Course description form

Teacher name: Dr. hamid Al-Timimi

This course description provides a succinct summary of the most important course characteristics and the learning outcomes that students are expected to achieve and the available learning evidence. It must be linked to a description of whether the program has made the most of its opportunities

-Educational institution**1**	-Al-Zahraa Private University for women
2-Scientific department/center	College of Health and Medical Technologies – Department of Physiotherapy
-Course name/code3	Biomechanics
-Available attendance forms4	Official studying hours
4-Semester/year	**First semester"**
-Number of study hours (total)**5**	60 hours
6-Date this description was prepared	٢٠٢٥-٣-١٥
Course objectives	
1.General: Knowing the types and analysis of movement in the human body. .	
2. Special: 1 - Definition of the natural laws affecting the movement of the human body. 2 - Defining the factors that help analyze the movement of the human body. 3 - Identify the deficiency or defect in the body's movement and how to return it to a normal state.	

10-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives

Enabling students to obtain knowledge of biomechanics.
A2- Enabling students to obtain knowledge in the laws of biomechanics and apply them in the sports field.
A3- Enabling students to obtain knowledge of human motor analysis

B - The skills objectives of the course.
1 - Students acquire knowledge of biomechanics.
B2 - Students gain the ability to employ the laws of biomechanics in therapeutic exercises.
B3 - Gaining the ability to apply the laws of biomechanics.
B4 - Giving students the skill of kinetic analysis of the human body.

C-Teaching and learning methods
-
There is a group of printed lectures where the scientific material is discussed and important notes are made
Additional clarifications

Evaluation methods
-Participation in the classroom
2-Evaluating activities within scientific laboratories

Teaching and learning methods
Conducting the lecture theoretically with the application of clinical and practical tests
Conducting some daily tests and assigning students to weekly research sessions
Allocate a percentage of the grade to daily assignments and tests

Evaluation methods
Evaluating students' active participation during the lesson
- Commitment to the lecture date and not being absent
-Commitment to submitting assignments and research

Semester and final exams express the extent of commitment and academic achievement

11- structure of the course/syllabus

The week	Hours	Required learning outcomes	Name of the unit/topic	Teaching method	Evaluation method
1st	**2**	Biomechanics	Biomechanics	Theoretical	Quiz+ Discussion
2nd	**2**	Basic Concepts in Biomechanics	Kinematics and Kinetics (Types of Motion, Location of Motion, Direction of Motion, Magnitude of Motion, Definition of Forces, Force of Gravity.	Theoretical	Quiz+ Discussion
3rd	**2**	Basic Concepts in Biomechanics	Kinematics and Kinetics (Reaction forces, Equilibrium, Objects in Motion, Force of friction, Concurrent force systems, Parallel force systems, Work	Theoretical	Quiz+ Discussion
4th	**2**	Muscle structure and function	Mobility and stability functions of muscles, Elements of muscle structure, Muscle function, Effects of immobilization,	Theoretical	Quiz+ Discussion

			and aging		
5th	**2**	Levers	Definition, function, classification and application of levers in physiotherapy & order of levers with example of lever in human body	Theoretical	Quiz+ Discussion
6th	**2**	Elasticity	Definition, stress, strain, HOOKE'S Law	Theoretical	Quiz+ Discussion
7th	**2**	Muscular System	Definition , properties of muscle, muscular contraction, structural classification, action of muscle in moving bone, direction of pull, angle of pull, functional classification, coordination of muscular system	Theoretical	Quiz+ Discussion
8th	**2**	Muscular System	Definition , properties of muscle, muscular contraction, structural classification, action of muscle in moving bone, direction of pull, angle of pull, functional classification, coordination of muscular system	Theoretical	Quiz+ Discussion
9th	**2**	Joint	Describe the basic	Theoretical	Quiz+

		Structure and Function	principles of joint design and a human joint, Describe the tissues present in human joints, including dense fibrous tissue, bone, cartilage and connective tissues		Discussion
10th	**2**	Joint Structure and Function	Describe the basic principles of joint design and a human joint, Describe the tissues present in human joints, including dense fibrous tissue, bone, cartilage and connective tissues	Theoretical	Quiz+ Discussion
11th	**2**	Joint Structure and Function	Classify joints: Synarthrosis, amphiarthrosis, diarthrosis, sub classification of synovial joints	Theoretical	Quiz+ Discussion
12th	**2**	Joint Structure and Function	Describe joint functions, kinematics, range of motion, Describe the general effects of injury and disease	Theoretical	Quiz+ Discussion
13th	**2**	Posture	Posture- dynamic and static posture,kinetic and kinematics ,range of motion ,describe the general of age, pregnancy, occupation on posture	Theoretical	Quiz+ Discussion

14th	**2**	Gait	Gait- kinematics and kinetics of gait in running and stair climbing	Theoretical	Quiz+ Discussion
15th	**2**	**Revision**	**Revision**	Theoretical	Review/

Infrastructure	
- 1-Required prescribed books	Various sources
2-Main references (sources)	**1. Clinical Kinesiology for Physical Therapist Assistants by Lippert** **2. Applied Kinesiology: A Training Manual and Reference Book of Basic Principles and Practices by Robert Frost (Mar 28, 2002)** **3. Kinesiology: The Mechanics and Pathomechanics of Human Movement by Carol A. Oatis** **4. Kinesiology by K. Wells; Sauder's Publications.** **5. Basic Biomechanics of the Musculoskeletal System by Margareta Nordin and Victor H. Frankel**
3-Recommended books and references (scientific journals, reports,...)	Open
4-Electronic references, Internet sites	Open

Course development plan
Using modern methods

Course description form

Course name: Clinical Biochemistry

characteristics This description provides a summary of the most important course achieve- and the learning outcomes that the student is required to

١-Educational institution	Al-Zahraa Private University - for women
2-Scientific department/center	College of Health and Medical Technologies – Department of Physiotherapy
٣-Course name/code	**Clinical Biochemistry**
٤-Available attendance forms	Official studying hours
4-Semester/year	"**First stage of the first course**"
٥-Number of study hours (total)	٤٨ hours
6-Date this description was prepared	٢٠٢٥/٣/١٥/
Course objectives	
Course objectives concepts of vital interactions within the body and explaining t Studying the basic to the field of physical therapy relationship	
2. Special: health and disease that forms the basis An introduction to the biochemistry related to emphasis on the molecular level of modern medical practice with an	

molecular structure of the basic components in the human body such as Study the Explaining the importance of the balance between .protein, carbohydrates, and fats their relationship to various diseases such as obesity, these components and .endocrine disorders thinness, and
.trace types of vitamins and explaining their role in health and disease Studying main paths of biosynthesis processes, the steps involved in these paths, Describe the .their enzymatic regulation and
imbalance that occurs in the main metabolic pathways and its Studying the atherosclerosis, strokes, and diabetes relationship to
.

10-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives
components in the human body Identify the molecular structure of the basic and know the metabolic pathways

.B - The skills objectives of the course

- Skills of knowledge and remembering
- specific problem The ability to think about solving a -
-Writing scientific reports
Analytical skills- -

C-Teaching and learning methods
-
lectures where the scientific material is discussed and There is a group of printed made important notes are
Additional clarifications

Evaluation methods
Participation in the classroom-
Evaluating activities within scientific laboratories

Emotional and value goalsC- - completing assignments and submitting Developing the student's ability to work by them on time the student's ability to dialogue, research and discuss Developing
Teaching and learning methods applicatio nConducting the lecture theoretically with the assigning students to weekly research sessions Conducting some daily tests and
Evaluation methods lesson Evaluating students' active participation during the absent Commitment to the lecture date and not being - research Commitment to submitting assignments and- of commitment and academic Semester and final exams express the extent achievement

11- structure of the course/syllabus

The week	Hours	Required learning outcomes	Name of the unit/topic	Teaching method	Evaluation method
1st	٤		**CELL:** Introduction to Biochemistry**,** Cell: (Biochemical Aspects)**,** Cell Membrane Structure**,** Membrane Proteins**,** Receptors & Signal Molecules	Theoretical+ practical	Quiz+ Discussion
	٤		**BODY FLUIDS:** Structure and properties of Water, Weak Acids & Bases, Concept of pH & pK, Buffers, their mechanism of action, Body buffers	Theoretical+ practical	Quiz+ Discussion
3rd	٤		**BIOMOLECULES: AMINO ACIDS, PEPTIDES & PROTEINS** Amino acids: Classification, Acid-Base Properties, +Functions & Significance., Protein Structure, Primary, Secondary & Super secondary. &Structural Motifs, Tertiary & Quaternary Structures of Proteins, Protein Domains, Classification of Proteins , Fibrous proteins (collagens and elastins) & Globular proteins	Theoretical+ practical	Quiz+ Discussion
4th	٤		**BIOMOLECULES: AMINO ACIDS, PEPTIDES & PROTEINS** Amino acids: Classification, Acid-Base Properties, Functions & Significance., Protein Structure, Primary, Secondary & Super secondary. &Structural Motifs, Tertiary & Quaternary Structures of Proteins, Protein Domains, Classification of Proteins , Fibrous proteins (collagens and elastins) & Globular proteins	Theoretical+ practical	Quiz+ Discussion
5th	٤		**ENZYMES:** Introduction**,** Classification & Properties of Enzymes**,** Coenzymes**,**	Theoretical+ practical	Quiz+ Discussion

			Isozymes & Proenzymes **,**Regulation & Inhibition of Enzyme activity & enzymes inhibitors **,** Clinical Diagnostic Enzymology		
6th	٤		**CARBOHYDRATES:** Definition, Classification, Biochemical Functions & Significance of Carbohydrates, Structure & Properties of Monosaccharides & Oligosaccharides, Structure & Properties of Polysaccharides, Bacterial cell Wall, Heteropolysaccharides , GAGS.	Theoretical+ practical	Quiz+ Discussion
7th	٤		**LIPIDS:** Classification of Lipids, Fatty Acids: Chemistry, Classification occurrence & Functions, Structure & Properties of Triacylglycerols and Complex Lipids, Classification & Functions of Eicosanoids, Cholesterol: Chemistry, Functions & Clinical Significance, Bile acids/salts.	Theoretical+ practical	Quiz+ Discussion
8th	٤		**LIPIDS:** Classification of Lipids, Fatty Acids: Chemistry, Classification occurrence & Functions, Structure & Properties of Triacylglycerols and Complex Lipids, Classification & Functions of Eicosanoids, Cholesterol: Chemistry, Functions & Clinical Significance, Bile acids/salts.	Theoretical+ practical	Quiz+ Discussion
9th	٤		**NUCLEIC ACIDS:** Structure, Functions & Biochemical Role of Nucleotides, Structure & Functions of DNA, Structure & Functions of RNA.	Theoretical+ practical	Quiz+ Discussion
10th	٤		**NUTRITIONAL BIOCHEMISTRY: MINERALS & TRACE ELEMENTS** Sources, RDA, Biochemical Functions & Clinical Significance of Calcium & Phosphorus,	Theoretical+ practical	Quiz+ Discussion

			Sources,		
11th	٤		**NUTRITIONAL BIOCHEMISTRY: MINERALS & TRACE ELEMENTS** RDA, Biochemical Functions & Clinical Significance of Sodium Potassium& Chloride, Metabolism of Iron, Cu, Zn, Mg, Mn, Se, I,F.	Theoretical+ practical	Quiz+ Discussion
12th	٤		**VITAMINS:** Sources**,** RDA**,** Biochemical Functions & Clinical Significance of Fat Soluble Vitamins**,** Sources**,** RDA**,** Biochemical Functions & Clinical Significance of Water Soluble Vitamins.	Theoretical+ practical	Quiz+ Discussion
13th	٤		**NUTRITION:** Dietary Importance of Carbohydrates, Lipids & Proteins, Balanced Diet.	Theoretical+ practical	Quiz+ Discussion
14th	٤		**MOLECULAR BIOLOGY:** DNA Replication & Repair in Prokaryotes , DNA Replication & Repair in Eukaryotes	Theoretical+ practical	Quiz+ Discussion
15th	٤		**Revision**	Theoretical+ practical	Review/

Infrastructure	
1-Required prescribed books -	Various sources
2-Main references (sources)	1. **TEXTBOOK OF BIOCHEMISTRY** ,2012,U.R,Agrawal,Kiran Agarwal,Kriishna Prakshan. 2. **Lippincott's illustrated reviews :Biochemistry** ,Richard A. Harvy 3rd edition ,2005
3-Recommended books and references (scientific journals, reports,...)	Open
4-Electronic references, Internet sites	Open

Course development plan
Using modern methods

Course description form

Course name: Clinical Biochemistry

characteristics This description provides a summary of the most important course achieve- and the learning outcomes that the student is required to

١-Educational institution	Al-Zahraa Private University - for women
2-Scientific department/center	College of Health and Medical Technologies – Department of Physiotherapy
٣-Course name/code	**Clinical Biochemistry**
٤-Available attendance forms	Official studying hours
4-Semester/year	"**First stage of the first course**"
٥-Number of study hours (total)	٤٨ hours
6-Date this description was prepared	٢٠٢٥/٣/١٥/
Course objectives	
Course objectives concepts of vital interactions within the body and explaining t Studying the basic to the field of physical therapy relationship	
2. Special: health and disease that forms the basis An introduction to the biochemistry related to emphasis on the molecular level of modern medical practice with an	

molecular structure of the basic components in the human body such as Study the Explaining the importance of the balance between .protein, carbohydrates, and fats their relationship to various diseases such as obesity, these components and .endocrine disorders thinness, and
.trace types of vitamins and explaining their role in health and disease Studying main paths of biosynthesis processes, the steps involved in these paths, Describe the .their enzymatic regulation and
imbalance that occurs in the main metabolic pathways and its Studying the atherosclerosis, strokes, and diabetes relationship to
.

10-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives
components in the human body Identify the molecular structure of the basic and know the metabolic pathways

.B - The skills objectives of the course

- Skills of knowledge and remembering
- specific problem The ability to think about solving a -
-Writing scientific reports
Analytical skills- -

C-Teaching and learning methods
-
lectures where the scientific material is discussed and There is a group of printed made important notes are
Additional clarifications

Evaluation methods
Participation in the classroom-
Evaluating activities within scientific laboratories

Emotional and value goalsC- - completing assignments and submitting Developing the student's ability to work by them on time the student's ability to dialogue, research and discuss Developing
Teaching and learning methods applicatio nConducting the lecture theoretically with the assigning students to weekly research sessions Conducting some daily tests and
Evaluation methods lesson Evaluating students' active participation during the absent Commitment to the lecture date and not being - research Commitment to submitting assignments and- of commitment and academic Semester and final exams express the extent achievement

11- structure of the course/syllabus

The week	Hours	Required learning outcomes	Name of the unit/topic	Teaching method	Evaluation method
1st	٤		**CELL:** Introduction to Biochemistry**,** Cell: (Biochemical Aspects)**,** Cell Membrane Structure**,** Membrane Proteins**,** Receptors & Signal Molecules	Theoretical+ practical	Quiz+ Discussion
	٤		**BODY FLUIDS:** Structure and properties of Water, Weak Acids & Bases, Concept of pH & pK, Buffers, their mechanism of action, Body buffers	Theoretical+ practical	Quiz+ Discussion
3rd	٤		**BIOMOLECULES: AMINO ACIDS, PEPTIDES & PROTEINS** Amino acids: Classification, Acid-Base Properties, +Functions & Significance., Protein Structure, Primary, Secondary & Super secondary. &Structural Motifs, Tertiary & Quaternary Structures of Proteins, Protein Domains, Classification of Proteins , Fibrous proteins (collagens and elastins) & Globular proteins	Theoretical+ practical	Quiz+ Discussion
4th	٤		**BIOMOLECULES: AMINO ACIDS, PEPTIDES & PROTEINS** Amino acids: Classification, Acid-Base Properties, Functions & Significance., Protein Structure, Primary, Secondary & Super secondary. &Structural Motifs, Tertiary & Quaternary Structures of Proteins, Protein Domains, Classification of Proteins , Fibrous proteins (collagens and elastins) & Globular proteins	Theoretical+ practical	Quiz+ Discussion
5th	٤		**ENZYMES:** Introduction**,** Classification & Properties of Enzymes**,** Coenzymes**,**	Theoretical+ practical	Quiz+ Discussion

			Isozymes & Proenzymes **,**Regulation & Inhibition of Enzyme activity & enzymes inhibitors **,** Clinical Diagnostic Enzymology		
6th	٤		**CARBOHYDRATES:** Definition, Classification, Biochemical Functions & Significance of Carbohydrates, Structure & Properties of Monosaccharides & Oligosaccharides, Structure & Properties of Polysaccharides, Bacterial cell Wall, Heteropolysaccharides , GAGS.	Theoretical+ practical	Quiz+ Discussion
7th	٤		**LIPIDS:** Classification of Lipids, Fatty Acids: Chemistry, Classification occurrence & Functions, Structure & Properties of Triacylglycerols and Complex Lipids, Classification & Functions of Eicosanoids, Cholesterol: Chemistry, Functions & Clinical Significance, Bile acids/salts.	Theoretical+ practical	Quiz+ Discussion
8th	٤		**LIPIDS:** Classification of Lipids, Fatty Acids: Chemistry, Classification occurrence & Functions, Structure & Properties of Triacylglycerols and Complex Lipids, Classification & Functions of Eicosanoids, Cholesterol: Chemistry, Functions & Clinical Significance, Bile acids/salts.	Theoretical+ practical	Quiz+ Discussion
9th	٤		**NUCLEIC ACIDS:** Structure, Functions & Biochemical Role of Nucleotides, Structure & Functions of DNA, Structure & Functions of RNA.	Theoretical+ practical	Quiz+ Discussion
10th	٤		**NUTRITIONAL BIOCHEMISTRY: MINERALS & TRACE ELEMENTS** Sources, RDA, Biochemical Functions & Clinical Significance of Calcium & Phosphorus,	Theoretical+ practical	Quiz+ Discussion

			Sources,		
11th	٤		**NUTRITIONAL BIOCHEMISTRY: MINERALS & TRACE ELEMENTS** RDA, Biochemical Functions & Clinical Significance of Sodium Potassium& Chloride, Metabolism of Iron, Cu, Zn, Mg, Mn, Se, I,F.	Theoretical+ practical	Quiz+ Discussion
12th	٤		**VITAMINS:** Sources**,** RDA**,** Biochemical Functions & Clinical Significance of Fat Soluble Vitamins**,** Sources**,** RDA**,** Biochemical Functions & Clinical Significance of Water Soluble Vitamins.	Theoretical+ practical	Quiz+ Discussion
13th	٤		**NUTRITION:** Dietary Importance of Carbohydrates, Lipids & Proteins, Balanced Diet.	Theoretical+ practical	Quiz+ Discussion
14th	٤		**MOLECULAR BIOLOGY:** DNA Replication & Repair in Prokaryotes , DNA Replication & Repair in Eukaryotes	Theoretical+ practical	Quiz+ Discussion
15th	٤		**Revision**	Theoretical+ practical	Review/

Infrastructure	
1-Required prescribed books -	Various sources
2-Main references (sources)	1. **TEXTBOOK OF BIOCHEMISTRY** ,2012,U.R,Agrawal,Kiran Agarwal,Kriishna Prakshan. 2. **Lippincott's illustrated reviews :Biochemistry** ,Richard A. Harvy 3rd edition ,2005
3-Recommended books and references (scientific journals, reports,...)	Open
4-Electronic references, Internet sites	Open

Course development plan
Using modern methods

Course description form:

characteristics This description provides a summary of the most important course achieve- and the learning outcomes that the student is required to

١-Educational institution	Al-Zahraa Private University for - women
2-Scientific department/center	College of Health and Medical Technologies – Department of Physiotherapy
٣-Course name/code	**Human Physiology 1**
٤-Available attendance forms	Official studying hours
4-Semester/year	**"First stage of the first course"**
٥-Number of study hours (total)	٤٨ hours
6-Date this description was prepared	٢٠٢٥/٣/١٥/
Course objectives	
objectives Course :Public.١ living organism, trying to explain the physical and The functions of the body systems of a human responsible for the origin and formation of the continuity of life. Since the chemical factors and work of each part of the being is a living organism, the student must understand the function ..to continue body in different situations in order for life	
2. Special: **:** **1 - The cell, its components and function.** **2 - The muscular and nervous system and how it works.** **3 - The function of the cardiovascular and respiratory systems and the relationship between them.** **4 - The urinary system and the regulation of body fluids, as well as the digestive system and its relationship to temperature regulation and thus the work of the endocrine glands and their role in regulating the activities of all other organs. Thus, the student will be able to know the difference between normal work and functional disorder in**	

pathological cases, which qualifies him to understand the special medical qualification of each organ or system. .

10-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives

in physiology Clarifying the basic concepts --
natural phenomena and their interpretation Knowledge and understanding of surrounding

.B - The skills objectives of the course

- remembering Skills of knowledge and
- The ability to think about solving a specific problem - ٢
-Writing scientific reports
Analytical skills- -

C-Teaching and learning methods

notes printed lectures where the scientific material is discussed and important There is a group of are made
itional clarifications addi

Evaluation methods
classroom Participation in the-
within scientific laboratories Evaluating activities-

Emotional and value goals
ability to work by completing assignments and submitting them on time Developing the student's ability to dialogue, research and discuss Developing the student's

Teaching and learning methods
and practical tests Conducting the lecture theoretically with the application of clinical
assigning students to weekly research sessions Conducting some daily tests and
grade to daily assignments and tests Allocate a percentage of the

Evaluation methods
participation during the lesson Evaluating students' active
and not being absent Commitment to the lecture date -
research nt to submitting assignments and
of commitment and academic achievement Semester and final exams express the extent

11- structure of the course/syllabus

The week	Hours	Required learning outcomes	Name of the unit/topic	Teaching method	Evaluation method
1st	٤		**Cell:** Morphology. Organelles: their structure and functions• Transport Mechanisms across the cell membrane• Body fluids: Distribution, composition. Tissue fluid – formation.	Theoretical+ practical	Quiz+ Discussion
	٤		**Blood**: 1. Composition of Blood, Plasma, Protein Formation and their Function. 2. Structure, formation and functions of R.B.C. 3. Structure, formation and functions of W.B.Cs. and platelets.	Theoretical+ practical	Quiz+ Discussion
3rd	٤		**Blood**: 4. Coagulation and its defects of bleeding and clotting time. 5. Blood Groups and their significance, Rh. Factor.	Theoretical+ practical	Quiz+ Discussion
4th	٤		**Blood**: 6. Reticulo-endothelial system, Jaundice, Structure and functions of spleen . 7. Hemoglobin and .E.S.R	Theoretical+ practical	Quiz+ Discussion
5th	٤		**Cardiovascular System:** 1. Structure, properties of heart muscle and nerve supply of heart structure and function of arteries, arterioles, capillaries and veins.	Theoretical+ practical	Quiz+ Discussion

			2. Cardiac cycle and heart sounds. 3. Cardiac output measurement, factors affecting.		
6th	٤		**Cardiovascular System:** 4. Heart rate and its regulation, Cardiovascular reflexes. 5. Blood pressure, its regulations and physiological variations. 6. Peripheral resistance, factors controlling and its role in B.P	Theoretical+ practical	Quiz+ Discussion
7th	٤		**Cardiovascular System:** 7. Hemorrhage. 8. Changes in muscular exercise	Theoretical+ practical	Quiz+ Discussion
8th	٤		**Respiratory System:** 1. Mechanism of respiration, intra-pleural and intrapulmonary pressure. 2. Lung volumes and capacities.	Theoretical+ practical	Quiz+ Discussion
9th	٤		**Respiratory System:** 3. O2 and CO2 carriage and their exchange in tissues and lungs. 4. Nervous chemical regulation of respiration – Respiratory Centers. Respiratory states – Anoxia, Asphyxia, Cyanosis, and Acclimatization.	Theoretical+ practical	Quiz+ Discussion
10th	٤		**Digestive System :** 1. General outline and salivary digestion. 2. Gastric secretion and its mechanism of section and functions.	Theoretical+ practical	Quiz+ Discussion
11th	٤		**Digestive System :**	Theoretical+	Quiz+

			3. Digestion, Absorption and Metabolism of Proteins . 4. Structure, Secretions and Function of Liver	practical	Discussion
12th	٤		**Nutrition:** 1. Digestion, Absorption and Metabolism of Carbohydrates. 2. Digestion, Absorption and Metabolism of Fats. 3. Digestion, Absorption and Metabolism of Proteins.	Theoretical+ practical	Quiz+ Discussion
13th	٤		**Nutrition:** 4. Vitamins, its sources, functions and resources. 5. Balanced diet in different age groups and occupation.	Theoretical+ practical	Quiz+ Discussion
14th	٤		**Endocrines:** 1. Anterior Pituitary. 2. Posterior Pituitary and Parathyroid. 3. Thyroid.	Theoretical+ practical	Quiz+ Discussion
15th	٤		**Endocrines:** 4. Adrenal Cortex. 5. Adrenal Medulla, Thymus 6. Pancreas and Blood sugar .regulation	Theoretical+ practical	Review/

Infrastructure	
1-Required prescribed books -	Various sources
2-Main references (sources)	1. **Essential of exercise physiology,** McArdle, William D.; Katch, Frank I.; Katch, Victor L second edition.2000. 2. **Exercise Physiology: Nutrition, Energy and Human Performance**, William D. McArdle, Frank I. Katch, Victor L. Katch , , seventh edition , 2010. 3. **Anatomy and Physiology for Therapists and Healthcare**

	Professionals ,Ruth Hull, Greta Couldridge, Vicki Slegg, , 2009.
3-Recommended books and references (scientific journals, reports,...)	Open
4-Electronic references, Internet sites	Open

Course development plan
Using modern methods

Course description form

characteristics This description provides a summary of the most important course achieve- and the learning outcomes that the student is required to

١-Educational institution	Al-Zahraa Private University - for women
2-Scientific department/center	College of Health and Medical Technologies – Department of Physiotherapy
٣-Course name/code	**Human Physiology2**
٤-Available attendance forms	Official studying hours
4-Semester/year	"**First stage of the second course**"
٥-Number of study hours (total)	hours٤٨
6-Date this description was prepared	٢٠٢٥/٣/١٥/
Course objectives	
Course objectives :Public.١ living organism, trying to explain the physical The functions of the body systems of a responsible for the origin and formation of the continuity of life. and chemical factors human being is a living organism, the student must understand the function Since the ..to continue and work of each part of the body in different situations in order for life	
2. Special:	

1 - The cell, its components and function.

2 - The muscular and nervous system and how it works.

3 - The function of the cardiovascular and respiratory systems and the relationship between them.

4 - The urinary system and the regulation of body fluids, as well as the digestive system and its relationship to temperature regulation and thus the work of the endocrine glands and their role in regulating the activities of all other organs. Thus, the student will be able to know the difference between normal work and functional disorder in pathological cases, which qualifies him to understand the special medical qualification of each organ or system. .

10-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives

physiology Clarifying the basic concepts in
natural phenomena and their Knowledge and understanding of surrounding
interpretation

b.The skills objectives of the course -

- remembering Skills of knowledge and
- problem The ability to think about solving a specific -
-Writing scientific reports
Analytical skills- -

C-Teaching and learning methods

the scientific material is discussed and There is a group of printed lectures where important notes are made
Additional clarifications

Evaluation methods
Participation in the classroom-
laboratories Evaluating activities within scientific-٢

Emotional and value goalsC- - completing assignments and submitting Developing the student's ability to work by them on time to dialogue, research and discuss Developing the student's ability
Teaching and learning methods applicatio nConducting the lecture theoretically with the assigning students to weekly research sessions Conducting some daily tests and grade to daily assignments and tests Allocate a percentage of the
Evaluation methods lesson Evaluating students' active participation during the absent Commitment to the lecture date and not being - research Commitment to submitting assignments and- commitment and academic Semester and final exams express the extent of achievement

11- structure of the course/syllabus

The week	Hours	Required learning outcomes	Name of the unit/topic	Teaching method	Evaluation method
1st	٤		**Reproductive System :** 1. Sex determination and development, Puberty. 2. Male sex hormones and their functions, spermatogenesis.	Theoretical+ practical	Quiz+ Discussion
	٤		**Reproductive System :** 3. Female sex hormones and functions, menstrual cycle, ovulation and contraceptives. 4. Pregnancy, functions of placenta and lactation	Theoretical+ practical	Quiz+ Discussion
3rd	٤		**Excretory System:** 1. Gross and minute structure of Kidney and features of Renal circulation.2. Mechanism of formation of Urine, GFR and Tubular function.	Theoretical+ practical	Quiz+ Discussion
4th	٤		**Excretory System:** 3. Renal function. 4. Physiology of Micturition	Theoretical+ practical	Quiz+ Discussion
5th	٤		**Muscle and Nerve:** 1. Structure of Neurons, membrane potential and generation of action potential. 2. Nerve impulse conduction, Saltatory conduct ion.	Theoretical+ practical	Quiz+ Discussion
6th	٤		**Muscle and Nerve:** 3. Neuromuscular junction and drugs acting on it – Myasthenia. 4.	Theoretical+ practical	Quiz+ Discussion

			Degeneration and regeneration in peripheral nerves – Wallerian degeneration of electro tonus and Pflagers Law.		
7th	٤		**Muscle: :** 1. Type of muscles and their gross structure, stimulus chronaxie, strength duration curve. 2. Structure of sarcomere – Basis of muscle contraction, Starling's Law and changes during muscle contraction.	Theoretical+ practical	Quiz+ Discussion
8th	٤		**Muscle:** 3. Electrical – Biphasic and monophasic action potentials. 4. Chemical, Thermal and Physical changes, isometric and isotonic contraction.	Theoretical+ practical	Quiz+ Discussion
9th	٤		**Muscle:** 5. Motor units and its properties, Clonus, Tetanus, All or None Law, Beneficial Effect. 6. Nature of Voluntary contraction, Fatigue.	Theoretical+ practical	Quiz+ Discussion
10th	٤		**Nervous System:** 1. Types and properties of Receptors, types of sensations. 2. Structure of Synapses, Reflex and its properties, occlusion summation, sub minimal fringe, etc.	Theoretical+ practical	Quiz+ Discussion
11th	٤		**Nervous System:** 3. Tracts of Spinal Cord. 4. Descending, Pyramidal and Extra pyramidal Tracts.	Theoretical+ practical	Quiz+ Discussion

12th	٤		**Nervous System:** 5. Hemi section and complete section of spinal cord, upper and lower motor neuron paralysis. 6. Cerebral cortex – areas and functions, E.E.G.	Theoretical+ practical	Quiz+ Discussion
13th	٤		**Nervous System:** 7. Structure, connections and functions of Cerebellum. 8. Connections and functions of Basal Ganglia and Thalamus.	Theoretical+ practical	Quiz+ Discussion
14th	٤		**Nervous System:** 9. Reticular formation, tone, posture and equilibrium. 10. Autonomic nervous system.	Theoretical+ practical	Quiz+ Discussion
15th	٤		**Revision**	Theoretical+ practical	Review/

Infrastructure	
1-Required prescribed books -	Various sources
2-Main references (sources)	1. **Essential of exercise physiology,** McArdle, William D.; Katch, Frank I.; Katch, Victor L second edition.2000. 2. **Exercise Physiology: Nutrition, Energy and Human Performance**, William D. McArdle, Frank I. Katch, Victor L. Katch , , seventh edition , 2010. 3. **Anatomy and Physiology for Therapists and Healthcare Professionals** ,Ruth Hull, Greta Couldridge, Vicki Slegg, , 2009.
3-Recommended books and references (scientific journals, reports,...)	Open
4-Electronic references, Internet sites	Open

Course development plan
Using modern methods

Course description form

Teacher name:

Zainab ali

This course description provides a summary of the most important course characteristics and the learning outcomes that the student is expected to achieve, demonstrating whether he or she has made the most of the learning opportunities available. It must be linked to the program description-

١-Educational institution	Al-Zahraa Private University - for women
2-Scientific department/center	College of Health and Medical Technologies – Department of Physiotherapy
٣-Course name/code	"Introduction to physical therapy
٤-Available attendance forms	Official studying hours
4-Semester/year	**First stage/second course**"
٥-Number of study hours (total)	Approximately 90 hours
6-Date this description was prepared	٢٠٢٥/٣/١٥/
Course objectives	
١. General: Introducing students to the profession of physical therapy and directing them to it .	

:Private.٢
.importance of applying physical therapy to improve human health The

basic elements of the physical therapy process and their application to Describe the .pathological conditions

.use basic terminology in physical therapy Define and

.daily vital activities Knowledge of

.patients' privacy Respect

10-Course outcomes and teaching, learning and evaluation methods

A-

Cognitive objectives
therapy Learn about the profession of physical
various pathological The purpose of applying physical therapy to conditions

.B - The skills objectives of the course
- focus and analyze Ability to
.to think about solving a specific problem The ability

C-Teaching and learning methods
-
the scientific material is discussed and There is a group of printed lectures where important notes are made
Additional clarifications

Evaluation methods Participation in the classroom- laboratories Evaluating activities within scientific-٢
C- Emotional and value goals ability to work by completing assignments and submitting Developing the student's them on time ability to dialogue, research and discuss Developing the student's ability to choose the appropriate device for medical Developing the student's conditions
Teaching and learning methods and practical Conducting the lecture theoretically with the application of clinical tests assigning students to weekly research sessions Conducting some daily tests and grade to daily assignments and tests Allocate a percentage of the
Evaluation methods lesson Evaluating students' active participation during the being absent Commitment to the lecture date and not - research Commitment to submitting assignments and- of commitment and academic Semester and final exams express the extent achievement

11- structure of the course/syllabus

The week	Hours	Required learning outcomes	Name of the unit/topic	Teaching method	Evaluation method
1st	٤		microbiology-Introduction &microscope,precautions, waste disposal	Theoretical+ practical	Quiz+ Discussion
	٤		Classification of Micro-organisms & morphology of Bacteria	Theoretical+ practical	Quiz+ Discussion
3rd	٤		Sterilization & disinfection [basic concepts] hospital acquired infection, universal safety	Theoretical+ practical	Quiz+ Discussion
4th	٤		**immunology** :Antigen antibody - reaction & application for diagnosis;Immune response - normal/abnormal	Theoretical+ practical	Quiz+ Discussion
5th	٤		**immunology** : Innate immunity & acquired immunity [vaccination],Hyper - sensitivity & auto-immunity	Theoretical+ practical	Quiz+ Discussion
6th	٤		Laboratory Diagnosis of Infection	Theoretical+ practical	Quiz+ Discussion
7th	٤		**Bacteriology :** .Infection caused by gram +ve cocci; Gas gangrene - clostridium - Diphtheria ,Infection caused by gram –ve cocci, Septicemia-cholera - Shock Typhoid diarrhea	Theoretical+ practical	Quiz+ Discussion
8th	٤		**Bacteriology :** Mycobacterial infection tuberculosis: Leprosy-Atypical Mycobacterium d.syphilis – morphology & pathogenesis [VDRL]	Theoretical+ practical	Quiz+ Discussion
9th	٤		**Viruses:** Introduction & general properties, .HIV	Theoretical+ practical	Quiz+ Discussion
10th	٤		**Viruses** Polio, measles, congenital viral infections, Rubella,	Theoretical+ practical	Quiz+ Discussion

			CMV Herpes		
11th	٤		**Mycology**	Theoretical+ practical	Quiz+ Discussion
12th	٤		**Introduction to Biosafety and Security, The main components of biorisk management, Safety measures in all laboratories and laboratory design, General safety precautions, Personal protective equipment.**	Theoretical+ practical	Quiz+ Discussion
13th	٤		**Biosafety level, risk assessment strategy, Hazard groups, biosafety levels and equipment, Standard practices required in biological laboratories.**	Theoretical+ practical	Quiz+ Discussion
14th	٤		**The biological factors, Routes of infection, Risk group classification, Biosafety measures, Control of substances hazardous to health.**	Theoretical+ practical	Quiz+ Discussion
15th	٤		**Revision**	Theoretical+ practical	Review/

Infrastructure	
1-Required prescribed books -	Various sources
2-Main references (sources)	Introduction to Physical Therapy . 6th Edition, 2020 .Michael Pagliarulo. Introduction to Physical Therapy and Patient Skills. Mark Dutton. 2021 by McGraw Hill. Musculoskeletal Assessment Joint Range of Motion, Muscle Testing, and Function 4th Edition .٢٠٢٠ By: Hazel M. Clarkson. Grieve's Modern Musculoskeletal Physiotherapy4th Edition 2019. By:

	Gwendolyn Jull.
3-Recommended books and references (scientific journals, reports,...)	Open
4-Electronic references, Internet sites	Open

Course development plan
Using modern methods

Description Form

Course Description

course This course description provides a summary of the main ،features and the learning outcomes expected of the student demonstrating whether they have made the most of the learning .available opportunities

١. institution Educational	**Alzahraa University for women**
٢. Department / Scientific Center	**- College of Health and Medical Technologies Department of Physiotherapy**
٣. Course Name/Code	**General anatomy**
٤. Available attendance forms	**Official working hours**
٥. semester/year	**/ first academic year First and second semester**
٦. Number of study hours (total)	**١٢٠ hours**
٧. Date this description was prepared	**٢٠٢٥/٣/١٥**
٨. Course objectives **١. General** **To teach the student the location of the organs and importance of anatomy in his field of specialization .**	

٢. Private:

.system of the forearm 1. Identify the bones, muscles , and nervous

and hand and prepare for .2 Identify the bones and muscles of the wrist .use

. system of the lower limb .3 Identify the bones, muscles , and nervous

.system of the neck and spine Identify the bones, muscles , and nervous٤

.٥. in general Gain knowledge of the structure of the human body

.and levels Knowledge of anatomical positions, terms ٦.

.٧. Types of tissues

. of different organs Understanding the histological features .٨

. Identify muscle tissues and their types .٩

.Identify bones and their types ١٠ .

.Identify joints and their types ١١ .

. bones, muscles, and nervous system of the upper limb Identify the .١٢

١٠. methods Course outcomes , teaching, learning and assessment
أ- cognitive objectives ١. Learn about the anatomy of the human body and the different tissues 2- Identify the human organs of the body and distinguish between them 3- The relationship of the body organs to the body surface 4- The of the human organs to each other relationship

. Course specific skill objectives - B . B2 Gaining skills and experience in educational and health programs -B1 Gaining skills - . B3 understanding of body anatomy - Gaining a technical other in understanding body parts and the systems related to each .anatomically
and learning methods Teaching Ongoing daily tests the virtual anatomy lab Exercises and activities in relevant scientific and ، websites, applications Guiding students to the best references
methods Evaluation ١. Participate in the classroom ٢. Daily and monthly tests ٣. Writing and presenting reports and research ٤. Scientific discussions attendance ٥. and daily activities
and value-based goals C- Emotional the student's ability to work on completing assignments and Developing on time submitting them the student's ability to dialogue, research and discuss Developing the student's ability to develop an appropriate program for Developing conditions different medical
Teaching and learning methods clinical and practical Lecture management theoretically with application of tests to weekly research Conducting some daily tests and assigning students .sessions .assignments and tests Allocate a percentage of the grade to daily
methods Evaluation students' active participation during the lesson Evaluating to the lecture time and not being absent Commitment to submit assignments and research Commitment

and final exams reflect the extent of commitment and academic Midterm .achievement
related to employability and D - General and transferable skills (other skills .(personal development different medical conditions Developing the student's ability to deal with research methods Developing the student's ability to use scientific discuss, and gain self-confidence ،Developing the student's ability to dialogue .student should behave appropriately in job interviews The himself after graduation For the student to develop .available means to increase his efficiency The student should use the

Course structure ١١.					
Evaluation method	**Teaching method**	**Unit name/topic**	**Required learning outcomes**	**watches**	**week**
discussion	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D As for the practical aspect, it will be in the lab, with virtual dissection in to addition .models**	Forearm Mention the bones of forearm. Identify the ends, borders, surfaces and features of radius and ulna. Identify the head, neck, tuberosity and styloid process of radius. Identify the coronoid process, olecranon process, trochlear notch, tuberosity, head and styloid process of ulna. Also the radial notch of ulna and ulnar notch of radius. . Identify the muscles of the front and back of the forearm. Mention the position, origin, insertion, nerve supply and action of these muscles	**Student knowledge of the scientific material and of awareness scientific, mental, professional, applied and clinical skills**	٤	**1 st**
discussion	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Mention the bones of forearm. Identify the ends, borders, surfaces and features of radius and	**Student of knowledge the scientific material and awareness of scientific, mental, ،professional applied and clinical skills**	٤	**2nd**
Questions and discussion	**As for the practical aspect, it will be in the with virtual ،lab dissection in addition to .models**	ulna. Identify the head, neck, tuberosity and styloid process of radius. Identify the coronoid	**Student knowledge of scientific the material and awareness of scientific, mental, ،professional applied and clinical skills**	٤	**3rd**
Review and discussion	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	process, olecranon process, trochlear notch, tuberosity, head	**Student knowledge of the scientific material and of awareness scientific, mental, professional, applied and clinical skills**	٤	**4th**
short exam	**As for the practical aspect, it will be in the with virtual ،lab dissection in addition to**	and styloid process of ulna. Also the radial notch of ulna and ulnar notch of radius. . Identify	**Student knowledge of scientific the material and awareness of scientific,**	٤	**5th**

	.models		**mental, ‘professional applied and clinical skills**		
Oral test	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	the muscles of the front and back of the forearm. Mention the position, origin, insertion, nerve	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**6th**
Questions and discussion	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to .models**	supply and action of these muscles.	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**7th**
Written exam	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Forearm, Mention the position and distribution of radial and ulnar arteries and ulnar, second median	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**8th**
practical exam	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to .models**	and radial nerves. Mention the type, articular surface and ligaments of radioulnar joints.	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**9th**
discussion	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Define the movements and muscles producing these movements.	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**10th**
Discussion questions	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to**	Wrist, Name and identify the carpal bones, metacarpal bones and phalanges in an third	**Student knowledge of scientific the material and awareness of scientific,**	٤	**11th**

	.models		**mental, ‘professional applied and clinical skills**		
Reviews	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	articulated hand, Name and locate the carpal bones. Define and demonstrate the movements	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	**ٔ**	**12th**
practical exam	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to .models**	and mention the muscles producing them. Mention its blood supply and nerve supply.	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	**ٔ**	**13th**
Questions and discussion	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Hand, Mention the type of bones forming and ligaments of joints of hand. Ellipsoid type of IV	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	**ٔ**	**14th**
Review and discussion	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to .models**	metacarpophalangeal joints and saddle type of carpometacarpal joint.	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	**ٔ**	**15th**
short exam	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Introduction: Define Anatomy and mention its sub-divisions, Name regions, cavities and the first	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	**ٔ**	**16th**
Oral test	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to**	systems of the body.	**Student knowledge of scientific the material and awareness of scientific,**	**ٔ**	**17th**

	.models		**mental, ‘professional applied and clinical skills**		
Questions and discussion	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Histology: General Histology, study of the basic tissues of the body (classify and mention the second	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**18th**
Written exam	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to .models**	microscopic structure of types of tissues) such as, Cell, Epithelium, Connective Tissue,	**Student knowledge of the scientific material and of awareness scientific, mental, professional, applied and clinical skills**	٤	**19th**
practical exam	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Cartilage, Bone, Muscular tissue, Nerve Tissue – TS & LS, Circulatory system – large sized artery,	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**20th**
discussion	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to .models**	Medium sized artery, large sized vein, lymphoid tissue, skin and its appendages.	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**21 st**
Discussion questions	**In-person education in classrooms includes a lecture scientific with images and videos of . anatomy in 3D**	Osteology: Anatomical positions of the body, axes, planes, common anatomical terminologies III	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	٤	**22nd**
Written exam	**As for the practical aspect, it will be in the with virtual ‘lab dissection in addition to**	(grooves, tuberosity, trochanters etc), Connective tissue classification,	**Student knowledge of scientific the material and awareness of scientific,**	٤	**23rd**

	.models		**mental, ،professional applied and clinical skills**		
Written exam	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Osteology: Bones Composition and functions, classification of types according to morphology IV	**Student knowledge of scientific the material and awareness of scientific, mental, professional, and applied clinical skills**	٤	**24th**
Questions and discussion	**As for the practical aspect, it will be in the with virtual ،lab dissection in addition to .models**	and development, growth and repair, structure of long bone, vertebral column, types of vertebrae,	**Student knowledge of scientific the material and awareness of scientific, mental, ،professional applied and clinical skills**	٤	**25th**
practical control	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	bones of extremities and body landmarks	**Student knowledge of scientific the material and awareness of scientific , mental, ،professional applied and clinical skills**	٤	**26th**
Oral questions	**As for the practical aspect, it will be in the with virtual ،lab dissection in addition to .models**	Arthrology: Definitions, Classification of joints, Construction of joints, Motions of joints, V	**Student knowledge of scientific the material and awareness of scientific, mental, ،professional applied and clinical skills**	٤	**27th**
Written exam	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	Structure of fibrous, cartilaginous joints,	**Student knowledge of scientific the material and awareness of scientific, mental, ،professional applied and clinical skills**	٤	**28th**
Quick test	**As for the practical aspect, it will be in the with virtual ،lab dissection in addition to**	Arthrology: Blood supply and nerve supply of joints, Articulations – articular surfaces, types of VI	**Student knowledge of scientific the material and awareness of scientific,**	٤	**29th**

	.models		**mental, ‘professional applied and clinical skills**		
Quick test	**In-person education in classrooms includes a scientific lecture with images and videos of . anatomy in 3D**	joints, motions of upper and lower extremities, trunk, head	**Student knowledge of scientific the material and awareness of scientific, mental, ‘professional applied and clinical skills**	**٤**	**30th**

infrastructure .١٢	
	Required -١ textbooks
Human Anatomy for Students, Byas Deb Ghosh Professor of . ١ Anatomy Second Edition: 2013 **ATLAS OF FUNCTIONAL NEUROANATOMY By Walter .2 J. HENDELMAN,2000** **Clinical Anatomy of the Spine, Spinal Cord, and ANS, Third .3 Edition 2014, by Mosby** **Gray's Anatomy for Students, Third Edition Richard L. .4 .Drake, A. Wayne Vogl, Adam W. M. Mitchell, 2015** **Human Anatomy Coloring Book (Dover Children's Science .5 Books), 1982, by Margaret Matt (Author), Joe Ziemian (Author)** **6. Atlas of Human Anatomy (Netter Basic Science) by Frank H. ٦Netter,200**	**Main references -٢ ((sources**
Open	**Recommended -A books and references (scientific journals, (.reports, etc**
<u>Open</u>	**Electronic - B references, ...websites**

Development Plan Curriculum.١٣
educational content with the ability to delete, replace, and add, and Developing reviewing the latest international references modern methods that suit the subject and students in some lectures Using

of modern assessment methods Use
. innovative teaching and learning methods Following the latest and most
- from the results of modern research in anatomy Benefit
. modern teaching strategies in biology Applying

Course description form

characteristics This description provides a summary of the most important course achieve- and the learning outcomes that the student is required to

١-Educational institution	Al-Zahraa Private University - for women
2-Scientific department/center	College of Health and Medical Technologies – Department of Physiotherapy
٣-Course name/code	**Basic Nursing & First Aids**
٤-Available attendance forms	Official studying hours
4-Semester/year	"**First stage of the second course**"
٥-Number of study hours (total)	54hours
6-Date this description was prepared	٢٠٢٥-٣-١٥
Course objectives	
Course objectives :Public.١	
2. Special: :	

.

10-Course outcomes and teaching, learning and evaluation methods
A- Cognitive objectives
.B - The skills objectives of the course - Skills of knowledge and remembering -Writing scientific reports Analytical skills- -
C-Teaching and learning methods
Evaluation methods Participation in the classroom- laboratories Evaluating activities within scientific-٢
Emotional and value goalsC- - completing assignments and submitting Developing the student's ability to work by them on time ability to dialogue, research and discuss Developing the student's

Teaching and learning methods applicatio nConducting the lecture theoretically with the assigning students to weekly research sessions Conducting some daily tests and
Evaluation methods lesson Evaluating students' active participation during the absent Commitment to the lecture date and not being - research Commitment to submitting assignments and- of commitment and academic Semester and final exams express the extent achievement

11- structure of the course/syllabus

The week	Hours	Required learning outcomes	Name of the unit/topic	Teaching method	Evaluation method
1st	6		**Introduction**Definition of first aid. Importance of first aid, Golden rules of first aid, Scope and concept of emergency.	Theoretical+ practical	Quiz+ Discussion
	6		**First aid emergencies**Burns & Scalds : Causes, Degrees of burns, First aid treatment, Generaltreatment.	Theoretical+ practical	Quiz+ Discussion
3rd	6		**First aid emergencies***Poisoning:* Classification (irritants, acid, alkali, narcotics), Signs and symptoms. First aid treatment, General treatment.	Theoretical+ practical	Quiz+ Discussion
4th	6		**First aid emergencies** *Trauma due to foreign body intrusion:* Eye, ear, nose, throat, stomach and lungs.	Theoretical+ practical	Quiz+ Discussion
5th	6		**First aid emergencies** *Bites:* First aid, signs, symptoms and treatment. a) Dog bite : rabies Snake bite : neurotoxin, bleeding diathesis b) Snake bite : neurotoxin, bleeding diathesis	Theoretical+ practical	Quiz+ Discussion
6th	6		**Skeletal injuries**Definition: Types of fractures of various parts of the body. Causes, Signs andSymptoms. Rules of treatment, Transportation of patient with fracture and spinalcord injuries. First aid measures in	Theoretical+ practical	Quiz+ Discussion

			dislocation of joints. Treatment of muscleinjuries.		
7th	**6**		**Respiratory emergencies:** Asphyxia: Etiology, Signs & Symptoms, rules of treatment.	Theoretical+ practical	Quiz+ Discussion
8th	**6**		**Respiratory emergencies:** Drowning: Definition and management.	Theoretical+ practical	Quiz+ Discussion
9th	**6**		**Respiratory emergencies:** Artificial respiration: Types and techniques.	Theoretical+ practical	Quiz+ Discussion
10th	**6**		**Wounds and Hemorrhage** Wounds: Classification, management.	Theoretical+ practical	Quiz+ Discussion
11th	**6**		**Wounds and Hemorrhage**Haemorrhages: Classification, signs and symptoms, rules for treatment of hemorrhage.	Theoretical+ practical	Quiz+ Discussion
12th	**6**		**Wounds and Hemorrhage**Treatment of hemorrhage from special areas (Scalp, mouth, nose, ear, palm and various veins).Internal haemorrhages: Visible and concealed.	Theoretical+ practical	Quiz+ Discussion
13th	**6**		**F. Shock and unconsciousness** Definition: Types of shock,Common causes of shock, signs and symptoms ofshock (assessment of established shock). General and special treatment ofestablished shock	Theoretical+ practical	Quiz+ Discussion
14th	**6**		**Transportation of the injured** 1. Methods of transportation: Single helper, Hand seat, Stretcher, Wheeledtransport (ambulance).	Theoretical+ practical	Quiz+ Discussion

			2. Precautions taken: Blanket lift, Air and Sea travel.		
15th	**6**		**Revision**	Theoretical+ practical	Review/

Infrastructure	
1-Required prescribed books -	Various sources
2-Main references (sources)	1. manual of first aid :management of general injuries ,sports injuries and common ailments 2. **Textbook on First Aid and Emergency Nursing**
3-Recommended books and references (scientific journals, reports,...)	Open
4-Electronic references, Internet sites	Open

Course development plan
Using modern methods

Course description form

description provides a summary of the most important course characteristics This - and the learning outcomes that the student is required to achieve

١-Educational institution	Al-Zahraa Private University - for women
2-Scientific department/center	College of Health and Medical Technologies – Department of Physiotherapy
٣-Course name/code	" Medical microbiology
٤-Available attendance forms	Official studying hours
4-Semester/year	"**First stage of the first course**"
٥-Number of study hours (total)	hours٤٨
6-Date this description was prepared	٢٠٢٥-٣-١٥

Course objectives

1.General:

microorganisms that cause infections, whether bacterial, viral, parasitic, Knowledge of cases. fungal, is crucial for healthcare professionals to effectively manage such or infections, as Understanding these microorganisms helps in diagnosing and treating enables physical therapists well as implementing preventive measures. Additionally, it complications or limitations caused by these to tailor treatment plans to address any .infections in the body

2. Special:

the body Knowing the types of causes that cause injuries to
.factors and chromosomal changes Genetic
.defense mechanism against pathogens The body's
pathogens and how to prevent them Some

10-Course outcomes and teaching, learning and evaluation methods

A- Cognitive objectives

Clarifying basic concepts in microbiology -
microenvironment And understanding the components of the

.B - The skills objectives of the course
The student can use a microscope
media Growing microorganisms on different cultural
microorganisms Differentiate between different types of

C-Teaching and learning methods
-
the scientific material is discussed and There is a group of printed lectures where important notes are made
Additional clarifications

Evaluation methods
Participation in the classroom-
laboratories Evaluating activities within scientific-٢

Emotional and value goalsC- completing assignments and submitting Developing the student's ability to work by them on time ability to dialogue, research and discuss Developing the student's
D-Teaching and learning methods and practical Conducting the lecture theoretically with the application of clinical tests assigning students to weekly research sessions Conducting some daily tests and grade to daily assignments and tests Allocate a percentage of the
E-Evaluation methods lesson Evaluating students' active participation during the being absent Commitment to the lecture date and not - research Commitment to submitting assignments and- of commitment and academic Semester and final exams express the extent achievement

11- structure of the course/syllabus

The week	Hours	Required learning outcomes	Name of the unit/topic	Teaching method	Evaluation method
1st	٤		microbiology-Introduction &microscope,precautions, waste disposal	Theoretical+ practical	Quiz+ Discussion
	٤		Classification of Micro-organisms & morphology of Bacteria	Theoretical+ practical	Quiz+ Discussion
3rd	٤		Sterilization & disinfection [basic concepts] hospital acquired infection, universal safety	Theoretical+ practical	Quiz+ Discussion
4th	٤		**immunology** :Antigen antibody - reaction & application for diagnosis;Immune response - normal/abnormal	Theoretical+ practical	Quiz+ Discussion
5th	٤		**immunology** : Innate immunity & acquired immunity [vaccination],Hyper - sensitivity & auto-immunity	Theoretical+ practical	Quiz+ Discussion
6th	٤		Laboratory Diagnosis of Infection	Theoretical+ practical	Quiz+ Discussion
7th	٤		**Bacteriology :** .Infection caused by gram +ve cocci; Gas gangrene - clostridium - Diphtheria ,Infection caused by gram –ve cocci, Septicemia-cholera - Shock Typhoid diarrhea	Theoretical+ practical	Quiz+ Discussion
8th	٤		**Bacteriology :** Mycobacterial infection tuberculosis: Leprosy-Atypical Mycobacterium d.syphilis – morphology & pathogenesis [VDRL]	Theoretical+ practical	Quiz+ Discussion
9th	٤		**Viruses:** Introduction & general properties, .HIV	Theoretical+ practical	Quiz+ Discussion
10th	٤		**Viruses** Polio, measles, congenital viral infections, Rubella,	Theoretical+ practical	Quiz+ Discussion

			CMV Herpes		
11th	٤		**Mycology**	Theoretical+ practical	Quiz+ Discussion
12th	٤		**Introduction to Biosafety and Security, The main components of biorisk management, Safety measures in all laboratories and laboratory design, General safety precautions, Personal protective equipment.**	Theoretical+ practical	Quiz+ Discussion
13th	٤		**Biosafety level, risk assessment strategy, Hazard groups, biosafety levels and equipment, Standard practices required in biological laboratories.**	Theoretical+ practical	Quiz+ Discussion
14th	٤		**The biological factors, Routes of infection, Risk group classification, Biosafety measures, Control of substances hazardous to health.**	Theoretical+ practical	Quiz+ Discussion
15th	٤		**Revision**	Theoretical+ practical	Review/

Infrastructure	
1-Required prescribed books -	Various sources
2-Main references (sources)	1. Human biology: concepts and current issues by Johnson, Michael D**. third edition** 2. **Biology a functional approach,** 1987 ,2nd edition MBV Roberts,TJ King . 3. **Advanced biology ,**2000.Micheal Roberts , Micheal rieis, Grace Monger
3-Recommended books and references (scientific journals, reports,...)	Open
4-Electronic references, Internet sites	Open

Course development plan
Using modern methods