

Republic of Yemen

Ministry of Higher Education & Scientific Research

21 SEPTEMBER UNIVERSITY of MEDICALS & APPLIEED

SCIENCES



Program **Anesthesia Technician**

Course Specification of Anatomy & Histology 2

Course No. (01 01 818)

2024

Template for Course Specification

I. Course Identification and General Information:					
1	Course Title:	Anatomy & Histology 2			
2	Course Code & Number:	01 01 818			
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\term2			
5	Pre –Requisite (if any):	None			
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 Medical Applied Science			
12	Prepared by:	Dr.Arif Saleh			
13	Date of Approval:	2024-1446 ^{Ah}			

II. Course Description:

Histology 2 is a rigorous course that presents details of tissue and organ microanatomy, relating structure to function. The lectures present details of the organ systems (Lymphoid System, Cardiovascular System, Urinary System, Integumentary System, Urinary System, Respiratory System, Male Reproductive System, Female Reproductive System, Endocrine System And Sense Organs).

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	Understand and describe the histological structure of the organs tissues of the human body.	A1	Demonstrate the concepts and principles of anesthesia and different basic and humanities courses and its applications in anesthesia practice
a2	Determine what organ or tissue a histological section is derived from.	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 different tissues, organs and system under an optical microscope.	B2	Synthesize knowledge derived from, medical, anesthesia, basic sciences and humanities courses into the practice of anesthesia
b2	Differentiates between the tissues of the body’s organs and systems in their normal state and in the case of pathological changes that may affect them.	B3	Interpret the basic normal anatomical structures on radiographs, C.T. scans and magnetic resonance images and readings of the standard monitors attached to the patient as well as additional monitors as central venous pressure monitoring.
C. Professional and Practical Skills: Upon successful completion of the course, students will be able to:			
c1	uses modern laboratory equipment and techniques related to his specialty in peaceful and safe ways.	C3	C1. 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	He conducts systematic scientific research in his field of specialization according to scientific research methods.	C2	Perform an approach to the assessment of risk and need for consultation for an anesthetics, identify appropriate laboratory investigations, pre-medications and fasting guidelines and Set up anesthesia machine and its connections and demonstrate appropriate application and interpretation of commonly used monitors in anesthesia preoperatively
D. Transferable Skills: Upon successful completion of the course, students will be able to:			
d1	Use information from a range of sources including scientific journals.	D1	Communicate effectively with individuals and groups and members of the health team in order to promote effective
d2	Participates actively in working within a research group related to the specialty.	D3	D3. Conduct research to improve nursing and health services qualities by integrating theory into

(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	Understand and describe the	▪ Interactive lecture	▪ Assignments

	histological structure of the organs tissues of the human body.	▪ Seminars and student presentations ▪ Brain storming, role-play and simulation ▪ Small group for discussing	▪ Quizzes ▪ Mid-term Exam ▪ Final exam ▪ Presentations
a2	Determine what organ or tissue a histological section is derived from.	▪ 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 different tissues, organs and system under an optical microscope.	▪ Interactive lecture ▪ Brain storming ▪ Role-play & simulation ▪ Small group discussions ▪ Seminars and student presentations	▪ Assignments ▪ Quizzes ▪ Mid-term Exam ▪ Final exam
b2	Differentiates between the tissues of the body's organs and systems in their normal state and in the case of pathological changes that may affect them.	▪ 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	He uses modern laboratory equipment and techniques related to his specialty in peaceful and safe ways.	▪ Case-Based Learning ▪ Clinical teaching & learning ▪ Laboratory work ▪ Role plays & simulation	▪ Assignments ▪ Practical/Clinical examination ▪ Reports (Lab Reports.) ▪ Lab work

		- Small group discussion - Seminar (Discussions) - Practice session - Problems solving	Assessment of skills with checklist
c2	He conducts systematic scientific research in his field of specialization according to scientific research methods.	- 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	Use information from a range of sources including scientific journals.	- Classroom discussions, - Problems solving - Case study analysis	- Presentations - Case Studies - Learning activities
d2	Participates actively in working within a research group related to the specialty.	- 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	Lymphoid System	Lymphoid System- Lymph Node ,Spleen ,Thymus And	2	4	a1,a2,b1,b2 ,c1

		Tonsils			
2	Cardiovascular System	Cardiovascular System- Blood Vessels and Heart.	2	4	a1,a2,b1,b 2 ,c1
3	Urinary System	Urinary System- kidney - general structure, nephron - juxtaglomerular apparatus, collecting ducts , ureter, bladder, urethra - histological structure.	2	4	a1,a2,b1,b 2 ,c1
4	Midterm Exam		1	2	a2,b1,b2,c 1,c2,d2
5	Integumentary System	Integumentary System –Thick Skin And Thin Skin	1	2	a1,a2,b1,b 2 ,c1
6	Respiratory System	Respiratory System- Upper respiratory tract: nose_pharynx_larynx Lower respiratory tract: respiratory organs of the thorax oracic Cavity).	2	4	a1,a2,b1,b 2 ,c1
7	Male Reproductive System	Male Reproductive System- Testis, Seminiferous tubules, epididymis, vas deferens, penis and the accessory glands of the male reproductive tract - histological structure.	1	2	a1,a2,b1,b 2 ,c1
8	Female Reproductive System	Female Reproductive System- Ovary, ovarian follicles, corpus luteum, fallopian tube, uterus , vagina- histological structure).	1	2	a1,a2,b1,b 2 ,c1
9	Endocrine System	Endocrine System - pituitary gland, thyroid gland, Parathyroid gland, adrenal gland and pineal gland - histological structure.	2	4	a1,a2,b1,b 2 ,c1

10	Sense Organs	Sense Organs - The eye and ear histological structure.	1	2	a1,a2,b1,b 2 ,c1
11	Final exam	Final exam	1	2	a2,b1,b2,c 1,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	Lymphoid System	1	2	a2,b1,b2,c 1,c2,d2
2	Cardiovascular System	2	4	a2,b1,b2,c 1,c2,d2
3	Urinary System	2	4	a2,b1,b2,c 1,c2,d2
4	Midterm exam	1	2	a2,b1,b2,c 1,c2,d1,d2
5	Integumentary System	1	2	a2,b1,b2,c 1,c2,d2
6	Respiratory System-	2	4	a2,b1,b2,c 1,c2,d2
7	Male Reproductive System	1	2	a2,b1,b2,c 1,c2,d2
8	Female Reproductive System	1	2	a2,b1,b2,c 1,c2,d2
9	Endocrine System	2	4	a2,b1,b2,c 1,c2,d2
10	Sense Organs	2	4	a2,b1,b2,c 1,c2,d2
11	Final exam	1	2	a1,b1,c1,c 2
Number of Weeks /and Units Per Semester		16	32	

C. Tutorial Aspect:

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

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
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

- Anthony L. Mescher. Junqueira's Basic Histology - Text and Atlas. Edition: 16th, 2021, Publisher: McGraw-Hill Medical
- Victor P. Eroschenko. Atlas Of Histology With Functional Correlations. 11th ed. Lippincott Williams & Wilkins, 2008.
- Gartner, Leslie P., and James L. Hiatt. *Color atlas and text of histology*. Lippincott Williams & Wilkins, 2012.

2- Essential References:

- Anthony L. Mescher, PhD; JUNQUEIRA'S Basic Histology--TEXT and ATLAS. 13th ed. SMSaeed (2019).
- Michael H. Ross; Wojciech Pawlina, 2010, Histology: A Text and Atlas, with Correlated

3- Electronic Materials and Web Sites etc.:

Websites:

Websites of Histology:

<https://www.imedpub.com/scholarly/histology-journals-articles-ppts-list.php>

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.
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.
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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.

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21 SEPTEMBER UNIVERSITY of MEDICALS & APPLIED

SCIENCES



Faculty of Nursing

Bachelor of Anesthesia Technology

Course Specification of Anatomy & histology (2)

Course No. (01 01 818)

Second Part of Course Specification

2024

I. Information about Faculty Member Responsible for the Course:

Name of Faculty Member:	Dr. Arif Saleh	Office Hours					
Location & Telephone No.:							
E-mail:		SAT	SUN	MON	TUE	WED	THU

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٦	Co –Requisite (if any):	None			
7	Program (s) in which the Course is Offered:	Bachelor of Anesthesia Technology			
٨	Language of Teaching the Course:	English			
٩	Study System:	Semester Based System			

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III. Course Intended Learning Outcomes (CILOs) :

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

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a1,a2,b1,b2 ,c13	Urinary System	Urinary System- kidney - general structure, nephron - juxtaglomerular apparatus, collecting ducts , ureter, bladder, urethra - histological structure.	2	4	a1,a2,b1,b2 ,c1
4	Midterm Exam		1	2	a2,b1,b2,c1,c2,d2
5	Integumentary System	Integumentary System –Thick Skin And Thin Skin	1	2	a1,a2,b1,b2 ,c1

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10	Sense Organs	Sense Organs - The eye and ear histological structure.	1	2	a1,a2,b1,b 2 ,c1
11	Final exam	Final exam	1	2	a2,b1,b2,c 1,c2,d2
Number of Weeks /and Units Per Semester			16	32	
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3	Urinary System	2	4	a2,b1,b2,c	

				1,c2,d2
4	Midterm exam	1	2	a2,b1,b2,c 1,c2,d1,d2
5	Integumentary System	1	2	a2,b1,b2,c 1,c2,d2
6	Respiratory System-	2	4	a2,b1,b2,c 1,c2,d2
a2,b1 ,b2,c 1,c2, d27	Male Reproductive System	1	2	a2,b1,b2,c 1,c2,d2
8a2,b 1,b2, c1,c2, d28	Female Reproductive System	1	2	a2,b1,b2,c 1,c2,d2
9	Endocrine System	2	4	a2,b1,b2,c 1,c2,d2
10	Sense Organs	2	4	a2,b1,b2,c 1,c2,d2
a1,b1 ,c1,c2 a1,b1 ,c1,c2 11	Final exam	1	2	a1,b1,c1,c 2
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
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16. Case study analysis

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