member must notify SLU's Title IX deputy coordinator, Marta Maruri, whose office is located on the ground floor of Padre Rubio Hall, Avenida del Valle, 28 (mmaruri@slu.edu; 915-54-5858 ext. 213) and share the basic fact of your experience with her. The Title IX deputy coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

If you wish to speak with a confidential source, you may contact the counselors at the SLU-Madrid's Counseling Services on the third floor of San Ignacio Hall (counselingcenter-madrid@slu.edu; 915-54-5858 ext. 230) or Sinews Multipletherapy Institute, the off-campus provider of counseling services for SLU-Madrid (www.sinews.es; 91-700-1979) To view SLU-Madrid's sexual misconduct policy and for resources, please visit the following web address: <http://www.slu.edu/Documents/Madrid/campus-life/SLUMadridSexualMisconductPolicy.pdf>