

Course description for medical terminology

The General Objective is for the student to be able of sufficient knowledge of suffix and prefix and the medical term .

AL ayen Iraqi University	Educational institution .1
Anesthesia techniques	Department/ center .2
General Physiology	Course Name /code .3
100%	Attendance from available .4
Annual	Course 1st / second Year .5
30 Hrs	Number of study hours (Total) .6
MSc Dhurgham abdulkadhim	Name of the Teacher .7
2024	Semester 1st \ second Year .8
Course objectives: Developing sufficient knowledge in the student of the terms and their suffix and prefix. .9	

Course outcomes and teaching learning and evaluation method.10

A. Cognitive objective

1. clarifying the basic concepts in medical terminology
2. Knowledge and understanding suffixes and prefixes

B. The Skill objective of the course

1. Knowledge and memory skill
2. The ability to think about addressing a specific problem
3. Writing scientific reports
4. Analysis skills

Teaching and learning methods

__A collection of printed lectures where scientific material is discussed. Reading books, references, and scientific papers related to medical terminology .

__Discussions in small and large groups.

__Answering questions.

Evaluation method

Conducting periodic exams and questions, oral exams, notes, homework, and weekly reports

C.Emtional and Value Objective

1. Enabling students to understand terminology
- 2.The skill of solving problems using deep thinking

Teaching and learning methods

Home work, Oral exam Observation Notes Disscation

Evaluation method

The description of .11 course				
Evaluation method	name of unite/ subject theoretical practical	Required learning outcomes	Hours	Week
PPT classes	General terms about anesthesia	Introduction— structural analysis- Basic rules of medical word building.	2	1
=	=	Major suffixes- suffixes denoting a state or condition.	2	2
=	=	Prefixes- prefixes of color.	2	3
=	=	Prefixes- prefixes of size, time & place.	2	4
=	=	Prefixes- prefixes of type.	2	5
=	=	Word terminals.	2	6
		The body as a whole.	2	7
=	=	Gastrointestinal Tract.	2	8
=	=	Cardiovascular System.	2	9
=	=	Musculoskeletal system	2	10
=	=	. Urogenital system.	2	11
=	=	Nervous system	2	12
=	=	Special senses	2	13

=	=	Oncology	2	14
=	=	Speciality related termes	2	15

Course description of pharmacology

General objective:

To familiarize the student with medications and emphasize the medications used in anesthesia

Special objectives

- At the end of the year, the student will be able to:
- Identify the basics of how the drug works, how it affects the body, and how the body is affected by it
- Distinguish the medications used for each of the body's systems, such as the circulatory and respiratory systems
- Knowledge of the medications used in general and spinal anesthesia .

1. Educational institution	Al-Ain University of Iraq / College of Health and Medical Technologies
2. Scientific department/center	Department of Anesthesia Techniques
3. Course name/code	Pharmacology
4. Available forms of attendance	Weekly (theoretical - practical)
5. Semester/year	quarterly
6. Number of study hours (total)	60 hours
7. Date this description was prepared	2023
8. Course objectives	

1-The importance of pharmacology on the human body and the function of each organ of the body
2-The most important terms related to pharmacology
3- How the drug works on the vascular system and the central nervous system
4-Learn how anesthetic and intensive care medications work
5-Knowing how to administer the medicine and the methods of administering it
6-Knowing the appropriate dose according to body weight
7-Learn about the metabolism of drugs and how to excrete toxins from the body

9 -Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives

- 1- Knows pharmacokinetics and drug kinetics
- 2-Understands anesthesia and intensive care medications
- 3- Explains how the medications used before anesthesia work
- 4- Evaluate how to distinguish between healthy medicine and toxic medicine
- 5- Explains how to give medications
- 6-Understands how the drug works, metabolizes the drug, and excretes the drug from the body

B - The skills objectives of the course

- 1- Gives anesthesia and intensive care medications
- 2- Prepares anesthesia and intensive care medications
- 3- Gives intravenous solutions

Teaching and learning methods

- 1- The lecture
- 2- Practical laboratory application
- 3- Seminars
- 4- Educational films
- 5- Research project
- 6- Blackboard
- 7-Learning

Evaluation methods

- 1- Oral exams
- 2- Written tests
- 3- Daily evaluation
- 4- Quarterly exams
- 5- Final exams
- 6- Reports
- 7- Practical tests

C- Emotional and value goals

- C1- Cooperating with his colleagues in understanding any topic
- C2- He loves the lesson and regularly attends the pharmacology class
- C3- It interacts with pharmaceutical substances
- C4- He refrains from interrupting his colleagues during the discussion of any topic

Teaching and learning methods

- 1- Field visits to hospitals
- 2- Showing educational films
- 3- Summer training

Evaluation methods

- 1- Oral exams
- 2- Written tests
- 3- Practical practices and performing experiments

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

D1- Medicines are used in laboratory experiments to determine their effectiveness and side effects

D2- Explains the laboratory rat to learn how heart muscle strengthening drugs work

D3- Examines the urine sample to find out how the drug is excreted through the urine

D4- Measures the appropriate dose for the anesthesia process according to the body weight of laboratory animals

A- Course structure

Evaluation method	Teaching method	Name of the unit/topic	Hours	Week
Daily evaluation	a lecture	Introduction, general aspects of pharmacology, principle of drug administration pharmacokinetic, principles in the use of drugs.	4	الاول
Semester exam	Data show	Drug metabolism and excretion.	٤	الثاني
final exam	practical application	Drug action on cardiovascular system.		الثالث
Reports	Seminar	Drug effects on respiratory system parts and diseases of respiratory system. Expectorant , broncholdilator, antitussive.		الرابع
practical test	the blackboard	Drug effects on respiratory system parts and diseases of respiratory system. Expectorant , broncholdilator, antitussive.		الخامس
=	=	Drugs action on digestive system. Parts and diseases of digestive system. Drugs act on higher part of digestive system. Drugs act on lower part of digestive system.		السادس
		Drugs action on digestive system. Parts and diseases of digestive system. Drugs act on higher part of digestive system. Drugs act on lower part of digestive system.	4	السابع
		Drugs acting on urinary system diuretics, antidiuretic, urinary antiseptic.		الثامن
				التاسع العاشر
		Blood dysfunctions, drugs affecting blood platelet inhibitors , anticoagulant, treatment of bleeding , anti anemic drugs.		
		Hormones, classification, insulin, glucagon hypoglycemic agent, adrenal steriods.	4	الحادي عشر
		Hormones, classification, insulin, glucagon hypoglycemic agent, adrenal steriods.	4	الثاني عشر
		Antimicrobial drug, classification.		الثالث عشر
		Antibacterial agents, antifungal agents, antiviral		الرابع عشر
		Antibacterial agents, antifungal agents, antiviral		الخامس عشر

10- Infrastructure	
1- Required prescribed books	NO
2- For main reference (sources)	Educational bag
3- Recommended books and references (scientific journals, reports,...)	Scientific journals - reports
-Virtual library -Arab Medical Library - Electronic library	Electronic references, Internet sites

11- Course development plan
Benefiting from the experiences of educational institutions - Reviewing the relevant authorities and getting their opinions on the curriculum to identify the strengths and weaknesses and develop successful solutions for them.

Course description for the course Foundations of Anesthesia Equipment Techniques (1)

Course description:

This course description provides a summary of the most important characteristics of the course and the learning outcomes that the student is expected to achieve, demonstrating whether he or she has made the most of the learning opportunities available. It must be linked to the program description

1. Educational institution, Al-Ain University, Iraq / College of Health and Medical Technologies	1. Educational institution, Al-Ain University, Iraq / College of Health and Medical Technologies
2. Scientific Department/Center, Department of Anesthesia Techniques	2. Scientific Department/Center, Department of Anesthesia Techniques
3. Name/code of the course: Foundations of anesthesia devices (1)	3. Name/code of the course: Foundations of anesthesia devices (1)
4. Available forms of attendance weekly (theoretical + practical)	4. Available forms of attendance weekly (theoretical + practical)
5. Semester/Year Semester	5. Semester/Year Semester
6. The total number of study hours is 90 hours	6. The total number of study hours is 90 hours
7. The date this description was prepared is 2023	7. The date this description was prepared is 2023
8. Course objectives	
The student will be able to enumerate and use the anesthesia equipment used in the operating room and perform necessary maintenance on it	

10. Course outcomes and teaching, learning and evaluation methods
A- Cognitive objectives The student must be able to: A1- Defines and names the anesthesia and intensive care equipment used A2- Understands how anesthesia machines work A3- Lists the most important malfunctions expected in anesthesia machines A4- Explains how to maintain anesthesia machines
B - The skills objectives of the course. The student must be able to: B1 - Prepare the equipment and equipment necessary for the anesthesia procedure B2- Sterilizes the equipment and tools he needs in his work B3- Uses and operates anesthesia equipment efficiently B4- Maintains devices and equipment
Teaching and learning methods
1- Lecture method 2- Laboratories 3- Seminars 4- Educational bag 5- Self-learning method 6- E-learning - Systematic + summer training⁷
Evaluation methods
Daily, semester, and final tests, including: 1- Oral exams 2- Theoretical tests 3- Practical tests 4- Daily evaluation 5- Reports and studies

C- Emotional and value goals

The student must be able to:

C1- He loves his work and listens to the teacher's explanation

A2- He ensures the safety of patients and uses devices and equipment accurately

C3- He coordinates his work according to priorities

C4- He adjusts plans and finds solutions when some emergency problem occurs at work

C5- Appreciate the impact of science and scientists on life.

Teaching and learning methods

Dialogue, discussion, field visits, project, methodological training in hospitals

Evaluation methods

1- Questionnaire 2- Interview 3- Gradual ladder 4- Reports and studies

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

D1- Encouraging the student to continue learning and develop his mental and skill capabilities

D2- Encouraging the student to love work and be dedicated to finding job opportunities and serving others

D3- Student development through post-graduation training courses

D4- Follow up on graduates through continuous communication to find out their strengths or weaknesses

بنية المقرر					
Evaluation method	Teaching method	/ Name of unit\ or subject	Required Learning Outcomes	Hours	Week
- Oral 1 exams 2- Theoretical tests 3- Practical tests 4- daily Evaluation	Lectures1 2- Laboratorie s 3- Systematic training 4- Showing movies 5- Seminars	Operating room design and functioning	Understands vocabulary Study in detail	5 theore + tical 4 practi (cal	1 st
=	=	Cannula and giving set and device for intravenous infusion	=	6	2 nd & 3 th
=	=	Physical principles: behavior of molecules of solid and liquid, heat and temperature Physical principles: properties of gases, temperature, and flow of fluid through tubes and orifice	=	6	4 th & 5 th
=	=	Endotracheal tube (ordinary tube) , laryngoscope, airway (oropharngal and nasopharyngeal), tracheostomy, facemask	=	6	6 th to the 11 th weeks
=	=	Breathing system and their component, definition, classification, working principle	=	6	12 th to the 15 th weeks

11. Infrastructure		
Learning package	حقيبة تعليمية	1- Required prescribed books
Anesthesia equipment, principle and application, Jan Ehrenwerth, MD, 2nd edition 2. The MGH Textbook of Anesthetic Equipment, Warren S. Sandberg, MD, PhD 2nd edition		2- Main references (sources)

A-Recommended
books and references
(scientific journals,
reports,...)

B - Electronic
references, Internet
sites

10. Course development plan

Reviewing the prescribed vocabulary periodically with the field of work, keeping up with the progress made in anesthesia equipment techniques, and reviewing the approved academic curricula in universities and reputable educational institutions.

وصف المقرر لمادة المصطلحات الطبية

اهداف المادة :- ان يكون الطالب قادرا على تمييز الجذور واللواحق والبادئات ونهايات الكلمات للمصطلحات الطبية.

1. المؤسسة التعليمية	جامعة العين العراقية \ كلية التقنيات الصحية و الطبية
2. القسم العلمي / المركز	قسم تقنيات التخدير
3. اسم / رمز المقرر	المصطلحات الطبية
4. أشكال الحضور المتاحة	حضور
5. الفصل / السنة	فصلي \ كورس اول
6. عدد الساعات الدراسية (الكلي)	30 ساعة
7. تاريخ إعداد هذا الوصف	2023
8. أهداف المقرر	
1- معرفه كيفيه تكوين المصطلحات الطبية واصلها اللغوي واعطاء الطالب مصطلحات عامه عن التخدير	
2- مصطلحات عن الدم	
3- مصطلحات عن الجهاز التنفسي	
4- مصطلحات عن الجهازين البولي والتناسلي	
5-مصطلحات عن الجهاز الهضمي	

10. مخرجات المقرر وطرائق التعليم والتعلم والتقييم

أ- الأهداف المعرفية -

معرفة كافة المصطلحات الخاصة بقسم التمريض

- معرفة المصطلحات الخاصة بأجهزة الجسم

ب - الأهداف المهار آتية الخاصة بالمقرر.

ب1- ان يكون الطالب قادر على معرفة كلفه مصطلحات الخاص بالتخدير

ب2 – ان يكون الطالب ملكم بكافة المصطلحات الخاصة بأجهزة الجسم

طرائق التعليم والتعلم

المحاضرات على شكل بوربوينت وصوره توضيحيه , حلقات نقاشيه

طرائق التقييم

الامتحان الشهري
الكوزات و الحضور

ج- الأهداف الوجدانية والقيمية

طرائق التعليم والتعلم

طرائق التقييم

د - المهارات العامة والتأهيلية المنقولة (المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي .

11. بنية المقرر					
الأسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة / أو الموضوع	طريقة التعليم	طريقة التقييم
1	2	Introduction-structural analysis-Basic rules of medical word building.	ملاحظات عامة عن التخدير	المحاضرات على شكل بوربوينت	الكوزات، الشفوية والتحريرية
2	2	Major suffixes- suffixes denoting a state or condition.	=	=	=
3	2	Prefixes- prefixes of color.	=	=	=
4	2	Prefixes- prefixes of size, time & place.	=	=	=
5	2	Prefixes- prefixes of type.	=	=	=
6	2	Word terminals.	=	=	=
7	2	The body as a whole.			
8	2	Gastrointestinal Tract.	=	=	=
9	2	Cardiovascular System.	=	=	=
10	2	Musculoskeletal system	=	=	=
11	2	. Urogenital system.	=	=	=
12	2	Nervous system	=	=	=
13	2	Special senses	=	=	=
14	2	Oncology	=	=	=

=	=	=	Speciality related termes	2	15
البنية التحتية .12					
			1- الكتب المقررة المطلوبة		
محاضرات على شكل ورد وبوربوينت			2- المراجع الرئيسية (المصادر)		
			ا- الكتب والمراجع التي يوصى بها المجلات العلمية , التقارير ,)		
			ب - المراجع الإلكترونية, مواقع الأنترنت		

13. خطة تطوير المقرر الدراسي	
اضافه مقررات ومصطلحات علميه اضافيه تزيد من معرفه الطالب و الاطلاع على اخر البحوث العلمية	

Description of the course: Basic Surgery - Second Stage - First Course

The general aim: for the student to be familiar with all the information that qualifies him to be part of the medical staff in the operating room

Educational Institution	Al Ayen University
Scientific Department	Department of Anesthesiology
Name -code of course	anesthesia
available attendance forms	100%
year, first course	First Semester
The number of study hours (weekly)	14 hours
The date this description was prepared	2023-2024
Course objectives	
Raising scientific competence and expanding the circle of medical awareness of the importance of the close connection between anesthesia and surgery, working in the spirit of a single medical team, and filling the gaps of lack of knowledge for the purpose of reducing medical errors at all stages of patient treatment.	

10 .Course outcomes and teaching, learning and evaluation methods
A- Cognitive objectives A1-- The student understands the types of diseases that require surgical intervention and how to choose safe methods of anesthesia and surgery by adopting the least dangerous treatment methods for the patient in proportion to the stage of the disease as well as the lowest economic cost by working with the capabilities available within the health institution. A2- The student learns about the limits of his scientific and surgical capabilities and the capabilities of the health institution in which he works and follows the correct and safe methods when referring patients to specialized centers as needed to ensure the patient's safety.
B - The skills objectives of the course. B1 - The course must be able to achieve the above-mentioned cognitive objectives
Teaching and learning methods
Interactive Video
Evaluation methods
Conducting monthly exams and periodic questions during lecture, study, and discussion
C- Emotional and value aim C1- The student is convinced of the importance of the specialization he is studying. C2- The teachers' effort in providing the scientific material is appreciated. C3- He participates within the student groups in the discussion to solve the medical problems presented within the lecture. C4- Clarity in presenting ideas and not hiding information from colleagues and patients, including medical errors, learning from medical errors and developing appropriate plans to prevent them from being repeated. And informing the medical institution when a medical error occurs to develop future plans to ensure the protection of other patients.

Teaching and learning methods
Lecture method, discussion in an interactive and video manner.
Evaluation methods
The discussion takes the form of questions that the student answers within the topic of the previous lecture for the purpose of urging students to read the lectures as homework after giving them.
D - Transferable general and qualifying skills (other skills related to employability and personal development). D1-. Explaining a medical problem that occurred previously related to the topic of the lecture and ways to address it as one of the ways to attract students' attention to the lesson. D2- Possibility of research and analysis D3- The ability to collect information, analyze it, and summarize its main ideas. D4. -

10. Course structure					
Evaluation method	Teaching method	Name of the unit/topic Firstly: Groups A,B,C,D,E,F +A, Evening group	Required learning outcomes	hours	the week
Quiz, Exam.	Diction And the discussion Presenting the problem and solution (by explaining medical problems that occurred at work)	Metabolic response to injury		14	1
=	=	Shock, type and pathophysiology		14	2
=	=	Warfare surgery		14	3
=	=	Principle of paediatric surgery		14	4

12 .Infrastructure	
Baiely and Loves short practices of surgery	1-Required prescribed books
Baiely and Loves short practices of surgery 28 th ed	2-Main references (sources)

13 .Course development plan
The curriculum development plan is based on the following: • Giving the prescribed scientific material and observing and analyzing the students' results. • Study feedback from students' comments about vocabulary.

Subject teacher: Dr. Fadhil Ghadhban

Course Description for Anesthesia Fundamentals 1

Course Description:

General Objective: By the end of the year, the student should be able to:

Identify all anesthesia drugs and their uses.

Be capable of handling some anesthesia and resuscitation equipment.

Perform patient resuscitation.

Demonstrate the ability to manage a patient in case of an emergency.

1-Educational Institution:	University of Al Ain, Iraq.
2-Department/Center:.	Anesthesia Techniques Department
3-Course Name/Code:	Anesthesia Fundamentals 1.
4-Available Attendance Forms:	Weekly (Theoretical + Practical).
5-Semester/Year:	Semester-wise.
6-Total Study Hours:	90
7- Description Preparation Date:	2023
8-Course Objectives:	
1- Graduates should be able to assist anesthesiologists with theoretical and practical knowledge.	
2- Complete knowledge of anesthesia machine maintenance.	
3- Preparation of anesthesia drugs.	

9- Course outputs and methods of teaching, learning and evaluation:

Cognitive Objectives:

A1. Understand clinical anesthesia.

A2. Identify components of anesthesia machines.

A3. Understand anesthesia drugs and required supplies under physician supervision.

A4. Detailed understanding of equipment maintenance related to anesthesia.

B. Skill-based Objectives:

- B1. Prepare equipment used in the operating room and initial resuscitation.
- B2. Prepare anesthesia drugs and required supplies under physician supervision.
- B3. Monitor the patient throughout clinical anesthesia stages.
- B4. Perform maintenance of anesthesia-related equipment.

Teaching and Learning Methods:

Lectures
Practical training
Systematic training
PowerPoint presentations
Presentations

Assessment Methods:

Daily, semester-wise, and yearly examinations.

Emotional and Values Objectives:

- C1. Adhere to utmost care possible within available resources, in accordance with medical contexts approved by the Ministry of Health's legal and regulatory releases.
- C2. Creative skills in maintaining medical devices used in the operating room.
- C3. Skills enabling students to understand anesthesia methods.
- C4. Practical skills enabling students to apply practical aspects.

Teaching and Learning Methods:

Theoretical aspect
Practical aspect
Training aspect
E-learning

Assessment Methods:

Daily exams
Semester exams
Yearly exams
Practical exams

D.General and Transferable Skills (Other Skills Related to Employability and Personal Development):

- D1. Develop skills under physician supervision in practical anesthesia-related tasks, such as

cannula placement, bladder catheterization, manual resuscitation bag usage, and throat mask placement.

D2. Students should understand the importance of anesthesia science and its application in the operating room and recovery room.

D3. Enable students to use anesthesia devices in the operating room.

10- Course structure .

evaluation method	Teaching method and	Name of unit/or subject. Theoretical. Practical.	Required Learning Outcomes	Hours	Week
Practical exam, theoretical exam, practical card, seminar	Summer methodological training lecture Power point presentation	History of anesthesia and introduction + scope of anesthesiology.	A lecture application is practical	6	1 st
		Choice of anesthetic technique	=	6	2 nd
		Preanaesthetic visit and assessment			3 th
		Premedication aims and therapeutic management			4 th
=	=	General pharmacology	=	6	5 th & 6 th weeks
=	=	Inhalational anaesthetic agents (in details)	=	6	7 th & 8 th weeks
=	=	Inhalational anaesthetic agents cont..	=	6	9 th & 10 th weeks
=	=	Intravenous anaesthetic agents (in details)	=	6	11 th & 12 th weeks
=	=	Intravenous anaesthetic agents cont..	=	6	13 th
=	=	Muscle relaxants (in details) & reversal	=	6	14 th & 15 th weeks

11-Curriculum Development Plan:

Addition of new academic vocabulary not exceeding 10% annually to keep pace with developments in the field of anesthesia, especially regarding anesthesia drugs, equipment, and their advancements.

12-Infrastructure:	
	Required Textbooks
Anesthesia / Miller	Main references (sources)
Fundamental of anaesthesia, fourth edition, Ted Lin, Tim Smith, and Colin Pinnock 2. Lecture note on clinical anaesthesia, 2nd edition CARL GWINNUTT, 2004 3. Clinical anesthesiology, fifth edition , Morgan & Mikhail's, 2013 4. Clinical anesthesia, eighth edition, Paul G. Barash, MD et al. 2017	Recommended books and references (scientific journals, reports, etc.)
Internet sites https://www.anesthesiology.pitt.edu/publications/books-and-journal-articles	B - Electronic references, Internet sites...

(for the course Foundations of Internal Medicine (1 Course description

Course description

<u>: -goals</u> .that can affect the body's organs the common diseases Introducing the student to all <u>: objectives Special</u> diseases and how to infectious «respiratory system diseases to identify The student will be able treat them, and know the most important respiratory examinations and blood gas analysis. .high blood pressure, high lipids, and AIDS «Coronary heart disease, heart palpitations diseases Knowing the signs, tests, and laboratory diagnoses of these .2 and methods for distinguishing treatments for each of these diseases Use some appropriate .3 About each other states disease

College of Health / Ain University of Iraq-Al and Medical Technologies	1. Educational institution
Anesthesia Techniques Department of	2. Scientific department/center
(Foundations of internal medicine (1	3. Course name/code
(theoretical + practical) Weekly	4. Available attendance forms
quarterly	5. Semester/year
hours 90	6. Number of study hours (total)
2024	7. Date this description was prepared
8. Course objectives The student will be able to know the general principles of internal medicine and know important diseases, their causes, and how to prevent them	

10.outcomes and teaching, learning and evaluation methods Course
Cognitive objectives -A The student understands the basic principles of internal medicine -A1 Of Its causes and how to prevent it The student understands diseases -A2 And its treatment which
.skills objectives of the course The -B and how to diagnose it a skill in knowing the causes of disease Acquire - B1 and assisting in their treatment Acquiring skills in preventing diseases -B2

under the supervision of a doctor ing between internal and surgical diseasesGaining skill in distinguish -B3
Teaching and learning methods
lecture Method - 1 Laboratories -2 Seminars -3 Educational The bag -4 Self Learning Method -5 learning-E -6
Evaluation methods
And monthly And quarterly Daily Exams
Emotional and value goals -C Strengthening the relationship between the nurse and the patient -C1 well He loves his work and accomplishes his tasks -C2 cooperation with the medical and Documenting the working relationship -C3 staff
Teaching and learning methods
Hospitals in Systematic training , project , Field visits , discussion , Dialogue
Evaluation methods
And studies Reports - 4 Grade Ladder -3 Interview -2 Questionnaire -1
Transferable general and qualifying skills (other skills related to employability -D .(development and personal Training students in public hospitals and emergency units -D1 students in training courses Involving -D2 up of graduates-Follow -D3

11. Course structure					
Evaluation method	Teaching method	Name of the unit/topic. .Theoretical* .Practical**	Required learning outcomes	hours	the week
Tests -1 Oral Tests-2 theory Tests -3 practical Evaluate -4 daily life my	Lectures -1 -2 Laboratories Training -3 systematic Showing -4 movies Seminars -5	Diseases due to infection/ concepts of major infection manifestations /methods of diagnosis bacteremia/ septicemia / principles of management.	Understand s vocabulary Study in detail	6	1 st & 2 nd
=	=	Diseases of the respiratory system-Introduction. Asthma and COPD		6	3rd & 4th
=	=	respiratory infection pneumonia, TB and viral illness		6	5 th
=	=	Diseases of the CVS / introduction/ major manifestation investigations And ABG analysis		6	6th & 7th
=	=	Hypertension and hyperlipidemia		6	8 th
=	=	Principles of electrocardiography/normal ECG/S. Tachycardia/ S. Bradycardia/ S. arrhythmia		6	9 th
=	=	AIDS		6	10 th
=	=			6	12th & 13th
=	=			6	14th & 15th

12. Infrastructure	
Educational bag	Required prescribed books -1
Oxford hand book of clinical medicine, Davidson 23th edition	(Main references (sources -2
Reports, library	Recommended books and references (...scientific journals, reports)
Website	Electronic references, Internet -B sites

13.Course development plan

by Adding and updating academic vocabulary to suit the labor market represented
.the Ministry of Health and keeping pace with global scientific developments

Course Description for Applied Physiology

Course Description

General Objective: At the end of the academic year, the student will be able to understand the functions of the various body systems and how to act in emergency and sick situations and their relationship to anesthesia.

Specific Objectives: The student will be able

- to recognize the importance and function of some vital body systems, such as the respiratory system. And the cardiovascular system and its relationship with the work of anesthesia.
- To be able to know some of the disorders and pathological conditions in these vital organs and their impact on the nature of the work of anesthesia.
- To be able to use devices and tools in the laboratory. To be able to perform various clinical examinations of the body

1-Educational institution	AL- Ayen university / Department of Medical and Health Technologies
1. Scientific department/center.	Department of Anesthesia Techniques
2-Course name/code	Applied Physiology
3-Available forms of attendance.	weekly theoretical (practical(
4- .Semester/year.	semester
5- Number of study hours (total.(	90hours
6-Date this description was prepared.	2023
1. Course Objectives: To gain knowledge in the physiology and anatomy related to anesthesia - To be able to understand how the activities of the heart, circulatory system, and the respiratory system are related • To be able to recognize the influence of cardiac activity, the respiratory system, and the properties of blood vessels in regulating blood pressure	
2. Learning outcomes and methods of teaching, learning, and assessment	

10.Course outcomes, teaching and learning methods, and assessment
A- Cognitive objectives: - To acquire knowledge in physiology and anatomy related to anesthesia - To be able to understand how the physiological activities of the body are related to activities (cardiac, circulatory, and respiratory systems) - The ability to recognize the effect of cardiac activity The respiratory system and

vascular properties in regulating blood pressure
B - The skills objectives of the course. 1. Read and interpret the electrocardiogram 2. Use a stethoscope to hear the heartbeat sounds and interpret the results obtained 3. Perform a spirometer test, and interpret the observed results
Teaching and learning methods
1- Lecture method 2- Laboratories 3- Seminars 4- Educational bag 5- Self-learning method 6- E-learning
Evaluation methods
Daily, quarterly and monthly examinations
Emotional and value-based goals 1. Working in a team spirit 2. That the student adheres to the ethics of the university institution 3. Receives and accepts knowledge
Teaching and learning
dialogue and discussion, field visits, project, methodological training in hospitals.
Evaluation methods
1-Questionnaire 2 - Interview 3 - Gradual ladder 4 - Reports and studies

D - General and qualifying transferable skills (other skills related to employability and personal development).

1. Conduct research from a wide range of paper and electronic sources.
2. Demonstrate communication skills in a variety of media and formats, such as presentation and report writing skills.
3. Demonstrate the ability to work within a team or independently
4. To manage projects and their own time

11. بنية المقرر					
الأسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة / أو الموضوع. * النظري. ** العملي.	طريقة التعليم	طريقة التقييم
1	6	Learn the electrical components and activity of the heart	electrical components and activity of the heart	1- محاضرات 2- مختبرات 3- تدريب منهجي 4- عرض افلام 5- سمنارات	1- اختبارات شفوية 2- اختبارات نظرية 3- اختبارات عملية 4- تقييم يومي
2	6	Learn about the auto-rhythmic activity of the heart and how the pacemaker tissues generate an action potential	the cardiac action potential in ventricular muscle and pacemaker tissues		
3	6	Learn how the action potential induce the contraction of contractile cardiomyocytes	contractile cardiomyocytes and excitation-contraction coupling	=	=
4	6	Learn the principle of ECG, and acquire information about how to interpret the obtained results	ECG and arrhythmia	=	=
5	6	Learn about the activity of valves and circulation of the blood inside the heart chambers	cardiac cycle	=	=
6	6	Learn how to use stethoscope, and understanding how the sounds are generated inside the heart. Also, students learn to differentiate between the different sound generated by the heart	heart sound and waveforms generated during cardiac cycle	=	=
7	6	Learn about the relation between the variation of pressure and volume of blood inside the left ventricle	the left ventricle pressure-volume loop	=	=
8	6	Learn about how the sympathetic and parasympathetic system modulate	cardiac innervation and control of heart rate	=	=

			heart activity		
=	=	cardiac reflexes	Learn about how the heart activity are modulated by external factors	6	9
=	=	systemic circulation	Learn about the different types of blood vessels and about their different anatomical structures	6	10
=	=	blood pressure regulation	Acquiring information about factors that modulate the blood pressure	6	11
=	=	physiology of microcirculation (starling law of capillary)	Learn about the physiology of microcirculation and understanding the starling law of capillary	6	12
=	=	venous circulation and venous return	Understanding venous circulation and learn about factors affecting venous return	6	13
=	=	coronary circulation	Learn about the importance of coronary circulation	6	14
=	=	spirometry and lung volumes	Learn how to conduct a spirometry test and lung volumes	6	15

12. infrastcture	
Learning kit	1- prescribed books
Oxford hand book of clinical medicine, sixth edition, Longmore, Murray,2004 2. Harrisons principle of internal medicine 2th edition 2018	2- main refrences
Reports , library	Recommended books and references, scientific journals and (.....reports
Website	Electronic references, Internet sites

13. Curriculum development plan
Adding and updating academic vocabulary to suit the labor market represented by the Ministry of Health and keeping pace with global scientific developments.