UNIVERSITY OF THE BAHAMAS

Course Syllabus

Spring 2025, BILB 102, Principles of Biology II Lab, 1.00

Course Instructor: Kristen Brochu-De Luca

Hear my name

How to address me: Dr. Brochu-De Luca; OR any combination of my name and/or title

Personal Pronouns: (she/her/hers)

Email: kristen.deluca@ub.edu.bs

Note: If you have a question or would like to talk with me, you can send an email, post on the course content discussion board, visit me during office hours (see below), or approach me after class.

Office Location: Chemistry, Environmental, & Life Sciences Building - G11 – D

Office Hours: Tuesday, 12:00pm – 2:00pm, & Thursday, 12:00 pm – 2:00 pm

Note: I encourage you to stop in to introduce yourself or to discuss the course! If these times don't work for you, email me to arrange an alternate time to meet.

Class Times: Monday, 2:00 pm – 3:50 pm

Class Location: Keva M. Bethel Building – KMB1

Course Format: This course will be delivered face-to-face.

This course will involve in-class problem-solving, analysis of simulated data, as well as reading, summarizing, and presenting information from the primary literature. Your active engagement will be critical to maximize your learning gains.

PDFs of lecture notes will be provided ahead of the scheduled lectures

Pre-requisite(s): BIOL 101 & BILB 101

Co-requisite(s): BIOL 102

Syllabus Table of Contents:

Welcome to Principles of Biology II Lab!

In this course you will investigate micro- and macro-evolutionary principles, as well as current topics in environmental science, conservation, and sustainability. You will also learn to use dichotomous keys to identify a variety of organisms.

Course Description: Students perform a series of labs investigating micro-evolutionary principles of natural selection and macro-evolutionary principles of speciation and adaptation. They also examine current topics in environmental science, conservation and sustainability. This is the second in a two-course series, and the theoretical component (BIOL 102) is the co-requisite.

Course Learning Objectives

Upon successful completion of this course, students will be able to:

1. Apply appropriate safety protocols
2. Identify the appropriate equipment and its
3. Classify organisms using identification keys
4. Illustrate the morphology of fungi, plants, and animals
5. Identify the tissues and systems of various organisms
6. Assess the functioning of ecosystems

Lab Topics	
1. Transitional Fossils	7. Animal Diversity
2. Natural Selection	8. Ardastra Field Trip
3. Genetic Drift	9. Plant Tissues
4. Dichotomous Keys	10. Animal Tissues
5. Plant Diversity	11. Biodiversity
6. Fungi Diversity	12. Environmental Science Issue Presentations

Inclusive teaching statement:

I acknowledge that people of colour (particularly Black and Indigenous people) and people of other marginalized identities face a disproportionate number of barriers in society, including in equitable education. I am committed to presenting course materials that are respectful of and sensitive to the diversity of identities and experiences represented in our community as well as to fostering a classroom community that is respectful, equitable, and inclusive for everyone, regardless of gender identity, gender expression, sex, sexual orientation, race, ethnicity, ability, age, class, or caste. When we can all feel safe and respected in a classroom environment, our diversity of thoughts and perspectives will enrich the learning experience for everyone. In order to achieve this ideal, I would like to hear from you about your experiences in this course. An anonymous form will be open all semester to give you the opportunity to provide feedback about your experience in the course or suggestions for ways to make the course more inclusive. If there is anything I can change or implement that will improve your experience, please don't hesitate to let me know. I am also happy to schedule one-on-one meetings to discuss this further.

I expect everyone to show respect for the different backgrounds, experiences, beliefs, and values expressed by any member of this class at all times. There will be zero tolerance for disrespectful behaviour or speech, and anyone engaging in such actions will be asked to leave the class.

Community Guidelines

The following values are fundamental to academic integrity and are adapted from the International Center for Academic Integrity*. In our course, we will seek to behave with these values in mind.

	As students, we will…	As a professor, I will…
Honesty	• Honestly demonstrate our knowledge and abilities on assignments and exams • Communicate openly without using deception, including citing appropriate sources	• Provide honest feedback on your demonstration of knowledge and abilities on assignments and exams • Communicate openly and honestly about the expectations and standards of the course via the syllabus, and with respect to assignments and exams
Responsibility	• Complete assignments on time and in full preparation for class • Show up to class on time, and be mentally/physically present • Participate fully and contribute to team learning and activities	• Provide timely feedback on your assignments and exams • Show up to class on time, and be mentally and physically present • Create relevant assessments and class activities
Respect	• Speak openly with one another, while respecting diverse viewpoints and perspectives • Provide sufficient space for others to voice their ideas	• Respect your perspectives even while I challenge you to think more deeply and critically • Help facilitate respectful exchange of ideas
Fairness	• Contribute fully and equally to collaborative work, so that we are not freeloading off others • Not seek unfair advantage over fellow students in the course	• Create fair assignments and exams, and grade them in a fair, and timely manner • Treat all students equitably
Trust	• Not engage in personal affairs while on class time • Be open and transparent about what we are doing in class • Not distribute course materials to others without authorization	• Be available to all students when I say I will be • Follow through on my promises • Not modify the expectations or standards without communicating with everyone in the course
Courage	• Say or do something when we see actions that undermine any of the above values • Accept a lower or failing grade or other consequences of upholding and protecting the above values	• Say or do something when I see actions that undermine any of the above values • Accept the consequences (e.g., lower teaching evaluations) of upholding and protecting the above values

[2] This class statement of values is adapted from Tricia Bertram Gallant, Ph.D.

Learning Materials

Textbook: Urry, L. A., Can, M. L., Wasserman, S. A., Minorsky, P. V., & Reece, J. B. (2017). Campbell biology (11th ed.). Pearson.

Readings: Additional readings will be provided in PDF format throughout the semester.

Website (Moodle): https://ubmoodle.ub.edu.bs/course/view.php?id=12608

Assessment in this Course

Research about learning strongly suggests that the most important factor in learning is doing the work of reading, writing, recalling, practicing, synthesizing, and analyzing. Learning happens best when people actively engage material on a consistent basis, and that is why I have high standards in this course. I am confident that, with appropriate effort, you **all** can meet those standards.

My role will be to help guide you through this process, and to provide you with plenty of opportunities to engage with the course material in different ways. In completing this course, you will gain a solid foundational understanding for how insects interact with other organisms, their environment, and human society.

Grade Breakdown

COMPONENT	GRADE VALUE
LAB REPORTS	60%
PROJECT	30%
EXAMINATION	10%

Lab Reports

There will be 11 practical labs in this course. Three will consist of formal lab reports (with the lowest grade dropped), while the others will consist of worksheets to be completed. I encourage you to submit these in groups of 3-4 students. Attendance is mandatory in order to submit lab reports. Guidelines for each lab report will be posted at least 24 hours before the lab begins. You will have one week to complete the report.

LAB #	GRADE VALUE	TOPICS	OPENS	CLOSES
1	3%	Transitional Fossils	Jan 13	Jan 19
2	10%	Natural Selection	Jan 20	Jan 26
3	10%	Genetic Drift	Jan 27	Feb 2
4	3%	Dichotomous Keys	Feb 3	Feb 9
5	3%	Plant Diversity	Feb 10	Feb 16
6	3%	Fungal Diversity	Feb 17	Mar 2
7	3%	Animal Diversity	Mar 3	Mar 9
8	3%	Ardastra Visit	Mar 10	Mar 16
9	3%	Plant Tissues	Mar 17	Mar 23
10	3%	Animal Tissues	Mar 24	Mar 30
11	10%	Biodiversity (optional)	Mar 31	Apr 6

Late policy: You can submit three of the Lab Reports up to three days late without penalty. Otherwise, there will be a penalty of 10% per day up to 3 calendar days late, after which the Lab Report will not be accepted.

Diversity Log

You will need to keep a log of all the species of plants, animals, and fungi that you come across over the course of the semester. You can include all the living organisms that we observe in class, including on the trip to Ardastra. For each species you will need to include the scientific classification, the common name, its captive/cultivated/domesticated status, its native status, the location where it was observed, the date and time when it was observed, and any notes on the observation, including what details helped you to identify it. You must also include supporting documentation as evidence that you observed the species in the form of a photograph, audio recording, or drawing of the species. Detailed guidelines are available on Moodle. The diversity log will be due at the end of the semester and is worth 10% of your grade.

Project

In this course you will work on a report and oral presentation on a current issue in environmental science, conservation, or sustainability that affects The Bahamas. You will assess a question you have about your chosen topic from the perspective of *primary* and *secondary* literature. Complete guidelines for the project are available on Moodle.

ASSIGNMENT	GRADE VALUE	TOPIC	DUE
QUESTION IDEAS	2%	Two media article with accompanying questions	Jan 23
BACKGROUND SUMMARY	3%	Summary of secondary literature	Feb 13
RESEARCH SUMMARY	4%	Summary of primary literature	Mar 6
FINAL REPORT	5%	Integrating both sources	Apr 3
PRESENTATION	6%	In-class	Apr 7
REVISION	10%	Revised final report	Apr 17

Late policy: You have six grace days to use between the ideas, summaries, final report, and revision where you can submit without penalty. Otherwise, there will be a penalty of 10% per day up to 3 calendar days late, after which assignments will not be accepted.

Lab Exam

The lab exam is worth 10% and will be cumulative (i.e. it will cover all course materials). It will take place in person during the last lab period. There will be two sections: one written portion that will consist of questions based on the lab reports throughout the semester as well as a photo ID portion that will test your ability to recognize organisms that were studied throughout the semester.

Regrading/Reappraisal Procedures

If you feel that I have made an error in the grading of your work, please email me a re-grading request within one week of the grade posting that includes a written rationale for why the grade should be changed with specific reference to the assignment guidelines and grading rubric.

University Policies

Important Dates

Drop Deadline: Jan 17 (last day to drop without course on transcript)
Course Withdrawal Deadline: Mar 16 (course still appears on transcript with 'W")

Attendance

"Students must be registered for classes they wish to attend. Students are not allowed to attend classes for which they have not registered; students whose names do not appear on class lists are to contact the Records Department immediately. Students are expected to attend all classes. Failure to attend all classes could negatively affect the final grade or even result in an F. Students should notify their instructor as soon as possible if, for some reason beyond their control, they are unable to attend a class."

I do take attendance and may encourage you to withdraw from my course if you do not attend the majority of classes. For more information please see: Page 20 of the UB Student Handbook

https://www.ub.edu.bs/wp-content/uploads/2018/08/Student-Handbook-2018-2019-Draft.pdf

Academic Honesty and Integrity

"Intellectual integrity is the foundation on which The University rests. Intellectual dishonesty, for example, cheating, using another person's work without acknowledging the source, submitting work done by another, etc. is not tolerated. Acts of academic dishonesty could result in an "F" for the assignment/examination; an "F" for the course; and suspension or expulsion from The University."

For more information please see: Page 22 of the UB Student Handbook

https://www.ub.edu.bs/wp-content/uploads/2018/08/Student-Handbook-2018-2019-Draft.pdf

Examples of actions that do not adhere to the Academic Honesty Policy include:

- Plagiarism (passing off someone else's work as your own)
- Accessing unauthorized sites for assignments or tests
- Utilizing AI for completion of graded assessments
- Unauthorized collaboration on assignment and exams
- Uploading work to third party repository sites
- Scanning, sharing, uploading, or publishing exams, tests, or scholarly work

Assistance for Students (Academic and Well-Being)

University Centre for Counselling & Career Services: https://www.ub.edu.bs/student-life/counselling-services/

Office of Disabilities & Compliance: Student Affairs Disability Unit (Portia Smith, 3rd floor); Ms. Sasha D. Anderson, Disabilities and Compliance Officer, 242-302-4453, sasha.anderson@ub.edu.bs