BIO 213: General Biology Ⅱ with Lab

Term: 2021 Summer Session Instructor: Staff Language of Instruction: English Classroom: TBA Office Hours: TBA
Class Sessions Per Week: 5 Total Weeks: 5 Total Class Sessions: 25 Class Session Length (minutes): 145 Credit Hours: 5
Total Lab Sessions: 10

Course Description:

BIO 213 is a continuation of BIO 113, aiming to enhance and offer a broadened and comprehensive study on the field of General Biology. Students will address this course from the perspective of evolution, plant diversity, organism system and ecosystem. Student will have a glance of how the world evolve with Bacteria, Fungi, Plant and Animal through hands-on experiences. Topics cover content selected from unit 5 to 8 in the textbook. Upon completion, students will build a comprehensive understanding of life at the organismic and ecological levels. This course includes 10 lab sessions.

Course Materials:

Textbook: Campbell Biology, Reece, 10th Edition

Course Format and Requirements:

Lectures:

Students should do the assigned readings before coming to the lectures. During some of the lectures there will be in-class discussions, with two or three students discussing the problem

together for a few minutes before a whole class discussion. An active participation in lecture will help a student to understand the material better.

Labs:

The goal of the labs is to provide a hands-on experience with biological material and to enhance abilities in scientific methodology, critical thinking, and communicating about biology. Attendance is mandatory. No make-up labs will be provided.

Attendance

Attendance is mandatory. More than three unexcused absences will result in an automatic reduction in your participation grade, for instance from A- to B+. Your active participation in the class is expected and constitutes part of your grade.

Grading Scale:

A+: 98%-100%
A: 93%-97%
A-: 90%-92%
B+: 88%-89%
B: 83%-87%
B-: 80%-82%
C+: 78%-79%
C: 73%-77%
C-: 70%-72%
D+: 68%-69%
D: 63%-67%
D-: 60%-62%
F: Below 60%

Course Assignments:

Homework Assignment

Homework assignment is a individual work. It will cover the key points and concepts in each lectures. The answers of Homework question will be posted in next class by instructor. As a result, each students shall summit his/her individual answer before the beginning of next Class.

Quizzes

The quizzes will be multiple choices, fill in blanks andor short answer questions. There will be 6 quizzes among the whole semester. The quizzes will be based on lecture material and should always be finished at the first 10-15minutes of the class.

There are no make-up of quizzes allowed.

Exams (Two midterm exams+ a final exam)

Exams are a combination of multiple choice, short answer questions and true/false questions. Only the final exam is cumulative. Students are responsible for all notes in posted lecture presentations and material discussed in lecture. The textbook is a critically important supplement to your learning and will enhance understanding of material presented in lecture. There are no makeup exams or re-scheduling of exams.

Lab Assignments:

Lab grading depends on in-class worksheets, participation, lab reports and the lab final exam or presentation. Specific due dates for projects and more detailed lab policies will be given in lab. Attendance at labs is mandatory. Students missing 3 or more labs, whether excused or unexcused, will receive an F grade for the course.

Course Assessment:

Homework Assignment	15%
6 Quizzes	15%
Labs	15%
Midterm Exam 1	15%
Midterm Exam 2	15%
Final Exam	25%
Total	**100%**

Course Schedule:

Week	Topics	Activities

1.	Go through syllabus+ Course overview Review on BIO 111 Origin of Species and History of Life on Earth Phylogeny and the Tree of Life Introduction Prokaryotes (Bacteria & Archaea) Protists (Protozoa, Algae, and others)	Homework Assignment Quiz 1
2.	Fungi **Plant Diversity:** Primitive plant and Advanced Plants Plant Anatomy Plant Reproduction Plant Transport, Soil and Plant Nutrition	Homework Assignment Quiz 2 Midterm 1
3.	Overview of Animal Diversity Invertebrates and Vertebrates **Animal tissues and organ systems:** Cardiovascular System and Circulation Respiratory System, Hemoglobin and Gas Exchange The Immune System	Homework Assignment Quiz 3 and 4

4.	**Animal tissues and organ systems:** Endocrine System and Hormones Excretory system Nervous Systems Neurons, Synapses, and Signaling Animal Reproduction	Homework Assignment Quiz 5 Midterm 2
5.	Animal Development and Behavior Population Ecology Community Ecology Ecosystem and Restoration Ecology Summary of the Semester Review for Final	Homework Assignment Quiz 6 Final exam

Lab Schedule:

Lab 1: Bacterial Transformation
Lab 2: Funji
Lab 3: Seedless Plants
Lab 4: Seed Plants
Lab 5: Plant Anatomy
Lab 6: Animal Tissues
Lab 7: Respiration
Lab 8: Invertebrates and Vertebrates
Lab 9: Animal Dissection I

Lab 10: Animal Dissection II

Lab Final Presentation

Academic Integrity:

Students are encouraged to study together, and to discuss lecture topics with one another, but all other work should be completed independently.

Students are expected to adhere to the standards of academic honesty and integrity that are described in the Shanghai Normal University's *Academic Conduct Code*. Any work suspected of violating the standards of the *Academic Conduct Code* will be reported to the Dean's Office. Penalties for violating the *Academic Conduct Code* may include dismissal from the program. All students have an individual responsibility to know and understand the provisions of the *Academic Conduct Code*.

Special Needs or Assistance:

Please contact the Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material. Our goal is to help you learn, not to penalize you for issues which mask your learning.