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**Department of Biology**

**College of Education**

**University of Salahaddin**

**Subject: General Zoology**

**Course Book – *First Class***

**Lecturer's name: Dr. Noor Ali Gheni**

**Academic Year: 2023/2024**

**Course Book**

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| **1. Course name** | **General Zoology** |
| **2. Lecturer in charge** | **Dr. Noor Ali Gheni** |
| **3. Department/ College** | **Biology / Education** |
| **4. Contact** | **e-mail: noorghani86@yahoo.com****Tel: (optional)** |
| **5. Time (in hours) per week**  | **Therotical: 4 practical: 6**  |
| **6. Office hours** | **2** |
| **7. Course code** |  |
| **8. Teacher's academic profile**  | **B.Sc.acheaved : 2007/ 2008****M.Sc. acheaved : 2008/2011****Employed year: 2013** |
| **9. Keywords** |  |
| **10. Course overview:****Zoology****Zoology** is the study of animal life and structure and development of representative members of the animal kingdom. Students will understand the origin of animal diversity and how animals perform basic life processes.Overview the lectures begin with an introduction to microscopic techniques followed by a discussion of the cell and its organelles and structures. The structure and function of various organelles types will be discussed including nucleus, ribosome, endoplasmic reticulum, golgi apparatus, lysosome, vacuole and ....etc. The lab will follow this same series of topics with slides and photographs incorporated to provide the student with a skill set in tissue identification and interpretation of cell/tissue function. |
| **11. Course objective:**This course meets the following programmatic goals for the B.S. Biology degree program:1- The specific learning goal for general zoology are to provide students with a working knowledge of fundamental principles in zoology that will provide a foundation for their later advanced course work in more specific biological subjects.2- The laboratory and lecture sections of the course are highly integrated and directed toward teaching students the principles of animal evolution, classification, form and function. |
| **12. Student's obligation**In this section the lecturer shall write the role of students and their obligations throughout the academic year, for example the attendance and completion of all tests, exams, assignments, reports , essays…etc لێره‌ مامۆستا به‌رپرسیارێتی قوتابی خوێندکار ڕوونده‌کاته‌وه‌ سه‌باره‌ت به‌ کۆرسه‌که‌ بۆ نموونه‌ ئاماده‌بوونی قوتابیان له‌ وانه‌کاندا، له‌ تاقیکردنه‌وه‌کاندا، راپۆرت و ووتار نووسین... هتد. |
| **13. Forms of teaching**The lectures showed by data show and the explanations discussed on the white board and at the same time the students will have a copies of the lecture. |
| **14. Assessment scheme**Breakdown of overall assessment and examinationلێره‌ مامۆستا جۆری هه‌ڵسه‌نگاندن (تاقیکردنه‌وه‌کان یان ئه‌زموونه‌کان) ده‌نووسێت بۆ نموونه‌ تاقیکردنه‌وه‌ی مانگانه‌، کویزه‌کان، بیرکردنه‌وه‌ی ڕه‌خنه‌گرانه (پریزه‌نته‌یشن)، ڕاپۆرت نووسین، ووتار نووسین‌ یان ئاماده‌نه‌بوونی خوێندکار له‌ پۆلدا...هتد. ئامانه‌ چه‌ند نمره‌ی له‌سه‌رده‌بێت و مامۆستا چۆن نمره‌کان دابه‌شده‌کات؟‌ |
| **15. Student learning outcome:**1. Students after this course will be able to identify and describe the diversity of animal structures and relate them to their functions. 2. Identify characteristics of major animals taxa and their phylogenetic relationships.3. Develop basic laboratory and dissection skills. |
| **16. Course Reading List and References‌:**1. A Photographic Atlas of Histology, Michael J. Leboffe.William, A.; Beresford, M.A., D. Phil ©Professor of Anatomy Department, WestginiaUniversity, Morgantown, USA .
2. Kühnel,W. Color Atlas of Cytology, Histology, and Microscopic. [www.cmj.hr/2004/45/4/27\_BookRev.pdf](http://www.cmj.hr/2004/45/4/27_BookRev.pdf)
3. Color Atlas of Cytology, Histology, and Microscopic Anatomy, 4thedition.... Limitations.
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| **17. The Topics:** | **Lecturer's name** |
| 1. Introduction to zoology
2. Classification of animals
3. Animals adaptation
4. Cell structure and function
5. Cell size, the structure of animal and plant cells
6. Cell organelles, the nucleus
7. Cell organelles , ribosome, endoplasmic reticulum and golgi apparatus.
8. Cell organelles , lysosome, vacuole, and mitochondria.
9. Cell organelles , peroxisome, centrosome, cilia and flagella.
10. Cell membrane
11. The cytoskeleton
12. Properties of living system
13. Frog presentation
14. Frogdiss
15. Frog respiratory system
16. Digestive system of frog
 | Lecturer's nameex:(4 hrs) |
| **18. Practical Topics (If there is any)** |  |
| 1. Biology laboratory safety rules and recommendation
2. Animals cell structure
3. Cell division
4. Types of animal tissue
5. Epithelial tissue
6. Connective tissue
7. Blood
8. Muscle tissue
9. Nervous tissue
10. Blood smear preparation
11. Classification of frog
12. Digestive system of frog
13. Urinogenital system of frog
14. Respiratory system of frog
15. Nervous system of frog
16. Reproduction system of frog
 | Lecturer's nameex: (2-3hrs) |
| **19. Examinations:*****1. Compositional:*** 1. What are the general defferences between prokaryotic and eukaryotic?
2. Define the following: Vacule, chloroplast and lysosome?
3. What are the general characteristics of connective tissue ?

***2.fill in the blank:***Mitochondria is …………………………………………………. |
| **20. Extra notes:**Here the lecturer shall write any note or comment that is not covered in this template and he/she wishes to enrich the course book with his/her valuable remarks. |
| **21. Peer reviewپێداچوونه‌وه‌ی هاوه‌ڵ** This course book has to be reviewed and signed by a peer. The peer approves the contents of your course book by writing few sentences in this section.*(A peer is person who has enough knowledge about the subject you are teaching, he/she has to be a professor, assistant professor, a lecturer or an expert in the field of your subject).*ئه‌م کۆرسبووکه‌ ده‌بێت له‌لایه‌ن هاوه‌ڵێکی ئه‌کادیمیه‌وه‌ سه‌یر بکرێت و ناوه‌ڕۆکی بابه‌ته‌کانی کۆرسه‌که‌ په‌سه‌ند بکات و جه‌ند ووشه‌یه‌ک بنووسێت له‌سه‌ر شیاوی ناوه‌ڕۆکی کۆرسه‌که و واژووی له‌سه‌ر بکات.هاوه‌ڵ ئه‌و که‌سه‌یه‌ که‌ زانیاری هه‌بێت له‌سه‌ر کۆرسه‌که‌ و ده‌بیت پله‌ی زانستی له‌ مامۆستا که‌متر نه‌بێت.‌‌  |