K/ Book N/ Theory T/ Report S/ Seminar M/ Project A/ Practical

Course Description / Level 1

biomechanics	Course Name -1
PTT101	Course code -2
First semester / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
30 Theory hour / Number of units: 2	Number of credit hours (total) -6 Number of units (total) /
Dr. Salah Fadel Abdul Jabbar	course coordinator Name of the -7 list all names, if there is more than) (one
8 - Course Objectives	
● Understanding and analyzing the types of movement in the human body	

9 Teaching and learning strategies -

A. Cognitive objectives

1. .Defining the natural laws that affect the movement of the human body
2. .Defining the factors that help in analyzing human body movement
3. Iron deficiency or impairment in body movement and how to restore it to .normal

.B. The specific skills objectives of the course

1. Conducting scientific research experiments consisting of two-dimensional and three-dimensional kinetic analysis and some physical and .anthropometric measurements

2. Teaching students and developing their abilities and skills in conducting motion analysis experiments on cameras and advanced analysis programs, .and conducting physical and anthropometric measurements

Holding educational and training courses and seminars to qualify staff in .3 .how to use the equipment inside the laboratory

Contributing with other relevant parties to the prevention of sedentary .4 .diseases through sports programs

Teaching and learning methods

In-person education (scientific films and videos, laboratories, summer and (professional training and graduation projects

Scientific visits and practical training in hospitals by specialized medical .staff

Assessment methods

weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson

.C. Affective and value-based objectives

1. The ability to communicate effectively with those concerned in the field of specialization.
2. Recognizing the need for and ability to engage in lifelong learning.
3. Knowledge of contemporary issues in the field of specialization.
4. The broad education necessary to understand global solutions and socio-economic and environmental problems to supply health institutions with the necessary specialties in rehabilitation and treatment of patients in specialized hospitals and consulting clinics.

Teaching and learning methods

In-person lectures), summer and professional training, graduation projects,) field visits, and practical training for clinical subjects.

●Assessment methods

Daily, quarterly and final tests, submission of weekly reports, patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.

D. General and transferable skills (other skills related to employability and personal development).

1. Skills in cooperation and teamwork.
2. Computer typing skills.
3. English language communication skills.
4. Skills for enduring work performance and solving problems.
5. Internet conversation skills.

Course Structure - 10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**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)	Knowledge and Application	Theory 2	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**Basic Concepts in Biomechanics: Kinematics and Kinetics (** Reaction forces, Equilibrium, Objects in Motion, Force of friction, Concurrent force systems, Parallel force systems, Work)	Knowledge and Application	Theory 2	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**Basic Concepts in Biomechanics: Kinematics and Kinetics (Moment** arm of force, Force components, Equilibrium of levers , Supporting base, types, and equilibrium in static and dynamic state)	Knowledge and Application	Theory 2	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**Muscle structure and function:** Mobility and stability functions of muscles, Elements of muscle structure, Muscle function, Effects of immobilization, and aging	Knowledge and Application	Theory 2	Fourth

Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Levers** – Definition, function, classification and application of levers in physiotherapy & order of levers with example of lever in human body	**Knowledge and Application**	**Theory 2**	**Fifth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Elasticity** – Definition, stress, strain, HOOKE'S Law	**Knowledge and Application**	**Theory 2**	**Sixth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**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.	**Knowledge and Application**	**Theory 2**	**Seventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscular System** : Definition, properties of muscle, muscular contraction, structural classification,	**Knowledge and Application**	**Theory 2**	**Eighth**

		action of muscle in moving bone, direction of pull, angle of pull, functional classification, coordination of muscular system.			
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**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.	**Knowledge and Application**	**Theory 2**	**Ninth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**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.	**Knowledge and Application**	**Theory 2**	**tenth**

Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Joint Structure and Function:** Classify joints: Synarthrosis, amphiarthrosis, diarthrosis, subclassification of synovial joints.	**Knowledge and Application**	**Theory 2**	**eleventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Joint Structure and Function:** Describe joint functions, kinematics, range of motion, Describe the general effects of injury and disease.	**Knowledge and Application**	**Theory 2**	**twelfth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Posture** – dynamic and static posture, kinetic and kinematics of posture, analysis of posture, effect of age, pregnancy, occupation on posture.	**Knowledge and Application**	**Theory 2**	**thirteenth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Gait** – kinematics and kinetics of gait, gait in running and stair climbing.	**Knowledge and Application**	**Theory 2**	**fourteenth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides,**	**Revision**	**Knowledge and Application**	**Theory 2**	**fifteenth**

	practical experiments				

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Basic Biomechanics of the Musculoskeletal System (4th ed.). Lippincott Williams & Wilkin	Required textbooks (curriculum (books, if available
Hamill, J., Knutzen, K. M., & Derrick, T. R. (2015). *Biomechanical Basis of Human Movement* (4th ed.). Wolters Kluwer	Main references (sources)
Journal of Biomechanics Clinical Biomechanics Gait & Posture	Recommended books and references (scientific journals (…and reports
National Center for Biotechnology Information (NCBI)	Electronic references and websites

Principles of Physiology	Course Name -1
PTT105	Course code -2
First semester / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
30 hour theory + 60 hours practical / 4 units 1	Number of credit hours (total) -6 Number of units (total) /
Dr. Abeer Taleb Abdelkader	course coordinator Name of the -7 list all names, if there is more than) (one

Course Objectives-8

1- .Acquiring skills in addition to information pertaining to the medical condition

9 Teaching and learning strategies -

A. Cognitive objectives

The cognitive objectives of studying medical physiology in the Department of Physical Therapy Technologies include providing students with in-depth and comprehensive knowledge about how biological systems function in the human body under normal conditions and how disease or injury affects :these functions. The following are key cognitive objectives in this field

1. Understanding normal functions: Learning how different body systems .function under normal conditions

2. Physiological mechanisms: Understanding the mechanisms of .physiological regulation and how to control the body's internal environment

Stress response: Understanding how the body adapts to different .3
.stressors such as trauma, infection, and environmental changes

The impact of diseases: Learn about the physiological changes that .4
.occur during illness or injury and how they affect bodily systems

Systems integration: Understanding how different physiological systems .5
.interact and function in an integrated way

By achieving these cognitive objectives, physiotherapy technology students gain the necessary knowledge base to understand the physiological needs of their patients and how to use this knowledge to improve physiotherapy .and rehabilitation outcomes

.B. The specific skills objectives of the course

The skills-based objectives of studying medical physiology within the Department of Physical Therapy Techniques focus on developing practical skills that can be used in assessing and managing patient conditions and improving the physical therapy process. Some of the main objectives are as :follows

Assessment Skills: Developing the ability to conduct an accurate .1
physiological assessment of patients, using various assessment tools and .equipment

Application of measurements: The ability to interpret physiological data .2
.and use it in treatment planning

Intervention skills: The ability to design and implement physical therapy .3
.plans based on an understanding of the physiology of different conditions

Therapeutic responses: Learn how to modify physiotherapy interventions .4
.based on the patient's physiological responses

Manual skills: Acquiring specialized manual skills in dealing with .5
therapeutic exercises and other techniques based on physiological
.principles

By achieving these skill objectives, graduates of physiotherapy technologies become equipped with the practical skills necessary to provide high-quality and effective care based on a thorough understanding of medical
.physiology

Teaching and learning methods

In-person education (scientific films and videos, laboratories, summer and
(professional training and graduation projects
Scientific visits and practical training in hospitals by specialized medical
.staff

Assessment methods

weekly reports within the subject, ,final exams Daily tests, term exams -
seminars within the study materials, discussions and conversations during
.the lesson

C. Affective and value-based objectives

The affective and ethical goals of studying medical physiology in the Department of Physical Therapy Techniques involve developing personal values and attitudes that promote humane and ethical professional practice.
:These goals include

Commitment to good healthcare: Promoting a sense of responsibility .1 towards providing the best possible care while maintaining the physiological .integrity of patients

Empathy and Understanding: Developing empathy and the ability to .2 understand the human experiences and personal challenges faced by .patients

Academic and professional integrity: Forming ethical habits in learning .3 .and practice that protect the credibility of the profession

Respect for self and others: Instilling respect for oneself and for .4 .humanity in all interactions with patients and colleagues

Accountability: Emphasizing the high value of personal accountability in .5 .making treatment decisions based on accurate physiological knowledge

By achieving these goals, students are able to apply knowledge of medical physiology in a compassionate, merciful, and responsible manner towards .their patients

Teaching and learning methods

n-person lectures), summer and professional training, graduation projects,) .field visits, and practical training for clinical subjects

●Assessment methods

Daily, quarterly and final tests, submission of weekly reports and patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.

D. General and transferable skills (other skills related to employability and personal development)

1. Skills in cooperation and teamwork.

2. Computer typing skills.

3. English language communication skills.

4. Skills for enduring work performance and solving problems.

5. Internet conversation skills.

Course structure -10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**Reproductive System:** 1. Sex determination and development, Puberty. 2. Male sex hormones and their functions, spermatogenesis.	Knowledge and Application	Theory 2 4 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**Reproductive System:** 3. Female sex hormones and functions, menstrual cycle, ovulation and contraceptives. 4. Pregnancy, functions of placenta and lactation	Knowledge and Application	Theory 2 4 + Practical	the second

Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Excretory System:** 1. Gross and minute structure of Kidney and features of Renal circulation. 2. Mechanism of formation of Urine, GFR and Tubular function.	**Knowledge and Application**	**Theory 2 4 + Practical**	**the third**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Excretory System:** 3. Renal function. 4. Physiology of Micturition	**Knowledge and Application**	**Theory 2 4 + Practical**	**Fourth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscle and Nerve:** 1. Structure of Neurons, membrane potential and generation of action potential. 2. Nerve impulse conduction, saltatory conduction.	**Knowledge and Application**	**Theory 2 4 + Practical**	**Fifth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscle and Nerve:** 3. Neuromuscular junction and drugs acting on it – Myasthenia. 4. Degeneration and regeneration in peripheral nerves – Wallerian degeneration of	**Knowledge and Application**	**Theory 2 4 + Practical**	**Sixth**

		electrotonus and flaggers Law.			
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**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	**Knowledge and Application**	**Theory 2 4 + Practical**	**Seventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscle:** 3. Electrical – Biphasic and monophasic action potentials. 4. Chemical, thermal and physical changes, isometric and isotonic contraction.	**Knowledge and Application**	**Theory 2 4 + Practical**	**Eighth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscle:** 5. Motor units and its properties, Clonus, Tetanus, All or None Law, Beneficial Effect. 6. Nature of Voluntary contraction, Fatigue.	**Knowledge and Application**	**Theory 2 4 + Practical**	**Ninth**
Reports, oral and written	**Whiteboard, PowerPoint slides,**	**Nervous System:** 1. Types and properties of	**Knowledge and Application**	**Theory 2 4 + Practical**	**tenth**

theory exams	**practical experiments**	receptors, types of sensations. 2. Structure of Synapses, Reflex and its properties, occlusion summation, sub minimal fringe, etc.			
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Nervous System:** 3. Tracts of Spinal Cord. 4. Descending, pyramidal and extra pyramidal tracts.	**Knowledge and Application**	**Theory 2 4 + Practical**	**eleventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Nervous System:** 5. Hemi section and complete section of spinal cord, upper and lower motor neuron paralysis. 6. Cerebral cortex – areas and functions, EEG	**Knowledge and Application**	**Theory 2 4 + Practical**	**twelfth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Nervous System:** 7. Structure, connections and functions of Cerebellum. 8. Connections and functions of Basal Ganglia and Thalamus	**Knowledge and Application**	**Theory 2 4 + Practical**	**thirteenth**
Reports, oral and written	**Whiteboard, PowerPoint**	**Nervous System:** 9. Reticular	**Knowledge and Application**	**Theory 2 4 + Practical**	**fourteenth**

theory exams	slides, practical experiments	formation, tone, posture and balance. 10. Autonomic nervous system.			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Revision	Knowledge and Application	Theory 2 4 + Practical	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Guyton, A. C., & Hall, J. E. (2021). *Guyton and Hall Textbook of Medical Physiology* (14th ed.). Elsevier	Required textbooks (curriculum (books, if available
Costanzo, L. S. (2018). *Physiology* (6th ed.). Elsevier	Main references (sources)
American Journal of Physiology Journal of Applied Physiology Physiological Reviews	Recommended books and references (scientific journals (...and reports
American Physiological Society (APS)	Electronic references and websites

Human physiology	Course Name -1
PTT106	Course code -2
Chapter Two 2025/2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
hours of theory + 60 hours of practical 30 work / 4 units	Number of credit hours (total) -6 Number of units (total) /
Dr. Abeer Taleb Abdelkader	course coordinator Name of the -7 list all names, if there is more than) (one

8- Course Objectives

.Acquiring skills in addition to information pertaining to the medical condition

9- Teaching and learning strategies

A. Cognitive objectives

The cognitive objectives of studying medical physiology in the Department of Physical Therapy Technologies include providing students with in-depth and comprehensive knowledge about how biological systems function in the human body under normal conditions and how disease or injury affects :these functions. The following are key cognitive objectives in this field

1. Principles of physiotherapy: The application of physiological knowledge .in physiotherapy and rehabilitation techniques

2. Functional assessment: Learn how to assess body functions and develop .physical therapy plans based on this assessment

Understanding drug interactions: Knowledge of how drugs affect the .3
body's physiology and how they can affect the outcomes of physical
.therapy

Evidence-based learning: Conducting research and interpreting the .4
literature to stay up-to-date with the latest principles and practices in
.physiology

Communication skills: Developing a reasonable ability to communicate to .5
.explain physiology to patients in an easily understandable way

By achieving these cognitive objectives, physiotherapy technology students gain the necessary knowledge base to understand the physiological needs of their patients and how to use this knowledge to improve physiotherapy
.and rehabilitation outcomes

.B. The specific skills objectives of the course

The skills-based objectives of studying medical physiology within the Department of Physical Therapy Techniques focus on developing practical skills that can be used in assessing and managing patient conditions and improving the physical therapy process. Some of the main objectives are as
:follows

Functional training: The ability to use functional enhancement and .1
.healing techniques based on physiological knowledge

Professional Communication: Developing the ability to explain .2
physiological concepts clearly and professionally to other members of the
.healthcare team and to patients

Research skills: The ability to participate in scientific research activities to .3 develop a deeper understanding of physiology and its applications in .physical therapy Technology skills: Learning to use modern technologies in assessing .4 .physiological functions and implementing treatments Analysis and deduction: The ability to analyze complex health conditions .5 .and deduce appropriate treatment strategies By achieving these skill objectives, graduates of physiotherapy technologies become equipped with the practical skills necessary to provide high-quality and effective care based on a thorough understanding of medical .physiology
Teaching and learning methods
In-person education (scientific films and videos, laboratories, summer and (professional training and graduation projects Scientific visits and practical training in hospitals by specialized medical .staff
Assessment methods
weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson
C. Affective and value-based objectives The affective and ethical goals of studying medical physiology in the Department of Physical Therapy Techniques involve developing personal values and attitudes that promote humane and ethical professional practice. :These goals include

Continuous professional development: Encouraging motivation for .1
continuous learning and diligence in staying up-to-date with the latest
.developments in the field of medical physiology

Teamwork: Encouraging a spirit of teamwork in a multidisciplinary .2
.context, which helps to achieve better patient outcomes

Flexibility: Developing the ability to adapt to professional challenges and .3
.changes in patients' health conditions

Sense of initiative: Instilling self-confidence and courage to take .4
.appropriate action at the right time

Cultural and social awareness: Developing awareness and sensitivity to .5
.cultural and social differences that may affect healthcare

By achieving these goals, students are able to apply knowledge of medical physiology in a compassionate, merciful, and responsible manner towards .their patients

Teaching and learning methods

n-person lectures), summer and professional training, graduation projects,)
.field visits, and practical training for clinical subjects

●Assessment methods

Daily, quarterly and final tests, submission of weekly reports and patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.

D. General and transferable skills (other skills related to employability and personal development).

1. Skills in cooperation and teamwork.

2. Computer typing skills.

3. English language communication skills.

4. Skills for enduring work performance and solving problems.

5. Internet conversation skills.

Course structure -10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**Reproductive System:** 1. Sex determination and development, Puberty. 2. Male sex hormones and their functions, spermatogenesis.	Knowledge and Application	Theory 2 4 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**Reproductive System:** 3. Female sex hormones and functions, menstrual cycle, ovulation and contraceptives. 4. Pregnancy, functions of placenta and lactation	Knowledge and Application	Theory 2 4 + Practical	the second
Reports, oral and written	Whiteboard, PowerPoint	**Excretory System:** 1. Gross and	Knowledge and Application	Theory 2 4 + Practical	the third

theory exams	**slides, practical experiments**	minute structure of Kidney and features of Renal circulation. 2. Mechanism of formation of Urine, GFR and Tubular function.			
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Excretory System**: 3. Renal function. 4. Physiology of Micturition	**Knowledge and Application**	**Theory 2 4 + Practical**	**Fourth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscle and Nerve**: 1. Structure of Neurons, membrane potential and generation of action potential. 2. Nerve impulse conduction, saltatory conduction.	**Knowledge and Application**	**Theory 2 4 + Practical**	**Fifth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscle and Nerve**: 3. Neuromuscular junction and drugs acting on it – Myasthenia. 4. Degeneration and regeneration in peripheral nerves – Wallerian degeneration of electrotonus and flaggers Law.	**Knowledge and Application**	**Theory 2 4 + Practical**	**Sixth**

Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**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.	**Knowledge and Application**	**Theory 2 4 + Practical**	**Seventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscle:** 3. Electrical – Biphasic and monophasic action potentials. 4. Chemical, thermal and physical changes, isometric and isotonic contraction.	**Knowledge and Application**	**Theory 2 4 + Practical**	**Eighth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Muscle:** 5. Motor units and its properties, Clonus, Tetanus, All or None Law, Beneficial Effect. 6. Nature of Voluntary contraction, Fatigue.	**Knowledge and Application**	**Theory 2 4 + Practical**	**Ninth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Nervous System:** 1. Types and properties of receptors, types of sensations. 2. Structure of	**Knowledge and Application**	**Theory 2 4 + Practical**	**tenth**

		Synapses, Reflex and its properties, occlusion summation, sub minimal fringe, etc.			
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Nervous System:** 3. Tracts of Spinal Cord. 4. Descending, pyramidal and extra pyramidal tracts.	**Knowledge and Application**	**Theory 2 4 + Practical**	**eleventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Nervous System:** 5. Hemi section and complete section of spinal cord, upper and lower motor neuron paralysis. 6. Cerebral cortex – areas and functions, EEG	**Knowledge and Application**	**Theory 2 4 + Practical**	**twelfth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Nervous System:** 7. Structure, connections and functions of Cerebellum. 8. Connections and functions of Basal Ganglia and Thalamus	**Knowledge and Application**	**Theory 2 4 + Practical**	**thirteenth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Nervous System:** 9. Reticular formation, tone, posture and balance. 10.	**Knowledge and Application**	**Theory 2 4 + Practical**	**fourteenth**

		Autonomic nervous system.			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Revision	Knowledge and Application	Theory 2 4 + Practical	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Guyton, A. C., & Hall, J. E. (2021). *Guyton and Hall Textbook of Medical Physiology* (14th ed.). Elsevier	Required textbooks (curriculum (books, if available
Costanzo, L. S. (2018). *Physiology* (6th ed.). Elsevier	Main references (sources)
American Journal of Physiology Journal of Applied Physiology Physiological Reviews	Recommended books and references (scientific journals (…and reports
PubMed – Human Physiology Research	Electronic references and websites

kinesiology	Course Name -1
PTT102	Course code -2
Chapter Two 2025/2026	Year Semester / -3
15/9/2025	Date of preparation of the -4 description
In-person lectures	Available forms of attendance -5
30 Theoretical hour / 2 units	Number of credit hours (total) / -6 Number of units (total)
Dr. Salah Fadel Abdul Jabbar	course coordinator (list all Name of the -7 (names, if there is more than one

8- Course Objectives

Understanding the types and analysis of advanced movement in the human body and how to deal .with them

Teaching and learning strategies -9

A. Cognitive objectives

1. .Defining the natural laws affecting the movement of the human body
2. .Defining the factors that help in analyzing human body movement

.B. The specific skills objectives of the course

1. Identifying the deficiency or defect in body movement and how to .restore it to its normal state
2. .Knowing the specific exercises for each of the different body movements

Teaching and learning methods
In-person education (scientific films and videos, summer and professional (training and graduation projects .Scientific visits and practical training in hospitals by specialized medical staff
Assessment methods
weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson
C. Affective and value-based objectives For the student to acquire the concepts and fundamentals of kinesiology in .1 .the human body Analyzing the problems faced by the employees and how to develop the .2 .necessary solutions .Working as a team among different staff members .3 .Understanding the suffering of patients and alleviating their pain .4
Teaching and learning methods
In-person lectures), summer and professional training, graduation projects,) and field visits.
●Assessment methods
Daily, quarterly, and final exams; submission of weekly reports; patient .seminars; and follow-up reports The clinical case of the patients with practical discussions during the .practical lesson in the hospital
D. General and transferable skills (other skills related to employability and .(personal development .Skills in cooperation and teamwork .1 .Computer typing skills .2

.English language communication skills .3

.Skills for enduring work performance and solving problems .4

.Internet conversation skills .5

Course structure -10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	**peripheral joints The shoulder complex:** Structure and components of the shoulder complex and their integrated function	Knowledge and Application	Theory 2	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	**The elbow complex:** Structure and function of the elbow joint – humeroulnar and humeroradial articulations, superior and inferior radioulnar joints; mobility and stability of the elbow complex; the effects of immobilization and injury.	Knowledge and Application	Theory 2	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	**The wrist and hand complex:** Structural components and functions of the wrist complex; structure of the hand complex; comprehension; functional position of the wrist and hand.	Knowledge and Application	Theory 2	the third
Reports, oral and written	Whiteboard,	**The hip complex:** Structure and function of the hip joint; hip joint	Knowledge and Application	Theory 2	Fourth

theory exams	**PowerPoint slides**	pathology – arthrosis, fracture, bone abnormalities of the femur.			
Reports, oral and written theory exams	**Whiteboard,** **PowerPoint slides**	**The knee complex:** Structure and function of the knee joint – tibiofemoral joint and patellofemoral joint; effects of injury and disease.	**Knowledge and Application**	**Theory 2**	**Fifth**
Reports, oral and written theory exams	**Whiteboard,** **PowerPoint slides**	**The ankle and foot complex.:** structure and function of the ankle joint, subtalar joint, talocalcaneonavicular joint, transverse tarsal joint, tarsometatarsal joints, metatarsophalangeal joints, interphalangeal joints, structure and function of the plantar arches, muscles of the ankle and foot, deviations from normal structure and function – Pes Planus and Pes Cavus	**Knowledge and Application**	**Theory 2**	**Sixth**
Reports, oral and written theory exams	**Whiteboard,** **PowerPoint slides**	**The ankle and foot complex.:** structure and function of the ankle joint, subtalar joint, talocalcaneonavicular joint, transverse tarsal joint, tarsometatarsal joints, metatarsophalangeal joints, interphalangeal joints, structure and function of the plantar arches, muscles of the	**Knowledge and Application**	**Theory 2**	**Seventh**

		ankle and foot, deviations from normal structure and function – Pes Planus and Pes Cavus			
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides**	**Thorax and Chest wall:** General structure and function, Rib cage and the muscles associated with the rib cage, Ventilatory movements: its coordination and integration, Developmental aspects of structure and function, Changes in normal structure and function I relation to pregnancy, scoliosis and COPD	**Knowledge and Application**	**Theory 2**	**Eighth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides**	**Thorax and Chest wall:** General structure and function, Rib cage and the muscles associated with the rib cage, Ventilatory movements: its coordination and integration, Developmental aspects of structure and function, Changes in normal structure and function I relation to pregnancy, scoliosis and COPD	**Knowledge and Application**	**Theory 2**	**Ninth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides**	**Temporomandibular Joint:** General features, structure, function and dysfunction	**Knowledge and Application**	**Theory 2**	**tenth**

Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Gait: Define, the stance, swing and double support phases of gait, the sup-division of the stance and swing phases of gait, the time and distance parameters of gait	Knowledge and Application	Theory 2	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Gait: Joint motion at the hip, knee and able for one extreme during a gait cycle. The location of line of gravity in relation to the hip, knee and ankle during the stance phases of gait. The gravitational moments of force acting at the hip, knee and able during the stance phase.	Knowledge and Application	Theory 2	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Gait: Muscle activity at the hop, knee and able throughout the gait cycle, including why and when a particular muscle is active and the type of construction required. The role of each of the determinants of gait.	Knowledge and Application	Theory 2	thirteenth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Gait: The muscle activity that occurs in the upper extremity and trunk. Pathological gaits and gait deviations	Knowledge and Application	Theory 2	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Revision	Knowledge and Application	Theory 2	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Neumann, D. A. (2017). *Kinesiology of the Musculoskeletal System: Foundations for Rehabilitation* (3rd ed.). Elsevier	Required textbooks (curriculum (books, if available
Enoka, R. M. (2015). *Neuromechanics of Human Movement* (5th ed.). Human Kinetics.	Main references (sources)
Journal of Biomechanics Journal of Applied Biomechanics	Recommended books and references (scientific journals (...and reports
PubMed – Kinesiology & Human Movement Research:	Electronic references and websites

Clinical Chemistry	Course Name -1
PTT109	Course code -2
First semester 2025/2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
30 hour theory + 60 hours practical / 4 1 units	Number of credit hours (total) -6 Number of units (total) /

Dr. Ahmed Moussa Khalaf	course coordinator Name of the -7 list all names, if there is more than) (one

Course Objectives -8

Acquiring skills in addition to information pertaining to the medical .condition

learning strategies Teaching and -9

A. Cognitive objectives

The cognitive objective of studying clinical chemistry in the Department of Physical Therapy Technologies includes understanding the chemical and biochemical processes that occur in the body and how these processes :affect patients' health and treatment. Other objectives include

Understanding the body's chemical composition: Identifying the basic **.1** chemical components such as proteins, fats, carbohydrates, and vitamins, and their role in maintaining health.

Clinical Analyses: Learn how to perform and interpret various clinical **.2** chemical tests that help in diagnosing diseases and monitoring the course of treatment.

The relationship between chemistry and physical therapy: Understanding **.3** how chemical changes in the body can affect functional performance and healing, .and how physical therapy can interfere with these processes

Integrating chemical knowledge into therapeutic practices: Using clinical **.4** chemistry knowledge to improve physical therapy techniques and develop .personalized treatment programs for each patient

Clinical Decision Making: Developing the ability to evaluate and effectively .5
.use clinical chemical data in making medical decisions related to physical therapy
This comprehensive understanding helps students in physical therapy techniques to better connect with the patient care team and contribute more to the patient's
.overall treatment plan

.B. The specific skills objectives of the course

The skills-based objectives of studying clinical chemistry in the Department of Physiotherapy Technology focus on enabling students to perform a variety of :practical and applied activities. Some of these objectives are listed below

Sample analysis skills: Learn how to properly collect and prepare biological .1
.samples for chemical analysis

Operating laboratory equipment: Acquiring the ability to handle laboratory .2
equipment and techniques used in clinical chemistry, such as spectrometers and
.blood chemistry analyzers

Laboratory Technique Skills: Developing the ability to conduct biochemical .3
.tests and accurately interpret their results

Laboratory safety skills: Understanding and applying biological and chemical .4
.safety rules within the laboratory

Evaluating and analyzing results: Developing skills in evaluating clinical .5
.chemical results and relating them to the patient's health status

Critical thinking and problem-solving: Enhancing the ability to think critically .6
.about analyzing chemical data and applying it in physiotherapy cases

Effective communication: Improving communication skills with other members .7 of the medical team and with patients in an effective manner, especially when .explaining procedures and results Continuing Education: Encouraging students to pursue further education and .8 .professional development in the field of clinical chemistry and physiotherapy Training in these skills prepares students to become qualified professionals capable of supporting healthcare teams and improving the quality of physical .therapy provided to patients
Teaching and learning methods
In-person education (scientific films and videos, laboratories, summer and (professional training and graduation projects .Scientific visits and practical training in hospitals by specialized medical staff
Assessment methods
weekly reports within the subject, seminars ,final exams Daily tests, term exams - .within the study materials, discussions and conversations during the lesson
C. Affective and value-based objectives Affective and value-based objectives are an essential part of the educational process, especially in a field like clinical chemistry related to physical therapy. :Here are some of these objectives Respect for biological and biotic diversity: Appreciating the individual diversity .1 of patients and understanding that biochemical differences require an .individualized approach to treatment Professional responsibility: Developing a sense of responsibility as healthcare .2 .providers and paying attention to every detail in the treatment process Empathy and compassion: Promoting empathy towards patients and developing .3 .the ability to communicate emotionally and support them psychologically

Commitment to ethical standards: Adherence to ethical rules and a code of .4
.conduct to avoid harm and ensure the highest levels of patient care
Continuous development and passion for knowledge: Finding the motivation for .5
continuous development and updating knowledge to provide the best possible
.treatment
:We also work to instill the value of
Appreciation of the importance of clinical chemistry: Developing an .6
understanding of how clinical chemistry contributes to improving the quality of
.life of patients
Self-confidence and professionalism: Building confidence in personal abilities .7
.and acquired skills, and acting professionally at all times
Teamwork and cooperation: Encouraging cooperation and teamwork among .8
.physical therapy students and other health professions
Leadership: Encouraging the development of leadership and initiative skills in .9
.order to contribute effectively to improving healthcare practices
Through these affective and value-based goals, students are prepared to become
professionals who strive for excellence in their field and are motivated to make a
.positive difference in the lives of patients

Teaching and learning methods

n-person lectures), summer and professional training, graduation projects,)
.field visits, and practical training for clinical subjects

●Assessment methods

Daily, quarterly and final tests, submission of weekly reports, patient
seminars and clinical patient follow-up reports with practical discussions
.during the clinical lesson in the hospital

D. General and transferable skills (other skills related to employability and
.(personal development
.Skills in cooperation and teamwork .1

.Computer typing skills .2

.English language communication skills .3

.Skills for enduring work performance and solving problems .4

.Internet conversation skills .5

Course Structure-10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	CELL	Knowledge and Application	Theory 2 4 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	BODY FLUIDS	Knowledge and Application	Theory 2 4 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	BIOMOLECULES: AMINO ACIDS, PEPTIDES & PROTEINS	Knowledge and Application	Theory 2 4 + Practical	the third

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	BIOMOLECULES: AMINO ACIDS, PEPTIDES & PROTEINS	Knowledge and Application	Theory 2 4 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	ENZYMES	Knowledge and Application	Theory 2 4 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	CARBOHYDRATES	Knowledge and Application	Theory 2 4 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	LIPIDS	Knowledge and Application	Theory 2 4 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical	LIPIDS	Knowledge and Application	Theory 2 4 + Practical	Eighth

	experiments				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Nucleic Acids	Knowledge and Application	Theory 2 4 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	NUTRITIONAL BIOCHEMISTRY: MINERALS & TRACE ELEMENTS	Knowledge and Application	Theory 2 4 + Practical	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	NUTRITIONAL BIOCHEMISTRY: MINERALS & TRACE ELEMENTS	Knowledge and Application	Theory 2 4 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	VITAMINS	Knowledge and Application	Theory 2 4 + Practical	twelfth
Reports, oral and written	Whiteboard, PowerPoin	NUTRITION	Knowledge and Application	Theory 2 4 + Practical	thirteenth

theory exams	t slides, practical experimen ts				
Reports, oral and written theory exams	Whiteboar d, PowerPoin t slides, practical experimen ts	MOLECULAR BIOLOGY	Knowledge and Application	Theory 2 4 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboar d, PowerPoin t slides, practical experimen ts	Revision	Knowledge and Application	Theory 2 4 + Practical	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Burtis, CA, Ashwood, ER, & Bruns, DE (2017). *Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics* (8th ed.). Elsevier	Required textbooks (curriculum (books, if available
Mayne, P. D. (2010). *Clinical Chemistry in Diagnosis and Treatment* (7th ed.). CRC Press.	Main references (sources)
Clinical Biochemistry (Journal)	Recommended books and references (scientific journals (...and reports

PubMed – Clinical Biochemistry Research	Electronic references and websites

Medical Physics	Course Name –1
PTT 110	Course code –2
Chapter Two 2025/2026	Semester / Year –3
15/9/2025	Date of preparation of –4 the description
n–person lectures	Available forms of –5 attendance
30 hour theory + 60 hours practical / 4 1	Number of credit hours (total) –6 Number of units (total) /
Dr. Muhammad Ajami Abd	course coordinator Name of the –7 list all names, if there is more than) (one

Course Objectives –8
Acquiring skills in addition to information concerning the relationship between physics and .movement and its relationship to physical therapy
learning strategies Teaching and –9
A. Cognitive objectives This involves understanding how physical laws apply to the human body :and using physical therapies to improve health. Goals include Understanding the scientific foundations and physical principles that .1 .are considered the basis for natural therapies Learn how to use physics–based medical machines and devices in .2 .physical therapy

Extrapolating how movement, forces, and pressure affect the human .3 .body

To learn how to use heat, cold, ultrasound and electrical therapies in .4 .managing patient conditions

Developing the ability to analyze data and conduct appropriate .5 .assessments to select the optimal treatment

Achieving these goals ensures students have the skills necessary to understand and apply medical physics effectively in the physiotherapy .profession

.B. The specific skills objectives of the course

The skills-based objectives of studying medical physics within the Department of Physical Therapy Technologies aim to develop a range of practical skills that enhance the student's ability to interact directly with patients and utilize various tools and technologies. These objectives may :include

.Mastering the use of specialized equipment and tools in physiotherapy .1

.Applying therapeutic techniques based on physical principles safely and effectively .2

.Developing effective communication skills with patients while providing physical therapies .3

Evaluate individual cases and determine appropriate dosages for physiotherapy using medical .4 .physics

.Developing critical thinking and problem-solving skills related to physical therapy .5

.Learn how to conduct tests and interpret results to evaluate the effectiveness of treatments .6

These skills help students become professionals capable of working independently and .contributing effectively to healthcare teams

Teaching and learning methods

In-person education (scientific films and videos, laboratories, summer and (professional training and graduation projects

Scientific visits and practical training in hospitals by specialized medical .staff

Assessment methods

weekly reports within the subject, ,final exams Daily tests, term exams –
seminars within the study materials, discussions and conversations during
.the lesson

C. Affective and value-based objectives

The affective objectives of studying medical physics in the Department of Physical Therapy Technologies relate to developing students' attitudes, values, and feelings :toward their profession and their patients. Here are some of these objectives

1. To promote a sense of professional and ethical responsibility in the provision of .healthcare
2. Appreciating the importance of accuracy and attention to detail in treatment .procedures
3. Self-development and a tendency towards continuous learning to keep up with .developments in the medical and physical fields
4. Empathy for patients, understanding their needs, and a desire to improve their quality .of life
5. Building teamwork skills through collaboration and sharing experiences and .knowledge with colleagues
6. Encouraging a positive attitude towards work, as well as passion and motivation to .improve therapeutic practices
7. Developing self-confidence and the ability to make balanced decisions in practical .contexts

Affective goals contribute to building professionals who are not only skilled but also .empathetic and willing to work according to the highest standards of healthcare

n-person lectures), summer and professional training, graduation projects,)
.field visits, and practical training for clinical subjects

●Assessment methods

Daily, quarterly and final tests, submission of weekly reports and patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.

D. General and transferable skills (other skills related to employability and personal development).

1. Skills in cooperation and teamwork.
2. Computer typing skills.
3. English language communication skills.
4. Skills for enduring work performance and solving problems.
5. Internet conversation skills.

10- Course structure

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	ELECTRICITY AND MAGNETISM	Knowledge and Application	Theory 2 4 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	STATIC ELECTRICITY	Knowledge and Application	Theory 2 4 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	CURRENT ELECTRICITY	Knowledge and Application	Theory 2 4 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides,	ELECTROMAGNETISM	Knowledge and Application	Theory 2 4 + Practical	Fourth

	practical experiments				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	ELECTRO MECHANICS	Knowledge and Application	Theory 2 4 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	CLASSIFICATION OF CURRENTS	Knowledge and Application	Theory 2 4 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	MEDIUM FREQUENCY CURRENT	Knowledge and Application	Theory 2 4 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	HIGH FREQUENCY CURRENT	Knowledge and Application	Theory 2 4 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	SOUND WAVES	Knowledge and Application	Theory 2 4 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	HEAT	Knowledge and Application	Theory 2 4 + Practical	tenth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	ELECTROMAGNETIC RADIATION	Knowledge and Application	Theory 2 4 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	SAFETY IN BIOMEDICAL INSTRUMENTS	Knowledge and Application	Theory 2 4 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	RADIATION PROTECTION	Knowledge and Application	Theory 2 4 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	PRACTICAL	Knowledge and Application	Theory 2 4 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	PRACTICAL	Knowledge and Application	Theory 2 4 + Practical	fifteenth

Course Evaluation -11

Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -

Hendee, W. R., Ritenour, E. R., & Kanal, E. (2013). *Medical Imaging Physics* (4th ed.). Wiley.	Required textbooks (curriculum (books, if available
Podgorsak, E. B. (2006). *Radiation Physics for Medical Physicists.* Springer	Main references (sources)
Medical Physics (Journal, AAPM)	Recommended books and references (scientific journals (…and reports
ScienceDirect – Medical Physics Articles	Electronic references and websites

Principles of Medical Biology	Course Name -1
MTCD101	Course code -2
First semester 2025/2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
30 hour theory + 60 hours practical / 4 units 1	Number of credit hours (total) -6 Number of units (total) /
Dr. Luay Manna Ibrahim	course coordinator Name of the -7 list all names, if there is more than) (one

8- Course Objectives

Understanding the history and branches of medical biology allows for accurate diagnosis of the relationship and impact on body systems, which helps the physical .therapist deal with such cases

learning strategies Teaching and -9

A. Cognitive objectives

1. Understanding the types of causes that lead to injuries in the body
2. .Genetic factors and chromosomal changes
3. .The body's defense mechanism against pathogens
4. .Some of the causes of the disease and how to prevent it

.B. The specific skills objectives of the course

1. **Developing an understanding of the fundamentals of microbiology and the .research methods used in this field**
2. **Acquiring technical skills in the use of the microscope and other laboratory .instruments used in the analysis of live samples**
3. **Identifying different types of microorganisms, including bacteria, viruses, fungi, .and parasites**
4. **Developing the ability to estimate the size, shape, and cellular structure of living organisms using a microscope.**

Teaching and learning methods

In-person education (scientific films and videos, laboratories, summer and professional (training and graduation projects

.Scientific visits and practical training in hospitals by specialized medical staff

Assessment methods

weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson

C. Affective and value-based objectives

To foster interest and positive engagement with biology, promote awareness of the .1 importance of microorganisms in daily life, and understand the vital role they play in the .environment and public health

Analyzing the problems faced by the employees and how to develop the necessary .2 .solutions

.Working as a team among different staff members .3

.Understanding the suffering of patients and alleviating their pain .4

Teaching and learning methods

n-person lectures), summer and professional training, graduation projects, field visits,)
.and practical training for clinical subjects

●Assessment methods

Daily, quarterly and final tests, submission of weekly reports, patient seminars and clinical patient follow-up reports with practical discussions during the clinical lesson in .the hospital

D. General and transferable skills (other skills related to employability and personal .(development

.Skills in cooperation and teamwork .1

.Computer typing skills .2

.English language communication skills .3

.Skills for enduring work performance and solving problems .4

.Internet conversation skills .5

10 Course Structure -

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Histomicrology - History	Knowledge and Application	Theory 2 4 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Branches of Microbiology	Knowledge and Application	Theory 2 4 + Practical	the second

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Structure of Microbes	Knowledge and Application	Theory 2 4 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Morphology of Bacteria	Knowledge and Application	Theory 2 4 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Requirement of Bacteria	Knowledge and Application	Theory 2 4 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Nutrition ((Autotrophic : Photoautotrophic, Chemoautotrophic) Heterotrophic)	Knowledge and Application	Theory 2 4 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Factors influencing growth (Physical factors + Chemical factors)	Knowledge and Application	Theory 2 4 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Physical and chemical methods	Knowledge and Application	Theory 2 4 + Practical	Eighth
Reports, oral and written	Whiteboard, PowerPoint	ANTIBIOTICS THE BASES OF CHEMOTHERAPY	Knowledge and Application	Theory 2 4 + Practical	Ninth

theory exams	slides, practical experiments				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Classification tissue / Nucleic acid / properties Tissue/	Knowledge and Application	Theory 2 4 + Practical	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	growth curve	Knowledge and Application	Theory 2 4 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Introduction to Biosafety and Security, The main components of bio risk management, Safety measures in all laboratories and laboratory design, General safety precautions, Personal protective equipment.	Knowledge and Application	Theory 2 4 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Biosafety level, risk assessment strategy, Hazard groups, biosafety levels and equipment, Standard practices required in biological laboratories.	Knowledge and Application	Theory 2 4 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	The biological factors, Routes of infection, Risk group classification, Biosafety measures, Control of substances hazardous to health.	Knowledge and Application	Theory 2 4 + Practical	fourteenth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Revision	Knowledge and Application	Theory 2 4 + Practical	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Tortora, G. J., & Derrickson, B. (2018). *Principles of Anatomy and Physiology* (15th ed.). Wiley	Required textbooks (curriculum (books, if available
Marieb, E. N., & Hoehn, K. (2019). *Human Anatomy & Physiology* (11th ed.). Pearson	Main references (sources)
Annual Review of Cell and Developmental Biology	Recommended books and references (scientific journals (...and reports
PubMed – Medical Biology Research	Electronic references and websites

Vital statistics	Course Name -1
MTCD203	Course code -2
Chapter Two / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description

In-person lectures	Available forms of -5 attendance
hours of theory + 30 / Number of units: 3 30	Number of credit hours (total) -6 Number of units (total) /
Dr. Ghassan Jassim Hadi	course coordinator Name of the -7 list all names, if there is more than) (one

8 - Course Objectives

- The Biostatistics course focuses on the statistical methods used to collect, organize, summarize, present, analyze, and interpret biological, medical, and health data. This supports scientific research and decision-making in the health and medical fields, and helps students understand and analyze data using .appropriate statistical methods and specialized software

9 Teaching and learning strategies -

A. Cognitive objectives

4. They are the concept of statistics and biostatistics and their importance in scientific research
5. Identifying and classifying data types and variables
6. Understanding data collection methods and sampling techniques
7. Organizing, categorizing, and displaying data using tables and graphs
8. Applying measures of central tendency, dispersion, and skewness
9. Understanding the basics of probability and probability distributions
10. Analysis of demographic data and health indicators
11. .Using statistical software to analyze data and present results

.B. The specific skills objectives of the course

6. With scientific data in the right way
7. Classifying data and variables and distinguishing their types
8. Data classification and statistical analysis
9. Calculating key statistical indicators
5 Representing data using graphs and charts
6 Interpreting statistical results scientifically

7- .Using statistical software in analysis and report preparation
Teaching and learning methods
In-person education (scientific films and videos, laboratories, summer and (professional training and graduation projects Scientific visits and practical training in hospitals by specialized medical .staff
Assessment methods
weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson
.C. Affective and value-based objectives The ability to communicate effectively with those concerned in the field of .1 .specialization .Recognizing the need for and ability to engage in lifelong learning .2 .Knowledge of contemporary issues in the field of specialization .3 The broad education necessary to understand global solutions and socio- .4 economic and environmental problems to supply health institutions with the necessary specialties in rehabilitation and treatment of patients in .specialized hospitals and consulting clinics
Teaching and learning methods
In-person lectures), summer and professional training, graduation projects,) .field visits, and practical training for clinical subjects
●Assessment methods

Daily, quarterly and final tests, submission of weekly reports, patient seminars and clinical patient follow-up reports with practical discussions .during the practical lesson in the hospital
D. General and transferable skills (other skills related to employability and .(personal development .Skills in cooperation and teamwork .1 .Computer typing skills .2 .English language communication skills .3 .Skills for enduring work performance and solving problems .4 .Internet conversation skills .5

Course Structure - 10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Introduction to Statistics and Biostatistics	Knowledge and Application	Theory 2 2 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Data types and sources	Knowledge and Application	Theory 2 2 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Data collection methods and questionnaires	Knowledge and Application	Theory 2 2 + Practical	the third

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Samples and inspection methods	Knowledge and Application	Theory 2 2 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Organizing and displaying data in tabular and graphical formats	Knowledge and Application	Theory 2 2 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Measures of central tendency	Knowledge and Application	Theory 2 2 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	(Mean, Median, Mode)	Knowledge and Application	Theory 2 2 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Probability distributions	Knowledge and Application	Theory 2 2 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	standard error	Knowledge and Application	Theory 2 2 + Practical	Ninth
Reports, oral and written	Whiteboard, PowerPoint	Measures of dispersion and deviation	Knowledge and Application	Theory 2 2 + Practical	tenth

theory exams	slides, practical experiments				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Skewnessand Kurtosis	Knowledge and Application	Theory 2 2 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Fundamentals of Probability	Knowledge and Application	Theory 2 2 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Analysis of health and demographic data	Knowledge and Application	Theory 2 2 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	General review and practical .applications	Knowledge and Application	Theory 2 2 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Revision	Knowledge and Application	Theory 2 2 + Practical	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources –	
	Required textbooks (curriculum (books, if available
	Main references (sources)
	Recommended books and references (scientific journals (…and reports
	Electronic references and websites

Principles of Nursing and First Aid	Course Name –1
PTT103	Course code –2
First semester 2025/2026	Semester / Year –3
15/9/2025	Date of preparation of –4 the description
In–person lectures	Available forms of –5 attendance
hours of theory + 45 hours of practical 30 work / 3 units	Number of credit hours (total) –6 Number of units (total) /
M.M. Nada Wahab Ahmed	course coordinator Name of the –7 list all names, if there is more than) (one
8 – Course Objectives	
.Acquiring skills in addition to information pertaining to the medical condition	
learning strategies Teaching and –9	

A. Cognitive objectives 1. Knowledge of the practical application of the nursing profession and how to solve problems related to it. 2. How to treat the seat and also to create an atmosphere of understanding and cooperation between the patient and the therapist.
B. The specific skills objectives of the course. 1. How to measure vital signs. 2. How to administer injections and their types. 3. Inserting the drug administration device (cannula). 4. First aid (fractures, burns, suffocation, wounds, poisoning, etc.).
Teaching and learning methods
In-person education (scientific films and videos, laboratories, summer and (professional training and graduation projects Scientific visits and practical training in hospitals by specialized medical staff.
Assessment methods
weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during the lesson.
C. Affective and value-based objectives 1. For the student to acquire the concepts and basics of nursing and first aid. 2. Analyzing the problems faced by the employees and how to develop the necessary solutions. 3. Working as a team among different staff members. 4. Understanding the suffering of patients and alleviating their pain.
Teaching and learning methods

n-person lectures), summer and professional training, graduation projects,)
.field visits, and practical training for clinical subjects

●Assessment methods

Daily, quarterly and final tests, submission of weekly reports and patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.

D. General and transferable skills (other skills related to employability and .(personal development

.Skills in cooperation and teamwork .1

.Computer typing skills .2

.English language communication skills .3

.Skills for enduring work performance and solving problems .4

.Internet conversation skills .5

Course Structure-10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**Introduction** Definition of first aid. Importance of first aid, Golden rules of first aid, Scope and concept of emergency.	Knowledge and Application	Theory 2 3 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	**First aid emergencies** Burns & Scalds: Causes, Degrees of burns, First aid treatment, General treatment.	Knowledge and Application	Theory 2 3 + Practical	the second

Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**First aid emergencies** *Poisoning:* Classification (irritants, acid, alkali, narcotics), Signs and symptoms. First aid treatment, general treatment.	**Knowledge and Application**	**Theory 2 3 + Practical**	**the third**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**First aid emergencies** *Trauma due to foreign body intrusion:* Eye, ear, nose, throat, stomach and lungs.	**Knowledge and Application**	**Theory 2 3 + Practical**	**Fourth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**First aid emergencies** *Bites:* First aid, signs, symptoms and treatment. Dog bite: rabbit bite Snake bite: neurotoxin, bleeding diathesis Snake bite: neurotoxin, bleeding diathesis	**Knowledge and Application**	**Theory 2 3 + Practical**	**Fifth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Skeletal injuries** Definition: Types of fractures of various parts of the body. Causes, Signs and Symptoms. Rules of treatment, transportation of patient with fracture and spinal cord injuries. First aid measures in dislocation of joints. Treatment of muscle injuries.	**Knowledge and Application**	**Theory 2 3 + Practical**	**Sixth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Respiratory emergencies:** Asphyxia: Etiology, Signs & Symptoms, rules of treatment	**Knowledge and Application**	**Theory 2 3 + Practical**	**Seventh**

Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Respiratory emergencies**: Drowning: Definition and management.	**Knowledge and Application**	**Theory 2 3 + Practical**	**Eighth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Respiratory emergencies**: Artificial respiration: Types and techniques.	**Knowledge and Application**	**Theory 2 3 + Practical**	**Ninth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Wounds and Hemorrhage** Wounds: Classification, management	**Knowledge and Application**	**Theory 2 3 + Practical**	**tenth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Wounds and Hemorrhage** Haemorrhages: Classification, signs and symptoms, rules for treatment of hemorrhage	**Knowledge and Application**	**Theory 2 3 + Practical**	**eleventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Wounds and Hemorrhage** Treatment of hemorrhage from special areas (scalp, mouth, nose, ear, palm and various veins). Internal hemorrhages: Visible and concealed.	**Knowledge and Application**	**Theory 2 3 + Practical**	**twelfth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**F. Shock and unconsciousness** Definition: Types of shock, Common causes of shock, signs and symptoms of shock (assessment of established shock).	**Knowledge and Application**	**Theory 2 3 + Practical**	**thirteenth**

		General and special treatment of established shock			
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Transportation of the injured** 1. Methods of transportation: Single helper, Hand seat, Stretcher, Wheeled transport (ambulance). 2. Precautions taken: Blanket lift, Air and Sea travel	**Knowledge and Application**	**Theory 2 3 + Practical**	**fourteenth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	**Revision**	**Knowledge and Application**	**Theory 2 3 + Practical**	**fifteenth**

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Potter, P. A., Perry, A. G., Hall, A., & Stockert, P. A. (2021). *Fundamentals of Nursing* (10th ed.). Elsevier	**Required textbooks (curriculum (books, if available**
American Red Cross. (2017). *First Aid/CPR/AED Participant's Manual.* StayWell	**Main references (sources)**
Journal of Nursing Education	**Recommended books and references (scientific journals (...and reports**
American Red Cross – First Aid Resources	**Electronic references and websites**

Fundamentals of Anatomy	Course Name -1
PTT108	Course code -2
Chapter Two2025/2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
hours of theory + 60 hours of practical 30 work / 4 units	Number of credit hours (total) -6 Number of units (total) /
Dr. Asaad Taha Hamid	course coordinator Name of the -7 list all names, if there is more than) (one

Course Objectives -8

Learn the importance of anatomy and the location of organs for the student .in his field of specialization

learning strategies Teaching and -9

A. Cognitive objectives

1. .Gaining knowledge of the structure of the human body in general
2. .Knowledge of anatomical positions, terminology and levels
3. .Types of tissues
4. Understanding the histological features of different organs
5. .Identifying muscle tissues and their types
6. .Identifying bones and their types
7. .Identifying joints and their types

8. Identifying the bones, muscles, and nervous system of the upper limb

.B. The specific skills objectives of the course

1- The general objective of teaching basic sciences for the branch of human anatomy is to provide important scientific knowledge that involves knowledge of the structural composition of the body at the level of systems, organs and .cells

2 - To enhance students' ability to link anatomical facts with clinical applications using radiographic images, ultrasound, magnetic resonance .imaging, and tissue slides

3 - .Implementing professional and ethical education for students

Teaching and learning methods

In-person education (scientific films and videos, laboratories, summer and (professional training and graduation projects

Scientific visits and practical training in hospitals by specialized medical .staff

Assessment methods

weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson

.C. Affective and value-based objectives

1. The ability to communicate effectively with those concerned in the field of .specialization

2. .Recognizing the need for and ability to engage in lifelong learning

3. .Knowledge of contemporary issues in the field of specialization

The broad education necessary to understand global solutions and socio- .4 economic and environmental problems to supply health institutions with the necessary specialties in rehabilitation and treatment of patients in .specialized hospitals and consulting clinics
Teaching and learning methods
In-person lectures), summer and professional training, graduation projects,) .field visits, and practical training for clinical subjects
⬤Assessment methods
Daily, quarterly and final tests, submission of weekly reports and patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.
D. General and transferable skills (other skills related to employability and .(personal development .Skills in cooperation and teamwork .1 .Computer typing skills .2 .English language communication skills .3 .Skills for enduring work performance and solving problems .4 .Internet conversation skills .5

Course Structure-10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Introduction: Define Anatomy and mention its sub-divisions, Name regions, cavities and systems of the body.	Knowledge and Application	Theory 2 4 + Practical	the first

Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Histology: General Histology, study of the basic tissues of the body (classify and mention the microscopic structure of types of tissues) such as, Cell, Epithelium, Connective Tissue, Cartilage, Bone, Muscular tissue, Nerve Tissue – TS & LS, Circulatory system – large sized artery, medium sized artery, large sized vein, lymphoid tissue, Skin and its appendages.	**Knowledge and Application**	**Theory 2 4 + Practical**	**the second**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Osteology: Anatomical positions of the body, axes, planes, common anatomical terminologies (grooves, tuberosity, trochanters etc), Connective tissue classification,	**Knowledge and Application**	**Theory 2 4 + Practical**	**the third**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Osteology: Bones Composition and functions, classification of types according to morphology and development, growth and repair, structure of long bone, vertebral column, types of vertebrae, bones of extremities and body landmarks	**Knowledge and Application**	**Theory 2 4 + Practical**	**Fourth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides,**	Arthrology: Definitions, Classification of joints, Construction of joints, Motions of joints, Structure of fibrous, cartilaginous joints,	**Knowledge and Application**	**Theory 2 4 + Practical**	**Fifth**

	practical experiments				
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Arthrology: Blood supply and nerve supply of joints, articulations – articular surfaces, types of joints, motions of upper and lower extremities, trunk, head	**Knowledge and Application**	**Theory 2 4 + Practical**	**Sixth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Myology: Types of muscle tissue, Muscles of upper extremity, lower extremity, trunk, eye, face etc. origin, insertion, nerve supply and action (in detail)	**Knowledge and Application**	**Theory 2 4 + Practical**	**Seventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Myology of other systems: Cardiovascular system, Blood lymph, tissue fluid–characteristics, composition, and function, The heart–main arteries, veins, capillaries, Lymph circulation	**Knowledge and Application**	**Theory 2 4 + Practical**	**Eighth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Upper extremity	**Knowledge and Application**	**Theory 2 4 + Practical**	**Ninth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Pectoral region, Outline the features of pectoral region, Name and identify the sternum, clavicle, scapula and humerus. Outline the main features of the bones of shoulder girdle, Identify the parts, borders and	**Knowledge and Application**	**Theory 2 4 + Practical**	**tenth**

		surfaces of sternum. Identify the ends, surfaces, curves and other features of clavicle. Identify the borders, angles, surfaces, processes, fossae and other features of scapula.			
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Scapular region, Comprehend the main features of the muscle sin the scapular region, State the layered arrangements of the muscles of the back, Name and identify the muscles of the scapular region. Mention their origin, insertion, nerve supply and actions, Demonstrate the bony landmarks of scapula, humerus and clavicle	**Knowledge and Application**	**Theory 2 4 + Practical**	**eleventh**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Shoulder Girdle, Comprehend the main features of the joints of the shoulder girdle. Name the joints of shoulder girdle. Identify the articular surfaces and name the ligaments and movements of sternoclavicular and acromioclavicular joints.	**Knowledge and Application**	**2 Theory 4 + Practica l**	**twelfth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides,**	Shoulder Girdle, Mention the type of the joints. Demonstrate and name the movements of scapula. Mention the chief	**Knowledge and Application**	**2 Theory 4 +**	**thirteenth**

	practical experiments	muscles producing these movements. Correlate movements of scapula. Assign functional roles of the articular disc, costoclavicular ligament of sternoclavicular joint and coracoclavicular ligament.		**Practical**	
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Shoulder joint, Mention the type, articular surfaces and ligaments of the shoulder joint.	**Knowledge and Application**	**2 Theory 4 + Practical**	**fourteenth**
Reports, oral and written theory exams	**Whiteboard, PowerPoint slides, practical experiments**	Define and demonstrate the movements of the shoulder joint, Name and identify the chief muscles producing these movements. Mention the blood supply and nerve supply of this joint.	**Knowledge and Application**	**2 Theory 4 + Practical**	**fifteenth**

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Moore, K. L., Dalley, A. F., & Agur, A. M. R. (2018). *Clinically Oriented Anatomy* (8th ed.). Wolters Kluwer	**Required textbooks (curriculum (books, if available**
Snell, R. S. (2011). *Clinical Anatomy by Systems.* Lippincott Williams & Wilkins	**Main references (sources)**

Journal of Anatomy	Recommended books and references (scientific journals (...and reports
Visible Body – Anatomy Learning Tools	Electronic references and websites

Medical microbiology	Course Name -1
MTCD 102	Course code -2
Chapter Two 2025/2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
hours of theory + 60 hours of practical 30 work / 4 units	Number of credit hours (total) -6 Number of units (total) /
Dr. Luay Manna Ibrahim	course coordinator Name of the -7 list all names, if there is more than) (one
Course Objectives-8	
.Acquiring skills in addition to information pertaining to the medical condition	
9 Teaching and learning strategies -	
A. Cognitive objectives The cognitive objectives of studying medical microbiology in the Department of Physical Therapy Technologies are primarily to provide students with the theoretical and scientific foundation they need to understand how different microbes, such as bacteria, viruses, fungi, and parasites, can affect human health and how to manage them. The following details some of the main :cognitive objectives	

1. **Understanding the principles of medical microbiology**: Identifying the basic characteristics of microbes and how to classify them.

2. Knowledge of bacteriology and virology: Acquiring information about types of bacteria and viruses, their life cycles, and the mechanisms by which they cause disease.

3. **Studying prevention and control methods**: Understanding how to prevent the spread of infection and work to contain microbial infections in clinical settings.

4. **Developing knowledge of infectious diseases**: Learning about various infectious diseases and their impact on the human body.

5. **Laboratory techniques**: Knowledge of how to perform and interpret laboratory tests to diagnose infection.

6. **Treatment and clinical management**: Understanding the different treatment options for infectious diseases.

7. **Evaluating scientific information**: Learn how to evaluate scientific literature and new research in the field of medical microbiology.

8. **Application of knowledge**: The ability of students to apply their knowledge of medical microbiology in physiotherapy practices.

9. **Working within a multidisciplinary team** : Learning how to work collaboratively with other healthcare professionals to provide comprehensive patient care.

These cognitive objectives are essential to equipping students with the skills and knowledge necessary to understand the impact of infectious

diseases in the field of physiotherapy and to enhance their ability to .contribute effectively to the overall health care of patients

.B. The specific skills objectives of the course

The skills-based objectives of studying medical microbiology in the Department of Physical Therapy Technologies focus on developing students' practical and technical abilities to handle microorganisms and apply these skills in their professional practice. Some of these objectives are listed :below

Diagnostic skills : Developing the ability to correctly collect clinical samples **.1** .and conduct laboratory tests to diagnose infectious diseases

Laboratory skills: Gaining experience in using a microscope, performing **.2** .microbial cultures, and identifying organisms Microscopic.

Implement infection control procedures: Practice standard infection **.3** prevention procedures, including sterilization control and the use of personal .protective measures

Analytical skills: Learning how to analyze laboratory test results and assess **.4** .their suitability for clinical diagnosis

Communication: Developing the ability to communicate effectively with **.5** healthcare teams and exchange information about the diagnosis and treatment .management of affected patients

Integrated Clinical Skills: Learning how to integrate medical microbiology **.6** .knowledge with clinical practice in physiotherapy

Ability to self-assess and continue learning: Encouraging students to self- **.7** assess their skills and identify the need for continuous learning for ongoing .improvement in clinical practice

Research skills: Strengthening research capabilities to contribute to answering .8 clinical questions and participating in scientific discoveries.

By developing these skills, physiotherapy students have the tools to understand the vital role that microorganisms play in human health and to develop prevention strategies and therapeutic interventions.

Teaching and learning methods

In-person education (scientific films and videos, laboratories, summer and (professional training and graduation projects

Scientific visits and practical training in hospitals by specialized medical .staff

Assessment methods

weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson

C. Affective and value-based objectives

The affective and ethical goals of studying medical microbiology within the Department of Physiotherapy Technology are geared towards developing attitudes and values that underpin ethical professional practice and promote responsible behavior. Some key objectives in this context are outlined :below

Developing health awareness: Developing a conscious attitude towards .1 .public health and the importance of infection prevention

Appreciating the important role of microbes: Learn to appreciate the vital .2 .role that microorganisms play in the environment and in human health

Ethical development: Encouraging ethical behaviors and commitment to .3
scientific integrity during the performance of experiments and the interpretation of
.data

Professional responsibility: Promoting a sense of responsibility towards safe .4
and effective healthcare.

Empathy and Respect: Developing empathy towards patients and respecting .5
.their right to privacy and decent treatment

Self-learning and development: Encouraging students to invest in self- .6
.learning and to stay informed about new developments in the field of microbiology

Cooperation and teamwork: Learn how to work within a team, where roles .7
.and experiences are integrated to achieve the best results for patients

Respect for diversity and differences: Awareness of the importance of .8
.biodiversity and respect for cultural and individual differences among people

Dealing with stress: Developing students' ability to deal with stress that may .9
arise while working in environments related to microbiology and infectious
.diseases

Initiative and Creativity: Encouraging students to take initiative and innovate .10
in proposing solutions to challenges related to microbiology in the field of physical
.therapy

This aspect of education focuses on developing the individual as a whole, including their values and attitudes, in a way that enhances their professional competence and contributes to providing ethical and patient-centered healthcare.

Teaching and learning methods

n-person lectures), summer and professional training, graduation projects,)
.field visits, and practical training for clinical subjects

●Assessment methods
Daily, quarterly and final tests, submission of weekly reports and patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.
D. General and transferable skills (other skills related to employability and personal development). 1. Skills in cooperation and teamwork. 2. Computer typing skills. 3. English language communication skills. 4. Skills for enduring work performance and solving problems. 5. Internet conversation skills.

Course Structure-10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Introduction	Knowledge and Application	Theory 2 4 + Practical	the first

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Classification	Knowledge and Application	Theory 2 4 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Sterilization & disinfection	Knowledge and Application	Theory 2 4 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Immunology	Knowledge and Application	Theory 2 4 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Immunology	Knowledge and Application	Theory 2 4 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Laboratory Diagnosis	Knowledge and Application	Theory 2 4 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Bacteriology	Knowledge and Application	Theory 2 4 + Practical	Seventh
Reports, oral and written	Whiteboard, PowerPoint	Bacteriology	Knowledge and Application	Theory 2 4 + Practical	Eighth

theory exams	slides, practical experiments				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Viruses	Knowledge and Application	Theory 2 4 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Viruses	Knowledge and Application	Theory 2 4 + Practical	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Mycology	Knowledge and Application	Theory 2 4 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Introduction to Biosafety and Security	Knowledge and Application	Theory 2 4 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Biosafety level, risk assessment strategy	Knowledge and Application	Theory 2 4 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	The biological factors	Knowledge and Application	Theory 2 4 + Practical	fourteenth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Revision	Knowledge and Application	Theory 2 4 + Practical	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Alberts, B., Johnson, A., Lewis, J., Morgan, D., Raff, M., Roberts, K., & Walter, P. (2015). *Molecular Biology of the Cell* (6th ed.). Garland Scienc	Required textbooks (curriculum (books, if available
Marieb, E. N., & Hoehn, K. (2019). *Human Anatomy & Physiology* (11th ed.). Pearson	Main references (sources)
Journal of Medical Biology	Recommended books and references (scientific journals (...and reports
PubMed - Medical Biology Research	Electronic references and websites

computer	Course Name -1

MTCD101	Course code -2
First semester 2025/2026	Semester / Year -3
15/9/2025	Date of preparation of the -4 description
In-person lectures	Available forms of -5 attendance
hours of theory + 15 hours of practical 15 work / 2 units	Number of credit hours (total) -6 Number of units (total) /
M.M. Ahmed Sadiq Bakr	course coordinator Name of the -7 list all names, if there is more than) (one

Course Objectives -8

- To equip students with the skills to use basic office applications, create office files and documents, use the operating system, and understand the .fundamentals of working in a digital environment

learning strategies Teaching and -9

A. Cognitive objectives

To provide the student with knowledge in managing and using various computer -1 .applications

.B. The specific skills objectives of the course

Understanding basic concepts in computer science and the history of the -1 .development of computer technology

- **Acquiring skills in using operating systems and office software such as Microsoft Office**
- **Developing online research skills and learning how to evaluate .information sources on the web**

Teaching and learning methods

In-person learning (scientific films and videos, laboratories)
Assessment methods
weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson
C. Affective and value-based objectives To enhance confidence in the use of technology and computing and to .1 achieve comfort and certainty in dealing with computer hardware and .software Analyzing the problems faced by the employees and how to develop the .2 .necessary solutions .Working as a team among different staff members .3 .Understanding the suffering of patients and alleviating their pain .4
Teaching and learning methods
In-person lectures and practical training))
●Assessment methods
Daily, quarterly and final tests, submission of weekly reports and patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.
D. General and transferable skills (other skills related to employability and .(personal development .Skills in cooperation and teamwork .1 .Computer typing skills .2 .English language communication skills .3 .Skills for enduring work performance and solving problems .4 .Internet conversation skills .5

Course Structure-10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Computer Fundamentals : The concept of a computer, stages of the computer lifecycle, and the evolution of computer .generations	Knowledge and Application	Theory 1 1 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Advantages of computers and their uses; classification of computers by purpose, size, .and data type	Knowledge and Application	Theory 1 1 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Computer components Computer Components: Computer hardware and software components	Knowledge and Application	Theory 1 1 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Your personal computer: Computer security concepts and software licenses	Knowledge and Application	Theory 1 1 + Practical	Fourth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Computer security and software licensing Computer Safety & Software Licenses	Knowledge and Application	Theory 1 1 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Ethics of the digital world, forms of abuse, computer security, computer privacy	Knowledge and Application	Theory 1 1 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Computer software licenses and their types, intellectual property, cyberattacks, malware, essential steps to protect against hacking, and the health risks of .computers	Knowledge and Application	Theory 1 1 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	*Operating* :Systems Definition , Functions, Objectives, Classification, Examples of Some Operating Systems	Knowledge and Application	Theory 1 1 + Practical	Eighth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Operating systems Windows 7 operating system	Knowledge and Application	Theory 1 1 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Desktop components Start menu taskbar	Knowledge and Application	Theory 1 1 + Practical	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	folders and files Icons	Knowledge and Application	Theory 1 1 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Performing operations on desktop backgrounds	Knowledge and Application	Theory 1 1 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Control panel Windows Control Panel – Categories	Knowledge and Application	Theory 1 1 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	From the control panel_Defragment: Organizing files within the computer, installing and uninstalling programs	Knowledge and Application	Theory 1 1 + Practical	fourteenth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Some common computer settings and configurations include printer management, setting the time and date, and primary disk .maintenance	Knowledge and Application	Theory 1 1 + Practical	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Shelly, G. B., & Vermaat, M. E. (2014). *Discovering Computers: Fundamentals* (8th ed.). Cengage Learning	Required textbooks (curriculum (books, if available
Brookshear, J. G., & Brylow, D. (2019). *Computer Science: An Overview* (13th ed.). Pearson	Main references (sources)
Journal of Computer Science and Technology	Recommended books and references (scientific journals (...and reports
GeeksforGeeks – Computer Science Portal	Electronic references and websites

Human rights and democracy	Course Name -1
MTCD102	Course code -2
First semester 2025/2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
hours of theory / 2 units 30	Number of credit hours (total) -6 Number of units (total) /
Dr. Shaimaa Ibrahim Taha	7 Name of the course - coordinator (List all names, if there is more than one)
Course Objectives-8	

The subject of rights and democracy provides students with increased awareness and training on the importance of active participation in all aspects of life, such as .promoting respect for general human rights principles in various facets of life

9 Teaching and learning strategies -

A. Cognitive objectives

To increase students' knowledge of the theoretical and conceptual aspects and historical development of human rights and democracy; to develop students' analytical and critical skills regarding the reality and future of human rights and democracy; to enable students to understand the importance of education and its role in spreading a culture of human rights and democracy in building a civilized society based on good governance, one of whose most important pillars is belief .in human rights

.B. The specific skills objectives of the course

1- **An introduction to the history of human rights and its stages of .development**
2- **Spreading culture and nourishing the student from an Islamic .perspective**
3- **How to preserve society and the homeland by fostering love for the .country in them**
4- **To identify the most important rights granted to them according to .international norms and laws**
5- **.Promoting citizenship among students**

Teaching and learning methods

In-person education

Assessment methods

weekly reports within the subject, ,final exams Daily tests, term exams - seminars within the study materials, discussions and conversations during .the lesson

.C. Affective and value-based objectives

1- Teaching students to search for real-world problems, link them to the scientific material, and present them in a logical order and sequence.

2- Encouraging students to be objective in discussions about the challenges facing the country.

3- Embodying the concept of freedoms for students and clarifying wrong practices, their consequences and how to avoid them.

4- Giving the highest priority to expressing rights.

5- Emphasizing the importance of human rights.

6- Objectivity in discussions.

Teaching and learning methods

(In-person lectures)

●Assessment methods

Daily, quarterly and final tests, submission of weekly reports and patient seminars and clinical patient follow-up reports with practical discussions during the practical lesson in the hospital.

D. General and transferable skills (other skills related to employability and personal development).

D1. Skills of cooperation and teamwork.

D2. Computer typing skills.

D3. English language communication skills.

D4. Skills for enduring work performance and solving problems.

D5. Internet conversation skills.

Course Structure-10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	The historical development of human rights; human rights in ancient civilizations	Knowledge	2 Theory	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Human rights in divine laws, with a focus on human rights in .Islam	Knowledge	2 Theory	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Human rights in medieval and modern times	Knowledge	2 Theory	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Regional recognition of human rights at the European, American, African, Islamic, and Arab levels	Knowledge	2 Theory	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Non-governmental organizations and their role in human rights International) Committee of the Red Cross, Amnesty	Knowledge	2 Theory	Fifth

		International, Human Rights Watch, Arab Organization for (Human Rights			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Human rights in international and regional conventions and national legislation	Knowledge	2 Theory	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Human rights in regional charters European) Convention on Human Rights, American Convention on Human Rights, African Charter on Human Rights and Arab Charter (on Human Rights	Knowledge	2 Theory	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Human rights in national legislation (Iraqi (Constitution	Knowledge	2 Theory	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Forms and generations of human rights individual and) (collective rights	Knowledge	2 Theory	Ninth
Reports, oral and	Whiteboard,	Guarantees and protection of	Knowledge	2 Theory	tenth

written theory exams	PowerPoint slides, practical experiments	human rights at the national level			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Guarantees and protection of human rights at the regional and international levels	Knowledge	2 Theory	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Classification of public freedoms basic and) individual freedom, freedom of security and peace of mind, freedom of movement, and (personal freedom	Knowledge	2 Theory	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Intellectual and cultural freedoms freedom of) opinion, freedom of belief, and freedom of (education	Knowledge	2 Theory	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides, practical experiments	Freedom of the press, freedom of assembly, and freedom of .association	Knowledge	2 Theory	fourteenth
Reports, oral and written	Whiteboard, PowerPoint	Economic and social freedoms freedom of)	Knowledge	2 Theory	fifteenth

theory exams	slides, practical experiments	work, freedom of ownership, and freedom of trade (and industry			

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Freeman, M. (2017). *Human Rights: An Interdisciplinary Approach* (3rd ed.). Polity Press.	Required textbooks (curriculum (books, if available
Beetham, D. (2013). *Democracy and Human Rights.* Polity Press.	Main references (sources)
Journal of Human Rights	Recommended books and references (scientific journals (...and reports
Office of the High Commissioner for Human Rights (OHCHR)	Electronic references and websites

Physical education	Course Name -1
NTU104	Course code -2
First semester 2025/2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
hours theory + 15 hours practical / 2 units 15	Number of credit hours (total) -6 Number of units (total) /
Dr. Majid Hamid Abdul	course Name of the -7 coordinator (list all names, if (there is more than one
8 - Course Objectives	
The student acquires motor skills	
learning strategies Teaching and -9	

A. Cognitive objectives .Raising awareness of sports culture .1 2. To provide students with comprehensive information about the rules of the games and to explain good behavior when participating in races.
.B. The specific skills objectives of the course .Developing students' skills in various sports .1 .Knowledge of the rules and regulations for each game .2 .Developing and improving physical fitness and motor skills .3
Teaching and learning methods
In-person learning (scientific films and videos related to sports training/field (practices
Assessment methods
Daily tests, term exams - final exams
C. Affective and value-based objectives Providing training and game opportunities to apply the technical aspects .1 of athletic talents. .Working as a team among different staff members .2
Teaching and learning methods
(In-person lectures / Field training)
●Assessment methods
Daily, term, and final tests
D. General and transferable skills (other skills related to employability and personal development). .Skills in cooperation and teamwork .1 .Computer typing skills .2 .Arabic language communication skills .3

.Skills for enduring work performance and solving problems .4

.Internet conversation skills .5

Course Structure-10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Sports: Definition, Importance, and Types	Knowledge and Application	Theory 1 1 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The mechanism of human body movement	Knowledge and Application	Theory 1 1 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Common sports injuries	Knowledge and Application	Theory 1 1 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Basic skills of basketball	Knowledge and Application	Theory 1 1 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	International rules of basketball	Knowledge and Application	Theory 1 1 + Practical	Fifth
Reports, oral and written	Whiteboard, PowerPoint slides	Basic skills of table tennis and its international rules	Knowledge and Application	Theory 1 1 + Practical	Sixth

theory exams					
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Basic skills of volleyball and its international rules	Knowledge and Application	Theory 1 1 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	swimming	Knowledge and Application	Theory 1 1 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Basic skills of tennis and its international rules	Knowledge and Application	Theory 1 1 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Basic skills of handball	Knowledge and Application	Theory 1 1 + Practical	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	International rules of handball	Knowledge and Application	Theory 1 1 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Track and field games (types, international rules (of the game	Knowledge and Application	Theory 1 1 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Basic football skills	Knowledge and Application	Theory 1 1 + Practical	thirteenth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Sports Competitions and Events Management	Knowledge and Application	Theory 1 1 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Sports laws and regulations	Knowledge and Application	Theory 1 1 + Practical	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Wuest, D. A., & Fisette, J. L. (2014). *Foundations of Physical Education, Exercise Science, and Sport* (18th edition). McGraw-Hill	Required textbooks (curriculum (books, if available
Siedentop, D. (2004). *Introduction to Physical Education, Fitness, and Sport* (5th ed.). McGraw-Hill	Main references (sources)
Research Quarterly for Exercise and Sport	Recommended books and references (scientific journals (...and reports
WHO – Physical Activity and Health	Electronic references and websites

Arabic	Course Name -1
NTU103	Course code -2
Chapter Two 2025/2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
hours of theory / 2 units 30	Number of credit hours (total) -6 Number of units (total) /
M.M. Hassan Fallah Abdul Karim	course Name of the -7 coordinator (list all names, if (there is more than one
Course Objectives-8	
.The student learns about spelling and grammatical errors and the rules of the Arabic language	

9 Teaching and learning strategies -
A. Cognitive objectives 1. The student learns the methods and rules of administrative correspondence. 2. The student becomes familiar with the style of linguistic communication in work administration.
.B. The specific skills objectives of the course 1. Developing students' skills in listening, reading, and expression. 2. To equip students with the skills to express themselves in classical Arabic. 3. Developing positive attitudes and values among students towards their Arabic language, which is linked to religion and Arab heritage.
Teaching and learning methods
In-person learning (scientific films and videos in standard Arabic)
Assessment methods
Daily tests, term exams - final exams
C. Affective and value-based objectives 1. For the student to acquire correct language skills in terms of reading and spelling. 2. Working as a team among different staff members.
Teaching and learning methods
(In-person lectures)
●Assessment methods
Daily, term, and final tests

D. General and transferable skills (other skills related to employability and personal development).

1. Skills in cooperation and teamwork.
2. Computer typing skills.
3. Arabic language communication skills.
4. Skills for enduring work performance and solving problems.
5. Internet conversation skills.

Course Structure-10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Introduction to – linguistic errors the closed, long, and open taa	Knowledge	Theory 2	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Rules for writing the long and short solar and – alif lunar letters	Knowledge	Theory 2	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The letters ض and ظ	Knowledge	Theory 2	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Writing the hamza	Knowledge	Theory 2	Fourth
Reports, oral and written	Whiteboard,	punctuation marks	Knowledge	Theory 2	Fifth

theory exams	PowerPoint slides				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Noun and verb, and the difference between them	Knowledge	Theory 2	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Objects	Knowledge	Theory 2	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	number	Knowledge	Theory 2	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Applications for common grammatical errors	Knowledge	Theory 2	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Applications for common grammatical errors	Knowledge	Theory 2	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The letters Nun and Meanings – Tanween of Prepositions	Knowledge	Theory 2	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Formal aspects of administrative discourse	Knowledge	Theory 2	twelfth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The language of administrative discourse	Knowledge	Theory 2	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The language of administrative discourse	Knowledge	Theory 2	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Examples of administrative correspondence	Knowledge	Theory 2	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams
-14

12 Learning and Teaching Resources -	
Hashim, Mahdi (2018). *Introduction to the Study of the Arabic Language* , Dar Al-Kutub .Al-Ilmiyah	**Required textbooks (curriculum (books, if available**
Ibn Hisham al-Ansari (edited by Muhammad Muhyi al-Din Abd al-Hamid). *Mughni al-Labib .an Kutub al-A'arib.* Dar al-Fikr'	**Main references (sources)**
Journal of the Arabic Language Academy in Cairo	**Recommended books and references (scientific journals (...and reports**
Arabic Language Academy in Cairo	**Electronic references and websites**

English language	Course Name -1
NTU101	Course code -2
Chapter Two / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description

In-person lectures	Available forms of -5 attendance
hours of theory / 2 units 30	Number of credit hours (total) -6 Number of units (total) /
M.M. Basem Ibrahim Ragab	course Name of the -7 coordinator (list all names, if (there is more than one

Course Objectives -8

Acquiring conversational skills in English and the ability to read and analyze scientific research .and medical terminology correctly

learning strategies Teaching and -9

A. Cognitive objectives

1. Identifying the tenses and verbs used with each tense and adjusting .the sentence context

2. .Getting acquainted with general rules, interrogative tools, and conversation formulation

.B. The specific skills objectives of the course

.Speak correct English .1

.The ability to read medical analyses .2

Knowledge of medical terminology in English is important in the field of .3 .medical work

Teaching and learning methods

In-person learning (scientific films and videos on correct English (pronunciation

Assessment methods

Daily tests, term exams - final exams

C. Affective and value-based objectives

In order for the student to acquire correct language, he will be able to .1 .read and translate medical analyses and terminology .Working as a team among different staff members .2
Teaching and learning methods
(In-person lectures)
●Assessment methods
Daily, term, and final tests
D. General and transferable skills (other skills related to employability and personal development). .Skills in cooperation and teamwork .1 .Computer typing skills .2 .English language communication skills .3 .Skills for enduring work performance and solving problems .4 .Internet conversation skills .5

Course structure -10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Cardinal numbers/years/prices /times(in words and figures).	Knowledge	Theory 2	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Phonetic of alphabet letters, punctuation.	Knowledge	Theory 2	the second
Reports, oral and written	Whiteboard,	Countries/Capitals, arrange words (makes full sentence)/	Knowledge	Theory 2	the third

theory exams	PowerPoint slides	arrange letters (make full word).			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Simple present/1. Verb to be (is/am/are) (affirmative, negative and interrogative).	Knowledge	Theory 2	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Simple present/2. Verb to do(Do/Does) (affirmative, negative and interrogative).	Knowledge	Theory 2	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Simple present/3. Verb to have(have/has) (affirmative, negative and interrogative).	Knowledge	Theory 2	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Simple present/4. Ordinary verbs like (eat, go, play...etc.) (affirmative, negative and interrogative).	Knowledge	Theory 2	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Tag questions and short answers(yes/no questions).	Knowledge	Theory 2	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Review (simple present).	Knowledge	Theory 2	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Question words (what, where, when, who, why, how, whom, whose, which).	Knowledge	Theory 2	tenth

Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Abbreviation (short form), adjectives (and their opposite).	Knowledge	Theory 2	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Plural nouns (regular and irregular).	Knowledge	Theory 2	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Possession (all types).	Knowledge	Theory 2	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Pronunciation (-s at the end of a word).	Knowledge	Theory 2	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Pronouns (all types).	Knowledge	Theory 2	fifteenth

Course Evaluation -11
Student activities and reports, oral and written theoretical and practical exams

12 Learning and Teaching Resources -	
Soars, J., & Soars, L. (2020). *New Headway Plus: Intermediate* (4th ed.). Oxford University Press	Required textbooks (curriculum (books, if available
Swan, M., & Walter, C. (2014). *Oxford English Grammar Course.* Oxford University Press.	Main references (sources)