



**Ministry of Higher Education and Scientific Research
Apparatus for Supervision and Scientific Evaluation**



**Warith Al-Anbiyaa University (AS)
College of Medicine**

Academic Program Description Form for Institutes and Colleges 2026-2027

Course Syllabus

Academic Program Description Form

University Name: Warith Al-Anbiyaa University

College/Institute: College of Medicine — Warith Al-Anbiyaa University (AS)

Scientific Department: College of Medicine

Academic or Professional Program Name: Unit one

Final Certificate Name: Bachelor of Medicine and Surgery (M.B.Ch.B)

Study System: Annual

Date of Preparing the Description: 5 September 2026

Date of Filling the Form: 5 September 2026

Signature:



Head of Department Name: Dr. Riadh Abdulrasool Hameed Hnewa

Date:

Signature:



Scientific Assistant Name: Dr. Ali Abulrida Algourah

Date:

Reviewed by

Quality Assurance and University Performance Division

Name of Director of Quality Assurance and University Performance Division:

Dr. Ayad Ali Sahib Al Mousawi

Date:

14.9.2026

Signature:



Approved by the Dean

prof. Ali A. Saadoun



13/09/2026
Ayad

Course Description Form

1. Course Title
Unit one
2. Course Code
Medu108
3. Semester / Academic Year
Annual
4. Date This Description Was Prepared
5 September 2026
5. Available Modes of Attendance
In-person and online
6. Total Credit Hours / Total Units
60 theoretical hours + 60 practical hours (6 units)
7. Course Coordinator(s), if more than one
Name: Dr. Riadh Abdulrasool Hameed Hnewa Email: riadh.ab@uowa.edu.iq

1. Course Objectives
<p>Course Objectives</p> <ul style="list-style-type: none"> ● Understand the basic principles of biology: Enable students to comprehend the biological foundations of life, including cell structure, organelle functions, and cell types. ● Identify the molecular structure of cells: Explain the components of a human cell, including proteins, carbohydrates, lipids, and nucleic acids, and their importance in cellular function. ● Explain the mechanisms of cell division: Understand the difference between mitosis and meiosis, and their roles in growth, reproduction, and genetic diversity. ● Understand basic genetic concepts: Introduce students to the principles of heredity, genes, mutations, and their relationship to genetic diseases in humans. ● Explain basic biological processes: such as cellular respiration, photosynthesis (for comparison), protein synthesis, and their role in cellular function. ● Understand homeostasis: Introduce students to the mechanisms for maintaining a stable internal environment in the body.

2. Teaching and Learning Strategies

Strategy

3. Course Structure

Cell Structure and Function 10 h

- 1.What Is a Cell?
- 2.How Cells Are Organized
- 3.The Plasma Membrane and How Substances Cross It
- 4.The Nucleus and Endomembrane System
- 5.The Cytoskeleton, Cell Movement, and Cell Junctions

Laboratory

Identify the different types of tissues (slides ,videos)

Pharmacology/Theory 12 h

Introduction to Pharmacology
 The cell as a target for drug action
 Pharmacodynamics (molecular targets)
 Pharmacodynamics (drug response)
 Drug-drug interaction
 Pharmacokinetics: Drug administration
 Pharmacokinetics: Drug absorption and bioavailability
 Pharmacokinetics: Drug distribution
 Pharmacokinetics: Drug elimination and excretion

Laboratory

Identify the different types of drug (slides ,videos)

General Embryology 12 h

Mitosis and meiosis
 Chromosomal abnormalities
 gametogenesis
 spermatogenesis
 oogenesis
 Female reproductive cycles
 ovulation
Events of 1st week:
 Fertilization
 Cleavage of zygote implantation
 decidua
Events of 2nd week
 Formation of Bilaminar embryonic disc Formation of extra- embryonic mesodermDevelopment of chorionic villi
 Development of placenta
Events of 3rd week
 Formation of trilaminar embryonic discFormation of notochord
 The intraembryonic mesoderm Development of

	a nervous system Folding of the embryonic disc Derivatives of germ layers Fetal membranes and twins Birth defects	
	Cardiovascular System: HEART 4h 1. Overview of the Cardiovascular System 2. The Types of Blood Vessels 3. The Heart Is a Double Pump 4. Features of the Cardiovascular System 5. Two Cardiovascular Pathways	
	Laboratory 2h -Identification of major heart components	
	Cardiovascular System: Blood 4h 1. Blood 2. Red Blood Cells and Transport of Oxygen 3. White Blood Cells and Defence Against Disease 4. Platelets and Blood Clotting 5. Blood Typing and Transfusions 6. Homeostasis	
	Laboratory 2h -Identification of major blood cell components	
	SECOND SEMESTER	
	Skeletal System 8 h 1. Overview of Skeletal System 2. Bone Growth, Remodelling, and Repair 3. Bones of the Axial Skeleton 4. Bones of the Appendicular Skeleton 5. Articulations Laboratory Anatomy Lab. (Skeletal System)	
	Muscular System 8 h 1. Overview of the Muscular System 2. Skeletal Muscle Fiber Contraction 3. Whole Muscle Contraction 4. Muscular Disorders 5. Homeostasis Laboratory Anatomy Lab. (Muscular System)	
	Digestive System and Nutrition 4h 1. Overview of Digestion 2. First Part of the Digestive Tract 3. The Stomach and Small Intestine 4. The Accessory Organs and Regulation of Secretions 5. The Large Intestine and Defecation 6. Nutrition and Weight Control laboratory -Basic anatomy of G.I.T	

Respiratory System 4h

- 1.The Respiratory System
- 2.The Upper Respiratory Tract
- 3.The Lower Respiratory Tract
- 4.Mechanism of Breathing
- 5.Control of Ventilation
- 6.Gas Exchanges in the Body
- 7.Respiration and Health

Laboratory

Basic anatomy and physiology of respiratory system

Urinary System 4 h

- 1.The Urinary System
- 2.Kidney Structure
- 3.Urine Formation
- 4.Kidneys and Homeostasis
- 5.Kidney Function Disorders

Laboratory

- Understanding the basic anatomy of urinary system
- Urine Analysis

Nervous System 4 h

- 1.Overview of the Nervous System
- 2.The Central Nervous System
- 3.The Limbic System and Higher Mental Functions
- 4.The Peripheral Nervous System

Laboratory

Nerve conduction studies (tutor- Lab)

Senses 4 h

- 1.Overview of Sensory Receptors and Sensations
- 2.Proprioceptors, Cutaneous Receptors, and Pain Receptors
- 3.Senses of Taste and Smell
- 4.Sense of Vision
- 5.Sense of Hearing
- 6.Sense of Equilibrium

Laboratory

Examination of special sense (vision, hearing and taste)

Endocrine System 4 h

- 1.Endocrine Glands
- 2.Hypothalamus and Pituitary Gland
- 3.Thyroid and Parathyroid Glands
- 4.Adrenal Glands
- 5.Pancreas
- 6.Other Endocrine Glands
- 7.Homeostasis

Laboratory

Determination of hormones in biological samples(biochemical tests)

Reproductive System 4 h

1. Human Life Cycle
2. Male Reproductive System
3. Female Reproductive System
4. The Ovarian Cycle
5. Control of Reproduction
6. Sexually Transmitted Diseases

	Laboratory Identify the basic anatomy of male and female reproductive systems		
	Cancer4 h 1.Cancer Cells 2.Causes and Prevention of Cancer 3.Diagnosis of Cancer 4.Treatment of Cancer		
	Laboratory Identify the histopathology of malignant cells		

4. Course Evaluation

Distribution of Marks:

1. **Coursework mark: 40%**, distributed as follows:
 - First semester: 10%
 - Theory: 5%
 - Practical: 5%
 - Mid-year examination: 20%
 - Theory: 18%
 - Practical: 2%
 - Second semester: 10%
 - Theory: 5%
 - Practical: 5%
2. **Final examination: 60%**
 - Theory: 40%
 - Practical: 20%

Assessment Methods:

1. Written examinations: monthly, mid-year, and final examinations.
2. Short quizzes.
3. Practical examination using OSPE:
 - Oral examination
 - Skills examination
 - Assessment of practical knowledge

5. Learning and Teaching Resources

Required textbooks (curricular books, if any)

Main references (sources)

12. Teaching and Learning Resources

1. Approved Textbooks

These books are approved by the college and cover the official courses:

Human Biology by Sylvia Mader & Michael Windelspecht

A comprehensive and simplified textbook suitable for beginners in medicine.

Human Anatomy & Physiology by Elaine N. Marieb & Katja Hoehn

Covers anatomical and physiological aspects in clear and illustrated detail.

Electronic References, Websites Essential Cell Biology by Alberts et al.

Important for understanding cell structure and function and the principles of molecular biology.

Biology by Campbell & Reece

A global reference covering all aspects of biology in a detailed scientific manner.

2. Lectures and University Notes

Lecture notes given by professors.

Notes distributed by the academic department.

PowerPoint slides approved during lectures.

3. Educational Videos and Online Platforms

Khan Academy (simplified English explanations of cell, genetics, and biological systems).

Lecturio and Osmosis (suitable for medical students, offering customized content).

YouTube channels such as Armando Hasudungan and Crash Course Biology.

4. Models and Practical Labs

Anatomical models in the biology lab.

Microscope slides for teaching cells and tissues.

Interactive tools for illustrating biological functions.

A collection of reliable scientific journals that students can refer to in the field of human biology:

1. Nature Reviews Molecular Cell Biology

Link: <https://www.nature.com/nrm>

A prestigious journal that publishes reviews in molecular and cell biology.

Useful for understanding recent developments in human biology at the cellular level.

2. The Journal of Human Biology (Wiley)

Link: <https://onlinelibrary.wiley.com/journal/15206300>

Focuses on evolution, genetics, and human biodiversity.

Suitable for medical students interested in the evolutionary and functional aspects of humans.

3. Cell

Link: [<https://www.cell.com/>

Nature (<https://www.nature.com/nrm/>)

Nature Reviews Molecular Cell Biology

Nature Reviews Molecular Cell Biology is the leading monthly review journal in the field of molecular and biology. With its extraordinary breadth and...

Websites recommended for first-year medical students studying human biology, which are useful for simplifying information and enhancing understanding:

1. Khan Academy (<https://www.khanacademy.org/science/biology>)

A free website that offers simplified video explanations.

It contains units on: cells, genetics, physiology, and tissues.

Excellent for establishing understanding, especially for new students.

2. Osmosis (<https://www.osmosis.org/>)

An educational platform for medical students, supported by explanatory videos and animations.

It covers topics in human biology, anatomy, and physiology.

You need a subscription, but some content is free.

3. Lecturio (<https://www.lecturio.com/medical-courses/human-biology.course>)

Professional educational content designed for medical students.

Includes videos, interactive questions, and review of biology and medical topics.

Requires registration; trial version available.

4. Crash Course Biology (<https://www.youtube.com/playlist?list=PL3EED4C1D684D3ADF>)

A YouTube channel affiliated with Crash Course.

A series of engaging and quick videos on biology principles.

A fun and easy-to-understand approach, ideal for revision.

5. Visible Body (<https://www.visiblebody.com/>)

A platform that provides interactive 3D models of the human body.

Useful for understanding organs, tissues, and biological functions.

A subscription is required, but some tools are free.

6. BioNinja (for general revision) (<https://www.ib.bioninja.com.au/>)

Designed for IB students, but useful for beginning medical students.

Includes easy-to-understand illustrations and diagrams in cell and molecular biology.

7. InnerBody (<https://www.innerbody.com/>)

An interactive website that showcases human anatomy.

Suitable for strengthening the visual aspect of understanding the structure and function of organs.

Would you like Arabic-language websites as well? I can recommend some reliable Arabic educational channels and resources if you'd like.

Osmosis (<https://www.osmosis.org/>)

Osmosis – Learning Medicine Made Simple – Powerful learning platform

Learn visually with Osmosis – the all-in-one platform for medical, nursing, and health students & professionals to think clinically and excel.

