****

**Department of Biology**

**College of Science**

**Salahaddin University - Erbil**

**Subject: Human Anatomy**

**Course Book – Year 2**

**Lecturer names:**

**Zana Rafiq Majeed, PhD / Theory**

##### **Hawzheen Kareem Othman, M.Sc./ Practical**

**Academic Year: 2022-2023**

**Course Book**

|  |  |
| --- | --- |
| **1. Course name** | **Human Anatomy** |
| **2. Lecturer in charge** | **Dr. Zana Rafiq Majeed (Theory)****Hawzheen Kareem Othman, M.Sc. (Practical)** |
| **3. Department/ College** | **Department of Biology/College of Science** |
| **4. Contacts** | **E-mails:**  **zana.majeed@su.edu.krd** **hawzheen.othman@su.edu.krd** |
| **5. Time (in hours) per week** | **Dr. Zana: 2 hrs theoretical & 6 hrs. practical supervision** |
| **6. Office hours** | **Dr. Zana: Wednesday and Thursday: 8:30-12:30 am**  |
| **7. Course code** | **Human Anatomy** |
| **8. Teacher's academic profile** | **Zana Rafiq Majeed, Ph.D. in Biology/Physiology** **EDUCATION** 1. Department of Biology, College of Arts and Sciences, University of Kentucky, Lexington, Kentucky, USA. **PhD in Biology/Physiology Jan 2011-May 2016** **Dissertation title:** Modulatory Actions of Serotonergic System in Cardiac Function, Behavior, and Sensorimotor Circuit Activity in *Drosophila melanogaster.* **Dissertation Director:** Dr Robin L. Cooper 2. Department of Biology, College of Science, Salahaddin University-Erbil, Erbil, Iraq. **MSc in Biology/Animal Physiology November 2004-August 2006 Thesis project:** Effects of L-Carnitine and Melatonin on Biochemical and Hematological Parameters in Male Albino Rats. **Thesis Director:** Dr Almas M.R. Mahmud 3. Department of Biology, College of Science, Salahaddin University-Erbil, Erbil, Iraq. **B.Sc. in Biology October 1999-July 2003 Research Project:** Incidences of Bacterial Urinary Tract Infection in Pregnant Women in Pediatric and Maternity Hospital, Erbil, Iraq.**PROFESSIONAL EXPERIENCES** 1. Lecturer, College of Science, Salahaddin University-Erbil, Erbil, Iraq. **October 2010-Present.**
2. Assistant Lecturer, College of Science, Salahaddin University-Erbil, Erbil, Iraq. **November 2006- 2010**
3. Biology Assistant, College of Science, Salahaddin University-Erbil, Erbil, Iraq. **October 2003- November 2004**

**AWARDS** 1. Awarded the First Place Prize for oral presentation of Graduate Research Competition (Physiology and Biochemistry Section) at the Kentucky Academy of Science meeting (2012).2. Awarded the second Place Prize for oral presentation of Graduate Research Competition (Physiology and Biochemistry Section) at the Kentucky Academy of Science meeting (2013).  **TEACHING EXPERIENCES** 1. English Language Course for Biology Students (2016-2017).
2. Lab-based comparative anatomy course for four years (2006-2010).
3. Lab-based genetics, introductory biology, and principles of experimental animal physiology.

**SCHOLARSHIP** 1. PhD scholarship by the Higher Committee for Education Development in Iraq (HCED) (6 years). **PEER REVIEWED selected PUBLICATIONS** 1. Miller BF, Hamilton KL, **Majeed ZR**, Abshire S., Confides A, Hayek A, Hunt E, Shipman P, Peelor FF III, Butterfield T, Dupont-Versteegden E (2018) Enhanced skeletal muscle regrowth and remodeling in massaged and contralateral non- massaged hind limb. J Physiol. 2018 Jan 1;596(1):83-103.
2. **Majeed ZR,** Koch, F, Morgan, J, Anderson, H, Wilson, J, and Cooper, RL (2017) A novel educational module to teach neural circuits for college and high school students: NGSS-neurons, genetics, and selective stimulations. F1000Research. F1000Research: Immediate & Transparent Publishing for Life Scientists. F1000 Research Ltd, Middlesex House, 34-42 Cleveland St, London W1T 4LB, UK.
3. Anderson KL, Frazier HN, Maimaiti S, Bakshi VV, **Majeed ZR**, Brewer LD, Porter NM, Lin AL, Thibault O (2017) Impact of Single or Repeated Dose Intranasal Zinc-free Insulin in Young and Aged F344 Rats on Cognition, Signaling, and Brain Metabolism. The journals of gerontology. Series A, Biological sciences and medical sciences 72(2): 189-197.
4. **Majeed ZR,** Abdeljaber E, Soveland R, Cornwell K, Bankemper A, Koch F, Cooper RL (2016) Modulatory Action by the Serotonergic System: Behavior and Neurophysiology in Drosophila melanogaster. Neural Plasticity vol. 2016, 23 pages. http://www.hindawi.com/journals/np/2016/7291438/
 |
| **9. Keywords** | **Integument, skeleton, muscle, neurons, digestion, respiration.** |
| **10. Course overview:**  This course covers principles in Human Anatomy. It is designed to introduce second year biology students with various aspects of essentials in human anatomy.  |
| **11. Course objective:**The main aims of this course are:- Compare and contrast the various ways to approach gross anatomy. - The details structure of human body organs.- Explain the major levels of organization in a living organism.- Identify the organ systems of the human body and compare their functions. - Understand and correctly apply descriptive anatomical and directional terminology. |
| **12. Student's obligation*** Attendance will be taken at the end of the class time.
* The students are required to always keep their mobile devices on silent mode during the lectures.
* The students are expected to remain respectful and civil to their fellow students and class environment.
* Any verbal and/or written form of cheating cannot be tolerated.
* The exam date once set will not be changed. You will be reminded with a note on the Moodle site several days before the exam.
* English language is used in the lectures. Students are expected to answer exam questions in English language only.

**Students’ lab obligations:****Exam policy:** Student Should take 2 exams during the course (theory and practical); There will be no make-up exams for absent students without medical report. **Quizzes:** students are quizzed every week.**Seminar:** during the course, the students will prepare a seminar. |
| **13. Forms of teaching**PowerPoint presentation, videos, in class activities, and sample identification |
| **14. Assessment scheme**Student assessment will be based on scores obtained in the written exams. There will be at least two written exams. (15 theoretical+ 35 practical).  |
| **15. Student learning outcome:**This course discusses the anatomical structures that make human life possible. Our goals are to help you develop a three-dimensional understanding of anatomical relationships, prepare for more advanced courses in physiology and related subjects, and make informed decisions about your personal health.  |
| **16. Course Reading List and References:****Theory:**MARTINI, F.H., TALLITSCH R.B., NATH J.L.(2018). Human Anatomy. Ninth Edition. Published by Pearson Education, Inc., publishing as Pearson Benjamin Cummings.**Practical:**   |
| **17. The Topics:** | **Timeline** |
| An Introduction to Anatomy | Week 1 |
| The Integumentary System | Week2 |
| The Skeletal System Part 1 | Week3 |
| The Skeletal System Part 2 | Week4 |
| The Muscular System | Week5 |
| The Nervous System | Week6 |
| **Examination 1** | Weeks7 |
| The Cardiovascular System | Week8 |
| The Respiratory System | Week9 |
| The Digestive System | Week10 |
| The Urinary System | Week11 |
| The Reproductive System | Week12 |
| The Endocrine System | Week13 |
| **Examination 2 (Final)** | Weeks 14 |
| **18. Practical Topics**  |  |
| An Introduction to Anatomy | **Week One** |
| Tissues and Early Embryology | **Week Two** |
| The Integumentary System | **Week Three** |
| The Skeletal System | **Week Four** |
| The Muscular System | **Week Five** |
| The Nervous System | **Week Six** |
| **Examination 1** | **Week Seven** |
| The Cardiovascular System | **Week Eight** |
| The Respiratory System | **Week Nine** |
| The Digestive System | **Week ten** |
| The Urinary System | **Week eleven** |
| The Reproductive System | **Week twelve** |
| **Examination 2 (Final)** | **Week Thirteen** |
| **19. Examinations:****Theory:****Exams will be mixture of the following styles:**1. Multiple choice
2. Short essay
3. True or false
4. Explanation

**During Answering**: the student should:1. Understand the questions.
2. Answer the questions asked during the assigned exam time.
3. Answer should be precise.

**Practical:** **1. I identify:** samples.**2. Compositional:** In this type of exam the questions usually start with Explain how, what are the reasons for…? Why…? How….?**3.** **True or false type of exams:*** In this type of exam, a short sentence about a specific subject will be provided, and then students will comment on the trueness or falseness of sentence.

**4. Multiple choices:*** In this type of exam there will be several phrases next or below a statement, students will match the correct phrase.
 |
| **20. Extra notes:** |
| **21. Peer review پێداچوونه‌وه‌ی هاوه‌ڵ**This course book must 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 must 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.‌‌ |

**Peer reviewed by:**

**Mr. Muhammed Ali Saleem**

**Head of Biology Department**