

**Republic of Iraq**

**The Ministry of Higher Education**

**& Scientific Research**

**University:Alnahrain**

**College:Medicine**

**Department:Anatomy**

**Stage:First**

**Lecturer name:Dr.Elham Abood Alaswad**

**Academic Status:Assist proff**

**Qualification: PhD,**

**Place of work:medical biology section**

**Course Weekly Outline**

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| **Course Instructor** | Assist proff, Dr.Elham Abood Alaswad | | | | |
| **E\_mail** | elham\_alaswad@yahoo.com | | | | |
| **Title** | Medical biology 1:.Comparative anatomy 2-Medical genetics,3-Ecolgy | | | | |
| **Course Coordinator** | Assist proff, Dr.Elham Abood Alaswad , Assist proff,Dr.Taha shawee , Lect.Shetha mahmoud,Lec.Maysoon abdul ameer | | | | |
| **Course Objective** | . Study in cytogenetics and medical genetics , basic information about Human genome , the gene expression, abnormalities , chromosomes , mendelian inheritance , techniques used in genetic studies . Ecology & Pollution  Study organ systems of the body to recognize that the bodies of all vertebrates are built upon the same fundamental plan and the variation are mostly adaptive in nature. It involve study of invertebrate ancestry | | | | |
| **Course Description** | Studies in Cytogenetics : The cell cycle Cell ,cycle inhibitors ,Chromosome structure, The human genome , Gene and , Genetic code , DNA Duplication and repetitive sequences .Regulatory sequences , Pseudogenes , Variation. The chromosomal abnormalities, genetic syndromes,Numerical abnormalities. Gene regulation ,inherited traits . ,.Mendelian inheritance: Mendel’s first and second law, Dominant and recessive characters . Comparative anatomy of cardiovascular system , Comparative anatomy of skeletal system, Comparative anatomy of CNS, Comparative anatomy of sensory receptors ., Comparative anatomy of urogenital system , Comparative anatomy of digestive system . Ecology, Population, Community, Ecosystem, Biosphere(ecosphere), Environmental Factors including 1-Nonliving factors(Temperature, Sunlight, Water, Soil, Pressure 2-Biotic factors Food chain, Food web Pollution | | | | |
| **Textbook** | Molecular Biology of the cell, Bruce Albert, 4th Edition( 2002.)  Animal biology ,Grove A.J. Newell. ninth edition ,London  ( 1989) .,  Elements of Medical Genetics ,Alan E.H.Emery, 6th edition, Churchil livingstone, Edinberge London Melbourne and NewYork (1983) | | | | |
| **References** | 1. Elements of Medical Genetics ,Alan E.H.Emery, 6th edition, Churchil livingstone, Edinberge London Melbourne and NewYork (1983)  2. Vertebrate comparative anatomy ,K.V.Kardong 2 012.  3.Comparative Anatomy of vertebrates , G.C.Kent .1986.  4.Weichert.C. ( 1970) Anatomy of Chordates.  5. The vertebrates body. Romer )1956 ) .  .  علم الاحياء الطبي الجزء الثاني, د.منير بني., د.عباس طه النجم,ود. محمود حياوي 6  Im medical genetics:  1- Biology ,Arms K. and Camp P. S ( 3rd Edit ) . Saunders college publishing . ( 1989 ) .  2- Animal Biology . Grove A.J . ( 1987 .  3-. Principle of Genetics Gardner E. J, Simmons M . J and Snustad D. P 8th Edit , John Wiley and Sons . ( 1991 ),  4- Cell and Molecular Biology De Robertis and De Robertis (1987)., 8th Edit.  In Ecology  Fundamental of ecology Odum, E.R 7ED W.B Saunders 1999 Pollution Hogdz, L 3ED W.B Saunders 2000 Type here textbook | | | | |
| **Course Assessment** | Mid Theory | Mid  Laboratory | Quizzes | Project | Final Exam |
| As (20%) | As (12%) | As (8%) | ---- | As (40%) |
| **General Notes** | Coarse consist of 15 week, each week 3hrs theory, Practical 2x3 | | | | |

**University:ALnahrain**

**College:medicine**

**Department:Anatomy , sectionMedical biology**

**Stage:First**

**Lecturer name: Dr.Elham AboodAlaswad ,Dr.taha Shawee,Shetha mahmood.Maysoon abdul ameer .**

**Academic Status:Assist.proff, Assist proff ,Lecturer**

**Qualification: phD,lecturer**

**Place of work:medical biology section**



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**Course weekly Outline/First coarse**

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| **week** | **Date** | **Topics Covered** | | **Lab. Experiment Assignments** | | **Notes** |
| **1** | **11-11-2014** | **Medical genetics :**  **1.The biology as a science. The cytogenetics.**  **2.Cell cycle.**  **3.Regulation of the cell cycle.I** | | **Definitions. The light microscope** | |  |
| **2** | **16-11-** | **4. Regulation of the cell cycle.II**  **5.The chromosomes.**  **6..The chromosomal abnormalities.** | | **Human inherited characteristic analysis.** | |  |
| **3** | **23-11-2014** | **7.The human genome .**  **8.The gene.**  **9 Types of Gene mutation** | | **Karyotype analysis.** | |  |
| **4** | **30-11-2014** | **10. The gene regulation (I)**  **11. The gene regulation (II)**  **12.Inborn errors of metabolism.** | | **Inheritance related to sex. .** | |  |
| **5** | **14-12--2014** | **13. Mendelain laws**  **14.Quantitative inheritance .**  **15.linkage and recombination.** | | **..Human immunogenetics.** | |  |
| **6** | **21-12-2014** | **16 .The genetic of cancer.**  **17.Genetic engineering .**  **18. Scheduled mid exam.** | | **Scheduled practical examination.** | |  |
| **7** | **28-12-2014** | **Comparative Anatomy**  **19.The vertebrate body.**  **20. Origin of chordates.**  **21. Comparative anatomy integumentary system.** | | **Dissection of the frog; external features, skin, buccal cavity.** | |  |
| **8** | **28-12-2014** | **22- Comparative anatomy integumentary system.**  **23-Comparative anatomy of skin in vertebrate.**  **24. comparative anatomy of muscular system(I).**  **system.** | | **Dissection of the frog; muscular system, digestive and respiratory systems.** | |  |
| **9** |  | **25. comparative anatomy of muscular system(I).**  **system.**  **26&27. Comparative anatomy of The Digestive system.** | | **Dissection of the frog; CNS** | |  |
| **10** |  | **28&29. Comparative anatomy of Respiratory system**  **30. Comparative anatomy of the Central nervous system.** | | **Dissection of the rabbit; the internal viscera Digestive system** | |  |
| **11** |  | **31 Comparative anatomy of the Central nervous system**  **32&33 Comparative anatomy of The cardiovascular system.** | | **Dissection of the rabbit; the internal viscera and reproductive system**  **.** | |  |
| **12** |  | **34. Comparative anatomy of The cardiovascular system.. 35&36comparative anatomy of The Excretory system.** | | **Dissection of the rabbit; the venous and circulatory system .** | |  |
| **13** |  | **37&38.Comparative anatomy of reproductive system.**  **39.comparative anatomy of skeletal system** | | **Dissection of the rabbit; the skeletal system1.** | |  |
| **14** |  | **40,41- Comparative**  **anatomy skeletal system**  **42. Ecology.** | | **Dissection of the rabbit; the skeletal system.2** | |  |
| **15** |  | **43. Ecology.**  **44. Ecology.**  **45.overview.** | | **Dissection of the rabbit; the skeletal system.3** | |  |
| **Half-year Break** | | | | | | |
| **17** |  |  |  | |  | |
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| **32** |  |  |  | |  | |

**Instructor Signature: Dean Signature:**