



Department of Biology

College of Education

Salahaddin University

Subject: Practical Zoology

Course Book – (Year: 1)

Lecturer's name: Dr. Suhayla Hamad Shareef

Academic Year: 2022/2023

Course Book

1. Course name	Practical Zoology
2. Lecturer in charge	Suhayla Hamad Shareef
3. Department/ College	Biology Dept./ College of Education
4. Contact	e-mail:suhayla.shareef@su.edu.krd
5. Time (in hours) per week	Practical: 9hrs
6. Office hours	6 hrs
7. Course code	
8. Teacher's academic profile	I teach practical immunology at the Biology Department/ College of Education. I have got a philosophy of doctorate in medical immunology from the college of medicine at Sulaimani University. Also, I got a Master of Science in Medical Microbiology/Clinical-Immunology at Hawler Medical University in 2012. I finished my Bachelor's degree in biology at the Biology Department/ College of Education in 1996. On 18/1/1997, I started working with my department. I have 25 years of experience with my job.
9. Keywords	
10. Course overview: Zoology can be defined as the study of the simplest part of the body's cells and tissues. The Cell: is the fundamental structural and functional unit of all living organisms. Cytology is a branch of biology, that deals with the study of cells in terms of structure, function, and chemistry. Classification of cells: There are two major types of cells: prokaryotic and eukaryotic. The main difference between these two cell types is that Prokaryotic cells do not have a nuclear membrane. The nuclear material consists of a single chromosome and lies in the cytoplasm. The nuclear region is called the nucleoid. Organelles are absent. Such as bacteria. Cells come in many different sizes. Some cells are visible to the naked eye (such as eggs of birds); however, most cells are microscopic and cannot be seen by the naked eye. Cells also come in many different shapes (e.g. spindle, aster, oval, spherical, cylindrical) Animal cell The animal cell is a typical eukaryotic cell. It is surrounded by a plasma membrane, which forms a selective barrier allowing nutrients to enter and waste products to leave. Unlike prokaryotic cells, DNA in animal cells is housed within the nucleus. In addition to having a nucleus, the cytoplasm contains specialized organelles, each of which is surrounded by a membrane. There is only one nucleus and it contains all the genetic information necessary for cell growth and reproduction. The other organelles occur in multiple copies and carry out the various functions of the cell, allowing it to survive and participate in the functioning of the larger organism.	

11. Course objective:

The objectives of practical zoology are so clear; it's all about the introduction of first-class students, the structure and functions of all the cells and tissues in animal bodies' constituents, with making their ability to distinguish between each type of cells and tissues. And all the necessary requirements of the zoology lab will be introduced to them with details of their functions

To understand and Learning

1. Main safety rules of working in the bacteriology lab.
2. Types of tissue.
3. Methods of dissecting. And
4. Slide preparation, and staining.

12. Student's obligation

The students should do their homework every week by preparing for quizzes and doing their lab. Procedures every week by themselves. Assessment of their homework or procedure will be the standard for their evaluation in labs. Bringing frogs and introducing them to the structure and habitat of frogs after the anatomy of frogs will be studied.

13. Forms of teaching

Different forms of teaching will be used to reach the objectives of the course includes; PowerPoint presentations for the head titles and topics or handwriting, giving illustrations about the principles of zoology, besides worksheets will be designed to let the chance for practicing several aspects of the course in the classroom. The classroom discussion is an asset to give the lecture more vitality and also to reach enough background and information to the students.

To get the best out of the course, it is suggested that you attend classes as much as possible, read the required lectures, and teacher's notes, and be ready for the weekly quiz. Try as much as possible to participate in classroom discussions, and prepare the assignments given in the course.

14. Assessment scheme

Breakdown of overall assessment and examination

The students are required to do two or three practical exams (theory/ practical or practical/practical) at different periods of the semester. The final examination has 13 marks. So that the final grade will be based upon the following criteria:

Mean of three (including quizzes) examinations: 13%

Final Practical Examination: 35%

15. Student learning outcome:

Practical zoology is the basic science in biology; the basic unit of life is cells and tissues. Here the students should have knowledge about them the huge differences between each of them. Zoology is about everything in the environments that we live in, having knowledge of the particle units and their functions of them and how they work together to form a unique body with high bodily performance functions, zoology is about the life of animals in the surrounding area which may be exposed to every minute in life.

16. Course Reading List and References:

1. Miller, S. and Harley, J. (2001). Zoology. 5th ed.

2. الحسيني، أماني احمد حماد. بيولوجية الحيوان العملية باللغتين العربية والانجليزية.

The core materials of the course consist of the above book, articles from the internet, and lecture notes, make sure you read all the materials and prepare well before going for the examinations.

17. The Topics:

Lecturer's name

In this section the lecturer shall write titles of all topics he/she is going to give during the term. This also includes a brief description of the objectives of each topic, date and time of the lecture
Each term should include not less than 16 weeks

18. Practical Topics (If there is any)

Week

Empirical Lecture

1. *Biology Laboratory Safety Rules and Recommendations*

2. *Animal Cell Structure*

3. *Cell Division*

4. *Types of Animal Tissue*

5. *Stratified Epithelial Tissue*

6. *Connective Tissue*

7. *Blood Connective Tissue*

8. *Muscle Tissue*

9. *Nervous Tissue*

10. *Preparation of blood smear and simple squamous cell in the mouth*

11. *Classification of Living Things*

13. *The Digestive system of frog*

12. *Respiratory system of frog*

13. *Uro-genital system of frog*

14. *Nervous system of frog*

Lecturer's name
Suhayla Hamad
Shareef
ex: (9hrs)

19. Examinations:

1. Compositional:

What is the composition of the animal body?

2-Write the types of loose connective tissue and their location in the body.

3-Identify this slide. Where is found? What is the main function?

4. How do the cells and tissues work?

5. Write the class and order and the scientific name of the frog?

3. Multiple choices:

There are Types of animal tissues? A- 4 B- 5 C-3 D-2

20. Extra notes:

21. Peer review

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