NATURAL SCIENCES DEPARTMENT
HOSTOS COMMUNITY COLLEGE
of THE CITY UNIVERSITY OF NEW YORK

SYLLABUS FOR *ORGANISMIC BIOLOGY (laboratory) - BIO 121*
1 credits. 3-hr. lab,

Pre/corequisites: BIO 111
Offered in English and in Spanish.

COURSE DESCRIPTION:

Laboratory topics include the theory of evolution by natural selection, the evolution and diversity of organisms and their classification into the five kingdoms. Students will learn the main morphological features of each group as well as animal digestion, endocrine system, circulation, immunity, nervous system and basic concepts of ecology. The laboratory illustrates the concepts discussed in the lecture. This course is for non-science major students.

LABORATORY MANUAL: Exploring Biology in the Laboratory
By Murray P. Pendarvis and John L. Crawley
(Second Edition) ISBN: 978-1-61731-154-3
Morton Publishing Company

OBJECTIVES

- Learn how to answer a wide range of biological questions
- Understand evolution and its relationship with biological diversity
- Discuss limitations for some methodologies. (technical, financial, and ethical)
- Strengthen brainstorming, critiquing, writing, and oral communication skills
- Analyze data obtained in the lab experiments and by reading primary literature.
- Learn to discuss what you read and what you know (Evolution vs. Intelligent Design)
- See how basic research can lead to unexpected applications.

LABORATORY
2nd edition of lab manual

Lab No.	Topic
1.	**That Mystery of Mysteries: Understanding Evolution**. Chapter 15, pp. 209-226.
2.	**Making Sense of Diversity: Understanding Classification. Viruses, Bacteria, Protista and Fungi.** Chapter 16, Making Sense of Diversity: Understanding Classification, pp.227-240; Chapter 17, On the Edge of Life: Understanding Viruses, pp. 241 – 248; Chapter 18, The Good, the Bad, and the Ugly: Understanding Bacteria, pp. 249 – 266; Chapter 19, This Fine Mess: Understanding the Protists, pp. 267- 298; Chapter 25, There's a Fungus Among Us: Understanding Fungi, pp. 445 – 470.
3	**Plants without Seeds: Mosses and Ferns.** Chapter 20, The Green Machine Understanding the Nonvascular Plants, pp.299-314; Chapter 21, The Green Machine: Understanding the Seedless Vascular Plants, pp. 315 – 340.
4.	**Plant with Seeds: Gymnosperms and Angiosperms**. Chapter 22. The Green Machine: Understanding the Seed Plants (Gymnosperms), pp.341 – 372; Chapter 23. The Green Machine: Understanding the Seed Plants (Angiosperms), pp. 373 – 406.
5.	**Animal Kingdom Part I: Simple Animals.** Chapter 27, Animal Planet. Understanding Creatures from the Sea, pp. 491 – 520.
6.	**Animal Kingdom Part II.** Chapter 28, Animal Planet. Understanding the Lophotrochozoans, pp. 521 – 566; Chapter 29, Animal Planet. Understanding the Ecdysozoans, pp. 567 – 600. Chapter 30, Animal Planet. Understanding the Deuterostomes, pp. 601 – 654.

7. **Dissection of the Fetal Pig: Circulatory System- Blood.** Chapter 30, Animal Planet. Understanding the Deuterostomes, pp. 601 – 654. Chapter 33, Homo sapiens. Understanding the Cardiovascular and Respiratory Systems, pp. 697 – 707 (cardiovascular system).

8. **Gas Exchange.** Chapter 33, Homo sapiens: Understanding the Cardiovascular and Respiratory Systems, pp. 708 – 709 (respiratory system).

9. **Digestive System.** Chapter 34, Homo sapiens: Understanding Other Systems of the Body, pp. 717 – 719 (digestive system).

10. **Endocrine System.** Chapter 34, Homo sapiens: Understanding Other Systems of the Body, pp.714 – 716 (endocrine system).

11 **Nervous System.** Chapter 32, Homo sapiens: Understanding the Nervous System and Special Senses, pp. 675 – 680 (nervous system).

12. **The Senses.** Chapter 33, Homo sapiens: Understanding the Nervous System and Special Senses, pp. 681 – 696 (special senses).

13 **Ecology.** Chapter 37, But One Earth: Understanding Basic Ecology, pp. 757- 782.

14 **Field trip:** American Museum of Natural History, Central Park West at 79th Street.

15 **Final Exam - Practicum**

Grade Policy: The Final Laboratory grade will be based on

4-5 Exams (including the final exam) (Midterm, Final, Quizzes)	70%
5 -10 lab reports/review questions	25%
laboratory participation/laboratories	5%
Total	100%

No student under any circumstances will be given a passing grade in this Biology course without taking and passing the laboratory. Four unjustified absences to lab are equivalent to an F.

Policy Grade: The college uses the following grades:

A,A^{-} for excellent work

B^{+}, B, for good work

B- C, for fair work

D, for poor work

F, for failure

I, for incomplete

WU, for unfinished incomplete, equivalent to F

W, for withdrawn

The grade of Incomplete (I) is given in regular courses upon request of the student for personal emergencies that are verifiable. The faculty member has the responsibility to provide Inc grade only to those students who are passing the course. The student has the responsibility to take the initiative in completing the work, and is expected to make up the incomplete during the first semester in residence after receiving the grade of Incomplete. If the student does not make up the incomplete during the following semester after receiving it, an F grade may be given by the faculty member without further consultation with the student.

If after the end of the first semester the Inc remains on the record it will be designated as an F and will be computed in the student's GPA.

A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	70-76
D	60-69
F	Failure

There is no R grade in this course.

Lab Participation:

Your participation in class is an important part of the final grade. This grade is based primarily on your participation in class discussions, in team projects and your attendance. For each class you miss, you will lose participation points. If you miss 25% or more of the term, you will be failed.

Academic Integrity:
Hostos Community College believes that developing student's abilities to think through issues and problems by themselves is central to the educational process. Since the Hostos College degree signifies that the student knows the material s/he has studied, and the practice of academic dishonesty results in grades or scores that do not reflect how much or how well the student has learned, understood, or mastered the material, the College will investigate any form of academic dishonesty brought to its attention. If the charge of academic dishonesty is proved, the College will impose sanctions. The three most common forms of academic dishonesty are cheating, plagiarism, and bribery. In the collegiate setting, cheating is defined as the purposeful misrepresentation of another's work as one's own. Faculty and students alike are responsible for upholding the integrity of this institution by not participating either directly or indirectly in act of cheating and by discouraging others from doing so.

Plagiarism is a form of cheating which occurs when persons, even if unintentionally, fail to acknowledge appropriately the sources for the ideas, language, concepts, inventions, etc. referred to in their own work. Thus, any attempt to claim another's intellectual or artistic work as one's own constitutes an act of plagiarism. In the collegiate setting, bribery involves the offering, promising, or giving of items of value, such as money or gifts, to a person in a position of authority, such as a teacher, administrator, or staff member, so as to influence his/her judgment or conduct in favor of the student. The offering of sexual favors in exchange for a grade, test score, or other academic favor, shall be considered attempted bribery. The matter of sexual favors, either requested or offered, in exchange for a grade, test score or other academic favor shall also be handled as per the Sexual Harassment procedures of the College.

If you are suspected of plagiarism or cheating or if you attempt to bribe or influence your professor, you will be immediately reported to the college's Academic Integrity Officer. You will be unable to drop the class. The penalties range from an F with a score of 0 for an assignment to Failure for the entire term to expulsion from The City University of New York.

Course schedule:
Readings must be completed for each class. Not all assigned texts will be discussed in class or covered in the class lectures.