Welcome to Principles of Biology II or BSCI106! You are entering the Fall 2015 re-designed version of BSCI106, supported by TLTC (Teaching and Learning Transformation Center and the Office of Sustainability at UMD. My hope is that after finishing this course you will be able to learn concepts and skills that will prepare you to take more advance science courses and be a better-informed citizen in this ever-changing world. In order to reach this goal we will work on connecting the major concepts of this course to sustainability issues such a climate change; biodiversity and species conservation; human population growth; evolution of antibiotic resistance among others. I have also included in this new version lecture activities that will help you master the course main concepts and skills including the development of better interpersonal skills by working in groups. Yes, in groups, and this will help you later on when you look for a job, go to graduate school or go to professional school.

These are the skills and concepts I expect you to gain from BSCI106:

SKILLS
1. Students should be able to use mathematical and critical thinking skills to describe evolutionary and ecological processes.
2. Student should be able to create and interpret tables and graphics.
3. Student should be able to design simple experiment to test hypotheses and be able to identify a good experimental design.
4. Student will have fun and learn to work with others (cooperative learning).

CONCEPTS:
1. Student should be able to connect how systems interact from genes, cells, organisms, and populations to the ecosystem level.
2. Students should be able to explain how genetic diversity arises, how it is maintained and the fundamental role of this genetic diversity for evolution by natural selection.
3. Students should be able to recognize patterns of diversity in nature and how this reflects evolution from a common ancestor.
4. Students will learn to have an appreciation of Ecology, Evolution and Diversity of life.
5. Students will be able to link major course concepts to sustainability issues

LECTURE MEETINGS:
MWF 2-2:50pm
CHM 1407 (Chemistry Building)
CONTACTING YOUR INSTRUCTORS
Dr. Francisca Saavedra
1326 Symons Hall
301-405-6892
saavedra@umd.edu
Office hours: Mondays 3-5 pm and by appointment.
Please contact me only through ELMS-Canvas; because of the large number of students in the class, regular email is not a good option for correspondence, your email has a very good chance to get lost in my inbox! Using ELMS-Canvas ensures that I can locate your message easily and that a compiled record of all correspondence is maintained. If for some reason you are unable to reach me through ELMS-Canvas, then you may email me directly or call, but this should only be in unusual circumstances and, if you do email me directly, be sure to include "106" in the subject of the email.

Contact Hans Lemke or your TA for questions regarding the Lab portion of the course.

REQUIRED MATERIALS:

Textbook: *Principles of Life, 2nd edition* by Hillis. (Launchpad is not required). (You can buy a new or used copy (hardcopy or loose leaf but loose leaf is cheaper). You can also rent a copy.


GRADING:

1. There will be 3 exams, each worth 100 points, and one final exam, worth 150 points. The final exam will be cumulative, with the last lectures (not covered in exam 3) receiving slightly greater weight.

2. There will be three problem sets (3 @ 30 pts. = 90 points), one on Population Growth, one on Mendelian Inheritance, one on Hardy Weinberg. The problem sets WILL NOT BE ACCEPTED LATE AND HAVE TO BE HANDED IN ON PAPER, NO ELECTRONIC SUBMISSIONS!! (I’ll be posting an answer key)! Start early –problem sets are supported by preceding labs and/or lectures so you’ll have all the information you need well in advance.

3. There will be 6 graded in-lecture activities (10 points each).

The total points for lectures are 520 points:
1. Exams 350 points
   Exam 1: October 2 100 points
   Exam 2: November 6 100 points
   Exam 3: December 4 100 points
   Final Exam: December 17 150 points

2. Homework 90 points
   HW 1-Population growth September 16 30 points
   HW2-Mendel October 21 30 points
   HW3-Hardy Weinberg October 28 30 points

3. In lecture activities: 60 points
   LA1-Human population growth September 11 10 points
   LA2-Sea otter case study September 18 10 points
   LA3-Climate change impacts September 30 10 points
   LA4-Evolution by natural selection October 9 10 points
   LA5-Hardy Weinberg October 19 10 points
   LA6-Philogenies November 13 10 points

4. Participation points: 20 points.
   These points will be given for random short lecture questions, exercises, etc. There is no make-up for these points.

**Final course grade assignments**: The final grade for BSCI106 will be calculated from lecture and lab. The lecture will be worth 75% of your grade and the lab 25% of your grade. Your final letter grade will be assigned according to the following cut-offs (% grades will be rounded to the nearest whole percent prior to letter assignment):

A+ = 97-100%
A = 93-96%
A- = 90-92%
B+ = 87-89%
B = 83-86%
B- = 80-82%
C+ = 77-79%
C = 73-76%
C- = 70-72%
D = 60-69%
F < 60%

**Dates to keep in mind:**
Last day to drop without a "W" ("withdrawal") is Monday September 14.

Last day to drop the course with a "W" ("withdrawal") is Tuesday November 9. After this date, you will receive an A/B/C/D/F grade for the course.

Please see drop policy:
http://registrar.umd.edu/current/registration/Schedule%20Adjustment.html#policy

ACADEMIC ADVISE:

BSCI106 is an introductory class and one of the basic requirements for many majors. This course requires a significant amount of work if you want to get a good grade. You should expect to devote about 3 hours of work per hour of lecture (9 hours per week) and come prepared to lecture (do the reading assignment before coming to lecture!). I do not require you to attend lectures, however you will not be able to get the some of the participation points if you do not attend. There will be also few lectures in which we will do in-lecture graded exercises, it is your responsibility to be informed about those dates. Unless you have a medical excuse you will receive zero points if you are absent those days.

BSCI 106 is part of a three-semester course sequence intended to prepare Biological Sciences Majors for more advanced course work. If you are taking this course only because you need to fulfill your lab science requirement, this is not the class for you!! This is a challenging class, if someone told you something else, they are wrong, trust me.

Use of Laptops: Evidence is accumulating indicating that writing notes by hand is far superior to typing notes on a computer and that using laptops presents significant disadvantages to learning - not only for the student at the computer but also for students around those working on computers. Some of the evidence is summarized and provided in the Assignments - Skills for Successful Learning area of this course (which is required reading). For your benefit and for the benefit of those around you, I strongly discourage you from taking notes on a laptop (or other keyboard-based device) and instead encourage you to take notes by hand. If you feel strongly that you want to use a laptop, I request that you do so only in the back most section of the lecture hall. The main front area will be a no-laptop zone.

ADDITIONAL ACADEMIC SUPPORT

Guided Study Session (GSS): A Guided Study Session (GSS) component will be provided for all students in BSCI106 this semester who want to improve their understanding of the material taught in this course. GSS sessions will be led by a fellow student who has
already mastered the course material and has been trained to facilitate group study sessions where students can meet to compare class notes, review and discuss important concepts, develop appropriate strategies for studying, and prepare for exams. Attendance is free and voluntary. Students may attend as many times as they choose. There will be one available GSS session offered per week: **XX from XXpm starting XX. Your GSS leader’s name is: XX.** In addition, the schedule will be online at www.counseling.umd.edu/LAS/html/gss.html#schedule. If you have questions about the GSS schedule you can also call The Learning Assistance Service at 301-314-7693.

**Free Tutoring:** The Academic Achievement Programs (AAP) has a new initiative called the Academic Success and Tutorial Services (ASTS) that provides free tutoring for students in certain courses, including BSCI 106. See: [https://umdtutoring.mywconline.com/](https://umdtutoring.mywconline.com/)

**Disability Support Services / Academic Accommodations:** We are dedicated to providing a supportive environment for all students, including students with disabilities. If you have a disability that affects your participation and/or performance in the class, or you think you might, contact the Disability Support Services (314-7682, email Dissup@umd.edu). You will need to provide documentation from DSS to the course instructor in order to receive disability accommodations in the course. Documentation should be provided to the instructor at least one week prior to the date of the first requested accommodation. For further information, go to: [http://www.counseling.umd.edu/DSS/](http://www.counseling.umd.edu/DSS/)

See also:

Peer Assisted Learning (PAL)

The Writing Center: [http://www.english.umd.edu/writingcenter](http://www.english.umd.edu/writingcenter)

Office of Student Conduct: [http://www.studentconduct.umd.edu/](http://www.studentconduct.umd.edu/)

**IMPORTANT INFORMATION:**

**Make-up Examinations:** We give makeups following strict University Policy. For University sanctioned excuses (religious, athletic/music performance, etc) the make-up exam will be given only if the student contact me in advance and present valid documentation. If you missed the exam because of illness (student, or illness of a dependent as defined by Board of Regents policy) and/or compelling circumstance beyond your control, you will need to apply for a make-up exam in writing and provide
the necessary documentation (a doctor’s note in case of illness). The make-up exams will have an essay or oral format. The final exam cannot be re-schedule.

**Religious Holidays:** If you are going to miss an exam or other graded lecture work for a religious holiday, you need to complete and return a copy of the Religious Observance Makeup Request form to your instructor during the first two weeks of the semester. Be sure to give a copy to the Lab Coordinator if you will be missing a lab.

**Do I need to provide medical documentation if I miss a class event?** That depends on the event. If you miss lecture you don’t need to submit anything. If you miss a lab or other single graded event you need to submit a self-signed form attesting to the date and medical nature of the absence, but you needn’t submit medical documentation. You will then be allowed to complete appropriate make-up work. If you miss a “Major Scheduled Grading Event” you will need to provide medical documentation.

**Major Scheduled Grading Events:** Exams, the three problem sets and the three graded lecture activities will be considered Major Scheduled Grading Events for the lecture portion of the class. In accordance with University’s policy on student absences you will be required to provide written documentation from the Health Center or an outside health care provider verifying that you were unable to attend classes that day.

**Exam Regrade Requests:** For lecture exams, regrades will be considered only if the original was written in pen. If you feel you were graded incorrectly on an exam, you should pursue the following procedure to obtain a regrade:

1) Refer to the answer key to make sure you know what the correct answer is.
2) If you still feel that your answer was incorrectly graded please return the exam to Dr. Saavedra along with a written explanation of why you feel you should have received more points, and including reference to the posted answer key. **The note needs to be typed.** Dr. Saavedra will review the entire exam and might or might not endorse the change. You might loose or gain points after re-grade.

Important Note: The firm deadline for regrade requests is **ONE WEEK** after the graded exam was made available (regardless of when you actually pick it up). There will be no regrades for the final.

**CODE OF ACADEMIC INTEGRITY**

Academic Dishonesty will not be tolerated. The Code of Academic Integrity is laid out in the undergraduate catalog and by the **Office of Judicial Programs.**
The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit [http://www.studenthonorcouncil.umd.edu/whatis.html](http://www.studenthonorcouncil.umd.edu/whatis.html).

Biology Program Policy: It is the policy of the Biology Program to strictly adhere to and enforce the University Code of Academic Integrity. The lab instructors will proctor all quizzes for cheating and will monitor all assignments for academic dishonesty. All students found breaking the Code will be referred to the Office of Judicial Programs. It is important for you to recognize that academic dishonesty is a serious offense.

**Definitions from the Code of Academic Integrity in your undergraduate catalog:**

- **Academic Dishonesty:** any of the following acts, when committed by a student shall constitute academic dishonesty:
- **Cheating:** intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise.
- **Fabrication:** intentional and unauthorized falsification or invention of any information or citation in an academic exercise.
- **Facilitating Academic Dishonesty:** intentionally or knowingly helping or attempting to help another to violate any provision of this Code.
- **Plagiarism:** intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise.