Republic of Yemen

Ministry of Higher Education & Scientific Research

21 SEPTEMBER UNIVERSITY of MEDICALS & APPLIED SCIENCES

Faculty of Medicine

Bachelor Program of

Medicine and Surgery (MBBS)

Course Specification of

Introduction to anatomy & embryology

Course Code. (A21P125)

2023

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

Prepared by:	Reviewed by:	Head of department	Quality Unit:	Dean of Medicine Faculty	Center of Development and Quality Assurance Dean
Dr. Aref saleh Abdulmughni	Prof. Saleem Nasser Al-ryashi	Dr. Aref saleh Abdulmughni	Dr. Fadhl Shujaa Al-deen	Dr. Salwa Al-Ghomeri	

I. General Information:

1.	**Course Title:**	Introduction to anatomy & embryology				
2.	**Course Code:**	A21P125				
3.	**Credit Hours:**	**Credit Hours**	**Theory Contact Hours**		**Practical Contact Hours**	
			Lecture	**Tutorial/ Seminar**	**Lab**	**Clinical**
		5	4	--	2	--
4.	**Level/ Semester at which this Course is offered:**	First Level / 2nd Semester				
5.	**Pre –Requisite (if any):**	Introduction to cell biology & histology				
6.	**Co –Requisite (if any):**	------				
7.	**Program (s) in which the Course is Offered:**	Bachelor of medicine & surgery (MBBS)				
8.	**Language of Teaching the Course:**	English				
9.	**Location of Teaching the Course:**	Faculty of Medicine				
10.	**Prepared by:**	Dr. Aref saleh Abdulmughni				
١١	**Date and Number of Approval by Council:**	2023				

II. Course Description:

This course is designed to provide the students with the needed knowledge in human anatomy needed to be applied at a later stage during block system study & their clinical training. The lecture topics include introduction in general anatomy & embryology, with all related structures of each system with its blood supply, venous drainage, nerve supply, lymphatic drainage and its development.

III. Course Intended Learning Outcomes (CILOs) : Upon successful completion of the course, students will be able to:		Referenced PILOs		
A. Knowledge and Understanding:		**I, P or M/A**	**I**	
a1	Name all structures, components, systems, parts, organs, cavities of human body.	**M**	**A1**	Describe the general and basic sciences related to human body structure and functions with emphasis on normal and abnormal conditions.
a2	Recognize knowledge and information's of human body development which needed to other clinical and Para clinical sciences as gynecology, neonatology, pediatrics and radiology etc.…	**M**	**A2**	Identify the progress of human body through all stages of development, alteration of structure and function during these stages and indication for surgical or non-surgical intervention and the role of treatment in healing or curing the diseases.
B. Intellectual Skills:				
b1	Distinguish position, relation, bones, muscles, blood supply and drainage, lymphatics and nerve supply of different structures of human body including its surface anatomy and related injuries.	**A**	**B1**	Compare between normal and abnormal conditions and predict the appropriate treatment or intervention.
b2	Organize stages of gametogenesis (oogenesis, spermatogenesis), ovarian cycle, formation of Graffian follicles, ovulation, fertilization, results of fertilization, weeks of development of embryo and fetus, placenta formation.	**A**		
C. Professional and Practical Skills:				
c1	Interpret the relationship between form and structures by applying comparative human anatomy in understanding the	**P**	**C1**	Perform complete clinical examination and precise investigations to reach the final

	origin of blood and nerve supply			diagnosis
c2	Demonstrate the interactive relationship between the different structures and organs development of fetus with its anatomical relations in normal human body.	**P**		
	D. Transferable Skills:			
d1	Communicate effectively with medical staff and patients.	**I**	**D1**	Communicate with professionals, patients, their families and the community through verbal, written and other non-verbal means.
d2	Involved with teamwork all knowledge and information's of human development which needed to other clinical and Para clinical sciences as gynecology, pediatrics, neonatology and radiology etc.…	**I**	**D2**	Work individually or in a team and develop lifelong learning using up to date technology that help in understanding the diseases and its control and prevention.

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:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
a1	Name all structures, components, systems, parts, organs, cavities of human body.	- Interactive lectures, - Self learning	- Written Exam
a2	Recognize knowledge and information's of human body development which needed to other clinical and Para clinical sciences as gynecology, neonatology, pediatrics and radiology etc.…	- Interactive lectures, - Self learning	- Written Exam

(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
b1	Distinguish position, relation, bones, muscles, blood supply and drainage, lymphatic's and nerve supply of different structures of human body including its surface anatomy and related injuries.	-Interactive lectures, - Seminars - Practical session. - Discussion - Case Study - Self Learning	Written Exam -Final Practical Exam
b2	Organize stages of gametogenesis (oogenesis, spermatogenesis), ovarian cycle, formation of Graffian follicles, ovulation, fertilization, results of fertilization, weeks of development of embryo and fetus, placenta formation.	-Interactive lectures, - Seminars - Practical session. - Discussion - Case Study - Self Learning	-Written Exam -Final Practical 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	Interpret the relationship between form and structures by applying comparative human anatomy in understanding the origin of blood and nerve supply	Practical session. -Case Study	- Final Practical Exam - OSPE
c2	Demonstrate the interactive relationship between the different structures and organs development of fetus with its anatomical relations in normal human body.	Practical session. -Case Study	- Final Practical Exam - OSPE

(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
d1	Building good relation with	- Self Learning	- Research

	medical staff and patients.	- Presentation	
d2	Involved with teamwork all knowledge and information's of human development which needed to other clinical and Para clinical sciences as gynecology, pediatrics, neonatology and radiology etc.…	- Self Learning - Presentation	- Research

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Introduction to anatomy	Definitions, Morphological Sciences	1ST	2	a 1
2	Introduction to Embryology (Molecular Regulation and Signaling)	Gene transcription, Regulators of gene expression, Induction and organ formation, Cell signaling.	1ST	2	a 1,a2, b1
3	Body Tissues& systems	Basic body tissues& systems	2nd	2	a 1
4	Male and Female Reproductive organs	Female reproductive organs, structure and its functions. Male Reproductive organs, structures and its functions.	2nd	2	a 1, a2,b1
5	Anatomical positions,	Definitions, Types	3rd	2	a1, b1
6	Gametogenesis	Primordial germ cells, Chromosomal theory of inheritance, Morphological changes during maturation of the gametes.	3rd	2	a1,a2,b1, b2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
7	Planes of anatomy	Anatomical Sections & axes	4th	2	a1,a2,b2, d1
8	Gametogenesis	Oogenesis, Spermatogenesis	4th	2	a1,a2,b1, b2.c2
9	Terminology of movement	Definitions of movements, anatomical terminology Body cavities	5th	2	a1,a2,b2, d1
10	First Week of Development	Ovarian Cycle, Fertilization,	5th	2	a2,b2
11	Osteology	Types of bones Bone Ossification	6th	2	a1,a2,b2, d1
١٢	(Ovulation to Implantation)	Cleavage, Blastocyst formation, Uterus at Time of Implantation.	6th	2	a1,a2,d1
١٣	Skeleton	Axial Skeleton	7th	2	a1,a2,b2, d1
١٤	Second Week of Development (Bilaminar Germ Disc)	Day 8, Day 9, Days 11 and 12, Day 13.	7th	2	d1,d2
١٥	Skeleton	Appendicular skeleton	8th	2	a1,a2,b2, d1
16	Third Week of Development (Trilaminar Germ Disc)	**Gastrulation:** Formation of embryonic mesoderm and endoderm, Formation of the Notochord,	8th	2	d1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		Establishment of the body axes, Fate Map established during gastrulation			
17	Joints	Classification Examples (Fibrous, Cartilaginous, synovial) Mid- Term Exam	9th	2	a1,a2,b2, d1
18	Third Week of Development (Trilaminar Germ Disc)	Growth of the embryonic disc, Further development of the Trophoblast.	9th	2	a2,b1,b2
19	Muscles Fascia	Classification, types, sites, Examples	10th	2	a1,a2,b1, d1
20	Third to Eighth Weeks (Embryonic Period)	Derivatives of the Ectodermal germ layer, Derivatives of the Mesodermal germ layer, Derivatives of the Endodermal germ layer, Patterning of the anteroposterior axis (Regulation by Home box Genes), External appearance during the second month.	10th	2	a1,a2,b2, d1
21	Cardiovascular system	Heart, blood vessles, circulation	11th	2	a1,a2,b2, d1
22	The Gut Tube and the Body Cavities	A Tube on top of a tube, Formation of the body cavity, Serous membranes, Diaphragm and Thoracic cavity, Formation of the Diaphragm.	11th	2	a 2,b1,d1
23	**Respiratory**	Organs (Nasal cavity, Pharynx, Larynx, Trachea, Bronchi,	12th	2	a1,a2,b2,

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
	system	Bronchioles, Lungs & Pleura			d1
24	Third Month to Birth	Development of the fetus, Fetal membranes and placenta, Chorion Frond sum and Decidua Basalis,	12th	2	a1,a2,b1, b2,d1,d2
25	**Digestive system**	Organs (Mouth, Esophagus, Stomach, Small intestine, Large intestine, Liver, Pancrease& Salivary glands	13th	2	a1,a2,b2, d1
26	(Fetus and Placenta)	Structure of the Placenta, Amnion and Umbilical Cord, Placental Changes at the End of Pregnancy, Amniotic Fluid, Fetal Membranes in Twins, Parturition (Birth).	13th	2	a1,a2,d1
27	**Nervous system**	CNS, PNS, ANS.	14th	2	a1,a2,b2, d1
28	Birth Defects and Prenatal Diagnosis	Birth Defects, Prenatal Diagnosis,	14th	2	d1,d2,
29	**Urinary System**	Kidneys, ureter, urinary bladder & urethra	15th	2	a1,a2,b2, d1
30	Prenatal Diagnosis	Prenatal Diagnosis, Fetal Therapy	15th	2	d1,d2
31	**Final Theoretical Exam**		16th	2	a1,a2,b1, b2
Number of Weeks /and Units Per Semester			**16**	**62**	

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

No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	**Introduction& positions**	**1st**	**2**	b1

No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
2	Description of nomenculture	2nd	2	b1
3	Planes of anatomy	3rd	2	b1,b2,c1,c2
4	Movements	4th	2	b1,b2,c1,c2
5	Bones	5th	2	b1,c1,c2
6	Axial skeleton	6th	2	b1,c1,c2
7	Appendicular skeleton	7th	2	b2,c1,c2
8	Joints	8th	2	b2,c1,c2
9	Muscles & Fascia	9th	2	b2,c1,c2
10	Cardiovascular	10th	2	b1,b2,c1,c2
11	Respiratory system	11th	2	b2,c1,c2
12	Digestive system	12th	2	b2,c1,c2
13	Nervous system	13th	2	b2,c1,c2
14	Urinary system	14th	2	b2,c1,c2
15	Final Practical Exam	15th	2	b1,b2,c1,c2
Number of Weeks /and Units Per Semester		15	30	

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	Mid-Term Theoretical Exam	9th	20	20%	a1, a2, b1,b2
2	Final Practical Exam & OSPE	15th	30	30%	b1,b2,c1,c2
3	Final Theoretical Exam	16th	50	50%	a1, a2, b1,b2
Total			100	100%	

X1.Learning Resources:

1- Required Textbook(s).

1- Snell`s clinical anatomy, 2018, 6th edition, F. snell.
2- Gray`s textbook of anatomy, 2009, 9th edition, S. Grey

2- Essential References.

1- Hamilton`s textbook of basic anatomy, 2001, 6th edition.
2- Sameh Doss lecture notes of anatomy.
3- Langmann`s of embryology

3- Electronic Materials and Web Sites *etc*.

1- Clinical Snell of applied anatomy.
2- Atlas of Sobotta.
3- Franklen`s electronic atlas of human anatomy.

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.
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.

Faculty of Medicine

Bachelor Program of Medicine and Surgery

Course Plan (Syllabus) of

Introduction to Anatomy & Embryology

Course Code. (A21P125)

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	

2023

II. Course Identification and General Information:

11.	**Course Title:**	Introduction to anatomy & embryology				
12.	**Course Code:**	A21P125				
13.	**Credit Hours:**	**Credit Hours**	**Theory Contact Hours**		**Practical Contact Hours**	
			Lecture	**Tutorial/ Seminar**	**Lab**	**Clinical**
		5	4	--	2	--
14.	**Level/ Semester at which this Course is offered:**	First Level / 2nd Semester				
15.	**Pre –Requisite (if any):**	Introduction to cell biology & histology				
16.	**Co –Requisite (if any):**	------				
17.	**Program (s) in which the Course is Offered:**	Bachelor of medicine & surgery (MBBS)				
18.	**Language of Teaching the Course:**	English				
19.	**Location of Teaching the Course:**	Faculty of Medicine				
20.	**Prepared by:**	Dr. Aref saleh Abdulmughni				
١١	**Date and Number of Approval by Council:**	2023				

1.	**Course Title:**	Introduction to anatomy & embryology				
2.	**Course Code:**	A21P125				
3.	**Credit Hours:**	**Credit Hours**	**Theory Contact Hours**		**Practical Contact Hours**	
			Lecture	**Tutorial/ Seminar**	**Lab**	**Clinical**
		5	4	--	2	--
4.	**Level/ Semester at which this Course**	First Level / 2nd Semester				

	is offered:	
5.	**Pre –Requisite (if any):**	Introduction to cell biology & histology
6.	**Co –Requisite (if any):**	------
7.	**Program (s) in which the Course is Offered:**	Bachelor of medicine & surgery
8.	**Language of Teaching the Course:**	English
9.	**Location of Teaching the Course:**	Faculty of Medicine
10.	**Prepared by:**	Dr. Aref saleh Abdulmughni
١١	**Date and Number of Approval by Council:**	2023

III. Course Description:

This course is designed to provide the students with the needed knowledge in human anatomy needed to be applied at a later stage during block system study & their clinical training. The lecture topics include introduction in general anatomy & embryology, with all related structures of each system with its blood supply, venous drainage, nerve supply, lymphatic drainage and its development.

IV. Course Intended Learning Outcomes (CILOs) :

Upon successful completion of the Course, student will be able to:

	A**. Knowledge and Understanding:**
a1	Name all structures, components, systems, parts, organs, cavities of human body.
a2	Recognize knowledge and information's of human body development which needed to other clinical and Para clinical sciences as gynecology, neonatology, pediatrics and radiology etc.…
	B**. Intellectual Skills:**
b1	Distinguish position, relation, bones, muscles, blood supply and drainage, lymphatics and nerve supply of different structures of human body including its surface anatomy and related injuries.

b2	Organize stages of gametogenesis (oogenesis, spermatogenesis), ovarian cycle, formation of Graffian follicles, ovulation, fertilization, results of fertilization, weeks of development of embryo and fetus, placenta formation.
	C. Professional and Practical Skills:
c1	Interpret the relationship between form and structures by applying comparative human anatomy in understanding the origin of blood and nerve supply
c2	Demonstrate the interactive relationship between the different structures and organs development of fetus with its anatomical relations in normal human body.
	D. Transferable Skills:
d1	Communicate effectively with medical staff and patients.
d2	Involved with teamwork all knowledge and information's of human development which needed to other clinical and Para clinical sciences as gynecology, pediatrics, neonatology and radiology etc.…

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Introduction to anatomy	Definitions, Morphological Sciences	1ST	2
2	Introduction to Embryology (Molecular Regulation and Signaling)	Gene transcription, Regulators of gene expression, Induction and organ formation, Cell signaling.	1ST	2
3	Body Tissues& systems	Basic body tissues& systems	2nd	2
4	Male and Female Reproductive organs	Female reproductive organs, structure and its functions. Male Reproductive organs, structures and its functions.	2nd	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
5	Anatomical positions,	Definitions, Types	3rd	2
6	Gametogenesis	Primordial germ cells, Chromosomal theory of inheritance, Morphological changes during maturation of the gametes.	3rd	2
7	Planes of anatomy	Anatomical Sections & axes	4th	2
8	Gametogenesis	Oogenesis, Spermatogenesis	4th	2
9	Terminology of movement	Definitions of movements, anatomical terminology Body cavities	5th	2
10	First Week of Development	Ovarian Cycle, Fertilization,	5th	2
11	Osteology	Types of bones Bone Ossification	6th	2
١٢	(Ovulation to Implantation)	Cleavage, Blastocyst formation, Uterus at Time of Implantation.	6th	2
١٣	Skeleton	Axial Skeleton	7th	2
١٤	Second Week of Development (Bilaminar Germ Disc)	Day 8, Day 9, Days 11 and 12, Day 13.	7th	2
١٥	Skeleton	Appendicular skeleton	8th	2
16	Third Week of Development (Trilaminar Germ Disc)	**Gastrulation:** Formation of embryonic mesoderm and endoderm, Formation of the Notochord, Establishment of the body axes, Fate Map	8th	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		established during gastrulation		
17	Joints	Classification Examples (Fibrous, Cartilaginous, synovial) Mid- Term Exam	9th	2
18	Third Week of Development (Trilaminar Germ Disc)	Growth of the embryonic disc, Further development of the Trophoblast.	9th	2
19	Muscles Fascia	Classification, types, sites, Examples	10th	2
20	Third to Eighth Weeks (Embryonic Period)	Derivatives of the Ectodermal germ layer, Derivatives of the Mesodermal germ layer, Derivatives of the Endodermal germ layer, Patterning of the anteroposterior axis (Regulation by Home box Genes), External appearance during the second month.	10th	2
21	Cardiovascular system	Heart, blood vessles, circulation	11th	2
22	The Gut Tube and the Body Cavities	A Tube on top of a tube, Formation of the body cavity, Serous membranes, Diaphragm and Thoracic cavity, Formation of the Diaphragm.	11th	2
23	**Respiratory system**	Organs (Nasal cavity, Pharynx, Larynx, Trachea, Bronchi, Bronchioles, Lungs & Pleura	12th	2
24	Third Month to Birth	Development of the fetus, Fetal membranes and placenta, Chorion Frond sum and Decidua Basalis,	12th	2
25	**Digestive system**	Organs (Mouth, Esophagus, Stomach, Small intestine, Large intestine, Liver,	13th	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		Pancrease& Salivary glands		
26	(Fetus and Placenta)	Structure of the Placenta, Amnion and Umbilical Cord, Placental Changes at the End of Pregnancy, Amniotic Fluid, Fetal Membranes in Twins, Parturition (Birth).	13th	2
27	**Nervous system**	CNS, PNS, ANS.	14th	2
28	Birth Defects and Prenatal Diagnosis	Birth Defects, Prenatal Diagnosis,	14th	2
29	**Urinary System**	Kidneys, ureter, urinary bladder & urethra	15th	2
30	Prenatal Diagnosis	Prenatal Diagnosis, Fetal Therapy	15th	2
31	**Final Theoretical Exam**		16th	2
Number of Weeks /and Units Per Semester			**16**	**62**

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Introduction to anatomy	Definitions, Morphological Sciences	1ST	2
2	Introduction to Embryology (Molecular Regulation and Signaling)	Gene transcription, Regulators of gene expression, Induction and organ formation, Cell signaling.	1ST	2
3	Body Tissues& systems	Basic body tissues& systems	2nd	2
4	Male and Female Reproductive organs	Female reproductive organs, structure and its functions.	2nd	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		Male Reproductive organs, structures and its functions.		
5	Anatomical positions,	Definitions, Types	3rd	2
6	Gametogenesis	Primordial germ cells, Chromosomal theory of inheritance, Morphological changes during maturation of the gametes.	3rd	2
7	Planes of anatomy	Anatomical Sections & axes	4th	2
8	Gametogenesis	Oogenesis, Spermatogenesis	4th	2
9	Terminology of movement	Definitions of movements, anatomical terminology Body cavities	5th	2
10	First Week of Development	Ovarian Cycle, Fertilization,	5th	2
11	Osteology	Types of bones Bone Ossification	6th	2
١٢	(Ovulation to Implantation)	Cleavage, Blastocyst formation, Uterus at Time of Implantation.	6th	2
١٣	Skeleton	Axial Skeleton	7th	2
١٤	Second Week of Development (Bilaminar Germ Disc)	Day 8, Day 9, Days 11 and 12, Day 13.	7th	2
١٥	Skeleton	Appendicular skeleton	8th	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
16	Third Week of Development (Trilaminar Germ Disc)	**Gastrulation:** Formation of embryonic mesoderm and endoderm, Formation of the Notochord, Establishment of the body axes, Fate Map established during gastrulation	8th	2
17	Joints	Classification Examples (Fibrous, Cartilaginous, synovial) Mid- Term Exam	9th	2
18	Third Week of Development (Trilaminar Germ Disc)	Growth of the embryonic disc, Further development of the Trophoblastic.	9th	2
19	Muscles Fascia	Classification, types, sites, Examples	10th	2
20	Third to Eighth Weeks (Embryonic Period)	Derivatives of the Ectodermal germ layer, Derivatives of the Mesodermal germ layer, Derivatives of the Endodermal germ layer, Patterning of the anteroposterior axis (Regulation by Home box Genes), External appearance during the second month.	10th	2
21	Cardiovascular system	Heart, blood vessles, circulation	11th	2
22	The Gut Tube and the Body Cavities	A Tube on top of a tube, Formation of the body cavity, Serous membranes, Diaphragm and Thoracic cavity, Formation of the Diaphragm.	11th	2
23	**Respiratory system**	Organs (Nasal cavity, Pharynx, Larynx, Trachea, Bronchi, Bronchioles, Lungs & Pleura	12th	2

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
24	Third Month to Birth	Development of the fetus, Fetal membranes and placenta, Chorion Frond sum and Decidua Basalis,	12th	2
25	**Digestive system**	Organs (Mouth, Esophagus, Stomach, Small intestine, Large intestine, Liver, Pancrease& Salivary glands	13th	2
26	(Fetus and Placenta)	Structure of the Placenta, Amnion and Umbilical Cord, Placental Changes at the End of Pregnancy, Amniotic Fluid, Fetal Membranes in Twins, Parturition (Birth).	13th	2
27	**Nervous system**	CNS, PNS, ANS.	14th	2
28	Birth Defects and Prenatal Diagnosis	Birth Defects, Prenatal Diagnosis,	14th	2
29	**Urinary System**	Kidneys, ureter, urinary bladder & urethra	15th	2
30	Prenatal Diagnosis	Prenatal Diagnosis, Fetal Therapy	15th	2
31	**Final Theoretical Exam**		16th	2
Number of Weeks /and Units Per Semester			**16**	**32**

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
1	**Introduction& positions**	**1st**	**2**
2	**Description of nomenculture**	**2nd**	**2**

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
3	Planes of anatomy	3rd	2
4	Movements	4th	2
5	Bones	5th	2
6	Axial skeleton	6th	2
7	Appendicular skeleton	7th	2
8	Joints	8th	2
9	Muscles & Fascia	9th	2
10	Cardiovascular	10th	2
11	Respiratory system	11th	2
12	Digestive system	12th	2
13	Nervous system	13th	2
14	Urinary system	14th	2
15	Final Practical Exam	15th	2
Number of Weeks /and Units Per Semester		15	30

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
1	Introduction& positions	1st	2
2	Description of nomenculture	2nd	2
3	Planes of anatomy	3rd	2
4	Movements	4th	2
5	Bones	5th	2
6	Axial skeleton	6th	2
7	Appendicular skeleton	7th	2

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
8	Joints	8th	2
9	Muscles & Fascia	9th	2
10	Cardiovascular	10th	2
11	Respiratory system	11th	2
12	Digestive system	12th	2
13	Nervous system	13th	2
14	Urinary system	14th	2
15	Final Practical Exam	15th	2
Number of Weeks /and Units Per Semester		**15**	**30**

VI. Teaching Strategies of the Course:

VII. Assessment Methods of the Course:

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

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	**Mid-Term Theoretical Exam**	9th	20	20%
2	**Final Practical &OSPE**	15th	30	30%
3	**Final Theoretical Exam**	16th	50	50%
Total			**100**	**100%**

X1.Learning Resources:

1- Required Textbook(s) .

1- Snell`s clinical anatomy, 2018, 6th edition, F. snell.
2- Gray`s textbook of anatomy, 2009, 9th edition, S. Grey

2- Essential References.

1- Hamilton`s textbook of basic anatomy, 2001, 6th edition.

	2- Sameh Doss lecture notes of anatomy. 3- Langmann`s of embryology
3- Electronic Materials and Web Sites *etc*.	
	1- Clinical Snell of applied anatomy. 2- Atlas of Sobotta. 3- Franklen`s electronic atlas of human anatomy.

XI. Course Policies: (Based on the Uniform Students' Bylaw (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.
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.