Course description form

Teacher's: Theoretical parts Asst. prof. Dr. Hassan Abdullah Athbi

Practical parts Dr. Noor Dehyaa Hassan

Course Name: Applied Physiology

Course Description

This course description provides a summary necessary to understand the characteristics of the course and the learning outcomes the student is expected to achieve, demonstrating whether he or she has made the most of the learning opportunities available.

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| 1-Educational institution | Al Zahraa University of women<br>College of health Techninology |
| 2-Scientific Department/Center | Anesthesia department |
| 3-Course name/code | |
| 4-Available attendance forms | Lectures |
| 5-Semester/year | First Semester 2025-2024 |
| 6-Number of study hours (total) | Official working hours |
| 7-Date this description was prepared | 30-11-2024 |
| 8-Course objectives | -Identifying the functions of different body systems.<br>- Describe the mechanism of operation of the various body |

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| | systems and the sequence of physiological events accompanying them.<br><br>- To distinguish between normal and abnormal functions of different body systems<br><br>- Expanding knowledge through periodicals, medical books and the Internet |

| 9-Course outcomes and teaching, learning and evaluation methods |
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| A- Cognitive objectives Students learned the physiology of the body and its working mechanism from the theoretical side and learned about physiological tests from the practical side |
| B - The skills objectives of the course<br><br>Methods of dealing with laboratory animals and scientific equipment - How to use chemical and physical materials - Developing students' cognitive skills and deepening the spirit of research and discovery - Acquiring human clinical examination skills |
| C- Emotional and value goals make Learning the basics of human physiology and its various vocabulary. - Deepening the student's self-confidence - Creating a creative professor who loves the teaching profession - Developing students' experimental skills and deepening the spirit of cooperation, teamwork and exploration - Stimulating and bringing out the energy within female students - Stimulating the feeling of the importance of learning among female students |
| D - Transferable general and qualifying<br><br>The student should cooperate with his colleagues and professors in an atmosphere |

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| of friendliness and understanding<br>-2 To work with his peers as a team<br>-3 To interact with them on scientific trips and learning methods<br>4- Use interactive explanation by using the smart interactive whiteboard |
| Teaching and learning methods explain the aims and objective of lecture give some clinical problems and encourage for seminar presentation by students |
| Evaluation methods by different examination in same lecture and in monthly time |

## 10- Structure of the course /Theoretical syllabus

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| 1st | 2 | Electrical components and activity of the heart | Electrical components and activity of the heart | Theoretical lectures | Daily exam |
| 2nd | 2 | The cardiac action potential in ventricular muscle and pace maker tissues | The cardiac action potential in ventricular muscle and pace maker tissues | Theoretical lecture | Daily exam |
| 3rd | 2 | Contractile cardiomyocytes and excitation – contraction coupling | Contractile cardiomyocytes and excitation – contraction coupling | Theoretical lectures | Daily exam |
| 4th | 2 | ECG and arrhythmia | ECG and arrhythmia | Theoretical lectures | Daily exam |

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| 5th | 2 | Cardiac cycle | Cardiac cycle | theoretical lecture | Daily exam |
| 6th | 2 | Heart sound and waveform generated during cardiac cycle | Heart sound and waveform generated during cardiac cycle | theoretical lecture | Daily exam |
| 7th | | The left ventricle pressure volume loop | The left ventricle pressure volume loop | | |
| 8th | 2 | Cardiac innervations and control of heart rate | Cardiac innervations and control of heart rate | Theoretical lecture | Daily exam |
| 9th | 2 | Cardiac reflexes | Cardiac reflexes | Theoretical Lecture | Daily exam |
| 10th | 2 | Systemic circulation | Systemic circulation | Theoretical Lecture | Daily exam |
| 11th | 2 | Blood pressure regulation | Blood pressure regulation | Theoretical Lecture | Daily exam |
| 12th | 2 | Physiology of microcirculation ( starling law of | Physiology of microcirculation ( starling law of | Theoretical | Daily exam |

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|---|---|---|---|---|---|
| | | capillary ) | capillary ) | Lecture | |
| 13th | 2 | Venous circulation and venous return | Venous circulation and venous return | Theoretical Lecture | Daily exam |
| 14th | 2 | Coronary circulation | Coronary circulation | Theoretical Lecture | Daily exam |
| 15th | 2 | Spirometry and lung volumes | Spirometry and lung volumes | Theoretical Lecture | Daily exam |

## Structure of the course /practical syllabus

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| 1st | 2 | Electrical components and activity of the heart | Electrical components and activity of the heart | Practical lectures | Daily exam |
| 2nd | 2 | The cardiac action potential in ventricular muscle and pace maker tissues | The cardiac action potential in ventricular muscle and pace maker tissues | Practical lectures | Daily exam |

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|---|---|---|---|---|---|
| 3rd | 2 | Contractile cardiomyocytes and excitation – contraction coupling | Contractile cardiomyocytes and excitation – contraction coupling | Practical lectures | Daily exam<br>Daily exam |
| 4th | 2 | ECG and arrhythmia | ECG and arrhythmia | Practical lectures | Daily exam |
| 5th | 2 | Cardiac cycle | Cardiac cycle | Practical lectures | Daily exam |
| 6th | 2 | Heart sound and waveform generated during cardiac cycle | Heart sound and waveform generated during cardiac cycle | Practical lectures | Daily exam |
| 7th | 2 | The left ventricle pressure volume loop | The left ventricle pressure volume loop | Practical lectures | Daily exam |
| 8th | 2 | Cardiac innervations and control of heart rate | Cardiac innervations and control of heart rate | Practical lectures | Daily exam |
| 9th | 2 | Cardiac reflexes | Cardiac reflexes | Practical lectures | Daily exam |

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|---|---|---|---|---|---|
| 10th | 2 | Systemic circulation | Systemic circulation | Practical lectures | Daily exam |
| 11th | 2 | Blood pressure regulation | Blood pressure regulation | Practical lectures | Daily exam |
| 12th | 2 | Physiology of microcirculation ( starling law of capillary ) | Physiology of microcirculation ( starling law of capillary ) | Practical lectures | Daily exam |
| 13th | 2 | Venous circulation and venous return | Venous circulation and venous return | Practical lectures | Daily exam |
| 14th | 2 | Coronary circulation | Coronary circulation | Practical lectures | Daily exam |
| 15th | 2 | Spirometry and lung volumes. | Spirometry and lung volumes | Practical lectures | Daily exam |

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| 10- Infrastructures |

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| A-Required prescribed books | Medical physiology and general physiology book |
| 1-Main references (sources) | ▪ Sembulingam, K., and Sembulingam, P. (2019). Essential of medical physiology. Eighth Edition. Jaypee Brothers Medical Publishers (P) Ltd. India.<br>▪ Miller, R. D., & Eriksson, L. I. (2020). Miller's Anesthesia (9th ed.). Elsevier. A comprehensive guide covering anesthesia techniques, including apneic oxygenation. |
| 2-Recommended books and references (scientific journals, reports,...) | Barash, P. G., Cullen, B. F., & Stoelting, R. K. (2021). Clinical Anesthesia (9th ed.). Wolters Kluwer.Discusses airway management, oxygenation strategies, and complications like diffusion hypoxia. |
| B - Electronic references, ...Internet sites | Free full, science direct, pub med |

| 11- Course development plan |
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| Changing some of the vocabulary of the subject according to the global updates used in developing general physiology. Using deductive questions and questions whose answers require deep or outside-the-box thinking to motivate students to know the extent of their capabilities and mental abilities in deducing and arriving at conclusions. Also, using the research lecture method instead of the theoretical lecture, and identifying the extent to which female students can access the largest number of information about the subject, become familiar with it, and discuss research within the class, in order to create a generation .aware of scientific research and its development |

*Department: Anesthesia Techniques

*Al Zahraa university for women
Dr.Siba yaseen
*Ministry of Higher Education and Scientific Research
**College of Health and Medical Technologies**

Practical anesthesia training is a critical component of medical education, enabling students to apply theoretical knowledge to real-world clinical scenarios. This report outlines the practical aspects of anesthesia administration as per the curriculum of *Basic of Anesthesia (2)*, focusing on key procedural skills, emergency management, .and intraoperative protocols

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**Endotracheal Intubation & Rapid Sequence Anesthesia .1**
:Endotracheal intubation is a foundational skill for securing a patient's airway during surgery. Students practice
.Technique**: Proper positioning, laryngoscope handling, and tube placement** -
Rapid Sequence Induction**: Administering sedatives (e.g., propofol) and neuromuscular blockers (e.g., ** -
.succinylcholine) to minimize aspiration risk
Complication Management**: Addressing laryngospasm (e.g., positive pressure ventilation, muscle ** -
.relaxants) and hypoxia (e.g., oxygenation, re-intubation)

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**Intraoperative Monitoring .2**
:Students learn to use advanced monitoring tools to ensure patient safety
Vital Signs**: Continuous ECG, blood pressure (invasive/non-invasive), pulse oximetry, and capnography ** -
.to track $CO_2$ levels
.Auscultation**: Monitoring breath and heart sounds via esophageal stethoscope** -
.Documentation**: Recording data in the **anesthetic record** to track trends and respond to abnormalities** -

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**Emergency Drug Management .3**
:Familiarity with emergency medications is vital for crisis resolution
.Malignant Hyperthermia**: Immediate administration of dantrolene and cooling measures** -
.Bronchospasm**: Use of bronchodilators (e.g., salbutamol) and epinephrine** -
.Hypotension**: Vasopressors (e.g., ephedrine) and fluid resuscitation** -

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**CPR in the Operating Theater .4**
:Students rehearse advanced cardiac life support (ACLS) protocols, including
.Chest compressions, defibrillation, and airway management -
.Coordination with the surgical team during intraoperative cardiac arrest -

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**Operating Theater Environment .7**
:Students adapt to the OR workflow by
.Sterile Techniques**: Hand hygiene, gowning, and gloving** -
.Team Communication**: Clear roles during emergencies and routine procedures** -

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The practical anesthesia curriculum equips students with essential skills to manage perioperative care safely. By mastering endotracheal intubation, crisis management, and patient monitoring, trainees build confidence to handle real clinical challenges. Integration of theoretical knowledge with hands-on practice ensures .preparedness for collaborative, high-stakes environments like the operating theater

Course description form

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|---|---|
| 1. اسم المقرر | |
| medicine | |
| 2. رمز المقرر | |
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| 3. الفصل / السنة | |
| 2025-2024 second stage | |
| 4. تاريخ إعداد هذا الوصف | |
| 2024/11/21 | |
| 5. أشكال الحضور المتاحة | |
| دوام رسمي | |
| 6. عدد الساعات الدراسية (الكلي)/ عدد الوحدات (الكلي) | |
| unit 4 /hr 6 | |
| 7. اسم مسؤول المقرر الدراسي (اذا اكثر من اسم يذكر) | |
| Ghada Ali Hussein<br>Email ali.drghada@gmail.com | |
| 8. اهداف المقرر | |
| اهداف المادة الدراسية | • تعريف الطالبة بكافة الامراض المزمنة التي تصيب اعضاء الجسم والدم<br>تعريف الطالبة في نهاية السنة على تمييز علامات الاعراض التي تصيب.<br>1- Respiratory system.<br>2- GIT system.<br>3- GU system.<br>4- Liver disease.<br>5- Endocrine disorder |

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| 9. استراتيجيات التعليم والتعلم | |
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| الاستراتيجية | • المحاضرات النظرية<br>• اثارة الأسئلة واستنباط الاجوبة منها داخل المحاضرة<br>• إرشاد الطالبات إلى بعض المواقع الالكترونية للإفادة منها<br>• ارشاد الطالبات الى اهم وأفضل الطرق لتحسين فهم الامراض المزمنة والاستفادة من الخبرا السابقة. |

| 10. بنية المقرر | | | | | |
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| الأسبوع | الساعات | مخرجات التعلم المطلوبة | اسم الوحدة او الموضوع | طريقة التعلم | طريقة التقييم |
| 1st | 6 | Students be able to understand infectious diseases | Causes ,clinical feature | Theory & clinical | اسئلة عامة / امتحانات يومية / امتحانات فصلية |
| 2nd | 6 | Students be able to understand infectious diseases | Diagnosis and treatment | Theory & clinical | اسئلة عامة / امتحانات يومية / امتحانات فصلية |

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|---|---|---|---|---|---|
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand respiratory diseases | 6 | 3rd |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand respiratory diseases | 6 | 4th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand respiratory diseases | 6 | 5th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand cardiovascular system | 6 | 6th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand cardiovascular system | 6 | 7th |
| اسئلة عامة / امتحانات يومية / | Theory & clinical | Causes ,clinical feature | Students be able to understand ECG | 6 | 8th |

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| امتحانات فصلية | | | | | |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Diagnosis and treatment | Students be able to understand AIDS | 6 | 9th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature | Students be able to understand gastrointestinal system | 6 | 10th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Diagnosis and treatment | Students be able to understand gastrointestinal system | 6 | 11th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature | Students be able to understand liver diseases | 6 | 12th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Complication Diagnosis and treatment | Students be able to understand liver diseases | 6 | 13th |
| اسئلة عامة / امتحانات | Theory & | Causes ,clinical feature | Students be able to understand kidney diseases | 6 | 14th |

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| يومية / امتحانات فصلية | clinical | Diagnosis and treatment | | | |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand kidney diseases | 6 | 15th |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature | Students be able to understand hematology | 6 | 16th |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Diagnosis and treatment | Students be able to understand hematology | 6 | 17th |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature | Students be able to understand anemia | 6 | 18th |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Diagnosis and treatment | Students be able to understand anemia | 6 | 19th |
| اسئلة عامة | Theory | Causes ,clinical | Students be able to | 6 | 20th |

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| امتحانات / يومية / امتحانات فصلية | & clinical | feature | understand endocrine gland | | |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Diagnosis and treatment | Students be able to understand hypothalamus,pituitary,thyriod | 6 | 21st |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature | Students be able to understand hypothalamus,pituitary,thyriod | 6 | 22nd |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Diagnosis and treatment | Students be able to understand connective tissue and Rheumatology | 6 | 23rd |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature | Students be able to understand nervous system | 6 | 24th |
| اسئلة عامة / امتحانات / يومية / امتحانات فصلية | Theory & clinical | Diagnosis and treatment | Students be able to understand nervous system | 6 | 25th |

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| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand nervous system | 6 | 26th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature | Students be able to understand critical care medicine | 6 | 27th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Diagnosis and treatment | Students be able to understand critical care medicine | 6 | 28th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand specific forms of organ failure | 6 | 29th |
| اسئلة عامة / امتحانات يومية / امتحانات فصلية | Theory & clinical | Causes ,clinical feature Diagnosis and treatment | Students be able to understand specific forms of organ failure | 6 | 30th |

| 11. تقييم المقرر | |
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| توزيع الدرجة من 100 على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير .... الخ | |
| 12. مصادر التعلم والتدريس | |
| الكتب المقررة المطلوبة (المنهجية أن وجدت) | Oxford hand book of clinical medicine , |
| المراجع الرئيسة (المصادر) | Harrisons principle of internal medicine |
| الكتب والمراجع الساندة التي يوصى بها (المجلات العلمية، التقارير.... ) | مجلة Research Gate للبحوث العلمية |
| المراجع الإلكترونية، مواقع الانترنيت | IVSL |

Course description form

Teacher's Name :Manar Mohammed Mahdi

Course Name: Internal Medicine

Course Description

**Lectures in Internal Medicine Theortical and Practical**

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|---|---|
| 1-Educational institution | Al Zahraa University of women<br>College of health Techninology |
| 2-Scientific Department/Center | Anesthesia department |

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| 3-Course name/code | Internal medicine theortical and practical lectures |
| 4-Available attendance forms | Lectures |
| 5-Semester/year | Second Semester 2024-2025 |
| 6-Number of study hours (total) | 18 hr |
| 7-Date this description was prepared | 14/3/2025 |
| 8-Course objectives | Understanding the medical diseases, diagnosis, treatment & complications. |

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| 9-Course outcomes and teaching, learning and evaluation methods<br><br>Understanding clinical features causes of diseases diagnosis with investigation and outline the management |
| A- Cognitive objectives clinical problems solving |
| B - The skills objectives of the course understand the differintial diagnosis and how to deal with critical cases |
| C- Emotional and value goals make the student awares of the |

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| responsibility of his future job |
| D - Transferable general and qualifying skills (other skills related to employability and personal development)relation of medicine and anesthesia |
| Teaching and learning methods explain the aims and objective of lecture give some clinical problems and encourage for seminar presentation by students |
| Evaluation methods by different examination in same lecture and in monthly time |

## 10- Structure of the course /Theoretical syllabus

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| 1st | 2 hr | Hematology/ introduction / major manifestations/ investigations. | Hematological diseases. | Theortical and practical lectures | Questions & exams |
| 2nd | 2 hr | Anemia: types, diagnosis, laboratory invetigations of anemia, hemolytic anemia.. | anemia | Theortical and practical lecture | Questions & exams |
| 3rd | 2 hr | Diseases of the endocrine gland/ introduction. | Endocrine system diseases | Theortical and practical | Questions & exams |

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| | | | | lectures | |
| 4th | 2 hr | Hypothalamus/ pituitary/ thyroid/ pararthyroid/ adrenals/ gonads. | Endocrine system diseases | Practical and theortical lecture | Questions & exams |
| 5th | 2 hr | Diseases of connective tissues and Rheumatology/ introduction/major manifestations/ investigations. | Connective tissues | Practical and theortical lecture | Questions & exams |
| 6th | 2 hr | Diseases of the nervous system/ introduction | Neurological diseases | Practical and theortical lecture | Questions & exams |
| 7th | 2 hr | Major manifestations/ investigations. | Investigations of major disaeses | Theortical and practical lecture | Questions & exams |
| 8th | 2 hr | Principles of critical care medicine major manifestations of critical illness/ shock/ sepsis. | Critical diseases | Theortical and practical lecture | Questions & exams |

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| 9th | 2 hr | Specific forms of organ failure(Multiple organ failure/ ARDS/DIC/ARF/ hepatic failure). | Multiple organ diseases | Lectures theortical and practical cases | Questions & exams |

| 10- Infrastructures | |
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| A-Required prescribed books | Davidson Principles and practice of Medicine |
| 1-Main references (sources) | Harrison text book of Medicine |
| 2-Recommended books and references (scientific journals, reports,...) | British medical journal BMJ<br>Attendance to internal Medicine |
| B - Electronic references, Internet …sites | e medicine Health |

| 11- Course development plan |
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| To enrolled the students in hospital practice more cases more practice |

Course description form

Teacher's Name: Dr. Muataz Fouad Alagha

Course Name: Basic Anaesthetic Equipment 1 (Theoretical + Practical ) / Second Stage (2024-2025)

Course Description

The student should be able to identify the anesthesia instruments, devices, and tools used in anesthesia practice and how to operate them & use them correctly.

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| 1-Educational institution | University of Alzahraa for Women |
| 2-Scientific Department/Center | Anesthesia |
| 3-Course name/code | Basic Anesthesia Equipment 1 (theoretical + practical)/ Second Stage |
| 4-Available attendance forms | Attendance time |
| 5-Semester/year | Semester system |
| 6-Number of study hours (total) | 6 hours per week |
| 7-Date this description was prepared | Academic year 2024-2025 |
| 8-Course Objectives | Teaching the course aims to introduce the student to the basics of using and maintaining |

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| | anesthetic devices. |

9-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives:

At the end of the year, the student should be able to: -

1- Identify the basics of how anesthesia machines work
2- Deal with all patient monitoring devices
3- Operate and maintain anesthesia and monitoring equipment
4- Apply modern technologies used in anesthesia devices

B - The skills objectives of the course:

At the end of the year, the student should be able to:

1- Identify the sources of pollution in operating theaters and methods of treating them
2- Implement methods of disinfecting, sterilizing and maintaining some devices used in anesthesia.
3- know the applied protocols of health care provision, anticipated problems, and methods of using equipments and anesthetic techniques.
4- Prepare the operating room, and setting the fluid administration devices, anesthesia gas fumigation devices, gas pressure measuring devices, and flow measuring devices.

C- Emotional and value goals:

1- We aim to create a conscious, educated generation

2- Instilling in the students' hearts the love of belonging to the homeland and loyalty to it

3- We aim to instill a spirit of cooperation among students.

D - Transferable general and qualifying skills (other skills related to employability and personal development):

1-Creating a generation experienced in using advanced and modern devices and familiar with all their details

2-Preparing students through conducting seminars and their own researches.

Teaching and learning methods:

1- Asking questions about the lecture topic or from a previous lecture related to the same lecture topic

2- Practical application of handling and using of the equipments available in the laboratory.

Evaluation methods:

1- Conducting periodic exams of students for every one or two new lectures

2- Surprising questions while explaining the lecture and recording this in the students' evaluation record

1- Conducting weekly, monthly and final exams

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| **1st** | 6 | Learn about the details and design of operating theaters and their specifications | Operating room design and functioning | -Use the smart screen<br>-Devices and equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>-Semester exams and the end of the course |
| **2nd**<br>**3 rd** | 12 | Identifying the types of canola and feeding devices and how to best use them, as well as their types | Cannula and giving set and device for intravenous infusion | -Use the smart screen<br>Devices and - equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>Semester - exams and the end of the course |
| **4rd** | 6 | Get to know these fluid payment or calculation devices, as well as syringe devices and their electrical and mechanical features | Infusion equipment: patient control analgesia, filtration, aut transfusion | -Use the smart screen<br>Devices and - equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>Semester - exams and the end of the course |
| **5th**<br>**6th**<br>**7th** | 18 | Learn about the behavior of fluids under different conditions of motion and temperature. Learn about the motion and mixing of fluids, as well as the mechanics of static and moving fluids, learn about the types of gas laws and give examples of each law | Physical principles: behavior of molecules of solid and liquid, heat and temperature<br>Physical principles: properties of gases, temperature, and flow of fluid through tubes and orifice | -Use the smart screen<br>Devices and - equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>Semester - exams and the end of the course |

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| **8th**<br>**9th**<br>**10th**<br>**11th**<br>**12th** | 30 | Types of endotracheal tubes, the method of intubation, their parts, the benefits, reasons for using and disadvantages of each type, and identifying the special types. | Endotracheal tube (ordinary tube) laryngoscope, airway (oropharyngeal and nasopharyngeal), tracheostomy, facemask | -Use the smart screen<br>Devices and - equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>Semester - exams and the end of the course |
| **13th**<br>**14th**<br>**15th** | 18 | Components of the respiratory system, its mechanism of action and its parts, the breathing system without C02 absorption, an explanation and clasification of Mapelson types,. | Breathing system and their component, definition, classification, working principle | -Use the smart screen<br>Devices and - equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>Semester - exams and the end of the course |

## 10- Structure of the course /Theoretical syllabus

| 10- Infrastructures | |
|---|---|
| A-Required prescribed books | |
| 1-Main references (sources) | 1- Anesthesia equipment, principle and application, Jan Ehrenwerth, MD, 3rd edition<br><br>The MGH Textbook of Anesthetic Equipment, Warren S. Sandberg, MD, PhD 2nd edition |
| 2-Recommended books and references (scientific journals, reports,...) | Relevant scientific journals |
| B - Electronic references, Internet …sites | All educational sites |

## 11- Course development plan

Increasing the number of study hours for the anesthesia devices course to train students on more device techniques

Course description form

Teacher's Name: Dr. Muataz Fouad Alagha

Course Name: Basic Anaesthetic Equipment 2 (Theoretical + Practical ) / Second Stage (2024-2025)

Course Description

The student should be able to identify the anesthesia instruments, devices, and tools used in anesthesia practice and how to operate them & use them correctly.

| | |
|---|---|
| 1-Educational institution | University of Alzahraa for Women |
| 2-Scientific Department/Center | Anesthesia |
| 3-Course name/code | Basic Anesthesia Equipment 1 (theoretical + practical)/ Second Stage |
| 4-Available attendance forms | Attendance time |
| 5-Semester/year | Semester system |
| 6-Number of study hours (total) | 6 hours per week |
| 7-Date this description was prepared | Academic year 2024-2025 |
| 8-Course Objectives | Teaching the course aims to introduce the student to the basics of using and maintaining anesthetic devices. |

9-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives:

At the end of the year, the student should be able to: -

5- Identify the basics of how anesthesia machines work
6- Deal with all patient monitoring devices
7- Operate and maintain anesthesia and monitoring equipment
8- Apply modern technologies used in anesthesia devices

B - The skills objectives of the course:

At the end of the year, the student should be able to:

5- Identify the sources of pollution in operating theaters and methods of treating them
6- Implement methods of disinfecting, sterilizing and maintaining some devices used in anesthesia.
7- know the applied protocols of health care provision, anticipated problems, and methods of using equipments and anesthetic techniques.
8- Prepare the operating room, and setting the fluid administration devices, anesthesia gas fumigation devices, gas pressure measuring devices, and flow measuring devices.

C- Emotional and value goals:

1- We aim to create a conscious, educated generation

2- Instilling in the students' hearts the love of belonging to the homeland and loyalty to it

3- We aim to instill a spirit of cooperation among students.

D - Transferable general and qualifying skills (other skills related to employability and personal development):

1-Creating a generation experienced in using advanced and modern devices and familiar with all their details

2-Preparing students through conducting seminars and their own researches.

Teaching and learning methods:

1- Asking questions about the lecture topic or from a previous lecture related to the same lecture topic

2- Practical application of handling and using of the equipments available in the laboratory.

Evaluation methods:

1- Conducting periodic exams of students for every one or two new lectures

2- Surprising questions while explaining the lecture and recording this in the students' evaluation record

2- Conducting weekly, monthly and final exams

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| **1st**<br>**2nd**<br>**3rd**<br>**4rd**<br>**5th** | 30 | Gases and their types, supplying medical gases, details of cylinders and their types, methods of storing them, and how to deal with them. | The supply of anesthetic gases, cylinders, oxygen concentrator Medical gas services, bulk storage, and supply of gases, piped medical vacuum, electrical supply distribution of pipework, terminal outlet flexible pipeline, test and check for medical gas pipeline | -Use the smart screen<br>-Devices and equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>-Semester exams and the end of the course |
| **6th**<br>**7th**<br>**8th** | 18 | Measurement of Pressure of Gases, Manipulation of High-Pressure Gases, Gas Volume Measurement, Gas Flow Measurement | Gas Measurement, Gas Volume Measurement, Gas Flow Measurement | -Use the smart screen<br>Devices and - equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>Semester - exams and the end of the course |
| **9th**<br>**10th**<br>**11th** | 18 | How to make a vaporizer and its old and modern types, identifying its internal parts, ways to fill the vaporizer, how to deal with it, and identifying the risks. | Vaporizer: law of vaporization, vaporizing system, type of vaporizer Factor affecting vaporizer performance, calibration of vaporizer, fillin of vaporizer | -Use the smart screen<br>Devices and - equipment available in the classroom and laboratory | -Oral exam<br>-Daily exams<br>Semester - exams and the end of the course |

## 10- Structure of the course /Theoretical syllabus

| 10- Infrastructures | |
|---|---|
| A-Required prescribed books | |
| 1-Main references (sources) | 2- Anesthesia equipment, principle and application, Jan Ehrenwerth, MD, 3rd edition<br><br>The MGH Textbook of Anesthetic Equipment, Warren S. Sandberg, MD, PhD 2nd edition |
| 2-Recommended books and references (scientific journals, reports,...) | Relevant scientific journals |
| B - Electronic references, Internet …sites | All educational sites |

## 11- Course development plan

Increasing the number of study hours for the anesthesia devices course to train students on more device techniques

Course description form

Teacher's: Theoretical parts Asst. prof. Dr. Hassan Abdullah Athbi

Practical parts Dr. Noor Dehyaa Hassan

Course Name: Physiology

Course Description

This course description provides a summary necessary to understand the characteristics of the course and the learning outcomes the student is expected to achieve, demonstrating whether he or she has made the most of the learning opportunities available.

| | |
|---|---|
| 1-Educational institution | Al Zahraa University of women<br>College of health Techninology |
| 2-Scientific Department/Center | Anesthesia department |
| 3-Course name/code | |
| 4-Available attendance forms | Lectures |
| 5-Semester/year | First Semester 2025-2024 |
| 6-Number of study hours (total) | Official working hours |
| 7-Date this description was prepared | 30-11-2024 |
| 8-Course objectives | -Identifying the functions of different body systems.<br>- Describe the mechanism of operation of the various body systems and the sequence of |

| | |
|---|---|
| | physiological events accompanying them.<br><br>- To distinguish between normal and abnormal functions of different body systems<br><br>- Expanding knowledge through periodicals, medical books and the Internet |

| |
|---|
| 9-Course outcomes and teaching, learning and evaluation methods |
| A- Cognitive objectives Students learned the physiology of the body and its working mechanism from the theoretical side and learned about physiological tests from the practical side |
| B - The skills objectives of the course<br><br>Methods of dealing with laboratory animals and scientific equipment - How to use chemical and physical materials - Developing students' cognitive skills and deepening the spirit of research and discovery - Acquiring human clinical examination skills |
| C- Emotional and value goals make Learning the basics of human physiology and its various vocabulary. - Deepening the student's self-confidence - Creating a creative professor who loves the teaching profession - Developing students' experimental skills and deepening the spirit of cooperation, teamwork and exploration - Stimulating and bringing out the energy within female students - Stimulating the feeling of the importance of learning among female students |

| |
|---|
| D - Transferable general and qualifying<br><br>The student should cooperate with his colleagues and professors in an atmosphere of friendliness and understanding<br><br>-2 To work with his peers as a team<br><br>-3 To interact with them on scientific trips and learning methods<br><br>4- Use interactive explanation by using the smart interactive whiteboard |
| Teaching and learning methods explain the aims and objective of lecture give some clinical problems and encourage for seminar presentation by students |
| Evaluation methods by different examination in same lecture and in monthly time |

## 10- Structure of the course /Theoretical syllabus

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| 1st | 2 | Electrical components and activity of the heart | Electrical components and activity of the heart | Theoretical lectures | Daily exam |
| 2nd | 2 | The cardiac action potential in ventricular muscle and pace maker tissues | The cardiac action potential in ventricular muscle and pace maker tissues | Theoretical lecture | Daily exam |
| 3rd | 2 | Contractile cardiomyocytes and excitation – contraction coupling | Contractile cardiomyocytes and excitation – contraction coupling | Theoretical lectures | Daily exam |

| | | | | | |
|---|---|---|---|---|---|
| 4th | 2 | ECG and arrhythmia | ECG and arrhythmia | Theoretical lectures | Daily exam |
| 5th | 2 | Cardiac cycle | Cardiac cycle | theoretical lecture | Daily exam |
| 6th | 2 | Heart sound and waveform generated during cardiac cycle | Heart sound and waveform generated during cardiac cycle | theoretical lecture | Daily exam |
| 7th | | The left ventricle pressure volume loop | The left ventricle pressure volume loop | | |
| 8th | 2 | Cardiac innervations and control of heart rate | Cardiac innervations and control of heart rate | Theoretical lecture | Daily exam |
| 9th | 2 | Cardiac reflexes | Cardiac reflexes | Theoretical Lecture | Daily exam |
| 10th | 2 | Systemic circulation | Systemic circulation | Theoretical Lecture | Daily exam |
| 11th | 2 | Blood pressure regulation | Blood pressure regulation | Theoretical Lecture | Daily exam |

| | | | | | |
|---|---|---|---|---|---|
| 12th | 2 | Physiology of microcirculation ( starling law of capillary ) | Physiology of microcirculation ( starling law of capillary ) | Theoretical Lecture | Daily exam |
| 13th | 2 | Venous circulation and venous return | Venous circulation and venous return | Theoretical Lecture | Daily exam |
| 14th | 2 | Coronary circulation | Coronary circulation | Theoretical Lecture | Daily exam |
| 15th | 2 | Spirometry and lung volumes | Spirometry and lung volumes | Theoretical Lecture | Daily exam |

## Structure of the course /practical syllabus

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| 1st | 2 | Electrical components and activity of the heart | Electrical components and activity of the heart | Practical lectures | Daily exam |
| 2nd | 2 | The cardiac action potential in ventricular | The cardiac action potential in ventricular | Practical | Daily |

| | | | | | |
|---|---|---|---|---|---|
| | | muscle and pace maker tissues | muscle and pace maker tissues | lectures | exam |
| 3rd | 2 | Contractile cardiomyocytes and excitation – contraction coupling | Contractile cardiomyocytes and excitation – contraction coupling | Practical lectures | Daily exam<br>Daily exam |
| 4th | 2 | ECG and arrhythmia | ECG and arrhythmia | Practical lectures | Daily exam |
| 5th | 2 | Cardiac cycle | Cardiac cycle | Practical lectures | Daily exam |
| 6th | 2 | Heart sound and waveform generated during cardiac cycle | Heart sound and waveform generated during cardiac cycle | Practical lectures | Daily exam |
| 7th | 2 | The left ventricle pressure volume loop | The left ventricle pressure volume loop | Practical lectures | Daily exam |
| 8th | 2 | Cardiac innervations and control of heart rate | Cardiac innervations and control of heart rate | Practical lectures | Daily exam |
| 9th | 2 | Cardiac reflexes | Cardiac reflexes | Practical | Daily |

| | | | | | |
|---|---|---|---|---|---|
| | | | | lectures | exam |
| 10th | 2 | Systemic circulation | Systemic circulation | Practical lectures | Daily exam |
| 11th | 2 | Blood pressure regulation | Blood pressure regulation | Practical lectures | Daily exam |
| 12th | 2 | Physiology of microcirculation ( starling law of capillary ) | Physiology of microcirculation ( starling law of capillary ) | Practical lectures | Daily exam |
| 13th | 2 | Venous circulation and venous return | Venous circulation and venous return | Practical lectures | Daily exam |
| 14th | 2 | Coronary circulation | Coronary circulation | Practical lectures | Daily exam |
| 15th | 2 | Spirometry and lung volumes. | Spirometry and lung volumes | Practical lectures | Daily exam |

| 10- Infrastructures | |
|---|---|
| A-Required prescribed books | Medical physiology and general physiology book |
| 1-Main references (sources) | GANINGHAM GYTUN , LIPPINCOT ,Vander |
| 2-Recommended books and references (scientific journals, reports,...) | Scientific journals from the Internet, scientific reports and research from the Internet, new ideas and research that are presented in conferences and seminars and which are approved and published in later research. |
| B - Electronic references, ...Internet sites | Free full, science direct, pub med |

| 11- Course development plan |
|---|
| Changing some of the vocabulary of the subject according to the global updates used in developing general physiology. Using deductive questions and questions whose answers require deep or outside-the-box thinking to motivate students to know the extent of their capabilities and mental abilities in deducing and arriving at conclusions. Also, using the research lecture method instead of the theoretical lecture, and identifying the extent to which female students can access the largest number of information about the subject, become familiar with it, and discuss research within the class, in order to create a generation .aware of scientific research and its development |

Course description form

Teacher's: Theoretical parts Asst. prof. Dr. Hassan Abdullah Athbi

Practical parts Dr. Noor Dehyaa Hassan

Course Name: Applied Physiology

Course Description

This course description provides a summary necessary to understand the characteristics of the course and the learning outcomes the student is expected to achieve, demonstrating whether he or she has made the most of the learning opportunities available.

| | |
|---|---|
| | |
| 2-Scientific Department/Center | Anesthesia department |
| 3-Course name/code | |
| 4-Available attendance forms | Full attendance |
| 5-Semester/year | Second Semester 2025-2024 |
| 6-Number of study hours (total) | Official working hours |
| 7-Date this description was prepared | 26-3-2025 |
| 8-Course objectives | By the end of this course, students will be able to understand lung mechanics, ventilation-perfusion relationships, oxygenation techniques, gas transport, systemic effects of hypoxia and hyperoxia, control of ventilation, non-respiratory lung functions, smoking effects, thermoregulation, heat loss during anesthesia, fluid and electrolyte balance, vomiting and dehydration, acid-base homeostasis, cerebral physiology, and |

| | |
|---|---|
| | physiological differences between children and adults, with a focus on clinical and perioperative implications. |

| 9-Course outcomes and teaching, learning and evaluation methods |
|---|
| A- Cognitive Objectives Students learned the physiology of the body and its working mechanism from the theoretical side and learned about physiological tests from the practical side |
| B - The skills objectives of the course<br><br>Methods of dealing with laboratory animals and scientific equipment - How to use chemical and physical materials - Developing students' cognitive skills and deepening the spirit of research and discovery - Acquiring human clinical examination skills |
| C- Emotional and value goals make Learning the basics of human physiology and its various vocabulary. - Deepening the student's self-confidence - Creating a creative professor who loves the teaching profession - Developing students' experimental skills and deepening the spirit of cooperation, teamwork and exploration - Stimulating and bringing out the energy within female students - Stimulating the feeling of the importance of learning among female students |
| D - Transferable general and qualifying<br><br>The student should cooperate with his colleagues and professors in an atmosphere of friendliness and understanding<br><br>-2 To work with his peers as a team<br><br>-3 To interact with them on scientific trips and learning methods<br><br>4- Use interactive explanation by using the smart interactive whiteboard |
| Teaching and learning methods explain the aims and objective of lecture give |

| |
|---|
| some clinical problems and encourage for seminar presentation by students |
| Evaluation methods by different examination in same lecture and in monthly time |

## 10- Structure of the course /Theoretical syllabus

| Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|
| Lung mechanics( compliance,resistant) | Lung mechanics( compliance,resistant) | Theoretical lectures | Daily exam |
| ventilation perfusion | ventilation perfusion | Theoretical lecture | Daily exam |
| preoxygenation,apnenic oxygenation and diffusion hypoxia) | preoxygenation,apnenic oxygenation and diffusion hypoxia) | Theoretical lectures | Daily exam |
| transport of gases(O2,CO2) | transport of gases(O2,CO2) | Theoretical lectures | Daily exam |
| systemic effect of hypoxia and hyperoxia | systemic effect of hypoxia and hyperoxia | theoretical lecture | Daily exam |
| control of ventilation | control of ventilation | theoretical | Daily |

| | | | |
|---|---|---|---|
| | | lecture | exam |
| ion respiratory function of lung | non respiratory function of lung | | |
| reoperative smoking and hysiological effects of cessation f smoking | preoperative smoking and physiological effects of cessation of smoking | Theoretical lecture | Daily exam |
| hermoregulatory response to revent hypothermia and yperthermia | thermoregulatory response to prevent hypothermia and hyperthermia | Theoretical Lecture | Daily exam |
| eat loss during anaesthesia | heat loss during anaesthesia | Theoretical Lecture | Daily exam |
| ody fluids and electrolytes | body fluids and electrolytes | Theoretical Lecture | Daily exam |
| omiting and dehydration | vomiting and dehydration | Theoretical Lecture | Daily exam |
| cid base balance | acid base balance | Theoretical Lecture | Daily exam |
| erebral physiology | cerebral physiology | Theoretical Lecture | Daily exam |
| hysiological differences etween child and adult in eneral | physiological differences between child and adult in general | Theoretical | Daily |

| | | | |
|---|---|---|---|
| | | Lecture | exam |

## Structure of the course /practical syllabus

| Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|
| Lung mechanics( compliance,resistant) | Lung mechanics( compliance,resistant) | Practical lectures | Daily exam |
| ventilation perfusion | ventilation perfusion | Practical lectures | Daily exam |
| preoxygenation,apnenic oxygenation and diffusion hypoxia) | preoxygenation,apnenic oxygenation and diffusion hypoxia) | Practical lectures | Daily exam<br>Daily exam |
| transport of gases(O2,CO2) | transport of gases(O2,CO2) | Practical lectures | Daily exam |
| systemic effect of hypoxia and hyperoxia | systemic effect of hypoxia and hyperoxia | Practical lectures | Daily exam |
| control of ventilation | control of ventilation | Practical lectures | Daily exam |
| non respiratory function of lung | non respiratory function of lung | Practical lectures | Daily exam |

| | | | |
|---|---|---|---|
| preoperative smoking and physiological effects of cessation of smoking | preoperative smoking and physiological effects of cessation of smoking | Practical lectures | Daily exam |
| thermoregulatory response to prevent hypothermia and hyperthermia | thermoregulatory response to prevent hypothermia and hyperthermia | Practical lectures | Daily exam |
| heat loss during anaesthesia | heat loss during anaesthesia | Practical lectures | Daily exam |
| body fluids and electrolytes | body fluids and electrolytes | Practical lectures | Daily exam |
| vomiting and dehydration | vomiting and dehydration | Practical lectures | Daily exam |
| acid base balance | acid base balance | Practical lectures | Daily exam |
| cerebral physiology | cerebral physiology | Practical lectures | Daily exam |
| physiological differences between child and adult in general | physiological differences between child and adult in general | Practical lectures | Daily exam |

| 10- Infrastructures | |
|---|---|
| A-Required prescribed books | Medical physiology and general physiology book |

| | |
|---|---|
| 1-Main references (sources) | ▪ Sembulingam, K., and Sembulingam, P. (2019). Essential of medical physiology. Eighth Edition. Jaypee Brothers Medical Publishers (P) Ltd. India.<br>▪ Miller, R. D., & Eriksson, L. I. (2020). Miller's Anesthesia (9th ed.). Elsevier. A comprehensive guide covering anesthesia techniques, including apneic oxygenation. |
| 2-Recommended books and references (scientific journals, reports,...) | Barash, P. G., Cullen, B. F., & Stoelting, R. K. (2021). Clinical Anesthesia (9th ed.). Wolters Kluwer.Discusses airway management, oxygenation strategies, and complications like diffusion hypoxia. |
| B - Electronic references, ...Internet sites | Free full, science direct, pub med |

| 11- Course development plan |
|---|
| Changing some of the vocabulary of the subject according to the global updates used in developing general physiology. Using deductive questions and questions whose answers require deep or outside-the-box thinking to motivate students to know the extent of their capabilities and mental abilities in deducing and arriving at conclusions. Also, using the research lecture method instead of the theoretical lecture, and identifying the extent to which female students can access the largest number of information about the subject, become familiar with it, and discuss research within the class, in order to create a generation .aware of scientific research and its development |

Course description form

Teacher's Name Huda fadhel hassan

Course Name anesthesia

Course Description

This academic program description provides a brief summary of the most important characteristics of the program and the learning outcomes expected of the student to achieve, proving whether he or she has made the most of the available opportunities.

| | |
|---|---|
| 1-Educational institution | Al zahraa university |
| 2-Scientific Department/Center | Anesthesia department |
| 3-Course name/code | Basics of anesthesia |
| 4-Available attendance forms | Attendance(study court, lab, skill lab) |
| 5-Semester/year | 2nd stage |
| 6-Number of study hours (total) | 120 hrs theory<br>120 hrs clinical |
| 7-Date this description was prepared | 2024/9/15 |
| 8-Course objectives | The study of this article aims to:<br>a) Know basic information about anesthesiology<br>b) The ability to assess the patient's condition before the |

| | |
|---|---|
| | operation and the radiological and laboratory tests necessary for the pathological condition<br><br>c) Knowledge of narcotic drugs and drugs used in the different stages of anesthesia<br><br>d) Know the stages of anesthesia and the procedures necessary for each stage<br><br>e) The ability to deal with expected and sudden complications that may occur during or after the operation<br><br>f) Study the necessary medical devices in the different stages of anesthesia<br><br>g) Learn about the different types of anesthesia for patients and the ability to to choose the right type as needed |

| 9-Course outcomes and teaching, learning and evaluation methods |
|---|
| A- Cognitive objectives  Study the history of anesthesia, its stages of development and the scope of action of anesthesia |

| |
|---|
| Study how to evaluate the patient's condition before the operation and the successive stages of anesthesia<br><br>Study of the drugs used before the operation<br><br>Study of drugs used for anesthesia (inhalational , intravenous anesthestics drugs and neuromuscular blocking agents) |
| B - The skills objectives of the course How to use and apply an oxygen mask for the patient<br><br>How to place an IV catheter<br><br>How to place a tracheal tube and use a device (laryngoscope)<br><br>How to operate and use the anesthesia machine |
| C- Emotional and value goals The ability to deal with the psychological state of the patient before the operation and reassure him<br><br>The ability to communicate positively with the patient and his family |
| D - Transferable general and qualifying skills (other skills related to employability and personal development) |
| Teaching and learning methods 1) Theoretical debates<br><br>2) Skill Lab<br><br>3) Panel Discussions<br><br>4) Interactive learning such as brainstorming<br><br>5) Watch photos and explainer videos |

Evaluation methods 1) Formative assessment tests at the end of the week to get immediate feedback to measure the student's progress in learning.

2) The midterm exam is at the middle of the semester

3) Summative assessment at the end of the study unit

4) Practical testing

## 10- Structure of the course /Theoretical syllabus

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| 1st | 8 | Know the history of anesthesia and the scope of use of anesthesia | History of anesthesia and introduction + scope of anesthesiology. | Theoretical + interactive lectures | Written + oral evaluation |
| 2nd | 8 | Know how to choose an anesthesia technique | Choice of anesthetic technique | Theoretical + interactive lectures | Written + oral evaluation |
| 3rd | 8 | Things to focus on during the patient's visit before the operation | Preanaesthetic visit and assessment | Theoretical + interactive lectures | Written + oral evaluation |

| | | | | | |
|---|---|---|---|---|---|
| 4th | 8 | Know the medications that must be given before starting anesthesia | Premedication aims and therapeutic management | Theoretical + interactive lectures | Written + oral evaluation |
| 5th | 8 | Knowledge of general pharmacology with precise details of the handling of drugs with the body | General pharmacology | Theoretical + interactive lectures | Written + oral evaluation |
| 6th | 8 | To have a detailed knowledge about inhalational anesthesia and how to deliver to patient | Inhalational anaesthetic agents | Theoretical + interactive lectures | Written + oral evaluation |
| 7th | 8 | | Inhalational anesthetic agents | Theoretical + interactive lectures | |

| | | | | | |
|---|---|---|---|---|---|
| 8th | 8 | | Inhalational anesthetic agents | | |
| 9th | 8 | Know detailed information on how to use anesthesia with intravenous drugs and their complications | Intravenous anesthetic | Theoretical + interactive lectures | Written + oral evaluation |
| 10th | 8 | | Intravenous anesthetic | | Written + oral evaluation |
| 11th | 8 | Know the subtleties of muscle relaxants, how to give them and their complications | Muscle relaxant | Theoretical + interactive lectures | Written + oral evaluation |

| | | | | | |
|---|---|---|---|---|---|
| 12th | 8 | | Muscle relaxant | | |

| 10- Infrastructures | |
|---|---|
| A-Required prescribed books | fundamental of anesthesia textbook |
| 1-Main references (sources) | Clinical anesthesia morgan |
| 2-Recommended books and references (scientific journals, reports,...) | Clinical anesthesia barash |
| B - Electronic references, Internet …sites | Pubmed.com |

| 11- Course development plan |
|---|
| Introducing new methods in education, such as problem-based education, education in the form of panel discussions, and how to |

| |
|---|
| form scientific research. |

## Course description form

**Teacher's Name: Yasir Adnan Mohammed Abd**

**Course Name: Basics of surgery**

**Course Description:**

**This course description provides short description for the important specifications of the course and the expected learning outcomes from the students**

| | |
|---|---|
| **1-Educational institution** | **Alzahraa university for girls** |
| **2-Scientific Department/Center** | **Anesthesia technique** |
| **3-Course name/code** | **Basics of surgery** |
| **4-Available attendance forms** | **Attendance education** |
| **5-Semester/year** | **1st and 2nd trimester / 2nd year** |
| **6-Number of study hours (total)** | **120 hr** |
| **7-Date this description was prepared** | **18/3/2025** |

| | |
|---|---|
| **8-Course objectives** | **Learning of students about the basic concepts of surgery including physiopathology and surgical complications** |

| **9-Course outcomes and teaching, learning and evaluation methods** |
|---|
| **A- Cognitive objectives: logical assistance of the student to get the basic concept of surgery through.**<br>**1- study the basic concept of surgery**<br>**2- study the expected complications from trauma and surgical interventions**<br>**3- study the body response to trauma and surgical interventions**<br>**4- prepare the student about how to care surgical wounds**<br>**5- prepare the student about pre and postoperative care** |
| **B - The skills objectives of the course**<br>**Helping the student to get surgical skills including**<br>**1- training some surgical skills**<br>**2- writing scientific researches and reports**<br>**3- plenty of examples** |
| **C- Emotional and value goals** |

**1- prepare the student to work inside the health institutions**

**2- study the physiology and body responses in understandable way**

**D - Transferable general and qualifying skills (other skills related to employability and personal development)**

**1- discussion of surgical cases and how to find suitable treatment to it**

**2- brainstorming questions**

**Teaching and learning methods**

**1- daily quiz**

**2- smart board**

**3- PowerPoint display**

**4- workshops**

**Evaluation methods**

**1- classroom participation**

**2- Reports presentation**

**3- monthly examination**

## 10- Structure of the course /Theoretical syllabus

| The Week | Hours | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1st | 4 | Metabolic response to trauma | Theory + practical | Questioning +discussion +quiz |
| 2nd | 4 | Inflammation acute and chronic | Theory + practical | Questioning +discussion +quiz |
| 3rd | 4 | Shock types and pathophysiology | Theory + practical | Questioning +discussion +quiz |
| 4th | 4 | Wound tissue repair and scars | Theory + practical | Questioning +discussion +quiz |
| 5th | 4 | Surgical infections | Theory + practical | Questioning +discussion +quiz |
| 6th | 4 | Patient safety | Theory + practical | Questioning +discussion +quiz |
| 7th | 4 | Preoperative care and care in operations | Theory + practical | Questioning +discussion +quiz |
| 8th | 4 | Head injury, management of unconscious patient | Theory + practical | Questioning +discussion +quiz |

| | | | | |
|---|---|---|---|---|
| **9th** | **4** | **Abscess , cellulitis , carbuncles** | **Theory + practical** | **Questioning +discussion +quiz** |
| **10th** | **4** | **Gangrene types and causes** | **Theory + practical** | **Questioning +discussion +quiz** |
| **11th** | **4** | **Fluid therapy** | **Theory + practical** | **Questioning +discussion +quiz** |
| **12th** | **4** | **Nutritional support in surgery** | **Theory + practical** | **Questioning +discussion +quiz** |
| **13th** | **4** | **Acid – base balance** | **Theory + practical** | **Questioning +discussion +quiz** |
| **14th** | **4** | **Spinal and peripheral nerves injuries** | **Theory + practical** | **Questioning +discussion +quiz** |
| **15th** | **4** | **Principles of laparoscopic surgeries** | **Theory + practical** | **Questioning +discussion +quiz** |

| 10- Infrastructures | |
|---|---|
| A-Required prescribed books | Short practice of surgery , Sabiston's text book of surgery |
| 1-Main references (sources) | Fiona basic surgical technique , COURTNEY text book of surgery |
| 2-Recommended books and references (scientific journals, reports,...) | Any resource dealing with surgery and its basics |
| B - Electronic references, Internet ...sites | Uptodate , medicine net , pubmed , global surgery research |

## 11- Course development plan

**Updating and changing in the study plan to be suitable for anesthesia technical students**

Course description form

Teacher's Name: Assistant Lecturer: Maha Mohammed Kadhim Majeed Al-Toma.

Subject Name: Pharmacology

Course Description:

This course description provides a necessary summary of the most important characteristics of the course and the learning outcomes that the student is expected to achieve, demonstrating whether he has

| | |
|---|---|
| 1-Educational institution | Al-Zahraa University for Women |
| 2-Scientific Department/Center | Anesthesiology Department |
| 3-Subject name/code | Pharmacology |
| 4-Available attendance forms | Attendance |
| 5-Semester/year | The first and second academic courses / second academic year |
| 6-Number of study hours (total) | 120 hours |
| 7-Date of preparation of this description | 10/9/2024 |
| 8-Course objectives | 1-Introducing the student to medications and focusing on the medications that used in anesthesia.<br>2-Distinguishing the medications that are used in spinal and general anesthesia.<br>3-How to use medications according to the affected part, age, gender and weight. |

9-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives:

Helping students acquire basic information about pharmaceuticals in a logical manner by:

1-Preparing the student and making him familiar with all types of medicines used in treating various diseases.

2- Study the basic principles of pharmacology and learn about drug groups in general and anesthetic drugs in particular.

3- Study the mechanism of action of different medicines

4- Study of pharmacokinetics

5- Study the side effects and drug interactions of various treatments

B - The skills objectives of the course:

It helps students to acquire appropriate skills in the field of pharmacology, including:

1- Training female students to prescribe appropriate medications for medical conditions.

2- Writing scientific research and reports.

3- Many examples

C- Emotional and value goals:

1- Communicating chemical and biological ideas in a way that is understandable to the student.

2- Preparing students capable of working within various health and medical institutions.

D-Transferable general and qualifying skills (other skills related to employability and personal development):

1- Discussing different medical conditions and finding appropriate treatment for them

2- Asking brainstorming questions through which the student can link the study materials together and link them to health reality.

Teaching and learning methods:

1-Managing the lecture in an applied manner linked to the reality of daily life to attract the student to the topic of the lesson without straying from the core of the topic so that the material is flexible and amenable to understanding and analysis.

2- Assigning the student to some group activities and duties and writing self-reports.

Evaluation methods:

1-Active participation in the classroom is evidence of the student's commitment and responsibility.

2-Commitment to the specified deadline for submitting assignments and research.

3- Monthly and final exams express commitment and cognitive and skill achievement.

## 10- Structure of the course /Theoretical + practical syllabus

### Pharmacology 1(First Semester)

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| 1st | 4 | Principles of Drug Therapy | Principles of Drug Therapy | Theoretical+ Practical | General questions, discussion, and daily exam |
| 2nd | 4 | Cholinergic agonists and antagonists | Cholinergic agonists and antagonists | Theoretical+ Practical | General questions, discussion, and daily exam |
| 3rd | 4 | Adrenergic agonists and adrenergic antagonists | Adrenergic agonists and adrenergic antagonists | Theoretical+ Practical | General questions, discussion, and daily exam |
| 4th | 4 | Drugs affecting cardiovascular system:<br>-Antihypertensive drugs<br>-Anti-heart failure drugs | Drugs affecting cardiovascular system:<br>-Antihypertensive drugs<br>-Anti-heart failure drugs | Theoretical+ Practical | General questions, discussion, and daily exam |
| 5th | 4 | Drugs affecting cardiovascular system<br>-Antiarrhythmics.<br>-Antianginal drugs | Drugs affecting cardiovascular system<br>-Antiarrhythmics.<br>-Antianginal drugs- | Theoretical+ Practical | General questions, discussion, and daily exam |
| 6th | 4 | Diuretics | Diuretics | Theoretical+ | General questions, |

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| | | | | **Practical** | **discussion, and daily exam** |
| **7th** | **4** | **Antihistamines** | **Antihistamines** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **8th** | **4** | **Drugs for Disorders of the Respiratory System** | **Drugs for Disorders of the Respiratory System** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **9th** | **4** | **Drugs for anemia** | **Drugs for anemia** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **10th** | **4** | **Drugs for anemia** | **Drugs for anemia** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **11th** | **4** | **Anticoagulants and Antiplatelet Agents** | **Anticoagulants and Antiplatelet Agents** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **12th** | **4** | **Skeletal muscle relaxants** | **Skeletal muscle relaxants** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **13th** | **4** | **Local anesthetics** | **Local anesthetics** | **Theoretical+ Practical** | **General questions, discussion, and daily** |

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| | | | | | **exam** |
| **14th** | **4** | **General anesthetics** | **General anesthetics** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **15th** | **4** | **General anesthetics** | **General anesthetics** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |

## Pharmacology 2 (Second Semester)

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| **1st** | **4** | **Hypnotic and sedative drugs** | **Hypnotic and sedative drugs** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **2nd** | **4** | **Hypnotic and sedative drugs** | **Hypnotic and sedative drugs** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **3rd** | **4** | **Narcotic (Opioid) analgesics** | **Narcotic (Opioid) analgesics** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **4th** | **4** | **Analgesics, antipyretics and anti-inflammatory agents** | **Analgesics, antipyretics and anti-inflammatory agents** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |

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|---|---|---|---|---|---|
| 5th | 4 | Analgesic, antipyretic and anti-inflammatory agents | Analgesic, antipyretic and anti-inflammatory agents | Theoretical+ Practical | General questions, discussion, and daily exam |
| 6th | 4 | Gastrointestinal and Antiemetic Drugs | Gastrointestinal and Antiemetic Drugs | Theoretical+ Practical | General questions, discussion, and daily exam |
| 7th | 4 | Gastrointestinal and Antiemetic Drugs | Gastrointestinal and Antiemetic Drugs | Theoretical+ Practical | General questions, discussion, and daily exam |
| 8th | 4 | Drugs for Diabetes | Drugs for Diabetes | Theoretical+ Practical | General questions, discussion, and daily exam |
| 9th | 4 | Adrenal hormones<br>-Corticosteroid<br>-Inhibitors of adrenocorticosteroids biosynthesis or function | Adrenal hormones<br>-Corticosteroid<br>-Inhibitors of adrenocorticosteroids biosynthesis or function | Theoretical+ Practical | General questions, discussion, and daily exam |
| 10th | 4 | Antimicrobial agents<br>-Cell wall inhibitors<br>-Protein synthesis. Inhibitors<br>-Quinolones and Folic acid antagonists | Antimicrobial agents<br>-Cell wall inhibitors<br>-Protein synthesis. Inhibitors<br>-Quinolones and Folic acid antagonists | Theoretical+ Practical | General questions, discussion, and daily exam |
| 11th | 4 | Antimicrobial agents<br>-Cell wall inhibitors<br>-Protein synthesis. Inhibitors<br>- Quinolones and Folic acid antagonists | Antimicrobial agents<br>-Cell wall inhibitors<br>-Protein synthesis. Inhibitors<br>- Quinolones and Folic acid antagonists | Theoretical+ Practical | General questions, discussion, and daily |

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|---|---|---|---|---|---|
| | | | | | **exam** |
| **12th** | **4** | **-Antifungal drugs**<br>**Antiviral drugs** | **-Antifungal drugs**<br>**Antiviral drugs** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **13th** | **4** | **Anti-Epileptic drugs** | **Anti-Epileptic drugs** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **14th** | **4** | **Anti-Parkinson's drugs** | **Anti-Parkinson's drugs** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |
| **15th** | **4** | **Clinical toxicology** | **Clinical toxicology** | **Theoretical+ Practical** | **General questions, discussion, and daily exam** |

| 11- Infrastructures | |
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| A-Required prescribed books | Pharmacology; Lippincott Latest edition |

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| 1-Main references (sources) | Pharmacology; Katzung Latest Edition |
| 2-Recommended books and references (scientific journals, reports, etc.) | Sources related to new medicines from the Internet or other modern books |
| B - Electronic references, ...Internet sites | Google Scholar, PubMed |

| 12- Course development plan |
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| Making an adjustment to the study plan so that the curriculum is intended for female students in the Anesthesiology Department and linking general concepts in medications to the department's specialization. |

## Course description form

Teacher's Name : Dr. Nadia Nayyef Hussein

Course Name: Medical Terminology

Course Description

The student should be able to distinguish the prefixes, suffixes, roots, and word endings of terms Medical.

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|---|---|
| 1-Educational institution | AL-Zahraa University for Women |
| 2-Scientific Department/Center | Techniques Anesthesia Department |
| 3-Course name/code | Medical Terminology |
| 4-Available attendance forms | Official working hours |
| 5-Semester/year | Semester (courses) |
| 6-Number of study hours (total) | 8 hours per week |
| 7-Date this description was prepared | 2024-2025 |
| 8-Course objectives | The student should be able to distinguish the prefixes, suffixes, roots, and word endings of terms<br>Medical: The student will be familiar with medical terminology for each system of the human body |

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| 9-Course outcomes and teaching, learning and evaluation |

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| methods |
| A- Cognitive objectives<br>1-Theoretical application to practical laboratory material.<br>2-Statement of knowledge. |
| B - The skills objectives of the course:<br>1-Conduct the oral and written evaluation .<br>2-Practical reports. |
| C- Emotional and value goals:<br>1-Display data with graphics and pictures.<br>2-Using information from a variety of sources, including scientific fields. |
| D - Transferable general and qualifying skills (other skills related to employability and personal development)<br>1-Presenting lectures with drawings and pictures related to the subject .<br>2- Using external sources . |
| Teaching and learning methods:<br>-Use scientific references.<br>-Displaying slides for medical terminology on the screen.<br>-Using the smart board . |

Evaluation methods:

-Daily exam tests for female students.

-Surprising questions during the discussion between recommendations.

## 10- Structure of the course /Theoretical syllabus

| The Week | Hours | Required learning outcomes | Name of the unit/topic | Teaching method | Evaluation method |
|---|---|---|---|---|---|
| 1st | 8 | Introduction–structural analysis- Basic rules of medical word<br>Building<br>Major suffixes- suffixes denoting a state or condition | Fundamental – Fundamental Analysis – Instructions for the medical word<br>building<br>Main suffixes- Suffixes that indicate a state or condition | Using the screen<br>Scientific references | Daily and monthly exams |
| 2nd | 8 | Major suffixes- suffixes denoting medical actions<br>Prefixes- prefixes of No.& measures | Main suffixes - suffixes that indicate medical procedures<br>Prefixes - Prefixes of | Using the screen<br>Scientific references | Daily and monthly exams |

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| | | | numbers and scales | | |
| 3rd | 8 | Prefixes- prefixes of color<br>Prefixes- prefixes of direction & position | Demonstrates clues related to color, direction, .and position | Using the screen<br>Scientific references | Daily and monthly exams |
| 4th | 8 | Prefixes- prefixes of size, time & place<br>Prefixes- prefixes of negation | Explains the prefixes related to size, place, and negation | Using the screen<br>Scientific references | Daily and monthly exams |
| 5th | 8 | Prefixes- prefixes of type<br>Roots | Explains gender-related prefixes and an explanation of the roots of medical words | Using the screen<br>Scientific references | Daily and monthly exams |
| 6th | 8 | Word terminals<br>Conditions | Word endings and different medical conditions | Using the screen<br>Scientific references | Daily and monthly exams |
| 7th | 8 | The body as a whole<br>Skin & its appendages | An explanation of the body's systems as a whole, along with the skin | Using the screen<br>Scientific references | Daily and monthly exams |

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| | | | system and its accessories | | |
| 8th | 8 | Gastrointestinal Tract<br>Respiratory system | An explanation of the digestive system, its appendages, the respiratory system, and the most important medical terms related to it | Using the screen<br>Scientific references | Daily and monthly exams |
| 9th | 8 | Cardiovascular System<br>Blood & lymphatic system | Illustration of the cardiovascular system and the lymphatic system | Using the screen<br>Scientific references | Daily and monthly exams |
| 10th | 8 | Musculoskeletal system<br>Urogenital system | The most important medical terms related to the musculoskeletal system<br>And the genitourinary system | Using the screen<br>Scientific references | Daily and monthly exams |
| 11th | 8 | system Endocrine | The endocrine system and its | Using the | Daily and |

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| | | | most important medical terms | screen<br>Scientific references | monthly exams |
| 12th | 8 | .system Nervous | The nervous system and its most important medical terms | Using the screen<br>Scientific references | Daily and monthly exams |
| th<br>13 | 8 | senses Special | Sense organs and its most important medical terms | Using the screen<br>Scientific references | Daily and monthly exams |
| 14th | 8 | Oncology | Oncology and its common medical terminology | Using the screen<br>Scientific references | Daily and monthly exams |
| 15th | 8 | Speciality related termes | The most important terms related to the specialty | Using the screen<br>Scientific references | Daily and monthly exams |

| 10- Infrastructures |
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|---|---|
| A-Required prescribed books | Short Course of Medical terminology |
| 1-Main references (sources) | |
| 2-Recommended books and references (scientific journals, reports,...) | |
| B - Electronic references, Internet …sites | |

| 11- Course development plan |
|---|
| Use different sources such as Medical Terminology Book<br>SEVENTH EDITION<br>AN ILLUSTRATED GUIDE It will widely benefit female students Portuguese… of |