



Academic Inquiries: Jinan University
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JINAN UNIVERSITY

Introductory Biology (With Lab)

Lecturer: TBA

Time: Monday through Friday (June 17, 2019-July 19, 2019)

Office hours: 2 hours (according to the teaching schedule)

Contact Hours: 60 (50mins each)

Credits: 4

Location: MBA Center

Office: MBA Center 107

E-mail: TBA

Course Description

Biological Science is all around us, and affects every aspect of our lives and every facet of life on Planet Earth. The goal of this course is to furnish students with the basic foundation, information, and analytical tools necessary to grasp the fundamental concepts central to the study of biology.

This is a vast and highly diverse subject, and thus will require an overview approach in a short course such as this one. We will cover the most important areas in some detail, both in the classroom and in the laboratory, while striving to achieve a balanced view of the big picture ideas.

Required Text

Biology Today and Tomorrow, With Physiology, 5th Edition, by Starr, Evers, and Starr
ISBN-13: 9780495561576

Course Hours

The course has 20 lecture sessions and 5 lab sessions in total. Each session is 120 minutes in length. Lecture session meets from Monday to Thursday. Lab session meets on each Friday.

Assessment

Your final grade is based on the following components:

Quizzes/Homework	20%
Practical Exercises	25%
Midterm Exam	25%
Final Exam	30%
Total	100%

Grading Scale

The instructor will use the grading system as applied by JNU:

Definition	Letter Grade	Score
Excellent	A	90-100
Good	B	80-89
Satisfactory	C	70-79
Poor	D	60-69
Failed	E	Below 60

Quizzes/Homework

Multiple self-assessment quizzes and homework assignments will be offered for students to practice their concept understanding and to prepare for the lectures. These quizzes and homework assignments will be POSTED ON BLACKBOARD on a weekly basis. Many of these assignments will be discussed during class and/or recitation. Late homework will NOT be accepted, except in the case of a documented medical reason (documentation is required).

Practical Exercises

At the end of each week (on Fridays) students will have the chance to practice their understanding of the concepts discussed in class. They will work in small groups on practical exercises using the interactive simulations developed by the PhET program (<http://phet.colorado.edu>).

Attendance Policy

Attendance at lectures, recitations, and labs is expected. Continued absences will detract from your final grade. If you have missed/will be missing a class or recitation session for an acceptable reason, such as illness or religious observance, please let me know in person with a written document. Ideally, you should let me know of your absence prior to missing the class. In addition, missing a class for an acceptable reason **will not excuse you from completing the class exercises and the out-of class assignments** so, if you miss a class, it is your responsibility to obtain notes from a classmate and contact the instructor in order to complete all the assignments by their original or extended deadlines.

WEEK ONE:

1. Invitation to Biology.
2. Molecules of Life.
3. Cell Structure.
4. Energy and Metabolism.
5. Capturing and Releasing Energy.

Lab Activities: Membrane Channels Simulation and Application of the Scientific Method

WEEK TWO:

6. DNA Structure and Function.
7. Gene Expression and Control.
8. How Cells Reproduce.
9. Patterns of Inheritance.
10. Biotechnology.

Lab Activities: Gene expression simulation, cell structure and function activity

WEEK THREE:

11. Evidence of Evolution.
12. Processes of Evolution.
13. Early Life Forms and the Viruses.
14. Plants and Fungi.
15. Animal Evolution.

Lab Activities: Natural selection simulation and exploration of mitosis and meiosis.

WEEK FOUR:

16. Population Ecology.
17. Communities and Ecosystems.
18. The Biosphere and Human Effects.
19. Animal Tissues and Organs.
20. How Animals Move.
21. Circulation and Respiration.
22. Immunity.

Lab Activities: Eating/Exercise simulation and Mendelian genetics activity.

WEEK FIVE:

23. Digestion and Excretion.
24. Neural Control and the Senses.
26. Reproduction and Development.
27. Plant Form and Function.
28. Plant Reproduction and Development.

Lab Activities: Neuron simulation and Animal/Plant diversity activity.

Academic Honesty

Jinan University defines academic misconduct as any act by a student that misrepresents the student's own academic work or that compromises the academic work of another. Scholastic misconduct includes (but is not limited to) cheating on assignments or examinations; plagiarizing, i.e. misrepresenting as one's own work any work done by another; submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of

the instructors concerned; sabotaging another's work. Within these general definitions, however, instructors determine what constitutes academic misconduct in the courses they teach. Students found guilty of academic misconduct in any portion of the academic work face penalties ranging from lowering of their course grade to awarding a grade of E for the entire course.