

جمهورية العراق

وزارة التعليم العالي والبحث العلمي

جهاز الاشراف والتقويم العلمي

**الجامعة :النهرين**

**الكلية :الطب**

**القســم :الفسلجه والفيزياء الطبيه**

**المرحلة :الثانية**

**اسم المحاضر الثلاثي :زينب حسن هاشم**

**اللقب العلمي :مدرس**

**المؤهل العلمي :بكلوريوس طب و جراحة عامة،ماستر،دكتوراه فسلجه طبية**

**مكان العمل :قسم الفسلجه والفيزياء الطبيه/ كلية الطب /جامعة النهرين**

**جدول الدروس الاسبوعي**

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| **الاسم** | **م د زينب حسن هاشم** |
| **البريد الالكتروني** | **zainab\_hashim69@colmed-alnahrain.edu.iq** |
| **اسم المادة** |  **فسلجة الجهاز التنفسي** |
| **مقرر الفصل** | **د حسين غني قدوري** |
| **اهداف المادة** | **After studying this system,the students should be able to:*** **Define partial pressure and calculate the partial pressure of each of the important gases in the atmosphere at sea level.**
* **List the major muscles involved in respiration, and state the role of each.**
* **Describe basic lung defense and metabolic functions.**
* **Define compliance, and give examples of diseases in which it is abnormal.**
* **Define the basic measures of lung volume and give approximate values for each in a normal adult**
* **Describe the chemical composition and function of surfactant.**
* **List the factors that determine alveolar ventilation.**
* **Define diffusion capacity, and compare the diffusion of O2 with that of CO2 in the lungs.**
* **Compare the pulmonary and systemic circulations, listing the main differences between them.**
* **List the factors that affect OHDC**
* **Describe the neural control of respiration**
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| **التفاصيل الاساسية للمادة** | **Lec.1,2 objectives** * **Describe the mechanism of respiration**
* **List the non respiratory functions of the lung**
* **Describe the basic structures of the lung**

**Lec.3,4 objectives*** **Define physical laws of gases**
* **List types of dead spaces and their effect on the alveolar ventilation**
* **Describe physical properties of the lung**
* **List the functions of the surfactant**
* **Describe the work of breathing**

**Lec.5 objectives*** **List pulmonary function tests**
* **Describe the effects of restrictive & obstructive lung diseases on the pulmonary function tests**

**Lec.6,7 objectives*** **Describe the importance of ventilation/perfusion matching at the alveolar level in maintaining proper levels of systemic arterial blood gases.**
* **Explain how ventilation/perfusion matching is physiologically achieved in gravity fields operating on fluids (air/blood) of such different mass.**
* **Generate an alveolar PO2-PCO2 diagram that identifies the three alveolar types, showing the continuum of ventilation/perfusion ratios.**
* **Identify in vivo pulmonary reflexes that help to correct for vascular shunts or airway obstructions causing ventilation/perfusion disturbances.**
* **Determine the effect of exercise on V/Q ratio**
* **Discriminate the Gas Exchange at Alveolar and Tissue Level**
* **List the factors that affect the rate of gases diffusion in the blood**

**Lec.8 objectives*** **Discriminate between O2 & CO2 transport.**
* **Describe O2- Hb dissociation curve**

**Lec.9,10 objectives*** **Determine the factors that affect OHDC**
* **Discriminate between Bohr & Haldane effect on O2 &CO2 transport**
* **Describe the effect of respiration on acid – base balance of the blood**

**Lec.11,12 objectives*** **List the types of respiratory controls**
* **List the types of chemoreceptors and the main stimulant for each**
* **List the effects of pulmonary receptors on ventilation**
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| **الكتب المنهجية** | **Textbook of Medical Physiology; 12th Edition, Copyright © 2011 by Elsevier, Inc**. **Guyton, M.D., John E. Hall, Ph.D.** |
| **المصادر الخارجية** | **Physiology prep manual for undergraduate;4th edition, Copyright © 2010 by Elsevier,Inc.Vijaya D Joshi,Sadhana Joshi-Mendhurwar** **Physiology; 4th edition, Copyright © 2010 by Saunders, Inc. by Linda S. Costanzo** |
| **تقديرات الفصل** | **الفصل الدراسي** | **المختبر** | **الامتحانات اليومية** | **المشروع** | **الامتحان النهائي** |
| **20%** | **10%** | **ً10%** | **-** | **60%** |
| **معلومات اضافية** |  |



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وزارة التعليم العالي والبحث العلمي

جهاز الاشراف والتقويم العلمي

**الجامعة :**

**الكلية :**

**اسم القســم :**

**المرحلة :**

**اسم المحاضر الثلاثي :**

**اللقب العلمي :**

**المؤهل العلمي :**

**مكان العمل :**

**جدول الدروس الاسبوعي**

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| **الاسبوع** | **التاريخ** | **المادة النظرية** | **المادة العلمية** | **الملاحظات** |
| **1** | **21/9/2014** |  | **Introduction** |  |
|  | **28/9/2014** |  | **RBC count** |  |
| **2** | **12/10/2014** |  | **WBC count** |  |
| **3** | **19/10/2014** |  | **Blood film (WBC differential count)** |  |
| **4** | **26/10/2014** | **Mechanism of breathing** | **Hemoglobin–PCV** |  |
| **5** | **2/11/2014** | **Physical laws** | **Blood group****Osmotic fragility test (demonstration)** |  |
| **6** | **9/11/2014** | **Pulmonary function tests** | **ESR (demonstration )****Capillary Hess test** |  |
| **7** | **16/11/2014** | **Pulmonary circulation** | **Breathing tests** |  |
| **8** | **23/11/2014** | **Gas exchange** | **Introduction for frog's muscle-nerve preparation: Instruments & dissection (demonstration)** |  |
| **9** | **30/11/2014** | **O2 &CO2 transport** | **Simple muscle twitch (SMT)****Effect of temperature on SMT** |  |
| **10** | **7/12/2014** | **O2 Hb dissociation curve****And the factors that affect it** | **Effect of strength of stimulus on SMT****Nerve conduction velocity** |  |
| **11** | **14/12/2014** | **Regulation of breathing** | **Fatigue and Tetanus** |  |
| **12** | **21/12/2014** |  | **Frog's heart: 1- Effect of temperature****2-Stannius ligature** |  |
| **13** |  |  |  |  |
| **14** |  |  |  |  |
| **15** | **30/12/2014** |  | **Final practical exam** |  |
| **16** |  |  |  |  |
| **عطلة نصف السنة** |
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 **توقيع الاستاذ : توقيع العميد :**



**Republic of Iraq**

 **The Ministry of Higher Education**

 **& Scientific Research**

**University:**

**College:**

**Department:**

**Stage:**

**Lecturer name:**

**Academic Status:**

**Qualification:**

**Place of work:**

**Course Weekly Outline**

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| **Course Instructor** | Zainab Hasan Hashim  |
| **E\_mail** | **zainab\_hashim69@colmed-alnahrain.edu.iq**  |
| **Title** | General physiology  |
| **Course Coordinator** | Assistant lecturer Dr.Hussein Ghani Kaddory |
| **Course Objective** | After finishing the course, the student should be able to:* Define the functions of the different aforementioned body systems.
* Describe the mechanism of action of these systems and the sequence of events that accompany these actions.
* Estimate the normal values with regard to different biological conditions.
* Distinguish between normal and abnormal performance of the body systems.

Illustrate the degree of deviation in the normal functions of these systems in some clinical disorders. |
| **Course Description** | This course shares in developing students’ skills of mind via different up-to-date teaching methods of academic and practical material, experiencing variable examination tools, and applying such information in practice. |
| **Textbook** | **Textbook of Medical Physiology; Twenty-Fourth Edition, Copyright © 2011 by Elsevier, Inc**.Arthur C. Guyton, M.D., John E. Hall, Ph.D. |
| **References** | * **Ganong's Review of Medical Physiology; Twenty-Third Edition, Copyright © 2010 by The McGraw-Hill Companies, Inc**.Kim E. Barrett, PhD; Susan M. Barman, PhD; Scott Boitano, PhD; Heddwen L. Brooks, PhD

**Fox: Human Physiology; Eighth Edition, Copyright © 2011 by The McGraw-Hill Companies, Inc**. Stuart Fox |
| **Course Assessment** | Term Tests | Laboratory | Quizzes |  | Final Exam |
| 20% | 10% | 10% | -- | 60% |
| **General Notes** | * This course acts up on the basic scientific knowledge that the student receives to do scientific research and medical studies.
* It expands learning through medical journals, books and the Internet.
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**Republic of Iraq**

**The Ministry of Higher Education**

**& Scientific Research**

**Course weekly Outline**

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| **week** | **Date** | **Topics Covered** | **Lab. Experiment Assignments** | **Notes** |
| **1** | **21/9/2014** |  | **Introduction** |  |
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| **14** |  |  |  |  |
| **15** |  |  |  |  |
| **16** | **30/12/2014** |  | **Final practical exam** |  |
| **Half-year Break** |
| **17** |  |  |  |  |
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 **Instructor Signature: Dean Signature:**