

Ministry of Higher Education and Scientific research



Department of Biology

College of Education

Salahaddin University - Erbil

Subject: Introduction to Zoology (Theory)

Course Book – (Year: 1)

Lecturer's name: Sarwat Ekram AL-Qassab – Ph D.

Academic Year: 2023-2024

Course Book

1. Course name	Introduction to Zoology - Theory
2. Lecturer in charge	Sarwat Ekram Mohammed Al-QASSAB
3. Department/ College	Biology Dept./ Education College
4. Contact	e-mail: sarwat.mohammed@su.edu.krd
5. Time (in hours) per week	2 hrs
6. Office hours	2 hrs
7. Course code	BE105
8. Teacher's academic profile	<p>Academic Qualifications:</p> <ul style="list-style-type: none"> • 2009 Ph D. Molecular Parasitology / Department of Medical and Molecular Biosciences - University of Technology Sydney – Australia. • 1991 M Sc. Invertebrate Zoology / Department of Biology - College of Science – Salahaddin University – Erbil – Iraq. • 1987 B Sc. Microbiology / Department of Biology - College of Science – Salahaddin University – Erbil – Iraq.
9. Keywords	
10. Course overview:	<p>Zoology is the scientific study of all aspects of animal life, their structure, function of organ systems, animal behaviour and ecology. We will emphasize subjects which will not covered in detail in future courses. This course is designed to provide the student with basic information and vocabulary in preparation for advanced courses in zoology and biology.</p> <p>In this section, the lecturer shall write an overview of the subject he is giving. The course overview must cover:</p> <ul style="list-style-type: none"> ▪ The importance of studying the subject. ▪ Understanding of the fundamental concepts of the course. ▪ Principles and theories of the course. ▪ A sound knowledge of the major areas of the subject. ▪ Sufficient knowledge and understanding to secure employment.
11. Course objective:	<ul style="list-style-type: none"> ▪ To inspire and encourage an interest in zoology. ▪ To instil in students an understanding, appreciation and respect for the other animals which share our planet. ▪ To make students aware of various disciplines encompassed by the field of zoology and to encourage them to pursue those areas that interest them through further reading and coursework. ▪ To give students the background knowledge necessary for upper-division courses.

12. Student's obligation

- The grade will be determined by the following assessment: Quizzes and Exams (Mid-Course and final course exams). **5%** of the grade will be applied to quizzes.
- For Introduction to Zoology subject, the grade will be **50** degrees (**15** degrees for theory and **35** for practical). The final course exam will be on **50** degrees (only theory).

13. Forms of teaching

MS PowerPoint data will be applied in our lectures. Use the whiteboard for further explanations. Lecture notes will be given in advance to the students.

14. Assessment scheme

- The grade will be determined by the following assessment: Quizzes and Exams (Mid-Course and final course exams). **5%** of the grade will be applied to quizzes.
- For Introduction to Zoology subject, the grade will be **50** degrees (**15** degrees for theory and **35** for practical). The final course exam will be on **50** degrees (only theory).

15. Student learning outcome:

At the completion of this subject, students are expected to be able to:

- a) Understand and describe the relationship between structure and function in the organisation and survival of animals and each.
 - b) Demonstrate an understanding of the methods used in zoology and explain how scientific knowledge is contestable and testable by further enquiry and recognise the importance of biodiversity for sustaining life on our planet.
 - c) Think critically in terms of their learning and research.
 - d) Evaluate critically the published literature.
 - e) Assess and implement the practical techniques necessary to solve a particular biological problem.
- ❖ This course will provide the basic knowledge for the student about animal science, which will be very useful in preparing for being a biological sciences teacher at secondary school.

16. Course Reading List and References:

▪ **Key References (Books):**

Reece, J. B. and others (2021) **Campbell biology**. Pearson, Boston.

Madr, S. (2019) **Essentials of Biology**. McGraw Hill Higher Education, Boston.

Miller, S. A. and Harley, J. P. (2016) **Zoology**. McGraw Hill Higher Education, New York.

Hickman, C. P. and others (2017) **Integrated principals of zoology**. McGraw Hill Higher Education, New York.

▪ **Magazines and reviews (internet):**

<https://en.wikipedia.org/wiki/Main> Page

<http://www.the-science.com/>

Cell biology animation: http://www.johnkyrk.com/index.html	
17. The Topics:	Lecturer's name
Lecture 1: Introduction to Zoology: Subject outline and scope. What is a living organism? What is an animal? Branches of zoology.	Dr. Sarwat Al-Qassab (2 hr) 19/10/2023
Lecture 2: The cell: definition, properties of the cell, history of the cell biology, Cell biology theory	Dr. Sarwat Al-Qassab (2 hr) 26/10/2023
Lecture 3: The cell size, the structure of animal and plant cells, and the cytoplasm.	Dr. Sarwat Al-Qassab (2 hr) 02/11/2023
Lecture 4: Cell organelles: The nucleus, Ribosome, Endoplasmic reticulum	Dr. Sarwat Al-Qassab (2 hr) 09/11/2023
Lecture 5: Cell organelles: Golgi apparatus, Lysosome and Vacuole.	Dr. Sarwat Al-Qassab (2 hr) 16/11/2023
Lecture 6: Cell organelles: Mitochondria, Peroxisome, Centrosome and Centriole.	Dr. Sarwat Al-Qassab (2 hr) 23/11/2023
Lecture 7: Cell organelles: Cilia and flagella	Dr. Sarwat Al-Qassab (2 hr) 30/11/2023
Lecture 8: Cell membrane: Structure and composition.	Dr. Sarwat Al-Qassab (2 hr) 07/12/2023
Lecture 9: Cell membrane: Protein function	Dr. Sarwat Al-Qassab (2 hr) 14/12/2023
Lecture 10: Intercellular Junctions & Cytosekeleton	Dr. Sarwat Al-Qassab (2 hr) 21/12/2023
Lecture 11: Perixisome and Centrosome	Dr. Sarwat Al-Qassab (2 hr) 02/01/2024
Final Course Exam	06/01/2024
18. Practical Topics (If there is any)	

19. Examinations:

1. *Compositional:* In this type of exam, the questions usually start with Explain how, What are the reasons for...?, Why...?, How....?

Example:

_____ is a natural science concerned with studying life and living things, including their structure, function, growth, evolution, distribution, and taxonomy.

Answer: Biology

2. *Multiple choices:*

Example: Histology is the study of _____.

A. Cell

B. Tissue

C. Classification.

3. Label the following picture.

4. Count the

20. Extra notes:

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21. Peer review

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