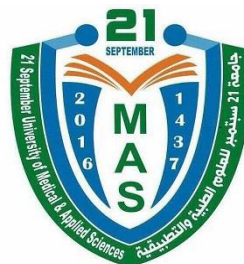


Republic of Yemen
Ministry of Education & Higher Research
Council of Academic Accreditation & Quality Assurance of
Higher Education (CAQA)



**21 septamber University of Medical
and Applied Science**



Faculty of Applied Medical Science

Department of **Medical Radiology and Imaging Technology**

Program of Radiologic Technology and Medical Imaging

Course Specification of

Anatomy 1

Course Code. (____)

2024



T4: This Template is Developed and Approved by CAQA-Yemen, 2023

Prepared by:

Reviewed by:

Dr. -----

Head of the Department:

Dr. Awadh Al-Kubati

Quality Unit:

Dr. Mohammed
Al-shamahi

Dean:

Dr. Abdulsalam
Dalaq

I. General Information:

1.	Course Title:	Anatomy and histology 1				
2.	Course Code:					
3.	Credit Hours:	Credit Hours	Theory Contact Hours		Practical Contact Hours	
			Lecture	Tutorial/ Seminar	Lab	Clinical
		3	2	--	2	--
4.	Level/ Semester at which this Course is offered:	1 st Level / 1 st Semester				
5.	Pre –Requisite (if any):	General biology				
6.	Co –Requisite (if any):	None				
7.	Program (s) in which the Course is Offered:	Bachelor of Radiologic Technology and Medical Imaging				
8.	Language of Teaching the Course:	English				
9.	Location of Teaching the Course:	Faculty of Applied Medical Science				
10.	Prepared by:					
11.	Date and Number of Approval by Council:					

II. Course Description:

This course provides an essential study of human anatomy focusing on the structure and function of the human body. Topics include anatomical terminology, histology, skeletal system, muscular system, nervous system, circulatory system, respiratory system, digestive system, urinary system, and reproductive system. Emphasis is placed on understanding anatomical structures in relation to radiographic imaging and diagnostic procedures.

III. Course Intended Learning Outcomes (CILOs) :

Referenced PILOs

Prepared by:

Reviewed by:

Dr. -----

Head of the Department:

Dr. Awadh Al-Kubati

Quality Unit:

Dr. Mohammed
Al-shamahi

Dean:

Dr. Abdulsalam
Dalaq

Upon successful completion of the course, students will be able to:				
A. Knowledge and Understanding:		I, P or M/A		
a1	Explain anatomical terminology.	I	A1	Demonstrate an understanding of fundamental knowledge of Biomedical sciences (Biology, Anatomy, Physiology).
a2	Describe the structure and function of major human body systems.	I		
B. Intellectual Skills:				
b1	Analyze anatomical structures in radiographic images.	I	B3	Analyze and evaluate evidence-based information needed in medical imaging practice.
b2	Interpret anatomical variations and abnormalities.	I	B2	Devising solutions for positioning and instructing people throughout a procedure, as well as using the radiation safety protocols.
C. Professional and Practical kills:				
c1	Perform anatomical positioning for radiographic examinations.	P	C3	Prepare, process, interpret, and present medical images using appropriate qualitative techniques.
c2	Apply knowledge of anatomy in clinical practice.	P		
D. Transferable Skills:				
d1	Communicate effectively about anatomical concepts.	P	D1	Communicate effectively with clinicians, patients, and support staff.
d2	Collaborate in a team setting for anatomical studies.	P	D4	Function effectively as an individual, as a member, or leader of a team engaged in appropriate activities related to radiologic technology disciplines to accomplish a common goal.
I= Introduced, P=Practiced or M/A= Mastered/Advanced				

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

Prepared by:

Reviewed by:

Dr. -----

Head of the Department:

Dr. Awadh Al-Kubati

Quality Unit:

Dr. Mohammed
Al-shamahi

Dean:

Dr. Abdulsalam
Dalaq

Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
a1	Analyze anatomical structures in radiographic images.	▪ Lectures, ▪ Interactive Terminology Sessions ▪ Anatomy Labs, ▪ Group Discussions	▪ Written Exams, ▪ Quizzes ▪ Practical Exams, ▪ Assignments
a2	Interpret anatomical variations and abnormalities.		
(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:			
Course Intended Learning Outcomes		Teaching Strategies	Assessment Strategies
b1	Analyze anatomical structures in radiographic images.	▪ Case Studies, ▪ Image Interpretation Sessions ▪ Histology Workshops, ▪ Case Studies	▪ Image Interpretation Exams ▪ Histology Exams, ▪ Case Reports
b2	Interpret anatomical variations and abnormalities.		
(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	Perform anatomical positioning for radiographic examinations.	▪ Clinical Practicum, ▪ Positioning Labs ▪ Simulated Patient Scenarios, ▪ Clinical Rotations	▪ Practical Exams, ▪ Clinical Assessments ▪ Clinical Competency Evaluations
c2	Apply knowledge of anatomy in clinical practice.		
(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 effectively about anatomical concepts.	▪ Presentations, ▪ Group Discussions ▪ Team Projects, ▪ Collaborative Labs	▪ Oral Exams, ▪ Presentation Assessments ▪ Group Assignments,
d2	Collaborate in a team setting for anatomical studies.		

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Relevant Learning Outcomes
1	Anatomical Terminology	– Anatomical Planes, Directional Terms	1	2	a1, b1
2	Histology	– Tissues, Cell Types	1	2	a1, b1
3	Skeletal System	– Bone Anatomy, Joint Types	1	2	a1, a2
4	Muscular System	– Muscle Types, Muscle Actions	1	2	a1, a2
5	Nervous System	– Brain, Spinal Cord, Peripheral Nerves	1	2	a1, a2
6	Circulatory System	– Heart, Blood Vessels	1	2	a1, a2
7	Mid-Term Exam	– In all previous Topics	1	2	a1, a2, b1
8	Respiratory System	– Lungs, Airway Structures	1	2	a1, a2
9	Digestive System	– Digestive Tract, Organs	1	2	a1, a2
10	Urinary System	– Kidneys, Bladder, Ureters	1	2	a1, a2
11	Reproductive System	– Male and Female Reproductive Organs	1	2	a1, a2
12	Endocrine System	– Glands, Hormones	1	2	a1, a2
13	Integumentary System	– Skin Anatomy, Functions	1	2	a1, a2
14	Lymphatic System	– Lymph Nodes, Immune Function	1	2	a1, a2
15	Final Practical Exam	– All practical topics	1	2	a2, b1, b2, c1, c2
16	Final Theoretical Exam	– All theoretical topics	1	2	a1, a2, b1, b2
Number of Weeks /and Units Per Semester			16	32	

B. Practical Aspect (Lab/Clinical) (if any):

Prepared by:

Reviewed by:

Dr. -----

Head of the Department:

Dr. Awadh Al-Kubati

Quality Unit:

Dr. Mohammed
Al-shamahi

Dean:

Dr. Abdulsalam
Dalaq

No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Anatomy Dissection Lab: Cadaveric Dissection	1	2	b1, c1
2	Radiographic Anatomy Workshop: Anatomical Landmarks Identification	2	4	b1, b2
3	Clinical Anatomy Practicum: Patient Case Studies	1	2	b1, b2
4	Histology Slide Examination: Tissue Identification	2	4	c1, c2
5	Surface Anatomy Demonstration: Palpation Techniques	1	2	b1, b2
6	Radiologic Positioning Practice: Anatomical Positioning for X-rays	1	2	c1, c2
7	Virtual Anatomy Software Exploration: Interactive 3D Models	2	4	c1, c2
8	Case-Based Learning Sessions: Clinical Scenarios Analysis	1	2	b1, b2
9	Anatomy Review Sessions: Interactive Quizzes	2	4	c1, c2
10	Anatomy Presentations	1	2	d1, d2
Number of Weeks /and Units Per Semester		14	28	

C. Tutorial Aspect (if any):

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	None			
2				
Number of Weeks /and Units Per Semester				

VII. Teaching Strategies:

- Lectures
- Anatomy Labs

- Histology Workshops
- Clinical Practicum
- Radiographic Positioning Practice
- Case-Based Learning Sessions
- Virtual Anatomy Software Exploration

VII. Assessment Methods:

- Written Exams
- Practical Exams
- Clinical Competency Evaluations
- Image Interpretation Exams

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Anatomy Dissection Report	4	2	b1, b2
2	Radiographic Positioning Portfolio	6	2	c1, c2
3	Histology Slide Analysis	8	2	b1, b2
4	Clinical Case Study	10	2	c1, c2
5	Group Presentation on Anatomy Topic	14	2	d1, d2
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	Midterm Written Exam	7	10	10%	a1, b1, c1
2	Practical Exam	12	30	30%	a2, b2, c2
3	Final Exam	15	50	50%	a1, d1, d2

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
4	Assignments & Quizzes	Ongoing	10	10%	a1, a2, b1, b2, c1, c2, d1, d2
Total			100	100 %	

IX. Learning Resources:

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

- 1- Rohen, J.W., Yokochi, C., & Lütjen-Drecoll, E. (Year). *Anatomy: A Photographic Atlas*. Edition. Place of Publication: Publisher.
- 2- Snell, R.S. (Year). *Clinical Anatomy by Regions*. Edition. Place of Publication: Publisher.

2- Essential References:

- 1- Drake, R.L., Vogl, W., & Mitchell, A.W.M. (Year). *Gray's Anatomy for Students*. Edition. Place of Publication: Publisher.
- 2- Netter, F.H. (Year). *Netter's Atlas of Human Anatomy*. Edition. Place of Publication: Publisher.

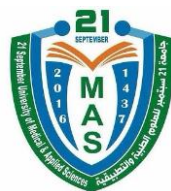
3- Electronic Materials and Web Sites etc.:

Websites:

- AnatomyZone.com
- KenHub.com
- TeachMeAnatomy.net

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

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.
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.
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.

Faculty of Applied Medical Science

Department of **Medical Radiology and Imaging Technology**

Program of Radiologic Technology and Medical Imaging

Course Plan (Syllabus) of

Course Code.

I. Information about Faculty Member Responsible for the Course:						
Name of Faculty Member:		Office Hours				
Location& Telephone No.:	-----					
E-mail:	--@--.--	SAT	SUN	MON	TUE	WED THU

2024/2025

I. General Information:

12.	Course Title:	Anatomy and histology 1				
13.	Course Code:					
14.	Credit Hours:	Credit Hours	Theory Contact Hours		Practical Contact Hours	
			Lecture	Tutorial/ Seminar	Lab	Clinical
		3	2	--	2	--
15.	Level/ Semester at which this Course is offered:	1 st Level / 1 st Semester				
16.	Pre –Requisite (if any):	General biology				
17.	Co –Requisite (if any):	None				
18.	Program (s) in which the Course is Offered:	Bachelor of Radiologic Technology and Medical Imaging				
19.	Language of Teaching the Course:	English				
20.	Location of Teaching the Course:	Faculty of Applied Medical Science				
21.	Prepared by:					
22.	Date and Number of Approval by Council:					

II. Course Description:

This course provides an essential study of human anatomy focusing on the structure and function of the human body. Topics include anatomical terminology, histology, skeletal system, muscular system, nervous system, circulatory system, respiratory system, digestive system, urinary system, and reproductive system. Emphasis is placed on understanding anatomical structures in relation to radiographic imaging and diagnostic procedures.

III. Course Intended Learning Outcomes (CILOs) :
Upon successful completion of the course, students will be able to:

A. Knowledge and Understanding:

- | | |
|----|--|
| a1 | Explain anatomical terminology. |
| a2 | Describe the structure and function of major human body systems. |

B. Intellectual Skills:

- | | |
|----|---|
| b1 | Analyze anatomical structures in radiographic images. |
| b2 | Interpret anatomical variations and abnormalities. |

C. Professional and Practical skills:

- | | |
|----|---|
| c1 | Perform anatomical positioning for radiographic examinations. |
| c2 | Apply knowledge of anatomy in clinical practice. |

D. Transferable Skills:

- | | |
|----|---|
| d1 | Communicate effectively about anatomical concepts. |
| d2 | Collaborate in a team setting for anatomical studies. |

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Anatomical Terminology	– Anatomical Planes, Directional Terms	1	2
2	Histology	– Tissues, Cell Types	1	2
3	Skeletal System	– Bone Anatomy, Joint Types	1	2
4	Muscular System	– Muscle Types, Muscle Actions	1	2
5	Nervous System	– Brain, Spinal Cord, Peripheral Nerves	1	2
6	Circulatory System	– Heart, Blood Vessels	1	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
7	Mid-Term Exam	– In all previous Topics	1	2
8	Respiratory System	– Lungs, Airway Structures	1	2
9	Digestive System	– Digestive Tract, Organs	1	2
10	Urinary System	– Kidneys, Bladder, Ureters	1	2
11	Reproductive System	– Male and Female Reproductive Organs	1	2
12	Endocrine System	– Glands, Hormones	1	2
13	Integumentary System	– Skin Anatomy, Functions	1	2
14	Lymphatic System	– Lymph Nodes, Immune Function	1	2
15	Final Practical Exam	– All practical topics	1	2
16	Final Theoretical Exam	– All theoretical topics	1	2
Number of Weeks /and Units Per Semester			16	32

B. Practical Aspect (Lab/Clinical) (if any):

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
1	Anatomy Dissection Lab: Cadaveric Dissection	1	2
2	Radiographic Anatomy Workshop: Anatomical Landmarks Identification	2	4
3	Clinical Anatomy Practicum: Patient Case Studies	1	2
4	Histology Slide Examination: Tissue Identification	2	4
5	Surface Anatomy Demonstration: Palpation Techniques	1	2
6	Radiologic Positioning Practice: Anatomical Positioning for X-rays	1	2
7	Virtual Anatomy Software Exploration: Interactive 3D Models	2	4

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
8	Case-Based Learning Sessions: Clinical Scenarios Analysis	1	2
9	Anatomy Review Sessions: Interactive Quizzes	2	4
10	Anatomy Presentations	1	2
Number of Weeks /and Units Per Semester		14	28

C. Tutorial Aspect (if any):

No.	Tutorial	Number of Weeks	Contact Hours
1	None		
2			
Number of Weeks /and Units Per Semester			

VII. Teaching Strategies:

- Lectures
- Anatomy Labs
- Histology Workshops
- Clinical Practicum
- Radiographic Positioning Practice
- Case-Based Learning Sessions
- Virtual Anatomy Software Exploration

VII. Assessment Methods:

- Written Exams
- Practical Exams
- Clinical Competency Evaluations
- Image Interpretation Exams

VII. Assignments:

No.	Assignments	Week Due	Mark
1	Anatomy Dissection Report	4	2
2	Radiographic Positioning Portfolio	6	2
3	Histology Slide Analysis	8	2
4	Clinical Case Study	10	2
5	Group Presentation on Anatomy Topic	14	2
Total			10

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

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Midterm Written Exam	7	10	10%
2	Practical Exam	12	30	30%
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Total			100	100 %

IX. Learning Resources:

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