Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: University OF Diyala

Faculty/Institute: College of Medicine

Scientific Department: Anatomy, histology, embryology and biology Department

Academic or Professional Program Name: Bachelor's Human Medicine

Final Certificate Name: Bachelor'sGeneral medicine and surgery

Academic System: Semester (courses)

Description Preparation Date: 1/2/2024

File Completion Date: 8/2/2024

Signature:	**Signature:**
Head of Department Name:	**Scientific Associate Name:**
Date:	**Date:**

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. Program Vision

Preparing students scientifically and providing them with the necessary information about the human body and its composition at the macroscopic and microscopic level in addition to embryonic development, with a focus on the applied aspects of providing information in order to raise the level of medical education in our college and in our educational institutions to keep pace with developed countries and develop the medical profession to contribute to providing the best services. in our country.

2. Program Mission

Preparing generations of doctors who are familiar with medical information, in order to provide health service institutions in the country and qualify a number of them to acquire advanced skills and thus contribute to raising the scientific and professional level of graduates at the national and global levels..

3. Program Objectives

- **Teaching college students the science of human anatomy and what is related to it (tissues, embryology, and medical biology) so that they will be competent doctors in the future, taking into account global scientific developments in this field. Encouraging students and directing them to obtain useful external information in this field from sources other than the established curricula.**
- **Encouraging students' communication skills by conducting side conversations during practical lessons Motivating teachers to research science.**

4. Program Accreditation

Theoretical and practical study and discussions in college and in teaching hospitals.

5. Other external influences

Teaching hospital, library, internet, community, doctors' union.

6. **Program Structure**				
Program Structure	**Number of Courses**	**Credit hours**	**Percentage**	**Reviews***
Enterprise requirements	**5**	**8 for two courses 6 for two courses 2 for one course**	**100%**	**Basic**
College requirements	**5**	**8 for two courses 6 for two courses 2 for one course**	**100%**	**Basic**
Department requirements	**5**	**8 for two courses 6 for two courses 2 for one course**	**100%**	**Basic**
summer training	**None**			
Other	**None**			

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
2023-2024/ (the first)	**ANA101**	**Anatomy**	30 theoretical hours for each course, (2) hours per week	60 practical hours per course, 4 hours per week
2023-2024/ (the second)	**ANA212**	**Anatomy**	30 theoretical hours for each course, (2) hours per week	60 practical hours per course, 4 hours per week
2023-2024/ (the second)	**HIS205**	**Histology**	30 theoretical hours for each course (2) hours per week	30 practical hours for each course, (2) hours per week
2023-2024/ (the second)	**EMB206**	**Embryology**	15 theoretical hours for each course, 1 hour per week	There is no practical
2023-2024/ (the first)	**BIO204**	**Medical biology**	30 theoretical hours for each course, (2) hour per week	30 practical hours for each course, (2) hours per week

8. Expected learning outcomes of the program

Knowledge

- **Teaching and learning the superficial anatomical signs of the body that indicate the locations of bones and muscles Tendons, blood vessels, nerves, and other internal organs.**
- **To link basic anatomy and embryology and tissues, in addition to the biology of cell function Manifestations of pathological conditions to arrive at the correct diagnosis.**

Skills

- Identifying anatomical surface marks and their relationship to bones, tendons, muscles and internal structures in the body
- Identifying and identifying anatomical structures such as muscles, nerves and blood vessels in plaster and plastic models, in addition to identifying them in radiology and MRI clips.
- Identifying tissue structures and components by viewing it microscopically and how to prepare tissue slides.
- Identifying the components of cells, their mechanism of action, and their divisions.

Ethics	
- Promoting the spirit of cooperation and teamwork to create a healthy environment suitable for humans.	- Conducting community awareness and guidance campaigns to create a healthy environment and preserve human health.
- Enhancing the ethical and humanitarian aspects that a doctor must possess.	- Highlighting the human and ethical aspects of the doctor in dealing with the patient.

9. Teaching and Learning Strategies

- Delivering lectures in the form of PowerPoint, showing educational films, using plaster and plastic models, various anatomical sections of the brain, radiology and MRI films, and student participation during discussions during teaching in small groups in practical laboratories.
- Students participate in interactive lectures in theoretical and practical lessons
- Lectures with discussions.
- White seaboard
- Projector device
- Students participate in small groups.
- Interactive student participation during the lecture.
- Using computers and the Internet to maintain communication with the advancement of scientific knowledge in human anatomy

10. Evaluation methods

- Daily theory Exams
- Daily laboratoryexams
- Theoretical And practical Exams foe midterm and final course.
- Exam Oral

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor Dr.	Veterinary medicine	Cell inheritance			1	
Assistant Professor	General medicine and surgery	Anesthetist ENT			2	
Lecturer	dentistry biology	Jaw surgery Molecular cell science Tissue Tissue			4	
assistant Lecturer	Biology	Parasites Biotechnology			2	

Professional Development

Mentoring new faculty members

Preparing seminars and introductory courses for new teachers, holding periodic meetings to familiarize them with work contexts, daily guidance, continuous follow-up, and giving advice and directions.

Professional development of faculty members

Continuous learning through searching for new developments using the library and the Internet, in addition to scientific workshops, attending seminars and specialized scientific seminars, as well as active attendance in scientific and research laboratories to hone skills.

12. Acceptance Criterion

Admission is done centrally through the Ministry of Higher Education and Scientific Research, based on the student's grades in the sixth scientific year, after preparing the relevant form electronically.

13. The most important sources of information about the program
For ANATOMY - Clinical Anatomy For Medical Students, by Richard S. Snell, Williams and Wilkins Cunningham's Manual Of Practical Anatomy, Three Volumes, By GJRomanes: Oxford.Medical.Publications. - https://themdjourney.com/20-for-books-physiology-and-anatomy-medicalstudents/#The_Anatomy_Coloring_Book For HISTOLOGY - Human Anatomy and cell physiology by Mcgraw hill 17th ed. - All human histology books and magazines For EMBRYOLOGY - Color Atlas of Embryology. Drews 1995. - Developmental Biology. Gilbert 2003-2006 For MEDICAL BIOLOGY - Medical biology by SylviaMadar

14-Program development plan
Developing academic curricula annually to suit global developments in the field of anatomy, histology, embryology, and medical biology.

Program Skills Outline														
				Required program Learning outcomes										
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023/2024 first Year	ANA101	Anatomy/ first	Basic	√	√	√	√	√	√	√		√	√		
												√	√		
2023/2024 second year	ANA212	Anatomy/ second	Basic	√	√	√	√	√	√	√		√	√		
												√	√		
2023/2024 second Year	HIS205	Histology/ second	Basic	√	√	√	√	√	√	√		√	√		
												√	√		
2023/2024 second Year	EMB206	Embryology / second	Basic	√	√	√	√	√	√	√		√	√		
												√	√		
2023/2024 first Year	BIO204	Biology/ first	Basic	√	√	√	√	√	√	√		√	√		

- **Please tick the boxes corresponding to the individual program learning outcomes under evaluation.**

Course Description Form

1. Course Name:
ANATOMY / FIRST LEVEL
2. Course Code:
ANA 101
3. Semester / Year:
2023/2024 first semester + second semester
4. Description Preparation Date:
8/2/2024
5. Available Attendance Forms:
Mandatory attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
- 30 theoretical hours for each course, (2) hours per week - 60 practical hours for each course, 4 hours per week - Total number of units 8
7. Course administrator's name (mention all, if more than one name)
Name: Assist. Prof. Dr. Namir Fadel Ghaieb/ E m a i l : nameer@uodiyala.edu.iq **Name: Assist. Prof. Duraid Hamid AbdulKadhim / Email duraid@uodiyala.edu.iq** **Name: Lec. Dr. Haider Mahdee Edaan / Email: haider@uodiyala.edu.iq** **Name: Assist. Lec. Reham Saad / Email reham@uodiyala.edu.iq**
8. Course Objectives
1. Describe the structural components of different areas of the human body. 2. Describe the basic anatomical structures of the various organs and systems of the human body, which includes (the upper and lower extremities, the chest and its appendage organs, the head and neck, the nervous system, the abdomen, the pelvis and its appendage organs). 3. The ability to distinguish the distinctive surface anatomical signs of the structures located under the skin, such as bones, muscles, and ligaments, and the internal structures of major blood vessels and internal organs. 4. The ability to know the different branches of nerves, different blood vessels, and the organs that feed them. 5. The ability to recover various muscle functions in the human body. 6. Knowing the different movements of the joints and the muscles responsible for those movements. 7. The ability to know the major clinical applications of these anatomical structures
9. Teaching and Learning Strategies
Strategy — 1. Theoretical lectures. 2. Recognizing and learning by seeing the human body, educational capabilities.

	3. Teaching small groups. 4. Field visits to hospitals and health centers. 5. View educational videos and images for clinical related cases. The parts of the organs and how they interact and relate to each other.

10. Course Structure **The structure of the course for theoretical and practice anatomy /first academic level / the first course**

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	**2 hrs. theory** **4hrs. practical**	Teaching the student what is the meaning of position & movement	Introduction (Terms of position & movement of human body	Lecture+ lab	General question discussion + exam
2	**2 hrs. theory** **4hrs. practical**	Teaching the student what is The human body	-The human body Structure	Lecture+ lab	General question discussion + exam
3	**2 hrs. theory** **4hrs. practical**	Teaching the student what is-Structure of Human	Skin, fasciae Blood vessels	Lecture+ lab	General question discussion + exam
4	**2 hrs. theory** **4hrs. practical**	Identify the Muscles, Bones, Joints Nervous System	Muscles, Bones, Joints Nervous System	Lecture+ lab	General question discussion + exam
5	**2 hrs. theory** **4hrs. practical**	Identify upper limb: Osteology of upper limb	Upper limb: Osteology of upper limb	Lecture+ lab	General question discussion + exam

6	**2 hrs. theory** **4hrs. practical**	Identify the Surface Anatomy Fasciae of upper limb Cutaneous nerves and Vessels	Surface Anatomy Fasciae of upper limb Cutaneous nerves and Vessels	Lecture+ lab	General question discussion + exam
7	**2 hrs. theory** **4hrs. practical**	Identify the Pectoral region axilla, Back Lymphatic drainage	Pectoral region axilla, Back Lymphatic drainage	Lecture+ lab	General question discussion + exam
8	**2 hrs. theory** **4hrs. practical**	Identify the Brachial plexus Nerve injuries	Brachial plexus Nerve injuries	Lecture+ lab	General question discussion + exam
9	**2 hrs. theory** **4hrs. practical**	Identify the Arm(anterior & posterior	Arm(anterior & posterior	Lecture+ lab	General question discussion + exam
10	**2 hrs. theory** **4hrs. practical**	Identify the Forearm (Anterior & posterior compartment	Forearm (Anterior & posterior compartment	Lecture+ lab	General question discussion + exam
11	**2 hrs. theory** **4hrs. practical**	Identify the Hand.	Hand	Lecture+ lab	General question discussion + exam
12	**2 hrs. theory** **4hrs. practical**	Identify the Radiological Anatomy.	Radiological Anatomy	Lecture+ lab	General question discussion + exam

13	**2 hrs. theory** **4hrs. practical**	Identify the lower limb Osteology of lower limb	Lower limb Osteology of lower limb	Lecture+ lab	General question discussion + exam
14	**2 hrs. theory** **4hrs. practical**	Identify the Surface Anatomy The fascia of the lower limb Cutaneous vessels, nerves & lymphatic's	Surface Anatomy The fascia of the lower limb	Lecture+ lab	General question discussion + exam
15	**2 hrs. theory** **4hrs. practical**	Identify the Surface Anatomy Cutaneous vessels, nerves. & lymphatic's	Cutaneous vessels, nerves & lymphatic's	Lecture+ lab	General question discussion + exam

The structure of the course for theoretical and practice anatomy /first academic level / the second course

Week	Hours	Required learning outcome	Unit or subject name	Learning method	Evaluation method
1	**2 hrs. theory** **4hrs. practical**	Identify the Gluteal region Post compartment thigh Popliteal fossa	Gluteal region Post compartment thigh Popliteal fossa	Lecture+ lab	General question discussion + exam
2	**2 hrs. theory** **4hrs. practical**	Identify the Ant. compartment thigh Med. compartment thigh Lumbar plexus	Ant. compartment thigh Med. compartment thigh Lumbar plexus	Lecture+ lab	General question discussion + exam
3	**2 hrs. theory** **4hrs. practical**	Identify the Leg	Leg	Lecture+ lab	General question discussion + exam

4	**2 hrs. theory** **4hrs. practical**	Identify the Foot Arches of foot	Foot Arches of foot	Lecture+ lab	General question discussion + exam
5	**2 hrs. theory** **4hrs. practical**	Identify the Radiological Anatomy	Radiological Anatomy	Lecture+ lab	General question discussion + exam
6	**2 hrs. theory** **4hrs. practical**	Identify the Thorax Thoracic walls Osteology	Thorax Thoracic walls Osteology	Lecture+ lab	General question discussion + exam
7	**2 hrs. theory** **4hrs. practical**	Identify the Muscles Nerves & vessels	Muscles Nerves & vessels	Lecture+ lab	General question discussion + exam
8	**2 hrs. theory** **4hrs. practical**	Identify the Thoracic cavity Pleura, lungs	Thoracic cavity Pleura, lungs	Lecture+ lab	General question discussion + exam
9	**2 hrs. theory** **4hrs. practical**	Identify the Mediastinum Superior mediastinum	Mediastinum Superior mediastinum	Lecture+ lab	General question discussion + exam
10	**2 hrs. theory** **4hrs. practical**	Identify the Heart Pericardium	Heart Pericardium	Lecture+ lab	General question discussion + exam

11	**2 hrs. theory** **4hrs. practical**	Identify the Heart chambers Conducting system	Heart chambers Conducting system	Lecture+ lab	General question discussion + exam
12	**2 hrs. theory** **4hrs. practical**	Identify the Post. Mediastinum Joints, Movements	Post. Mediastinum Joints, Movements	Lecture+ lab	General question discussion + exam
13	**2 hrs. theory** **4hrs. practical**	Identify the Radiological Anatomy	Radiological Anatomy	Lecture+ lab	General question discussion + exam
14	**2 hrs. theory** **4hrs. practical**	Identify the Gluteal region	Gluteal region	Lecture+ lab	General question discussion + exam
15	**2 hrs. theory** **4hrs. practical**	Identify Post compartment thigh Popliteal fossa	Post compartment thigh Popliteal fossa	Lecture+ lab	General question discussion + exam

11.Cours Evaluation
-Daily exams. -evaluation perform an action practical experiment in the laboratory. -Reports preparation -Mid-course exam. -final course exam.
12. Learning and Teaching Resources
Required textbooks (curricular book , if any) Clinical Anatomy For Medical Students, by Richard S. Snell, Williams and Wilkins Cunningham"s Manual Of Practical Anatomy, Three Volumes, By GJRomanes: Oxford.Medical.Publications
Main references (source) All human anatomy books and magazines
Recommended book and references (scientific journals , reports …….) All human anatomy books and magazines
Electronic References , Website https://themdjourney.com/20-for-books-physiology-and-anatomy-medicalstudents/#The_Anatomy_Coloring_Book

Course Description Form

1. Course Name:
ANATOMY / SECOND LEVEL
2. Course Code:
ANA212
3. Semester / Year:
2023/2024 first semester + second semester
4. Description Preparation Date:
8/2/2024
5. Available Attendance Forms:
Mandatory attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
- 30 theoretical hours for each course, (2) hours per week - 60 practical hours for each course, 4 hours per week - Total number of units 8
7. Course administrator's name (mention all, if more than one name)
Name: Assist. Prof. Dr. Namir Fadel Ghaieb/ E m a i l : nameer@uodiyala.edu.iq **Name: Assist. Prof. Duraid Hamid AbdulKadhim / Email duraid@uodiyala.edu.iq** **Name: Lec. Dr. Haider Mahdee Edaan / Email: haider@uodiyala.edu.iq** **Name: Assist. Lec. Reham Saad / Email reham@uodiyala.edu.iq** .....
8. Course Objectives
1) Describe the structural components of different areas of the human body. **2) Describe the basic anatomical structures of the various organs and systems of the human body, which includes (the upper and lower extremities, the chest and its appendage organs, the head and neck, the nervous system, the abdomen, the pelvis and its appendage organs)** **3) The ability to distinguish the distinctive surface anatomical signs of the structures located under the skin, such as bones, muscles, and ligaments, and the internal structures of major blood vessels and internal organs.** **4) The ability to know the different branches of nerves, different blood vessels, and the organs that feed them** **5) The ability to recover various muscle functions in the human body** **6) Knowing the different movements of the joints and the muscles responsible for those movements** **7) The ability to know the major clinical applications of these anatomical structures**

9. Teaching and Learning Strategies

Strategy	1. Theoretical lectures. 2. Recognizing and learning by seeing the human body, educational capabilities. 3. Teaching small groups. 4. Field visits to hospitals and health centers. 5. View educational videos and images for clinical related cases. The parts of the organs and how they interact and relate to each other.

10. Course Structure **The structure of the course for theoretical and practice anatomy /second academic level / the first course**

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	**2 hrs. theory** **4hrs. practical**	Teaching the student what is the meaning of Anterior abdominal wall Male external genitalia	Anterior abdominal wall Male external genitalia	Lecture+ lab	General question discussion + exam
2	**2 hrs. theory** **4hrs. practical**	Identify the Abdominal cavity Peritoneum	Abdominal cavity Peritoneum	Lecture+ lab	General question discussion + exam
3	**2 hrs. theory** **4hrs. practical**	Identify the Abdominal viscera	Abdominal viscera	Lecture+ lab	General question discussion + exam

4	**2 hrs. theory** **4hrs. practical**	Identify Diaphragm Post. Abdominal wall	Diaphragm Post. Abdominal wall	Lecture+ lab	General question discussion + exam
5	**2 hrs. theory** **4hrs. practical**	Identify the Blood supply of the abdomen & Pelvis Autonomic supply Lymphatic drainage	Blood supply of abdomen & Pelvis Autonomic supply Lymphatic drainage	Lecture+ lab	General question discussion + exam
6	**2 hrs. theory** **4hrs. practical**	Identify the Bony pelvis Pelvic walls Female external genitalia	Bony pelvis Pelvic walls Female external genitalia	Lecture+ lab	General question discussion + exam
7	**2 hrs. theory** **4hrs. practical**	Identify the Pelvic viscera	Pelvic viscera	Lecture+ lab	General question discussion + exam
8	**2 hrs. theory** **4hrs. practical**	Identify the Perineum	Perineum	Lecture+ lab	General question discussion + exam
9	**2 hrs. theory** **4hrs. practical**	Identify the Vessels, nerves of the pelvis & perineum.	Vessels, nerves of pelvis & perineum	Lecture+ lab	General question discussion + exam
10	**2 hrs. theory** **4hrs. practical**	Identify the Head & neck skull.	Head & neck skull	Lecture+ lab	General question discussion + exam

11	**2 hrs. theory** **4hrs. practical**	Identify the Vertebral column Cervical vertebrae	Vertebral column Cervical vertebrae	Lecture+ lab	General question discussion + exam
12	**2 hrs. theory** **4hrs. practical**	Identify the Face, Muscles Blood & Nerve supply Lymphatic drainage scalp	Face, Muscles Blood & Nerve supply Lymphatic drainage scalp	Lecture+ lab	General question discussion + exam
13	**2 hrs. theory** **4hrs. practical**	Identify the Neck, surface anatomy Structural organization Fasciae of Neck Triangles & contents	Neck, surface anatomy Structural organization Fasciae of Neck Triangles & contents	Lecture+ lab	General question discussion + exam
14	**2 hrs. theory** **4hrs. practical**	Identify the Cranial Meninges Folds of dura mater venous sinuses	Cranial Meninges Folds of dura mater venous sinuses	Lecture+ lab	General question discussion + exam
15	**2 hrs. theory** **4hrs. practical**	Identify the Orbit Lacrimal apparatus	Orbit Lacrimal apparatus	Lecture+ lab	General question discussion + exam
The structure of the course for theoretical and practice anatomy / second academic level / the second course					
Week	**Hours**	**Required learning outcome**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	**2 hrs. theory** **4hrs. practical**	Identify the Temporal & infra temporal fossae Tempromandibular joint	Temporal & infra temporal fossae Tempromandibular joint	Lecture+ lab	General question discussion + exam

2	**2 hrs. theory** **4hrs. practical**	Identify the Root of Neck Thyroid & Parathyroid	The root of Neck Thyroid & Parathyroid	Lecture+ lab	General question discussion + exam
3	**2 hrs. theory** **4hrs. practical**	Identify the Cranial nerves Examination injuries	Cranial nerves Examination injuries	Lecture+ lab	General question discussion + exam
4	**2 hrs. theory** **4hrs. practical**	Identify the Lymphatic drainage Oral cavity, pharynx Larynx	Lymphatic drainage Oral cavity, pharynx Larynx	Lecture+ lab	General question discussion + exam
5	**2 hrs. theory** **4hrs. practical**	Identify the Nose, Pterygopalatine fossa ear	Nose, Pterygopalatine fossa ear	Lecture+ lab	General question discussion + exam
6	**2 hrs. theory** **4hrs. practical**	Identify the Cervical plexus Autonomic nerve supply head & neck	Cervical plexus Autonomic nerve supply head & neck	Lecture+ lab	General question discussion + exam
7	**2 hrs. theory** **4hrs. practical**	Identify the Introduction-CNS parts, Divisions, Components Functional	Introduction-CNS parts, Divisions, Components Functional	Lecture+ lab	General question discussion + exam
8	**2 hrs. theory** **4hrs. practical**	Identify the Blood supply of the brain & spinal cord Spinal cord	Blood supply of brain & spinal cord Spinal cord	Lecture+ lab	General question discussion + exam

9	**2 hrs. theory** **4hrs. practical**	Identify the Brain stem Cranial nerve nuclei	Brain stem Cranial nerve nuclei	Lecture+ lab	General question discussion + exam
10	**2 hrs. theory** **4hrs. practical**	Identify the Cerebellum Diencephalon mater Lateral ventricle	Cerebellum Diencephalon	Lecture+ lab	General question discussion + exam
11	**2 hrs. theory** **4hrs. practical**	Identify the Extropyramidal system Limbic system	Extropyramidal system Limbic system	Lecture+ lab	General question discussion + exam
12	**2 hrs. theory** **4hrs. practical**	Identify the Major pathways	Major pathways	Lecture+ lab	General question discussion + exam
13	**2 hrs. theory** **4hrs. practical**	Identify the C.S.F circulation, hydrocephalus	C.S.F circulation, hydrocephalus	Lecture+ lab	General question discussion + exam
14	**2 hrs. theory** **4hrs. practical**	Intracranial hemorrhages	Intracranial hemorrhages	Lecture+ lab	General question discussion + exam
15	**2 hrs. theory** **4hrs. practical**	Identify the Extropyramidal system Limbic system	Extropyramidal system Limbic system	Lecture+ lab	General question discussion + exam

11.Cours Evaluation
-Daily exams. -evaluation perform an action practical experiment in the laboratory. -Reports preparation -Mid-course exam. -final course exam.
12. Learning and Teaching Resources
Required textbooks (curricular book , if any) Clinical Anatomy For Medical Students, by Richard S. Snell, Williams and Wilkins Cunningham"s Manual Of Practical Anatomy, Three Volumes, By GJRomanes: Oxford.Medical.Publications
Main references (source) All human anatomy books and magazines
Recommended book and references (scientific journals , reports …….) All human anatomy books and magazines
Electronic References , Website https://themdjourney.com/20-for-books-physiology-and-anatomy-medicalstudents/#The_Anatomy_Coloring_Book

Course Description Form

1. Course Name:
HISTOLOGY / SECOND LEVEL
2. Course Code:
HIS 205
3. Semester / Year:
2023/2024 first semester + second semester
4. Description Preparation Date:
8/2/2024
5. Available Attendance Forms:
Mandatory attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
- 30 theoretical hours for each course, (2) hours per week - 30 practical hours for each course, 2 hours per week - Total number of units 6
7. Course administrator's name (mention all, if more than one name)
Name: Assist. Prof. Dr. Namir Fadel Ghaieb/ E m a i l : **nameer@uodiyala.edu.iq** Name: Lec. Mustafa AbdulKareem Salman / Email: salman@uodiyala.edu.iq Name: Lec. Hala Yassin Kadhim Email: hala@uodiyala.edu.iq Name: Assist Lec. Kholoud Adnan Abdullah/ Email: kholod@uodiyala.edu.iq ..... Name: Assist Lec. Reem Ali Mansour Email: reem@uodiyala.edu.iq
8. Course Objectives
1. Describe the structure of the human cell and its contents in the various organs of the human body. 2. Complete knowledge of the types of tissues that make up the body's organs, such as epithelial tissue, connective tissue (genuine connective tissue, bone and cartilage, in addition to blood), muscle tissue, and nervous tissue. 3. Complete knowledge of the components of blood tissue and bone marrow and how different cells are formed. 4. The ability to know the different immune cells and organs and means of defence etc. 5. Introducing the student to the histological structure of the various organs and systems of the body, including (Digestive system, central and peripheral nervous system, respiratory system, skin, urinary system, endocrine system, male reproductive system, female reproductive system, sensory system, and cardiovascular system)

9. Teaching and Learning Strategies	
Strategy	1. Theoretical lectures. 2. Recognizing and learning to see and diagnose the type of tissue under a microscope. 3. Teaching small groups. 4. Field visits for educational laboratories in the Hospitals and health centers. 5. View educational videos and images for clinical related cases Tissues and their types to know the details of tissue structures and their functions.

10. Course Structure **The structure of the course for theoretical and practice Histology /second academic level / the first course**

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	**2 hrs. theory** **2hrs. practical**	Microscopy & their types. Primary tissue & their role in formation of tissue.	Introduction to the histology	Lecture+ lab	General question discussion + exam
2	**2 hrs. theory** **2hrs. practical**	Teaching the student what is the meaning of tissue and its forms ,the cells which covered the body from outside and lining from inside .	Epithelial tissue	Lecture+ lab	General question discussion + exam
3	**2 hrs. theory** **2hrs. practical**	Modification unit for epithelial tissue. Exocrine glands & their classification.	Epithelial gland.	Lecture+ lab	General question discussion + exam
4	**2 hrs. theory** **2hrs. practical**	Identify the tissue which connect the tissue together and its types	Connective tissue	Lecture+ lab	General question discussion + exam

5	**2 hrs. theory** **2hrs. practical**	Identify the cells & fibers and its types	Cells of connective tissue	Lecture+ lab	General question discussion + exam
6	**2 hrs. theory** **2hrs. practical**	Identify the adipose cell and recognize it from other cell types	Adipose tissue	Lecture+ lab	General question discussion + exam
7	**2 hrs. theory** **2hrs. practical**	Identify the types of cartilage and its distribution in the body	Cartilage	Lecture+ lab	General question discussion + exam
8	**2 hrs. theory** **2hrs. practical**	Identify the bone tissue and its types	Bone	Lecture+ lab	General question discussion + exam
9	**2 hrs. theory** **2hrs. practical**	The central & peripheral nerves system	Nervous system	Lecture+ lab	General question discussion + exam
10	**2 hrs. theory** **2hrs. practical**	Identify the nervous tissue and its types and explains the nervous impulse reach to rest body	Nerve tissue	Lecture+ lab	General question discussion + exam
11	**2 hrs. theory** **2hrs. practical**	Identify the types of muscles and differences between them as longitudinal and transverse section	Muscle tissue	Lecture+ lab	General question discussion + exam

12	**2 hrs. theory** **2hrs. practical**	Identify the blood vascular system and its main function and	Circulatory system I	Lecture+ lab	General question discussion + exam
13	**2 hrs. theory** **2hrs. practical**	The types of artery and vein.	Circulatory system II	Lecture+ lab	General question discussion + exam
14	**2 hrs. theory** **2hrs. practical**	Identify the types, shape and function of blood cells and the number of each type.	Blood cell	Lecture+ lab	General question discussion + exam
15	**2 hrs. theory** **2hrs. practical**	Identify the way of derived of the blood cell from stem cell and differentiate of a blood cell .	hematopoiesis	Lecture+ lab	General question discussion + exam
The structure of the course for theoretical and practice Histology / second academic level / the second course					
Week	**Hours**	**Required learning outcome**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	**2 hrs. theory** **2hrs. practical**	Identify the lymphoid organ and tissue responsible for immunity of the body	Lymphoid organ	Lecture+ lab	General question discussion + exam
2	**2 hrs. theory** **2hrs. practical**	Identify the digestive system and explain the digest and absorb in the organ of this system	Digestive system I	Lecture+ lab	General question discussion + exam

3	**2 hrs. theory** **2hrs. practical**	Digestive Tract; General structure, the oral cavity and tongue. Pharynx and esophagus	Digestive system II	Lecture+ lab	General question discussion + exam
4	**2 hrs. theory** **2hrs. practical**	Stomach and Small intestine Large intestine & appendix	Digestive system III	Lecture+ lab	General question discussion + exam
5	**2 hrs. theory** **2hrs. practical**	Identify the organs which associated with digestive tract	Organs associated with digestive tract	Lecture+ lab	General question discussion + exam
6	**2 hrs. theory** **2hrs. practical**	Identify the parts of the respiratory system	The respiratory system I	Lecture+ lab	General question discussion + exam
7	**2 hrs. theory** **2hrs. practical**	Respiratory System; Nasal cavity, larynx and trachea.	The respiratory system II	Lecture+ lab	General question discussion + exam
8	**2 hrs. theory** **2hrs. practical**	Respiratory System The Lung Bronchial tree.	The respiratory system III	Lecture+ lab	General question discussion + exam
9	**2 hrs. theory** **2hrs. practical**	Identify the layers of the skin and the glands, hair and , nail	Skin	Lecture+ lab	General question discussion + exam

10	**2 hrs. theory** **2hrs. practical**	Identify The Urinary System The Kidney and blood supply.	The Urinary System I	Lecture+ lab	General question discussion + exam
11	**2 hrs. theory** **2hrs. practical**	Identify nephrons Ureter, urinary bladder, urethra	The Urinary System II	Lecture+ lab	General question discussion + exam
12	**2 hrs. theory** **2hrs. practical**	Identify the glands and its structure	Endocrine glands	Lecture+ lab	General question discussion + exam
13	**2 hrs. theory** **2hrs. practical**	Identify the parts of the male reproductive and their structure	Male reproduction	Lecture+ lab	General question discussion + exam
14	**2 hrs. theory** **2hrs. practical**	Identify the parts of the female reproductive and its structure	Female reproductive	Lecture+ lab	General question discussion + exam
15	**2 hrs. theory** **2hrs. practical**	Identify the ear and the eye	Photoreceptors and audio receptors	Lecture+ lab	General question discussion + exam

11.Cours Evaluation
-Daily exams. -evaluation perform an action practical experiment in the laboratory. -Reports preparation -Mid-course exam. -final course exam.
12. Learning and Teaching Resources
Required textbooks (curricular book , if any) Human Anatomy and cell physiology by Mcgraw hill 17th ed.
Main references (source) All human histology books and magazines
Recommended book and references (scientific journals , reports …….) All human histology books and magazines
Electronic References , Website **https://themdjourney.com/20-best-histology-and-physiology-books-for-medical-students/#The_Anatomy_Coloring_Book**

Course Description Form

1. Course Name:
EMBRYOLOGY / SECOND LEVEL
2. Course Code:
EMB206
3. Semester / Year:
2023/2024 first semester + second semester
4. Description Preparation Date:
8/2/2024
5. Available Attendance Forms:
Mandatory attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
- 15 theoretical hours for each course, (1) hours per week - There is no practical or Lab. - Total number of units 2
7. Course administrator's name (mention all, if more than one name)
Name: Assist. Prof. Dr. Namir Fadel Ghaieb/ E m a i l : **nameer@uodiyala.edu.iq** Name: Assist. Lec. Reham Saad Email: reham@uodiyala.edu.iq .....
8. Course Objectives
- **Providing the student with sufficient information about the human structure of the male and female reproductive system.** - **Complete knowledge of the changes that take place in the ovary and uterus, the process of fertilization, sex determination, the division of the fertilized egg, and the process of its implantation in the uterus.** - **knowledge the formation of various types of cells and organs and the change in the external appearance of the fetus as it ages** - **Extensive knowledge of the formation of the placenta, the umbilical cord, all fetal membranes, the formation of twins, and birth defects** - **Providing the student with good knowledge about the structure of the various systems of the human body.** - **Introducing the student to the possible fetal malformations of each of the different body systems.**

9. Teaching and Learning Strategies	
Strategy	• **Theoretical lectures.** • **Teaching small groups by making seminars related to the topics.** • **Show educational videos and pictures of types of embryos**

10. Course Structure **The structure of the course for theoretical and practice Embryology /second academic level / the first course**

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 hr. theory	Teaching the student what is the meaning of embryology	Introduction to embryology	Lecture	General question discussion + exam
2	1 hr. theory	Teaching the student what is the meaning of molecular regulation signaling.	molecular regulation signaling	Lecture	General question discussion + exam
3	1 hr. theory	Identify Gametogenesis	Gametogenesis	Lecture	General question discussion + exam
4	1 hr. theory	Identify Gametogenesis conversion of germ cell into male	conversion of germ cell into male	Lecture	General question discussion + exam
5	1 hr. theory	Identify male gametes	male gametes	Lecture	General question discussion + exam

6	1 hr. theory	Identify Gametogenesis conversion of germ cell into female	conversion of germ cell into female	Lecture	General question discussion + exam
7	1 hr. theory	Identify female gametes	female gametes	Lecture	General question discussion + exam
8	1 hr. theory	Identify the First week to development: Ovulation	First week to development to Ovulation	Lecture	General question discussion + exam
9	1 hr. theory	Identify Fertilization	Fertilization	Lecture	General question discussion + exam
10	1 hr. theory	Identify implantation	Implantation	Lecture	General question discussion + exam
11	1 hr. theory	Identify Cleavage zygote	Cleavage zygote	Lecture	General question discussion + exam
12	1 hr. theory	Identify First week to development :Ovulation to implantation	First week to development: Ovulation to implantation	Lecture	General question discussion + exam

13	1 hr. theory	Identify Second week of development Bilaminar germ disc	The second week of development Bilaminar germ disc	Lecture	General question discussion + exam
14	1 hr. theory	Identify Third week of development :Trilaminar germ disc	Third week of development: Trilaminar germ disc	Lecture	General question discussion + exam
15	1 hr. theory	Identify the Third to eighth week the embryonic period	Third to eighth week the embryonic period	Lecture	General question discussion + exam
The structure of the course for theoretical and practice Embryology / second academic level / the second course					
Week	**Hours**	**Required learning outcome**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1 hr. theory	Identify embryo from the 4th-8th weeks.	embryo from the 4th-8th weeks.	Lecture	General question discussion + exam
2	1 hr. theory	Identify The human fetus. And fetal membranes.	The human fetus. And fetal membranes.	Lecture	General question discussion + exam
3	1 hr. theory	Identify and transverse section of The gut tube	The gut tube	Lecture	General question discussion + exam

4	1 hr. theory	Identify and transverse sections of the body cavities	the body cavities	Lecture	General question discussion + exam
5	1 hr. theory	Identify the Third month to birth	Third month to birth	Lecture	General question discussion + exam
6	1 hr. theory	Identify placenta	Placenta	Lecture	General question discussion + exam
7	1 hr. theory	Identify Somitogenesis	Somitogenesis	Lecture	General question discussion + exam
8	1 hr. theory	Identify Myogenesis	Myogenesis	Lecture	General question discussion + exam
9	1 hr. theory	Identify Scheduled examination. Of embryo	Scheduled examination.	Lecture	General question discussion + exam
10	1 hr. theory	Identify the fetus	the fetus	Lecture	General question discussion + exam

11	1 hr. theory	Identify Teratology.	Teratology The	Lecture	General question discussion + exam
12	1 hr. theory	Identify The birth defects	birth defects.	Lecture	General question discussion + exam
13	1 hr. theory	Identify the Birth defects and prenatal diagnosis	prenatal diagnosis	Lecture	General question discussion + exam
14	1 hr. theory	Identify the Birth defects and Postnatal diagnosis	Postnatal diagnosis	Lecture	General question discussion + exam
15	1 hr. theory	Exam	exam	Lecture	General question discussion + exam

11.Cours Evaluation
-Daily exams. -evaluation perform an action practical experiment in the laboratory. -Reports preparation -Mid-course exam. -final course exam.
12. Learning and Teaching Resources
Required textbooks (curricular book , if any) Medical Embryology
Color Atlas of Embryology. Drews 1995.
Recommended book and references (scientific journals , reports …….) All human embryology books and magazines
Electronic References , Website https://themdjourney.com/20-medical-for-books-emberyologystudents/#The_Anatomy_

Course Description Form

1. Course Name:
Medical Biology / FIRST LEVEL
2. Course Code:
BIO204
3. Semester / Year:
2023/2024 first semester + second semester
4. Description Preparation Date:
8/2/2024
5. Available Attendance Forms:
Mandatory attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
- 30 theoretical hours for each course, (2) hours per week - 30 practical hours for each course, (2) hours per week - Total number of units 6
7. Course administrator's name (mention all, if more than one name)
Name: Prof. Dr. Shukur Mahmood Yasin / E m a i l : **shukur@uodiyala.edu.iq** Name: Lec. Mustafa AbdulKareem Salman / Email: salman@uodiyala.edu.iq Name: Assist Lec. Zynab Jasim / Email: zynab@uodiyala.edu.iq .....
8. Course Objectives
1. Providing students with specialized scientific skills and concepts related to the study of medical biology and its importance in diagnosis and treatment. 2. Understanding and studying the precise structure of human cells, their various components, shapes, and functions, the methods of transporting ions across the plasma membrane, the chemical composition of cells, and studying the various cellular organelles, their structures, and functions. 3. Linking scientific concepts to diseases caused by dysfunction of cellular organelles found inside living cells and studying them extensively to highlight the role of organelles in the life and vitality of cells. 4. Studying the methods of division of living cells to enrich the student with concepts in cell division, studying the nature of chromosomes and how to control the regularity of those divisions, studying control points and how errors occur in division that lead to the formation of tumors. 5. Understanding and studying the structure of DNADNA and RNA, and the study of genetic genes, the mutations occurring in them, the resulting genetic diseases, and the mechanisms of self-correction of errors. 6. Study modern methods of diagnosis and follow-up of diseases to provide

the student with important information such as PCR, ELISA, gel electrophoresis.

9. Teaching and Learning Strategies

Strategy	• **Theoretical lectures.** • **Teaching small groups by making seminars related to the topics.** • **Show educational videos and pictures related to the parts of the cell and how they divide**

10. Course Structure **The structure of the course for theoretical and practice Medical Biology /First academic level / the first course**

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	**2 hrs. theory** **2hrs. practical**	Introduction & Definitions	Cells make up living things	Lecture+ lab	General question discussion + exam
2	**2 hrs. theory** **2hrs. practical**	Data Collection	Cells make up living things	Lecture+ lab	General question discussion + exam
3	**2 hrs. theory** **2hrs. practical**	Sampling Methods	Cells make up living things	Lecture+ lab	General question discussion + exam
4	**2 hrs. theory** **2hrs. practical**	Data Presentation	Cells make up living things	Lecture+ lab	General question discussion + exam

5	**2 hrs. theory** **2hrs. practical**	Measurements of Central Tendency	Membrane models Have Changed	Lecture+ lab	General question discussion + exam
6	**2 hrs. theory** **2hrs. practical**	Measurements of Variability	Membrane models Have Changed	Lecture+ lab	General question discussion + exam
7	**2 hrs. theory** **2hrs. practical**	Range & Variance	Membrane models Have Changed	Lecture+ lab	General question discussion + exam
8	**2 hrs. theory** **2hrs. practical**	Standard Deviation & Coefficient of variation	Membrane models Have Changed	Lecture+ lab	General question discussion + exam
9	**2 hrs. theory** **2hrs. practical**	Probability (Part 1)	Energy	Lecture+ lab	General question discussion + exam
10	**2 hrs. theory** **2hrs. practical**	Probability (Part 2)	Energy	Lecture+ lab	General question discussion + exam
11	**2 hrs. theory** **2hrs. practical**	Student's t-Test	Energy	Lecture+ lab	General question discussion + exam

12	**2 hrs. theory** **2hrs. practical**	Chi-square Test (Part 1)	Energy	Lecture+ lab	General question discussion + exam
13	**2 hrs. theory** **2hrs. practical**	Chi-square Test (Part 2)	How Cells Acquired ATP	Lecture+ lab	General question discussion + exam
14	**2 hrs. theory** **2hrs. practical**	Correlation & Regression (Part 1)	How Cells Acquired ATP	Lecture+ lab	General question discussion + exam
15	**2 hrs. theory** **2hrs. practical**	Correlation & Regression (Part 2)	How Cells Acquired ATP	Lecture+ lab	General question discussion + exam

The structure of the course for theoretical and practice Medical Biology / FIRST academic level / the second course

Week	Hours	Required learning outcome	Unit or subject name	Learning method	Evaluation method
1	**2 hrs. theory** **2hrs. practical**	Introduction & Definitions	Cells Divisions	Lecture+ lab	General question discussion + exam
2	**2 hrs. theory** **2hrs. practical**	Data Collection	Cells Divisions	Lecture+ lab	General question discussion + exam

3	**2 hrs. theory** **2hrs. practical**	Sampling Methods	Cells have a chromosome	Lecture+ lab	General question discussion + exam
4	**2 hrs. theory** **2hrs. practical**	Data Presentation	Cells have a chromosome	Lecture+ lab	General question discussion + exam
5	**2 hrs. theory** **2hrs. practical**	Measurements of Central Tendency	Cells have a chromosome	Lecture+ lab	General question discussion + exam
6	**2 hrs. theory** **2hrs. practical**	Measurements of Variability	Introducing Gregor Mendel	Lecture+ lab	General question discussion + exam
7	**2 hrs. theory** **2hrs. practical**	Range & Variance	Introducing Gregor Mendel	Lecture+ lab	General question discussion + exam
8	**2 hrs. theory** **2hrs. practical**	Standard Deviation &	Introducing Gregor mendl	Lecture+ lab	General question discussion + exam
9	**2 hrs. theory** **2hrs. practical**	Probability (Part 1)	Chromosomes and genes	Lecture+ lab	General question discussion + exam

10	**2 hrs. theory** **2hrs. practical**	Probability (Part 2)	Chromosomes and genes	Lecture+ lab	General question discussion + exam
11	**2 hrs. theory** **2hrs. practical**	Student's t-Test	Considering the Chromosomes	Lecture+ lab	General question discussion + exam
12	**2 hrs. theory** **2hrs. practical**	Chi-square Test (Part 1)	Considering the Chromosomes	Lecture+ lab	General question discussion + exam
13	**2 hrs. theory** **2hrs. practical**	Chi-square Test (Part 2)	Searching for the Genetic Material	Lecture+ lab	General question discussion + exam
14	**2 hrs. theory** **2hrs. practical**	Correlation & Regression (Part 1)	Searching for the Genetic Material	Lecture+ lab	General question discussion + exam
15	**2 hrs. theory** **2hrs. practical**	Correlation & Regression (Part 2)	What Genes Do	Lecture+ lab	General question discussion + exam

11.Cours Evaluation
-Daily exams. -evaluation perform an action practical experiment in the laboratory. -Reports preparation -Mid-course exam. -final course exam.
12. Learning and Teaching Resources
Required textbooks (curricular book , if any) Medical biology by Sylvia Madar
Main references (source) Human Anatomy and Cell physiology by Mc graw bill 17th ed
Recommended book and references (scientific journals , reports …….) Developmental Biology. Gilbert 2003-2006
Electronic References , Website **https://themdjourney.com/20-medical-for-books-biologystudents/#The_Anatomy_Coloring_Book**