

Republic of Yemen

Ministry of Higher Education & Scientific Research

21 SEPTEMBER UNIVERSITY of MEDICALS & APPLIEED

SCIENCES



Bachelor of **Anesthesia Technician**

Bachelor Program of Applied Medical Sciences

Course Specification of Anatomy & histology (1)

Course No (01 01 8011)

2024

Template for Course Specification

I. Course Identification and General Information:

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Dr.Arif Saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



1	Course Title:	Anatomy & histology 1			
2	Course Code & Number:	01 01 8011			
3	Credit Hours:	Credit Hours	Theory Hours		Lab. Hours
			Lecture	Field	
		3	2	--	2
4	Study Level/ Semester at which this Course is offered:	Level1\term1			
5	Pre –Requisite (if any):	Biology			
6	Co –Requisite (if any):	None			
7	Program (s) in which the Course is Offered:	Bachelor of. Anesthesia Technician			
8	Language of Teaching the Course:	English			
9	Study System:	Semester Based System			
10	Mode of Delivery:	Full Time			
11	Location of Teaching the Course:	Faculty of			
12	Prepared by:	Associate Prof. aref saleh			
13	Date of Approval:	2024-1446 ^{Ah}			

II. Course Description:

The course of human anatomy and physiology is designed to prepare the students with an understanding of the structural basis of the human body both at gross and microscopic levels. The course also provides an overview of the cells, the fluids and electrolytes, and acid–base balance. It includes also the laboratory period deals with the integumentary system, the musculoskeletal system, the head, neck, the spine and thorax).

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



III. Course Intended Learning Outcomes (CILOs) : (مخرجات تعلم المقرر)		Referenced PILOs (مخرجات تعلم البرنامج)	
A. Knowledge and Understanding: Upon successful completion of the course, students will be able to:			
a1	Define Recognize the structure and function of the normal cell, fluids and electrolytes and acid–base balance and pH	A1	Demonstrate knowledge of the basic general pharmacodynamics and pharmacokinetics of drugs at all age groups and the pharmacology of all anaesthetic drugs including inhalational, intravenous, muscle relaxants and local anaesthetics as well as sedatives and hypnotics
a2	Describe the anatomical significance with the physiological functions and with the clinical conditions of the integumentary system, the musculoskeletal system, the head, neck, the spine and thorax).	A2	Describe normal and abnormal human behaviors, structure and function of human body and identify the basics of intensive care, medical emergencies that the anesthetist and high dependency care units and how to manage patients at risk.
B. Intellectual Skills: Upon successful completion of the course, students will be able to:			
b1	Differentiate between epithelial tissue, connective tissue, muscle tissue, and nervous tissue	B1	Demonstrate competence in the use of language, libraries, and databases and in basic concepts of research methodology and epidemiology and be able to critically analyze relevant published research literature.
b2	Explain the surface markings of clinically	B2	Synthesize knowledge derived

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



	important structures		from, medical, anesthesia, basic sciences and humanities courses into the practice of anesthesia
C. Professional and Practical Skills: Upon successful completion of the course, students will be able to:			
c1	Demonstration of morphology of human body on anatomical models	C3	Apply the skills necessary for maintaining a patent airway, manual ventilation, intubation and mechanical ventilation. and Perform the proper technique of anesthesia (general, regional or local anesthesia)
c2	List the anatomic structures of the special senses, the functions of the anatomic structures of each sense and how the structures of the senses interrelate to perform their specialized functions	C2	C1. Administer a range of assessment techniques, procedures and management appropriate to patient condition and maintain fluid therapy and blood transfusion.
D. Transferable Skills: Upon successful completion of the course, students will be able to:			
d1	Communicate with the patient and his family effectively in professional manner using the principles of communication techniques	D1	D1. Communicate with patients, family, and/or significant others to take history, clinical examination and obtain consent for anesthesia.
d2	Use the ethical and professional standards in emergency care services	D2	Achieve computer skills necessary to make of medical data bases and use the internet for communication and write

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



			scientific articles according to the basics of scientific research.
--	--	--	---

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
a1	Recognize the structure and function of the normal cell, fluids and electrolytes and acid–base balance and pH	- Interactive lecture - Seminars and student presentations - Brain storming, role-play and simulation - Small group for discussing	- Assignments - Quizzes - Mid-term Exam - Final exam - Presentations
a2	Describe the anatomical significance with the physiological functions and with the clinical conditions of the integumentary system, the musculoskeletal system, the head, neck, the spine and thorax).	- Interactive lecture - Seminars and student presentations - Brain storming, role-play and simulation - Small group for discussing	- Assignments - Quizzes - Mid-term Exam - Final exam - Presentations
(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
b1	Differentiate between epithelial tissue, connective tissue, muscle tissue, and nervous tissue	- Interactive lecture - Brain storming - Role-play & simulation - Small group discussions - Seminars and student presentations	- Assignments - Quizzes - Mid-term Exam - Final exam
b2	Explain the surface markings of clinically important structures	- Interactive lecture - Brain storming - Role-play & simulation - Small group discussions	- Assignments - Quizzes - Mid-term Exam - Final exam

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



		Seminars and student presentations	
(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
c1	Demonstration of morphology of human body on anatomical models	- Case-Based Learning - Clinical teaching & learning - Laboratory work - Role plays & simulation - Small group discussion - Seminar (Discussions) - Practice session - Problems solving	- Assignments - Practical/Clinical examination - Reports (Lab Reports.) - Lab work - Assessment of skills with checklist
c2	List the anatomic structures of the special senses, the functions of the anatomic structures of each sense and how the structures of the senses interrelate to perform their specialized functions	- Case-Based Learning - Clinical teaching & learning - Laboratory work - Role plays & simulation - Small group discussion - Seminar (Discussions) - Practice session - Problems solving	- Assignments - Practical/Clinical examination - Reports (Lab Reports.) - Lab work - Assessment of skills with checklist
(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
d1	Communicate with the patient and his family effectively in professional manner using the principles of communication techniques	- Classroom discussions, - Problems solving - Case study analysis	- Presentations - Case Studies - Learning activities

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



d2	Use the ethical and professional standards in emergency care services	- Classroom discussions, - Problems solving - Case study analysis	- Presentations - Case Studies - Learning activities
----	---	---	--

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CLOs)
1	The cell and the cellular environment	- Introduction - The cellular structure : - The normal cell - Cell structure - The cell membrane - The cytoplasm - The organelles - Cell function - Tissues - Organs, organ systems, and the organism - System integration	1	2	a1, b1
2	The cellular environment: fluids and electrolytes	- The cellular environment: fluids and electrolytes - Water - Hydration - Electrolytes - Osmosis and diffusion - Water movement between intracellular and extracellular compartments - Water movement between intravascular and interstitial compartments	2	4	a1
	Tissues	Introduction Epithelial Tissues Muscular Tissues	1	2	a1

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



		○ Nervous Tissues			
4	The Human Body: An Orientation	A. Anatomical terminology B. Directional terminology C. Planes and regions of the body ▪ D. Overview of body systems	1	2	
5	Skin and the Integumentary System	▪ The integumentary system ○ The skin ✓ Epidermis ✓ Dermis ✓ Subcutaneous tissue Accessory organs of the skin Regulation of body temperature Skin color ○ Common skin disorder	1	2	a1, b1, c1, d1
6	Blood	Basic hematology – plasma and cellular components B. Hemostasis, Hematopoiesis, C. Hemoglobin production, iron cycle, oxygen transport D. blood cell identification	1	2	a2, c2, d2
7	Midterm exam	Midterm exam	1	2	a1, b1, c1, d1
8	Skeletal System	Bone structure Bone tissue Bone development Types of Bones Function of bones Organization of the skeleton The Axial Skeleton • The Appendicular Skeleton ✓ Joint structure • Types of joints • Ligaments Joint capsule • ✓ The extremities • Wrists and hands • Elbows • Shoulders • Ankles and feet • Knees	2	4	a2, b1, b2, c2, d2

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr. Horia alsabri

Dr. Abdulsalam Dallak



		Hips and pelvis			
9	The muscular system	- Muscular tissue & structure ✓ Definition ✓ Types and names of muscles, shapes, structure and function ✓ Type of muscles movement. ✓ Muscles of abdominal wall ✓ Muscles of respiration ✓ Pelvic diaphragm	3	6	a2, b1, b2, c2, d2
10	Urinary system	- The urinary system - Histology of the urinary system - The kidneys ✓ Gross and microscopic anatomy of the kidney ✓ Kidney physiology - Overview of nephron physiology - Tubular handling of water and electrolytes - Tubular handling of glucose and urea - Control of arterial blood pressure - Control of erythrocyte development - The ureters - The urinary bladder - The urethra	1	2	a2, b2, c2, d2
11	Lymphatic/ Immune System	Lymphatic organs structure and tissue ✓ B. Nonspecific and specific defense mechanisms	1	2	a2, c2, d2
12	Final exam	Final exam	1	2	a2, b1, b2, c2, d2
Number of Weeks /and Units Per Semester			16	32	
B. Case Studies and Practical Aspect:					

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Body Cells • Cell & Tissues	2	4	c1
2	Body directions and movements	1	2	c1
3	Integumentary system • Demonstration of the skin • Demonstration of the Epidermis • Demonstration of the Subcutaneous tissue	3	6	c1
4	Blood • Microscopy, blood cell identification	1	2	c1
6	The skeletal system • Human skeleton,	2	4	c1
5	Midterm exam	1	2	c1
7	Muscular system Muscular system and Joints	2	4	
10	• Urinary system The nephron Urine formation and control • Composition of urine	1	2	c1
11	• Lymphatic/ Immune System Nonspecific and specific defense mechanisms C. Hypersensitivity and tissue rejection • D. HIV and AIDS	2	4	c2
12	Final exam	1	2	c2
Number of Weeks /and Units Per Semester		16	32	

C. Tutorial Aspect:				
No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	None			
Number of Weeks /and Units Per Semester				

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



V. Teaching Strategies of the Course:

1. Interactive lecture
2. Seminars and student presentations
3. Brain storming
4. Role-play and simulation
5. Small group discussion
6. Learning tasks and activities
7. Problems solving
8. Case study analysis

VI. Assessment Methods of the Course:

- Assignments
- Quizzes
- Mid-term exam
- Final term exam

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Assignment 1: Regulation of body fluid	W5	5	a1, b1
2	Assignment 2: Type of joints	W11	5	a2, b2,
Total			10	

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
-----	-------------------	----------	------	--------------------------------	----------------------------------

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



1	Assignments	W5,11	10	10%	a1, b1, a2, b2
2	Quizzes 1 & 2	W3, 9	10	10%	a1, a2
3	Mid-Term Theoretical Exam	W7	20	20%	a1, b1, c1, d1
4	Final Theoretical Exam	W16	60	60%	a2, b2, c2, d2
Total			100	100%	

IX. Learning Resources:

- Written in the following order: Author, Year of publication, **Title**, Edition, Place of publication, Publisher.

1- Required Textbook(s) (maximum two): مثال example

- Heylings D., Leinster S., Carmichael S., Saada J., Logan B., and Hutchings R., (2018). McMinn's Concise Human Anatomy. 2nd Ed.; Taylor & Francis Group, LLC
- Jones S., (2017). Pocket Anatomy & Physiology. 3rd Ed. F. A. Davis Company, Philadelphia
- Bledsoe B., Porter, R., & Cherry, R., (2014). Pearson New International Edition, Essentials of Paramedic Care Update, 2nd Ed., Pearson Education Limited

2- Essential References:

- Sanders, M., & McKenna k., Tan, D., Pollak A., and Mejia A., (2019). Sanders' Paramedic Textbook 5th Ed., USA.
- LaPres J., Kersten ., and Tang Y., (2016). Gunstream's Anatomy & Physiology With Integrated Study Guide. 6th Ed. McGraw-Hill

3- Electronic Materials and Web Sites etc.:

Websites:

▪

X. Course Policies: (Based on the Uniform Students' By law (2007) تترك كما هي)

Class Attendance:

- Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.

Tardiness:

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



	A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



Republic of Yemen

Ministry of Higher Education & Scientific Research

21 SEPTEMBER UNIVERSITY of MEDICALS & APPLIED

SCIENCES



Bachelor of **Anesthesia Technician**

Bachelor Program of Applied Medical Sciences

Course Specification of Anatomy & histology (1)

Course No. (01 01 8011)

2024

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr. Horia alsabri

Dr. Abdulsalam Dallak



Template for Course Plan (Syllabus)

I. Course Identification and General Information:					
1	Course Title:	Anatomy & Physiology1			
2	Course Code & Number:	01 01 8011			
3	Credit Hours:	Credit Hours	Theory Hours		Lab. Hours
			Lecture	Field	
		3	2	--	2
4	Study Level/ Semester at which this Course is offered:	Level1\term1			
5	Pre –Requisite (if any):	None			
6	Co –Requisite (if any):	None			
7	Program (s) in which the Course is Offered:	Bachelor Applied Medical Sciences			
8	Language of Teaching the Course:	English			
9	Study System:	Semester Based System			
10	Mode of Delivery:	Full Time			
11	Location of Teaching the Course:	Faculty of Applied Medical Sciences			
12	Prepared by:	Associate Prof. aref saleh			
13	Date of Approval:	2024-1446 ^{Ah}			

II. Course Description:

The course of human anatomy and physiology is designed to prepare the students with an understanding of the structural basis of the human body both at gross and microscopic levels. The course also provides an overview of the cells, the fluids and electrolytes, and acid–base balance. It includes also the laboratory period deals with the integumentary system, the musculoskeletal system,

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



the head, neck, the spine and thorax).

III. Course Intended Learning Outcomes (CILOs) :

(مخرجات تعلم المقرر)

B. Knowledge and Understanding: Upon successful completion of the course, students will be able to:

a1	Recognize the structure and function of the normal cell, fluids and electrolytes and acid–base balance and pH
a2	Describe the anatomical significance with the physiological functions and with the clinical conditions of the integumentary system, the musculoskeletal system, the head, neck, the spine and thorax).

B. Intellectual Skills: Upon successful completion of the course, students will be able to:

b1	Differentiate between epithelial tissue, connective tissue, muscle tissue, and nervous tissue
b2	Explain the surface markings of clinically important structures

C. Professional and Practical Skills: Upon successful completion of the course, students will be able to:

c1	Demonstration of morphology of human body on anatomical models
c2	List the anatomic structures of the special senses, the functions of the anatomic structures of each sense and how the structures of the senses interrelate to perform their specialized functions

D. Transferable Skills: Upon successful completion of the course, students will be able to:

d1	Communicate with the patient and his family effectively in professional manner using the principles of communication techniques
d2	Use the ethical and professional standards in emergency care services

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:

Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
a1	Recognize the structure and	- Interactive lecture - Assignments

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



	function of the normal cell, fluids and electrolytes and acid–base balance and pH	▪ Seminars and student presentations ▪ Brain storming, role-play and simulation ▪ Small group for discussing	▪ Quizzes ▪ Mid-term Exam ▪ Final exam ▪ Presentations
a2	Describe the anatomical significance with the physiological functions and with the clinical conditions of the integumentary system, the musculoskeletal system, the head, neck, the spine and thorax).	▪ Interactive lecture ▪ Seminars and student presentations ▪ Brain storming, role-play and simulation ▪ Small group for discussing	▪ Assignments ▪ Quizzes ▪ Mid-term Exam ▪ Final exam ▪ Presentations
(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
b1	Differentiate between epithelial tissue, connective tissue, muscle tissue, and nervous tissue	▪ Interactive lecture ▪ Brain storming ▪ Role-play & simulation ▪ Small group discussions ▪ Seminars and student presentations	▪ Assignments ▪ Quizzes ▪ Mid-term Exam ▪ Final exam
b2	Explain the surface markings of clinically important structures	▪ Interactive lecture ▪ Brain storming ▪ Role-play & simulation ▪ Small group discussions ▪ Seminars and student presentations	▪ Assignments ▪ Quizzes ▪ Mid-term Exam ▪ Final exam
(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
c1	Demonstration of morphology of human body on anatomical models	▪ Case-Based Learning ▪ Clinical teaching & learning	▪ Assignments ▪ Practical/Clinical examination

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



		- Laboratory work - Role plays & simulation - Small group discussion - Seminar (Discussions) - Practice session - Problems solving	- Reports (Lab Reports.) - Lab work - Assessment of skills with checklist
c2	List the anatomic structures of the special senses, the functions of the anatomic structures of each sense and how the structures of the senses interrelate to perform their specialized functions	- Case-Based Learning - Clinical teaching & learning - Laboratory work - Role plays & simulation - Small group discussion - Seminar (Discussions) - Practice session - Problems solving	- Assignments - Practical/Clinical examination - Reports (Lab Reports.) - Lab work - Assessment of skills with checklist
(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
d1	Communicate with the patient and his family effectively in professional manner using the principles of communication techniques	- Classroom discussions, - Problems solving - Case study analysis	- Presentations - Case Studies - Learning activities
d2	Use the ethical and professional standards in emergency care services	- Classroom discussions, - Problems solving - Case study analysis	- Presentations - Case Studies - Learning activities

IV. Course Contents:

A. Theoretical Aspect:

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CLOs)
1	The cell and the cellular environment	▪ Introduction ○ The cellular structure : ○ The normal cell ✓ Cell structure • The cell membrane • The cytoplasm • The organelles ○ Cell function ○ Tissues ○ Organs, organ systems, and the organism ○ System integration	1	2	a1, b1
2	The cellular environment: fluids and electrolytes	▪ The cellular environment: fluids and electrolytes ○ Water ✓ Hydration ○ Electrolytes ○ Osmosis and diffusion ✓ Water movement between intracellular and extracellular compartments ○ Water movement between intravascular and interstitial compartments	2	4	a1
	Tissues	Introduction Epithelial Tissues Muscular Tissues ○ Nervous Tissues	1	2	a1
4	The Human Body: An Orientation	A. Anatomical terminology B. Directional terminology C. Planes and regions of the body ▪ D. Overview of body systems	1	2	
5	Skin and the Integumentary System	▪ The integumentary system ○ The skin ✓ Epidermis ✓ Dermis ✓ Subcutaneous tissue Accessory organs of the skin Regulation of body temperature	1	2	a1, b1, c1, d1

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



		Skin color ○ Common skin disorder			
6	Blood	Basic hematology – plasma and cellular components B. Hemostasis, Hematopoiesis, C. Hemoglobin production, iron cycle, oxygen transport D. blood cell identification	1	2	a2, c2, d2
7	Midterm exam	Midterm exam	1	2	a1, b1, c1, d1
8	Skeletal System	Bone structure Bone tissue Bone development Types of Bones Function of bones Organization of the skeleton The Axial Skeleton • The Appendicular Skeleton ✓ Joint structure • Types of joints • Ligaments Joint capsule • ✓ The extremities • Wrists and hands • Elbows • Shoulders • Ankles and feet • Knees • Hips and pelvis	2	4	a2, b1, b2, c2, d2
9	The muscular system	○ Muscular tissue & structure ✓ Definition ✓ Types and names of muscles, shapes, structure and function ✓ Type of muscles movement. ✓ Muscles of abdominal wall ✓ Muscles of respiration ✓ Pelvic diaphragm	3	6	a2, b1, b2, c2, d2
10	Urinary system	▪ The urinary system	1	2	a2, b2, c2,

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr. Horia alsabri

Dr. Abdulsalam Dallak



		▪ Histology of the urinary system ○ The kidneys ✓ Gross and microscopic anatomy of the kidney ✓ Kidney physiology • Overview of nephron physiology • Tubular handling of water and electrolytes • Tubular handling of glucose and urea • Control of arterial blood pressure • Control of erythrocyte development ○ The ureters ○ The urinary bladder ▪ The urethra			d2
11	Lymphatic/ Immune System	Lymphatic organs structure and tissue ✓ B. Nonspecific and specific defense mechanisms	1	2	a2, c2, d2
12	Final exam	Final exam	1	2	a2, b1, b2, c2, d2
Number of Weeks /and Units Per Semester			16	32	
B. Case Studies and Practical Aspect:					
No.	Tasks/ Experiments		Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Body Cells • Cell & Tissues		2	4	c1
2	Body directions and movements		1	2	c1
3	Integumentary system • Demonstration of the skin • Demonstration of the Epidermis • Demonstration of the Subcutaneous tissue		3	6	c1
4	Blood		1	2	c1

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



	• Microscopy, blood cell identification			
6	The skeletal system • Human skeleton,	2	4	c1
5	Midterm exam	1	2	c1
7	Muscular system Muscular system and Joints	2	4	
10	• Urinary system The nephron Urine formation and control • Composition of urine	1	2	c1
11	• Lymphatic/ Immune System Nonspecific and specific defense mechanisms C. Hypersensitivity and tissue rejection • D. HIV and AIDS	2	4	c2
12	Final exam	1	2	c2
Number of Weeks /and Units Per Semester		16	32	

C. Tutorial Aspect:				
No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	None			
Number of Weeks /and Units Per Semester				

V. Teaching Strategies of the Course:
9. Interactive lecture 10. Seminars and student presentations 11. Brain storming 12. Role-play and simulation 13. Small group discussion 14. Learning tasks and activities 15. Problems solving 16. Case study analysis

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



VI. Assessment Methods of the Course:

- Assignments
- Quizzes
- Mid-term exam
- Final term exam

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Assignment 1: Regulation of body fluid	W5	5	a1, b1
2	Assignment 2: Type of joints	W11	5	a2, b2,
Total			10	

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	W5,11	10	10%	a1, b1, a2, b2
2	Quizzes 1 & 2	W3, 9	10	10%	a1, a2
3	Mid-Term Theoretical Exam	W7	20	20%	a1, b1, c1, d1
4	Final Theoretical Exam	W16	60	60%	a2, b2, c2, d2
Total			100	100%	

IX. Learning Resources:

- Written in the following order: Author, Year of publication, **Title**, Edition, Place of publication,

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



Publisher.
1- Required Textbook(s) (maximum two) : مثال example
4. Heylings D., Leinster S., Carmichael S., Saada J., Logan B., and Hutchings R., (2018). McMinn's Concise Human Anatomy. 2nd Ed.; Taylor & Francis Group, LLC 5. Jones S., (2017). Pocket Anatomy & Physiology. 3rd Ed. F. A. Davis Company, Philadelphia 6. Bledsoe B., Porter, R., & Cherry, R., (2014). Pearson New International Edition, Essentials of Paramedic Care Update, 2nd Ed., Pearson Education Limited
2- Essential References:
3. Sanders, M., & McKenna k., Tan, D., Pollak A., and Mejia A., (2019). Sanders' Paramedic Textbook 5th Ed., USA. 4. LaPres J., Kersten ., and Tang Y., (2016). Gunstream's Anatomy & Physiology With Integrated Study Guide. 6th Ed. McGraw-Hill
3- Electronic Materials and Web Sites etc.:
Websites: ▪

X. Course Policies: (Based on the Uniform Students' By law (2007) تترك كما هي)	
1	Class Attendance: Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	Tardiness: A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak



6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Prepared by:

Reviewed by:

Head of the Department:

Quality Unit:

Dean

Dr Aref saleh

Dr. Ahmed al khader

Dr. Fares Mahdi

Dr.Horia alsabri

Dr. Abdulsalam Dallak