Course Description / Level 1

Northern Technical University College of Health and Medical Technologies/The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Biomechanics/PTT101	• **Course Name/Code**
Weekly lesson schedule (theoretical) Discussions, scientific seminars and other extracurricular activities	• **Available attendance forms**
Decisions	• **Chapter/Year**
30	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

• **Course objectives**

• Knowing the types and analysis of movement in the human body

• **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

1. Definition of the natural laws affecting the movement of the human body.
2. Definition of factors that help analyze human body movement.
3. Iron deficiency or dysfunction in body movement and how to restore it to normal.

for. Course specific skill objectives.

Conducting scientific research experiments in Analysis The kinetic bilateral And three Dimensions and some physical and body measurements.

Educating students and developing their abilities and skills in Conducting analysis experiments The kinetic On cameras and advanced analysis programs and physical and body measurements.

3. Holding educational and training courses and seminars to qualify cadres .in How to use the equipment in the lab.

4. Contributing with other concerned parties to prevent movement disorders 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 cadres Medical Specialized.**
Evaluation methods
Daily tests, midterm exams - final exams, weekly reports withinThe material, Seminars within the study materials, Discussions and conversations during the lesson.
G.Emotional and value goals. **A1The ability to communicate effectively with stakeholders in the field of specialization.** **A2Recognizing the need and ability to engage in lifelong learning.** **A3Knowledge of contemporary issues in the field of specialization..** **A4The broad education necessary to understand global solutions and social, economic and environmental problems to support health institutions according to their needs with specializations in rehabilitation and treatment of patients in specialized hospitals and consulting clinics.**
Teaching and learning methods
(Lecturesimmanence),Summer and professional training, graduation projects, field visits and practical training.The SaviorFor clinical materials.
• **Evaluation methods**
Daily, semester and final tests, weekly reports Patient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..
D.General and transferable skills (other skills related to employability and personal development). **D1.Collaboration and teamwork skills.** **D2.Typing skills on the computer.** **D3.English communication skills.** **D4.Skills of enduring work performance and solving problems.** **D5.Conversation skills On the Internet**

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical**	**the first**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical**	**the second**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Basic Concepts in Biomechanics: Kinematics and Kinetics (Moment**arm of force, Force components, Equilibrium of levers, Supporting base, types, and balance in static and dynamic state)	**Knowledge and application**	**2 theoretical**	**the third**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical**	**Fourth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Levers -**Definition, function, classification and application of levers in physiotherapy & order of levers with example of lever in human body	**Knowledge and application**	**2 theoretical**	**Fifth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Elasticity-** Definition, stress, strain, HOOKE'S Law	**Knowledge and application**	**2 theoretical**	**Sixth**

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical**	**Seventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Joint Structure and Function:**Describe the basic principles of joint design and a human joint, Describe the tissues present in human joints, including	**Knowledge and application**	**2 theoretical**	**tenth**

		dense fibrous tissue, bone, cartilage and connective tissues.			
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Joint Structure and Function:**Classify joints: Synarthrosis, amphiarthrosis, diarthrosis, subclassification of synovial joints.	**Knowledge and application**	**2 theoretical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Joint Structure and Function:**Describe joint functions, kinematics, range of motion, Describe the general effects of injury and disease.	**Knowledge and application**	**2 theoretical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Posture**– dynamic and static posture, kinetic and kinematics of posture, analysis of posture, effect of age, pregnancy, occupation on posture.	**Knowledge and application**	**2 theoretical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Gait**– kinematics and kinetics of gait, gait in running and stair climbing.	**Knowledge and application**	**2 theoretical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Revision**	**Knowledge and application**	**2 theoretical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	and And specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Principles of PhysiologyPTT105	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical + 60 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**
• **Course objectives**	
1- Acquiring the skill in addition to information related to the medical condition.	
• **Course outcomes, teaching, learning and assessment methods**	
A.Cognitive objectives **The cognitive objectives of studying medical physiology in the Department of Physical Therapy Techniques include providing students with a deep and comprehensive knowledge of how biological systems in the human body function under normal conditions and how disease or injury affects these functions. The following are basic cognitive objectives in this field:** **1. Understand normal functions: Learn 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.** **3. Stress Response: Understanding how the body adapts to different stressors such as trauma, infection, and environmental changes.** **4. Impact of Disease: Learn the physiological changes that occur during illness or injury and how they affect bodily systems.**	

5. Systems Integration: Understanding how different physiological systems interact and function together.

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

for.Course specific skill objectives.

The skill objectives of studying medical physiology in the Department of Physiotherapy Technology are centered on developing practical skills that can be used in assessing and managing patients' conditions, and improving the physiotherapy process. Some of the main objectives are:

1. Assessment skills: Develop the ability to conduct accurate physiological assessment of patients, using a variety of assessment tools and equipment.

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

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

4. Therapeutic Responses: Learn how to modify physical therapy interventions based on the patient's physiologic responses.

5. Manual Skills: Acquire specialized manual skills in handling therapeutic exercises and other techniques based on physiological principles.

By achieving these skill objectives, physical therapy technology graduates become equipped with the practical skills necessary to provide high-quality, 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 cadres Medical Specialized.

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports with in The material, Seminars within the study materials, Discussions and conversations during the lesson.

G. Emotional and value goals

The affective and value-based objectives of studying medical physiology in the Department of Physical Therapy Technology involve the development of personal values and attitudes that promote the practice of the profession in a humane and ethical manner. These objectives include:

1. Commitment to good health care: Promote a sense of responsibility towards providing the best possible care while maintaining the physiological safety of patients.

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

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

4. Respect for Self and Others: Instill respect for self and humanity in all interactions with patients and colleagues.

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

By achieving these goals, students are able to apply knowledge of medical physiology in a manner that is compassionate, empathetic, and responsible toward their patients.

Teaching and learning methods

(Lectures immanence),Summer and professional training, graduation projects, field visits and practical training. The savior For clinical materials.

Evaluation methods

Daily, semester and final tests, weekly reports Patient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

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

D1.Collaboration and teamwork skills.

D2.Typing skills on the computer.

D3.English communication skills.

D4.Skills of enduring work performance and solving problems.

D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Reproductive System:**1. Sex determination and development, Puberty. 2. Male sex hormones and their functions, spermatogenesis.	**Knowledge and application**	**2 theoretical + 4 practical**	**the first**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Reproductive System:**3. Female sex hormones and functions, menstrual cycle, ovulation and contraceptives. 4. Pregnancy, functions of placenta and lactation	**Knowledge and application**	**2 theoretical + 4 practical**	**the second**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**the third**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Excretory System:**3. Renal function. 4. Physiology of Micturition	**Knowledge and application**	**2 theoretical + 4 practical**	**Fourth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Muscle and Nerve:**1. Structure of Neurons, membrane potential and generation of action potential. 2. Nerve impulse conduction, saltatory conduction.	**Knowledge and application**	**2 theoretical + 4 practical**	**Fifth**
Reports, oral and	**whiteboard, powerpoint**	**Muscle and Nerve:**3.	**Knowledge and application**	**2 theoretical**	**Sixth**

written theoretical exams	**slides, hands-on experiments**	Neuromuscular junction and drugs acting on it – Myasthenia. 4. Degeneration and regeneration in peripheral nerves – Wallerian degeneration of electrotonus and flaggers Law.		**+ 4 practical**	
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**Seventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Muscle:**3. Electrical – Biphasic and monophasic action potentials. 4. Chemical, thermal and physical changes, isometric and isotonic contraction.	**Knowledge and application**	**2 theoretical + 4 practical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**1. Types and properties of receptors, types of sensations. 2. Structure of Synapses, Reflex and its properties, occlusion	**Knowledge and application**	**2 theoretical + 4 practical**	**tenth**

		summation, sub minimal fringe, etc.			
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**3. Tracts of Spinal Cord. 4. Descending, pyramidal and extra pyramidal tracts.	**Knowledge and application**	**2 theoretical + 4 practical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**7. Structure, connections and functions of Cerebellum. 8. Connections and functions of Basal Ganglia and Thalamus	**Knowledge and application**	**2 theoretical + 4 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**9. Reticular formation, tone, posture and balance. 10. Autonomic nervous system.	**Knowledge and application**	**2 theoretical + 4 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Revision**	**Knowledge and application**	**2 theoretical + 4 practical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	And G And specialized laboratories
	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
human physiologyPTT106	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical + 60 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**
• **Course objectives**	
2- Acquiring the skill in addition to information related to the medical condition.	
• **Course outcomes, teaching, learning and assessment methods**	
A.Cognitive objectives **The cognitive objectives of studying medical physiology in the Department of Physical Therapy Techniques include providing students with a deep and comprehensive knowledge of how biological systems in the human body function under normal conditions and how disease or injury affects these functions. The following are basic cognitive objectives in this field:** **1. Principles of Physiotherapy: 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.** **3. Understanding drug interactions: Knowledge of how medications affect the body's physiology and how they can affect physical therapy outcomes.** **4. Evidence-Based Learning: Conduct research and interpret literature to stay up-to-date on the latest principles and practices in physiology.** **5. Communication Skills: Develop a reasonable communication ability to explain physiology to patients in a way that is easy to understand.**	

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

for.Course specific skill objectives.

The skill objectives of studying medical physiology in the Department of Physiotherapy Technology are centered around developing practical skills that can be used in assessing and managing patients' conditions, and improving the physiotherapy process. Some of the main objectives are:

1. Functional Training: The ability to use functional enhancement and healing techniques based on physiological knowledge.
2. Professional Communication: Develop the ability to explain physiological concepts clearly and professionally to other members of the health care team and to patients.
3. Research Skills: The ability to participate in scientific research activities to develop a deeper understanding of physiology and its applications in physical therapy.
4. Technology skills: Learn to use modern technologies in assessing physiological functions and implementing treatments.
5. Analysis and deduction: The ability to analyze complex health conditions and derive appropriate treatment strategies.
By achieving these skill objectives, physical therapy technology graduates become equipped with the practical skills necessary to provide high-quality, 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 cadresMedicalSpecialized.

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports with inThe material, Seminars within the study materials, Discussions and conversations during the lesson.

G.Emotional and value goals

The affective and value-based objectives of studying medical physiology in the Department of Physical Therapy Technology involve the development of personal values and attitudes that promote the practice of the profession in a humane and ethical manner. These objectives include:

1. Continuous professional development: Encourage the motivation for continuous learning and the diligence to stay abreast of the latest developments in the field of medical physiology.
2. Teamwork: Encouraging a spirit of teamwork in a multidisciplinary context, which helps achieve better patient outcomes?
3. Flexibility: Develop the ability to adapt to professional challenges and changes in patients' health conditions.
4. Sense of initiative: Instilling self-confidence and courage to take appropriate action at the right time.
5. Cultural and social awareness: Develop awareness and sensitivity to cultural and social differences that may affect health care.
By achieving these goals, students are able to apply knowledge of medical physiology in a manner that is compassionate, empathetic, and responsible toward their patients.

Teaching and learning methods

(Lectures immanence), Summer and professional training, graduation projects, field visits and practical training. The savior For clinical materials.

- **Evaluation methods**

Daily, semester and final tests, weekly reports Patient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

D.General and transferable skills (other skills related to employability and personal development).
D1.Collaboration and teamwork skills.
D2.Typing skills on the computer.
D3.English communication skills.
D4.Skills of enduring work performance and solving problems.
D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Reproductive System:**1. Sex determination and development, Puberty. 2. Male sex hormones and their functions, spermatogenesis.	**Knowledge and application**	**2 theoretical + 4 practical**	**the first**

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Reproductive System:**3. Female sex hormones and functions, menstrual cycle, ovulation and contraceptives. 4. Pregnancy, functions of placenta and lactation	**Knowledge and application**	**2 theoretical + 4 practical**	**the second**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**the third**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Excretory System:**3. Renal function. 4. Physiology of Micturition	**Knowledge and application**	**2 theoretical + 4 practical**	**Fourth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Muscle and Nerve:**1. Structure of Neurons, membrane potential and generation of action potential. 2. Nerve impulse conduction, saltatory conduction.	**Knowledge and application**	**2 theoretical + 4 practical**	**Fifth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**Sixth**
Reports, oral and written	**whiteboard, powerpoint slides,**	**Muscle:**1. Type of muscles and their gross structure,	**Knowledge and application**	**2 theoretical**	**Seventh**

theoretical exams	**hands-on experiments**	stimulus chronaxie, strength duration curve. 2. Structure of sarcomere – Basis of muscle contraction, Starling's Law and changes during muscle contraction.		**+ 4 practical**	
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Muscle:**3. Electrical – Biphasic and monophasic action potentials. 4. Chemical, thermal and physical changes, isometric and isotonic contraction.	**Knowledge and application**	**2 theoretical + 4 practical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**1. Types and properties of receptors, types of sensations. 2. Structure of Synapses, Reflex and its properties, occlusion summation, sub minimal fringe, etc.	**Knowledge and application**	**2 theoretical + 4 practical**	**tenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**3. Tracts of Spinal Cord. 4. Descending, pyramidal and extra pyramidal tracts.	**Knowledge and application**	**2 theoretical + 4 practical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**5. Hemi section and complete section of spinal cord, upper and lower motor neuron paralysis. 6.	**Knowledge and application**	**2 theoretical + 4 practical**	**twelfth**

		Cerebral cortex – areas and functions, EEG			
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**7. Structure, connections and functions of Cerebellum. 8. Connections and functions of Basal Ganglia and Thalamus	**Knowledge and application**	**2 theoretical + 4 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Nervous System:**9. Reticular formation, tone, posture and balance. 10. Autonomic nervous system.	**Knowledge and application**	**2 theoretical + 4 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Revision**	**Knowledge and application**	**2 theoretical + 4 practical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	And G And specialized laboratories
	The presence of qualified cadres

- **Curriculum Development Plan**

The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Kinesiology /PTT102	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year
30 theoretical	• Number of study hours (total)
7/1/2024	• Date this description was prepared

- **Course objectives**

Knowing the types and analysis of advanced movement in the human body and how to deal with it.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1. Definition of the natural laws affecting the movement of the human body.

A2.Definition of factors that help analyze human body movement.

for.Course specific skill objectives.

B 1.Identifying the deficiency or defect in body movement and how to restore it to its normal state.

B2. 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 cadres Medical Specialized.

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports within The material, Seminars within the study materials, Discussions and conversations during the lesson.

G.Emotional and value goals

A1.For the student to acquire concepts and basics Kinesiology in the human body.

A2.Analyzing the problems facing its employees and how to develop the necessary solutions.

A3.Teamwork among different cadres.

A4.Understanding patients' suffering and alleviating their pain.

Teaching and learning methods

(Lectures immanence),Summer and professional training, graduation projects, and field visits..

- **Evaluation methods**

Daily, semester and final tests, weekly reports Patient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

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

D1.Collaboration and teamwork skills.

D2.Typing skills on the computer.

D3.English communication skills.

D4.Skills of enduring work performance and solving problems.

D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**peripheral joints The shoulder complex:**Structure and components of the shoulder complex and their integrated function	**Knowledge and application**	**2 theoretical**	**the first**
Reports, oral and written theoretical 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	**Knowledge and application**	**2 theoretical**	**the second**

		immobilization and injury.			
Reports, oral and written theoretical 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**	**2 theoretical**	**the third**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**The hip complex:**Structure and function of the hip joint; Hip joint pathology - arthrosis, fracture, bone abnormalities of the femur.	**Knowledge and application**	**2 theoretical**	**Fourth**
Reports, oral and written theoretical 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**	**2 theoretical**	**Fifth**
Reports, oral and written theoretical 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**	**2 theoretical**	**Sixth**
Reports, oral and written theoretical 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**	**2 theoretical**	**Seventh**

Reports, oral and written theoretical 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**	**2 theoretical**	**The eighth**
Reports, oral and written theoretical 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**	**2 theoretical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Temporomandibular Joint:**General features, structure, function and dysfunction	**Knowledge and application**	**2 theoretical**	**tenth**
Reports, oral and written theoretical 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**	**2 theoretical**	**eleventh**
Reports, oral and written theoretical 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**	**Knowledge and application**	**2 theoretical**	**twelfth**

		during the stance phase.			
Reports, oral and written theoretical 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	2 theoretical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Gait: The muscle activity that occurs in the upper extremity and trunk. Pathological gaits and gait deviations	Knowledge and application	2 theoretical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Revision	Knowledge and application	2 theoretical	fifteenth

• Infrastructure	
	Presence of classrooms
	And G And specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Clinical Chemistry /PTT109	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical + 60 practical	• **Number of study hours (total)**
7/1/2024	• **Date this description was prepared**

- **Course objectives**

3- Acquiring the skill in addition to information related to the medical condition.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

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

1. Understanding the chemical composition of the body: Identify basic chemical components such as proteins, fats, carbohydrates, and vitamins and their role in maintaining health..

2. Clinical tests: Learn how to perform and interpret various clinical chemistry tests that help diagnose diseases and monitor the course of treatment..

3. The relationship between chemistry and physical therapy: Understand how chemical changes in the body can affect function and healing, and how physical therapy can intervene in these processes..

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

5. Clinical decision making: Develop the ability to evaluate clinical chemical data and use them effectively in making medical decisions regarding physical therapy..
This comprehensive understanding helps students in physical therapy techniques better communicate with the patient care team and contribute more to the patient's overall treatment plan.

for. Course specific skill objectives.
The skills objectives for studying clinical chemistry in the Department of Physiotherapy Technology focus on enabling the student to perform several practical and applied activities. The following are some of these objectives::
1. Sample Analysis Skills: Learn how to properly collect and prepare biological samples for chemical analysis..
2. Laboratory Equipment Operation: Gain the ability to handle laboratory equipment and techniques used in clinical chemistry, such as spectrophotometers and blood chemistry analyzers..
3. Laboratory Technique Skills: Develop the ability to perform biochemical tests and interpret their results accurately..
4. Laboratory Safety Skills: Understanding and applying biological and chemical safety rules within the laboratory.
5. Evaluation and analysis of results: Develop skills in evaluating clinical chemical results and relating them to the patient's health status..
6. Critical Thinking and Problem Solving: Enhancing critical thinking skills in analyzing chemical data and applying them to physical therapy situations.
7. Effective Communication: Improve communication skills with other medical team members and with patients in an effective manner, especially when explaining procedures and results..
8. Continuing Education: Encouraging students to continue their education and professional development in the field of clinical chemistry and physical therapy..
Training in these skills prepares students to become qualified professionals who can support healthcare teams and improve 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 cadres Medical Specialized.

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports within The material,
Seminars within the study materials, Discussions and conversations during the lesson.

Emotional and value goals

Affective and value-based objectives are an essential part of the educational process, especially in a field such as clinical chemistry related to physical therapy. Here are some of these objectives::

1. Respect for biodiversity and biochemistry: Appreciating the individual diversity of patience and understanding that biochemical differences require an individualized approach to treatment..
2. Professional Responsibility: Developing a sense of responsibility as health care providers and paying attention to every detail in the treatment process..
3. Empathy and Compassion: Fostering a sense of empathy towards patients and developing the ability to communicate emotionally and support them psychologically.
4. Commitment to ethical standards: Adherence to ethical rules and a code of conduct to avoid harm and ensure the highest levels of patient care..
5.Continuous development and passion for knowledge: Finding the motivation to continuously develop and update knowledge to provide the best possible treatment.
We also work to instill value.:
6. Appreciating the importance of clinical chemistry: Developing an understanding of how clinical chemistry contributes to improving the quality of life for patients.
7.Self-confidence and professionalism: Building confidence in personal abilities and acquired skills and acting professionally at all times.
8. Teamwork and Collaboration: Encourage collaboration and teamwork among physical therapy students and other health professionals..
9. Leadership: Encourage the development of leadership skills and initiative in order to contribute effectively to improving healthcare practices..
Through these emotional 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

(Lecturesimmanence),Summer and professional training, graduation projects, field visits and practical training for clinical subjects..

- **Evaluation methods**

Daily, semester and final tests, weekly reportsPatient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

D.General and transferable skills (other skills related to employability and personal development).
D1.Collaboration and teamwork skills.
D2.Typing skills on the computer.
D3.English communication skills.
D4.Skills of enduring work performance and solving problems.
D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	CELL	Knowledge and application	2 theoretical + 4 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	BODY FLUIDS	Knowledge and application	2 theoretical + 4 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	BIOMOLECULES: AMINO ACIDS, PEPTIDES & PROTEINS	Knowledge and application	2 theoretical + 4 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	BIOMOLECULES: AMINO ACIDS, PEPTIDES & PROTEINS	Knowledge and application	2 theoretical + 4 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	ENZYMES	Knowledge and application	2 theoretical + 4 practical	Fifth
Reports, oral and	whiteboard,	CARBOHYDRATES	Knowledge and application	2 theoretical	Sixth

written theoretical exams	powerpoint slides, hands-on experiments			+ 4 practical	
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	LIPIDS	Knowledge and application	2 theoretical + 4 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	LIPIDS	Knowledge and application	2 theoretical + 4 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	NUCLEIC ACIDS	Knowledge and application	2 theoretical + 4 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	NUTRITIONAL BIOCHEMISTRY: MINERALS & TRACE ELEMENTS	Knowledge and application	2 theoretical + 4 practical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	NUTRITIONAL BIOCHEMISTRY: MINERALS & TRACE ELEMENTS	Knowledge and application	2 theoretical + 4 practical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	VITAMINS	Knowledge and application	2 theoretical + 4 practical	twelfth

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**NUTRITION**	**Knowledge and application**	**2 theoretical + 4 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**MOLECULAR BIOLOGY**	**Knowledge and application**	**2 theoretical + 4 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Revision**	**Knowledge and application**	**2 theoretical + 4 practical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

- **Curriculum Development Plan**

The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Medical Physics /110 PTT	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical + 60 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

4- Acquiring skills in addition to information related to the relationship between physics and movement and its relationship to physical therapy.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

It involves understanding how physical laws apply to the human body and using physical therapies to improve health. Goals include::

1. Understand the scientific foundations and physical principles that underlie natural therapies..

2. Learn how to use physics-based medical machines and devices in physical therapy..

3. Explain how motion, forces, and pressure affect the human body..

4. Learn how to use heat, cold, ultrasound and electricity to manage patients..

5. Develop the ability to analyze data and make appropriate assessments to select the optimal treatment..

Achieving these objectives ensures that students have the skills necessary to understand and apply medical physics efficiently in the physical therapy profession.

for. Course specific skill objectives.

The skill objectives for studying medical physics in the Department of Physiotherapy Technology aim to develop a set of practical skills that enhance the student's ability to interact directly with patients and use various tools and technologies. These objectives may include::

1. Proficiency in the use of specialized devices and tools in physical therapy.
2. Applying therapeutic techniques based on physical principles safely and effectively.
3. Developing effective communication skills with patients while providing physical therapy.
4. Evaluation of individual cases and determination of appropriate doses of physiotherapy using medical physics.
5. Develop critical thinking and problem solving skills related to physical therapy..
6. Learn how to perform tests and interpret results to evaluate the effectiveness of treatments..

These skills help students become professionals who are able to work independently and contribute 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 cadresMedicalSpecialized.

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports withinThe material,Seminars within the study materials,Discussions and conversations during the lesson.

G.Emotional and value goals

The affective objectives of studying medical physics in the Department of Physical Therapy Technology are related to developing students' attitudes, values, and feelings toward their profession and their patients. Here are some of these objectives::
1. Promote a sense of professional and ethical responsibility in providing health care.
2. Appreciate the importance of accuracy and attention to detail in therapeutic procedures..
3. Self-development and a tendency to continuous learning to keep up with developments in the medical and physical field.
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. Encourage a positive attitude towards work, as well as passion and motivation to improve therapeutic practices..
7. Develop self-confidence and sound decision-making skills in practical contexts..

Compassionate goals help build professionals who are not only skilled but also compassionate and willing to work to the highest standards of health care.

(Lecturesimmanence),Summer and professional training, graduation projects, field visits and practical training for clinical subjects..

- **Evaluation methods**

Daily, semester and final tests, weekly reportsPatient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

D.General and transferable skills (other skills related to employability and personal development).
D1.Collaboration and teamwork skills.
D2.Typing skills on the computer.
D3.English communication skills.
D4.Skills of enduring work performance and solving problems.
D5.Conversation skillsOn the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	ELECTRICITY AND MAGNETISM	Knowledge and application	2 theoretical + 4 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	STATIC ELECTRICITY	Knowledge and application	2 theoretical + 4 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	CURRENT ELECTRICITY	Knowledge and application	2 theoretical + 4 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	ELECTROMAGNETISM	Knowledge and application	2 theoretical + 4 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	ELECTRO MECHANICS	Knowledge and application	2 theoretical + 4 practical	Fifth
Reports, oral and written	whiteboard, powerpoint slides,	CLASSIFICATION OF CURRENTS	Knowledge and application	2 theoretical + 4 practical	Sixth

theoretical exams	hands-on experiments				
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	MEDIUM FREQUENCY CURRENT	Knowledge and application	2 theoretical + 4 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	HIGH FREQUENCY CURRENT	Knowledge and application	2 theoretical + 4 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	SOUND WAVES	Knowledge and application	2 theoretical + 4 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	HEAT	Knowledge and application	2 theoretical + 4 practical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	ELECTROMAGNETIC RADIATION	Knowledge and application	2 theoretical + 4 practical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	SAFETY IN BIOMEDICAL INSTRUMENTS	Knowledge and application	2 theoretical + 4 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	RADIATION PROTECTION	Knowledge and application	2 theoretical + 4 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	PRACTICAL	Knowledge and application	2 theoretical + 4 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	PRACTICAL	Knowledge and application	2 theoretical + 4 practical	fifteenth

• **Infrastructure**	
	Presence of classrooms
	And G And specialized laboratories

	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Health and Medical Technologies/The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Principles of Microbiology/MTCD101	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical + 60 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

• **Course objectives**
• Knowing the history and branches of microbiology and dealing with them through accurate diagnosis of the relationship with the effect on the body's systems, which helps the physical therapist to deal with such cases.
• **Course outcomes, teaching, learning and assessment methods**
A.Cognitive objectives 1. Knowing the types of pathogens that cause injuries to the body 2. Genetic factors and chromosomal changes. 3. The body's defense mechanism against pathogens. 4. Some pathogens and how to prevent them.
for.Course specific skill objectives. **5. Develop an understanding of the fundamentals of microbiology and the research methods used in this field..**

6. **Gain technical skills in using microscopes and other laboratory tools used in the analysis of living specimens..**
7. **Identify different types of microorganisms including bacteria, viruses, fungi, and parasites..**
8. **Develop 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 cadresMedicalSpecialized.

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports withinThe material,Seminars within the study materials,Discussions and conversations during the lesson.

G.Emotional and value goals
A1.Achieve interest and positive interaction with biology andPromote awareness of the importance of microorganisms in everyday life and understand the vital role they play in the environment and public health.
A2.Analyzing the problems facing its employees and how to develop the necessary solutions.
A3.Teamwork among different cadres.
A4.Understanding patients' suffering and alleviating their pain.

Teaching and learning methods

(Lecturesimmanence),Summer and professional training, graduation projects, field visits and practical training.The SaviorFor clinical materials.

- **Evaluation methods**

Daily, semester and final tests, weekly reportsPatient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

D.General and transferable skills (other skills related to employability and personal development).
D1.Collaboration and teamwork skills.
D2.Typing skills on the computer.
D3.English communication skills.
D4.Skills of enduring work performance and solving problems.
D5.Conversation skillsOn the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Historymicrobiology-history	Knowledge and application	2 theoretical + 4 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Branches of Microbiology	Knowledge and application	2 theoretical + 4 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Structure of Microbes	Knowledge and application	2 theoretical + 4 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Morphology of Bacteria	Knowledge and application	2 theoretical + 4 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Requirement of Bacteria	Knowledge and application	2 theoretical + 4 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Nutrition ((Autotrophic : Photoautotrophic, Chemoautotrophic) Heterotrophic)	Knowledge and application	2 theoretical + 4 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Factors influencing growth (Physical factors + Chemical factors)	Knowledge and application	2 theoretical + 4 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Physical and chemical Methods	Knowledge and application	2 theoretical + 4 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	ANTIBIOTICS THE BASES OF CHEMOTHERAPY	Knowledge and application	2 theoretical + 4 practical	Ninth
Reports, oral and written	whiteboard, powerpoint slides,	Classification tissue / Nucleic acid / properties Tissue/	Knowledge and application	2 theoretical + 4 practical	tenth

theoretical exams	hands-on experiments				
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	growth curve	Knowledge and application	2 theoretical + 4 practical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on 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	2 theoretical + 4 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Biosafety level, risk assessment strategy, Hazard groups, biosafety levels and equipment, Standard practices required in biological laboratories.	Knowledge and application	2 theoretical + 4 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	The biological factors, Routes of infection, Risk group classification, Biosafety measures, Control of substances hazardous to health.	Knowledge and application	2 theoretical + 4 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Revision	Knowledge and application	2 theoretical + 4 practical	fifteenth

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan	
The course is updated periodically to add materials that are in line with modern scientific developments..	
Northern Technical University College of Health and Medical Technologies/The dour	• Educational institution

Techniques Physiotherapy	• **Scientific Department / Center**
Nursing and first aid basicsPTT103	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical + 45 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

5- Acquiring the skill in addition to information related to the medical condition.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1. Knowledge of the practical application of the nursing profession and how to solve problems related to it.

A2.How to treat the patient and create an atmosphere of understanding and cooperation between the patient and the therapist.

for.Course specific skill objectives.

B 1.How to measure vital signs.

B2. How to give injections and their types.

B3. Installing the drug delivery device (cannula).

B4. 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 cadres Medical Specialized.

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports within The material, Seminars within the study materials, Discussions and conversations during the lesson.

G.Emotional and value goals

A1.For the student to acquire concepts and basicsNursing and first aid.

A2.Analyzing the problems facing its employees and how to develop the necessary solutions.

A3.Teamwork among different cadres.

A4.Understanding patients' suffering and alleviating their pain.

Teaching and learning methods

(Lectures immanence),Summer and professional training, graduation projects, field visits and practical training. The Savior For clinical materials.

- **Evaluation methods**

Daily, semester and final tests, weekly reports Patient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

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

D1.Collaboration and teamwork skills.

D2.Typing skills on the computer.

D3.English communication skills.

D4.Skills of enduring work performance and solving problems.

D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Introduction** Definition of first aid. Importance of first aid, Golden rules of first aid, Scope and concept of emergency.	**Knowledge and application**	**2 theoretical + 3 practical**	**the first**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**First aid emergencies** Burns & Scalds: Causes, Degrees of burns, First aid treatment, General treatment	**Knowledge and application**	**2 theoretical + 3 practical**	**the second**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**First aid emergencies** *Poisoning:*Classification (irritants, acid, alkali, narcotics), Signs and symptoms. First aid treatment, general treatment.	**Knowledge and application**	**2 theoretical + 3 practical**	**the third**

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**First aid emergencies***Trauma due to foreign body intrusion:*Eye, ear, nose, throat, stomach and lungs.	**Knowledge and application**	**2 theoretical + 3 practical**	**Fourth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 3 practical**	**Fifth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 3 practical**	**Sixth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Respiratory emergencies:**Asphyxia: Etiology, Signs & Symptoms, rules of treatment	**Knowledge and application**	**2 theoretical + 3 practical**	**Seventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Respiratory emergencies:**Drowning : Definition and management.	**Knowledge and application**	**2 theoretical + 3 practical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Respiratory emergencies:**Artificial respiration: Types and techniques.	**Knowledge and application**	**2 theoretical + 3 practical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Wounds and Hemorrhage**Wounds: Classification, management	**Knowledge and application**	**2 theoretical + 3 practical**	**tenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Wounds and Hemorrhage** Haemorrhages: Classification, signs and symptoms, rules for treatment of hemorrhage	**Knowledge and application**	**2 theoretical + 3 practical**	**eleventh**
Reports, oral and written	**whiteboard, powerpoint slides,**	**Wounds and Hemorrhage** Treatment of hemorrhage from special areas (scalp,	**Knowledge and application**	**2 theoretical + 3 practical**	**twelfth**

theoretical exams	**hands-on experiments**	mouth, nose, ear, palm and various veins). Internal hemorrhages: Visible and concealed.			
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**F. Shock and unconsciousness** Definition: Types of shock, Common causes of shock, signs and symptoms of shock (assessment of established shock). General and special treatment of established shock	**Knowledge and application**	**2 theoretical + 3 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 3 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	**Revision**	**Knowledge and application**	**2 theoretical + 3 practical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

- **Curriculum Development Plan**

The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Basics of Anatomy /PTT108	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical + 60 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

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

- **Course outcomes, teaching, learning and assessment methods**

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. **Identify muscle tissues and their types.**
6. **Identify bones and their types.**
7. **Identify joints and their types.**
8. **Identify the bones, muscles and nervous system of the upper limb.**

for.Course specific skill objectives. **1- The general objective of teaching basic sciences in 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- Raising students' ability to link anatomical facts with clinical applications using radiographs, ultrasound, magnetic resonance imaging, and histological 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 cadres Medical Specialized.**
Evaluation methods
Daily tests, midterm exams - final exams, weekly reports within The material, Seminars within the study materials, Discussions and conversations during the lesson.
G.Emotional and value goals. **A1The ability to communicate effectively with stakeholders in the field of specialization.** **A2Recognizing the need and ability to engage in lifelong learning.** **A3Knowledge of contemporary issues in the field of specialization..** **A4The broad education necessary to understand global solutions and social, economic and environmental problems to support health institutions according to their needs with specializations in rehabilitation and treatment of patients in specialized hospitals and consulting clinics.**
Teaching and learning methods
(Lectures immanence), Summer and professional training, graduation projects, field visits and practical training. The Savior For clinical materials.
• **Evaluation methods**
Daily, semester and final tests, weekly reports Patient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

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

D1.Collaboration and teamwork skills.

D2.Typing skills on the computer.

D3.English communication skills.

D4.Skills of enduring work performance and solving problems.

D5.Conversation skillsOn the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	Introduction: Define Anatomy and mention its sub-divisions, Name regions, cavities and systems of the body.	**Knowledge and application**	**2 theoretical + 4 practical**	**the first**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**the second**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	Osteology: Anatomical positions of the body, axes, planes, common anatomical terminologies (grooves, tuberosity, trochanters etc), Connective tissue classification,	**Knowledge and application**	**2 theoretical + 4 practical**	**the third**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**Fourth**

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	Arthrology: Definitions, Classification of joints, Construction of joints, Motions of joints, Structure of fibrous, cartilaginous joints,	**Knowledge and application**	**2 theoretical + 4 practical**	**Fifth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**Sixth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**Seventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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**	**2 theoretical + 4 practical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	Upper extremity	**Knowledge and application**	**2 theoretical + 4 practical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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 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.	**Knowledge and application**	**2 theoretical + 4 practical**	**tenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	Scapular region, Comprehend the main features of the muscle sin the scapular region, State the layered arrangements of the	**Knowledge and application**	**2 theoretical + 4 practical**	**eleventh**

		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			
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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 theoretical + 4 practical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	Shoulder Girdle, Mention the type of the joints. Demonstrate and name the movements of scapula. Mention the chief muscles producing these movements. Correlate movements of scapula. Assign functional roles of the articular disc, costoclavicular ligament of sternoclavicular joint and coracoclavicular ligament.	**Knowledge and application**	**2 theoretical + 4 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on experiments**	Shoulder joint, Mention the type, articular surfaces and ligaments of the shoulder joint.	**Knowledge and application**	**2 theoretical + 4 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides, hands-on 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 theoretical + 4 practical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories

	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of TechnologyHealth and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Medical Microbiology 4PTT10	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical + 60 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**
• **Course objectives**	
6- Acquiring the skill in addition to information related to the medical condition.	
• **Course outcomes, teaching, learning and assessment methods**	

A.Cognitive objectives

AThe cognitive objectives of studying medical microbiology in the Department of Physiotherapy Technology are primarily to give students 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 deal with them. Below are some of the main cognitive objectives::

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

2. Knowledge of bacteriology and virology: gaining information about types of bacteria and viruses, their life cycles, and mechanisms of disease causing.

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

4. Developing knowledge of infectious diseases: Learn about different infectious diseases and their effect on the human body..

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

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

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

8. Application of knowledge: Students' ability to apply their knowledge of medical microbiology in physical therapy practice..

9. Working within a multidisciplinary team: Learn how to work collaboratively with other healthcare professionals to provide comprehensive treatment to patients..

These cognitive objectives are essential to provide students with the skills and knowledge necessary to understand the impact of infectious diseases in the field of physical therapy and to enhance their ability to contribute effectively to the comprehensive health care of patients.

for. Course specific skill objectives.

The skill objectives of studying medical microbiology in the Department of Physiotherapy Technology focus on developing students' practical and technical abilities to deal with microorganisms and to use these skills in their professional practice. Here are some of these objectives::

1. Diagnostic skills Develop the ability to properly collect clinical samples and perform laboratory tests to diagnose infectious diseases..

2. Laboratory skills: Gain experience in using a microscope, performing microbial cultures, and identifying microorganisms..

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

4. Analytical skills: Learn how to analyze laboratory test results and evaluate their relevance to clinical diagnosis..

5. Communication: Develop the ability to communicate effectively with healthcare teams and exchange information about the diagnosis and management of patients with the disease..

6. Integrated Clinical Skills: Learn how to integrate medical microbiology knowledge into clinical practice in physical therapy..

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

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

By developing these skills, physical therapy students have the tools to understand the vital role that microbiota play in human health and 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 cadres Medical Specialized.

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports within The material, Seminars within the study materials, Discussions and conversations during the lesson.

G.Emotional and value goals

The affective and value-based objectives of the study of medical microbiology in the Department of Physiotherapy Technology are directed towards the development of attitudes and values that nurture ethical professional practice and promote responsible behavior. Some of the central objectives in this context are::

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

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

3.Moral development: Encourage ethical behavior and adherence to scientific integrity during the performance of experiments and interpretation of data..
4. Professional Responsibility: Promote a sense of responsibility for safe and effective health care**.**
5. Empathy and respect: Develop empathy towards patients and respect their right to privacy and decent treatment..
6. Self-learning and development: Encourage students to invest in self-learning and to keep up to date with new developments in microbiology..
7. Cooperation and teamwork: Learn how to work within a team, where roles and expertise complement each other to achieve the best outcomes for patients..
8. Respect for diversity and differences: Awareness of the importance of biodiversity and respect for cultural and individual differences among people.
9. Dealing with stress: Develop students' ability to deal with stresses that may arise during work in environments related to microbiology and infectious diseases..
10. Initiative and creativity: Encourage students to take the initiative and innovate in proposing solutions to challenges related to microbiology in the field of physical therapy..
This aspect of education focuses on developing the whole person, including his or her values and attitudes, in a way that enhances his or her professional competence and contributes to the provision of ethical and caring health care to patients.

Teaching and learning methods

(Lectures immanence),Summer and professional training, graduation projects, field visits and practical training for clinical subjects..

- **Evaluation methods**

Daily, semester and final tests, weekly reports Patient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

D.General and transferable skills (other skills related to employability and personal development).
D1.Collaboration and teamwork skills.
D2.Typing skills on the computer.
D3.English communication skills.
D4.Skills of enduring work performance and solving problems.
D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Introduction	Knowledge and application	2 theoretical + 4 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Classification	Knowledge and application	2 theoretical + 4 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Sterilization & disinfection	Knowledge and application	2 theoretical + 4 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	immunology	Knowledge and application	2 theoretical + 4 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	immunology	Knowledge and application	2 theoretical + 4 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Laboratory Diagnosis	Knowledge and application	2 theoretical + 4 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Bacteriology	Knowledge and application	2 theoretical + 4 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Bacteriology	Knowledge and application	2 theoretical + 4 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Viruses	Knowledge and application	2 theoretical + 4 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Viruses	Knowledge and application	2 theoretical + 4 practical	tenth
Reports, oral and	whiteboard, powerpoint	Mycology	Knowledge and application	2 theoretical	eleventh

written theoretical exams	slides, hands-on experiments			+ 4 practical	
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Introduction to Biosafety and Security	Knowledge and application	2 theoretical + 4 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Biosafety level, risk assessment strategy	Knowledge and application	2 theoretical + 4 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	The biological factors	Knowledge and application	2 theoretical + 4 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Revision	Knowledge and application	2 theoretical + 4 practical	fifteenth

• Infrastructure	
	Presence of classrooms
	And GAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Computer/MTCD101	• Course Name/Code

In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
15 theoretical + 15 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

- Providing the student with skills to deal with basic office applications, create office files and documents, use the operating system, and the basics of working within the digital environment.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

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

for. Course specific skill objectives.

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

- **Gain skills in using operating systems and office software such as:Microsoft Office**
- **Develop online research skills and learn how to evaluate information sources on the web.**

Teaching and learning methods

In-person education (scientific films)And videos, Laboratories)

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports within The material, Seminars within the study materials, Discussions and conversations during the lesson.

G.Emotional and value goals

A1.Enhancing confidence in the use of technology and computing and achieving comfort and certainty in dealing with computer hardware and software.

A2.Analyzing the problems facing its employees and how to develop the necessary solutions.

A3.Teamwork among different cadres.

A4.Understanding patients' suffering and alleviating their pain.

Teaching and learning methods

(Lecturesimmanenceand practical training)

- **Evaluation methods**

Daily, semester and final tests, weekly reports Patient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

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

D1.Collaboration and teamwork skills.

D2.Typing skills on the computer.

D3.English communication skills.

D4.Skills of enduring work performance and solving problems.

D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Computer BasicsComputer Fundamentals Computer Concept, Computer Life Cycle Phases, Computer Generations Development	Knowledge and application	1 theoretical + 1 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Advantages of the computer and its areas of use Classification of the computer in terms of purpose, size and data type	Knowledge and application	1 theoretical + 1 practical	the second
Reports, oral and	whiteboard, powerpoint	Computer components	Knowledge and application	1 theoretical	the third

written theoretical exams	slides, hands-on experiments	Computer Components Computer components The physical parts of the computer Software entities		+ 1 practical	
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Your Personal Computer Computer Security Concept and Software Licensing	Knowledge and application	1 theoretical + 1 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Computer Security and Software Licensing Computer Safety & Software Licenses	Knowledge and application	1 theoretical + 1 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Ethics of the electronic world, forms of violations, computer security, computer privacy	Knowledge and application	1 theoretical + 1 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Computer software licenses and types, intellectual property, electronic hacking, malware, the most important steps necessary to protect against hacking operations, the harms of computers to health	Knowledge and application	1 theoretical + 1 practical	Seventh
Reports, oral and written	whiteboard, powerpoint slides,	Operating systemsOperating Systems	Knowledge and application	1 theoretical	The eighth

theoretical exams	hands-on experiments	Definition of operating system, functions, objectives, classification, examples of some operating systems		+ 1 practical	
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Operating systems Windows 7 operating system	Knowledge and application	1 theoretical + 1 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Desktop Components start menu taskbar	Knowledge and application	1 theoretical + 1 practical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Folders and files Icons	Knowledge and application	1 theoretical + 1 practical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Perform operations on windows desktop backgrounds	Knowledge and application	1 theoretical + 1 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Control Panel Windows Control PanelControl PanelGroups (Category)	Knowledge and application	1 theoretical + 1 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	From the control panel Defragment Organizing files inside the computer, installing and deleting programs	Knowledge and application	1 theoretical + 1 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Some common computer settings and conditions, printer management,	Knowledge and application	1 theoretical + 1 practical	fifteenth

		time and date setting, primary disk maintenance			

•Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Human rights and democracyMTCD102	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year
30 theoretical	• Number of study hours (total)
1/9/2024	• Date this description was prepared
• Course objectives	
The subject of rights and democracy provides students with increased awareness and training on the importance of active participation in aspects of life, such as enhancing respect for the principles of general human rights in various aspects of life.	

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

Increase the student's knowledge of the theoretical conceptual aspect and historical development of the subject of human rights and democracy. Develop the student's analytical and critical skills regarding the reality and future of human rights and democracy. Enabling students to understand the importance of education and its role in spreading the culture of human rights and democracy in building a civilized society based on good governance, one of the most important components of which is belief in human rights.

B. Course specific skill objectives.

1- **Introduction to the history of human rights and stages of development.**
2- **Spreading culture and nourishing the student from the Islamic side.**
3- **How to preserve society and the homeland by enhancing their love for the country.**
4- **Identify the most important rights granted to them according to international norms and laws.**
5- **Enhancing citizenship among students.**

Teaching and learning methods

In-person education

Evaluation methods

Daily tests, midterm exams - final exams, weekly reports within The material, Seminars within the study materials, Discussions and conversations during the lesson.

G.Emotional and value goals.

A1- Teaching students to search for real problems, link them to the scientific material, and present them in a logical order and sequence.

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

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

A2-giveAnoAnd a bannertheMaximum expression of rights.

A3- Emphasizing the importance of human rights.

A4- Objectivity in discussions.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily, semester and final tests, weekly reportsPatient seminars and clinical follow-up reports with practical discussions. Practical lesson in the hospital..

D.General and transferable skills (other skills related to employability and personal development).
D1.Collaboration and teamwork skills.
D2.Typing skills on the computer.
D3.English communication skills.
D4.Skills of enduring work performance and solving problems.
D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Historical development of human rights, human rights in ancient civilizations	Knowledge	2 theoretical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Human rights in divine laws with a focus on human rights in Islam	Knowledge	2 theoretical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Human Rights in the Middle Ages and Modern Times	Knowledge	2 theoretical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Regional recognition of human rights at the European, American, African, Islamic and Arab levels	Knowledge	2 theoretical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Non-governmental organizations and their role in human rights (International	Knowledge	2 theoretical	Fifth

		Committee of the Red Cross, Amnesty International, Human Rights Watch, Arab Organization for Human Rights)			
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Human rights in international and regional covenants and national legislation	Knowledge	2 theoretical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on 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 theoretical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Human Rights in National Legislation (Iraqi Constitution)	Knowledge	2 theoretical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Forms and generations of human rights (individual and collective rights)	Knowledge	2 theoretical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Human rights guarantees and protection at the national level	Knowledge	2 theoretical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Human rights guarantees and protection at the regional and international levels	Knowledge	2 theoretical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Classification of public freedoms (basic and individual freedom, freedom of security and feeling secure,	Knowledge	2 theoretical	twelfth

		freedom of movement and personal freedom)			
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Intellectual and cultural freedoms (freedom of opinion, freedom of belief, and freedom of education)	Knowledge	2 theoretical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Freedom of the press, freedom of assembly and freedom of association	Knowledge	2 theoretical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides, hands-on experiments	Economic and social freedoms (freedom of work, freedom of ownership, freedom of trade and industry)	Knowledge	2 theoretical	fifteenth

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medicalThe dour	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Physical education (sports) /NTU113	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year

15 theoretical + 15 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

The student acquires motor skills.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1. Awareness of sports culture.

A2.Providing students with comprehensive information about the rules of the games and explaining good behavior when participating in races.

for.Course specific skill objectives.

B 1.Developing students' skills in various sports.

B 2. Knowing the rules and regulations for each game.

B 3. Developing and improving physical fitness and motor skills.

Teaching and learning methods

In-person education (scientific films)And videos of sports training / field practices)

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1Providing training and game practice opportunities to apply technical aspects for those with sports competencies.

A2.Teamwork among different cadres.

Teaching and learning methods

(Lectures In-person/field training)

- **Evaluation methods**

Daily, midterm and final exams

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

D1.Collaboration and teamwork skills.

D2.Typing skills on the computer.

D3.English Speaking Skills For Arabic.

D4.Skills of enduring work performance and solving problems.

D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Sport definition, importance and types	Knowledge and application	1 theoretical + 1 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Mechanism of human body movement	Knowledge and application	1 theoretical + 1 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Common Sports Injuries	Knowledge and application	1 theoretical + 1 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Basic basketball skills	Knowledge and application	1 theoretical + 1 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	International Basketball Laws	Knowledge and application	1 theoretical + 1 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Basic table tennis skills and international rules	Knowledge and application	1 theoretical + 1 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Basic skills of volleyball and its international rules	Knowledge and application	1 theoretical + 1 practical	Seventh
Reports, oral and written	whiteboard, powerpoint slides	Swimming	Knowledge and application	1 theoretical + 1 practical	The eighth

theoretical exams					
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Basic skills of tennis and its international rules	Knowledge and application	1 theoretical + 1 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Basic Handball Skills	Knowledge and application	1 theoretical + 1 practical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	International Handball Law	Knowledge and application	1 theoretical + 1 practical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Track and field games (types, international law of the game)	Knowledge and application	1 theoretical + 1 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Basic Football Skills	Knowledge and application	1 theoretical + 1 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Sports competitions and competitions management	Knowledge and application	1 theoretical + 1 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Sports laws and regulations	Knowledge and application	1 theoretical + 1 practical	fifteenth

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Arabic language /NTU 103	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**
• **Course objectives**	
The student identifies spelling and grammatical errors.	
• **Course outcomes, teaching, learning and assessment methods**	

A.Cognitive objectives

A1. The student learns the methods and rules of administrative correspondence.

A2.The student learns the style of linguistic communications in business administration.

for.Course specific skill objectives.

B 1.Develop students' listening, reading and expression skills.

B 2. Providing students with the skills of expression in classical Arabic.

B 3. Developing positive attitudes and values among students towards their Arabic language related to religion and Arab heritage.

Teaching and learning methods

In-person education (scientific films)And videos in classical Arabic)

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1.For the student to acquire Correct language in terms of reading and spelling.

A2.Teamwork among different cadres.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily, midterm and final exams

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

D1.Collaboration and teamwork skills.

D2.Typing skills on the computer.

D3.English Speaking Skills For Arabic.

D4.Skills of enduring work performance and solving problems.

D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Introduction to linguistic errors-The tied taa, the long taa and the open taa	Knowledge	2 theoretical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Rules for writing the extended and shortened alif-Solar and lunar letters	Knowledge	2 theoretical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Dad and Tha	Knowledge	2 theoretical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Writing the hamza	Knowledge	2 theoretical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	punctuation marks	Knowledge	2 theoretical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Noun, verb and the difference between them	Knowledge	2 theoretical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Effects	Knowledge	2 theoretical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	number	Knowledge	2 theoretical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Common Language Mistakes Applications	Knowledge	2 theoretical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Common Language Mistakes Applications	Knowledge	2 theoretical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Noon and Tanween-Meanings of prepositions	Knowledge	2 theoretical	eleventh

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Formal aspects of administrative discourse	Knowledge	2 theoretical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Administrative discourse language	Knowledge	2 theoretical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Administrative discourse language	Knowledge	2 theoretical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Administrative correspondence samples	Knowledge	2 theoretical	fifteenth

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
English language /NTU101	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year
30 theoretical	• Number of study hours (total)

1/9/2024	• **Date this description was prepared**
• **Course objectives**	
Acquire the skill of dialogue in the English language and read and analyze scientific research and medical terminology correctly.	
• **Course outcomes, teaching, learning and assessment methods**	
A.Cognitive objectives **A1. Identify the tenses and verbs used with each tense and adjust the context of the sentence.** **A2.Learn general grammar, interrogative words and conversational phrasing.**	
for.Course specific skill objectives. **B 1.Speak correct English.** **B 2. Ability to read medical tests.** **B 3. Knowing medical terms in English for their importance in the field of medical work.**	
Teaching and learning methods	
In-person education (scientific films)And videos on the correct pronunciation of the English language)	
Evaluation methods	
Daily tests, midterm exams - final exams	
G.Emotional and value goals **A1.For the student to acquire Correct language: able to read and translate medical tests and terminology.** **A2.Teamwork among different cadres.**	
Teaching and learning methods	
(Lectures immanence)	
• **Evaluation methods**	
Daily, midterm and final exams	

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

D1.Collaboration and teamwork skills.

D2.Typing skills on the computer.

D3.English communication skills.

D4.Skills of enduring work performance and solving problems.

D5.Conversation skills On the Internet

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Cardinal numbers/years/prices/ times(in words and figures).	Knowledge	2 theoretical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Phonetic of alphabet letters, punctuation.	Knowledge	2 theoretical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Countries/Capitals, arrange words (makes full sentence)/ arrange letters (make full word).	Knowledge	2 theoretical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Simple present/1. Verb to be (is/am/are) (affirmative, negative and interrogative).	Knowledge	2 theoretical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Simple present/2. Verb to do(Do/Does) (affirmative, negative and interrogative).	Knowledge	2 theoretical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Simple present/3. Verb to have(have/has) (affirmative, negative and interrogative).	Knowledge	2 theoretical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Simple present/4. Ordinary verbs like (eat, go, play…etc.) (affirmative, negative and interrogative).	Knowledge	2 theoretical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Tag questions and short answers(yes/no questions).	Knowledge	2 theoretical	The eighth

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Review (simple present).	Knowledge	2 theoretical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Question words (what, where, when, who, why, how, whom, whose, which).	Knowledge	2 theoretical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Abbreviation (short form), adjectives (and their opposite).	Knowledge	2 theoretical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Plural nouns (regular and irregular).	Knowledge	2 theoretical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Possession (all types).	Knowledge	2 theoretical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Pronunciation (-s at the end of a word).	Knowledge	2 theoretical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Pronouns (all types).	Knowledge	2 theoretical	fifteenth

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

- **Curriculum Development Plan**

The course is updated periodically to add materials that are in line with modern scientific developments..

Course Description / Level 2

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Therapeutic exercise basicsPTT201	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 Theoretical + 45 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

Understand the basic principles of therapeutic exercise: Learn about the scientific basis of exercise and its effects on the musculoskeletal and nervous systems.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A-1-Understanding the scientific foundations: Learn the physiological and anatomical principles associated with therapeutic exercises and how they affect the body.

A-2-Design of therapeutic programs The ability to design appropriate treatment programs for different medical conditions based on the clinical assessment of the patient’s condition.

A-3Classify the different types of therapeutic exercise: Identify the different types of therapeutic exercise (such as aerobic exercise, muscle strengthening, flexibility exercises) and determine when and how to use them.

A-4-Evaluation and diagnosis: Learn how to assess a patient's condition and use therapeutic exercises as part of a comprehensive treatment plan.

A-5-Understand the stages of recovery: Know how each type of exercise affects the stages of recovery and injury and provide appropriate care during each stage.

A-6-Management of injuries and chronic conditions: The ability to effectively manage injuries and chronic conditions through therapeutic exercises.

A-7-Modify exercises according to individual needs.: Learn how to modify therapeutic exercises based on the individual's abilities and needs.

for.Course specific skill objectives. **B 1. Developing empathy for patients:** Enhance the ability to empathize with patients and understand their psychological and emotional needs in addition to their physical needs. **For2-incentivizeProfessional commitment:** Encourage students to adhere to professional standards and ethics, with an emphasis on responsibility and transparency in working with patients**..** **For3-EnhancePatience and understanding:** Develop skills of patience and understanding, especially when working with patients who have chronic pain or significant physical challenges**..** **For4-buildingSelf-confidence in providing care:** Develop confidence in the ability to provide appropriate therapeutic care and use therapeutic exercises effectively.. **for5-to encourage Spirit of cooperation:** Encouraging teamwork and cooperation among medical team members and with patients to achieve treatment goals together..
Teaching and learning methods
In-person education (scientific films)And videos on the correct pronunciation of the English language)
Evaluation methods
Daily tests, midterm exams - final exams
G.Emotional and value goals **A1.Promote respect and appreciation for patients:** Understand the value of respecting the privacy and dignity of patients regardless of their health condition. Develop the ability to treat all patients with respect and appreciation for their special needs**..** **C2-Developmentsense of responsibility Professional:** Fold Commitment to professional ethics and the importance of providing safe and effective therapeutic care. Enhancing the sense of responsibility towards improving the quality of life of patients through the application of therapeutic exercises**.** **C3-Encouragementcompassion and care:** Motivate students to have compassion and humane care towards patients, and to understand their experiences and

suffering.. Working to build human relationships based on trust and support between the therapist and the patient**.**

C4-GraftingEthical values in practice: Emphasizing integrity and transparency in work, and avoiding bias or exploitation. Develop a commitment to providing care based on human values such as justice, equality, and mutual respect..

C5-ReinforcementTeamwork and collaboration: Instilling the value of cooperation and teamwork among the medical team, students, and patients to achieve treatment goals effectively. Promote a spirit of cooperation among members of the medical team to provide a supportive and comprehensive treatment environment..

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1- Effective communication skills:

Oral communication: Ability to clearly explain and instruct patients on how to perform therapeutic exercises, and the importance of clear and professional communication with colleagues and the healthcare team**.**

Written communication: Record medical notes accurately and clearly, and prepare reports on patients' condition and progress**..**

Emotional communication: Develop the ability to communicate with patients in ways that demonstrate understanding and empathy**..**

2D- Critical thinking and problem solving skills:

Ability to analyze clinical cases and determine the best therapeutic exercises appropriate for each patient based on an objective assessment. Develop strategies to solve problems the patient may encounter during treatment, such as pain resistance or motor challenges**..**

D3-SkillsTime management and organization:

Learn how to manage time efficiently when working with different patients and organize treatment plans to suit each patient's needs**..** Organize appointments and exercise schedules to ensure effective and continuous care..

D4-the job Collective and cooperative:

Develop skills to work within a multidisciplinary team in the field of health care, and cooperate with colleagues and members of the medical team to provide the best possible care. Understand the role of each member of the medical team and coordinate between them to ensure the treatment plan is implemented in an integrated manner..

D5-SkillsLeadership and responsibility:

Take responsibility for making appropriate treatment decisions for each patient, and be able to lead treatment sessions and supervise the correct implementation of exercises**.** Develop leadership skills in directing treatment teams or managing treatment centers in the future**..**

D6-SkillsAdaptability and flexibility:

Ability to adapt to changes in the patient's condition, and modify therapeutic exercises in line with the development or deterioration of the health condition. Flexibility to work in different environments with a variety of patient types**.**

D7-LearningContinuous and self-development:

Develop the habit of continuous learning to keep up with new developments in the field of therapeutic exercises and physical therapy..

Develop the ability to search for new information and apply scientific research in professional practice**..**

D 8-SkillsUse of technology:

Learn how to use technological tools in therapeutic exercises, such as computer programs to assess health status, and apply therapeutic exercises using modern equipment..

Ability to handle technological tools for diagnosis or monitoring of therapeutic progress.

D 9-Social and emotional skills:.

development Emotional intelligence to deal with different emotional states of patients.

Building healthy, positive relationships with patients and co-workers in the treatment environment

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	INTRODUCTION TO EXERCISE THERAPY	Knowledge and application	2 Theoretical + 3 practical	the first

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	BASICS OF EXERCISE:	Knowledge and application	2 Theoretical + 3 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Disability models	Knowledge and application	2 Theoretical + 3 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Exercise physiology	Knowledge and application	2 Theoretical + 3 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	JOINT MOVEMENTS: - • Terminology. Range of motion. axes and • Planes of movement levers	Knowledge and application	2 Theoretical + 3 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Passive movements	Knowledge and application	2 Theoretical + 3 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Active movements	Knowledge and application	2 Theoretical + 3 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	STARTING POSITIONS:- 1-Fundamental starting positions. 2-Derived positions. 3- Muscle work - effects and uses	Knowledge and application	2 Theoretical + 3 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	MANUAL MUSCLE TEST :-	Knowledge and application	2 Theoretical + 3 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	GONIOMETRY:-	Knowledge and application	2 Theoretical + 3 practical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	CAUSES FOR RESTRICTION OF RANGE OF MOTION:-	Knowledge and application	2 Theoretical + 3 practical	eleventh
Reports, oral and written	whiteboard, powerpoint slides	Mobility aids – crutches, canes, walker	Knowledge and application	2 Theoretical + 3 practical	twelfth

theoretical exams					
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Measurement of limb length, girth	Knowledge and application	2 Theoretical + 3 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	SUSPENSION THERAPY	Knowledge and application	2 Theoretical + 3 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	RELAXATION:- • Types & Techniques. • Effects & Uses	Knowledge and application	2 theoretical	fifteenth

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The role	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Advanced Therapeutic Exercises /PTT202	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year

30 Theoretical + 45 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

Developing specialized treatment programs: Ability to design advanced therapeutic exercise programs that suit complex health conditions such as acute injuries, surgeries, and chronic diseases, as well as focusing on restoring and improving patients' functional ability including normal movement and muscle strength while taking into account all health restrictions.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-Understanding**Basic principles of therapeutic exercises** This includes understanding the movement, physiological and biomechanical systems that influence the body's response to therapeutic exercise.

A2-**Analysis and assessment of treatment needs**: Ability to analyze individual patient needs and assess their health conditions to design customized therapeutic exercise programs.

A3-Design**Implementing advanced therapeutic exercise programs**: Learn how to create therapeutic exercise programs that suit specific conditions such as sports injuries, musculoskeletal disorders, and chronic diseases.

A4-Application**Advanced Rehabilitation Strategies** Learn advanced strategies to increase rehabilitation efficiency and improve physical performance through the use of therapeutic exercises.

A5-Learn about modern techniques in movement therapy: Know how to use modern devices and techniques in the field of therapeutic exercises to enhance the effectiveness of treatment.

A6-Evaluation of treatment outcomes: The ability to measure and evaluate the impact of therapeutic exercises on patients progress using scientific and objective measures.

for.Course specific skill objectives.

B1-EvaluationAccurate physical condition: The ability to make a comprehensive and accurate assessment of the patient's physical condition using clinical examinations and modern assessment methods to determine treatment needs..

B2-DevelopmentIndividualized exercise programs: The skill of designing customized exercise programs based on each patient's condition, taking into account factors such as age, fitness level, and type of injury or health condition..

B3-ImplementationCorrect therapeutic exercises: Mastering the implementation of therapeutic exercises with their various techniques in a safe and effective manner, taking into account the correct technique and the necessary precautions to avoid injuries..

B4-UseAdvanced techniques and equipment: Ability to use modern devices and equipment used in rehabilitation such as balance devices, strength training equipment, and movement simulators..

B5-AmendmentExercises according to the patient's progress: Develop the skill of adjusting doses and therapeutic techniques according to the patient's improvement or the emergence of new problems..

B6-Effective communication with patients and healthcare team: Ability to provide clear and accurate instructions to patients and healthcare team members, while promoting collaboration among stakeholders in treatment plans..

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Reinforcementcompassion and human care:

Encourage students to develop empathy and understanding for patients' needs and to treat them with kindness and respect, taking into account the psychological and social aspects of each patient..

C2-PlantingValues of professional responsibility:

Instilling the value of responsibility and commitment to patients, including the commitment to providing the best possible levels of care, and respecting patients' rights and privacy.

C3-EncouragementSelf-discipline and professionalism:

Promote discipline at work and maintain a professional behavior in dealing with patients and co-workers, in addition to observing appointments and accuracy in providing treatments.

C4-ReinforcementAwareness of professional ethics:

Instill a deep understanding of professional ethics, such as honesty and integrity in assessment, diagnosis, and treatment, as well as adherence to ethical standards in making therapeutic decisions..

C5-DevelopmentAwareness of cultural diversity:

To enhance students' respect for cultural and social differences among patients, enabling them to provide comprehensive health care that takes into account diverse cultural and ethnic backgrounds..

C6-EncouragementTeamwork and collaboration:

Promote the values of teamwork and cooperation among members of the health team, and effective communication with patients and team members to achieve better treatment outcomes..

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-Problem solving skills:

Developing the ability to analyze complex medical cases and find effective and innovative treatment solutions, thus enhancing students' competence in clinical situations that require quick and accurate decision-making.

D2-Critical and analytical thinking:

Enhance the ability to critically evaluate medical data and information, and examine scientific evidence to apply best practices in the design of therapeutic exercise programs.

D3-Time management:

Improve time management and treatment schedule management skills, enabling students to manage multiple patients effectively and efficiently within a specified time frame.

D4-SkillsEffective communication:

Learn how to communicate clearly and professionally with patients, healthcare teams, and community members, both verbally and in writing, to convey therapeutic information and educate patients effectively.

D5-Teamwork and cooperation:

Develop skills to work as part of a multidisciplinary team in a medical setting, collaborating with other professionals to improve treatment outcomes, an essential skill in healthcare settings.

D6-Adaptability:

Learn how to adapt to rapid changes in the healthcare work environment, such as dealing with updates in treatment technology or facing complex and unexpected health conditions.

D7-Leadership skills:

Develop the ability to lead small teams or guide patients toward achieving their treatment goals, with the ability to make appropriate decisions independently when needed.. Building healthy, positive relationships with patients and co-workers in the treatment environment

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	MAT EXERCISES:-	Knowledge and application	2 Theoretical + 3 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	FREE EXERCISES:-	Knowledge and application	2 Theoretical + 3 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Resisted exercise:	Knowledge and application	2 Theoretical + 3 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Progressive Resistance Exercise - de Lormes, Oxford, MacQueen, Circuit Weight	Knowledge and application	2 Theoretical + 3 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Stretching:	Knowledge and application	2 Theoretical + 3 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	BREATHING EXERCISES:-	Knowledge and application	2 Theoretical + 3 practical	Sixth

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	AEROBIC EXERCISE:	Knowledge and application	2 Theoretical + 3 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Co-ordination	Knowledge and application	2 Theoretical + 3 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Posture:	Knowledge and application	2 Theoretical + 3 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Gait Training:	Knowledge and application	2 Theoretical + 3 practical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	SOFT TISSUE LESIONS	Knowledge and application	2 Theoretical + 3 practical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Massage: Define and describe the various manipulation techniques used in massage.	Knowledge and application	2 Theoretical + 3 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Hydrotherapy:	Knowledge and application	2 Theoretical + 3 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Transfers training:- selection of transfers, levels, amount of assist transfer, belt of transfers	Knowledge and application	2 Theoretical + 3 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Proprioceptive Neuromuscular Facilitation	Knowledge and application	2 theoretical	fifteenth

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories

	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Physiotherapy for general surgery /PTT203	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**

30 My theory +60practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

The goals of physical therapy in the field of general surgery are diverse and focus on supporting rapid recovery and improving the quality of life after surgery.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-**Understanding the physiological basis of surgery**:
Learn about the effects of surgical procedures on the body, including vital systems such as the respiratory, cardiovascular, and musculoskeletal systems..
A2-Learn about the different types of surgeries.
Understand the differences between different types of surgeries (such as abdominal, thoracic, and reconstructive surgeries) and their effects on movement and physical function.
A3-**Know the basic principles of post-operative physical therapy.**
Understand the role of physical therapy in the rehabilitation of patients after surgery, including techniques to improve movement and flexibility, reduce pain, and speed up the healing process..
A4-**Understanding the Effect of Anesthesia and Surgery on Breathing**:
Learn about the effects of anesthesia and surgery on the respiratory system and how to apply breathing exercises and improve lung function after surgery..
A5-**Clinical evaluation of patients before surgery**:
Know how to perform a comprehensive preoperative assessment of a patient's condition, including assessment of muscle strength, flexibility, and respiratory function..
A6-**Design of pre-surgical rehabilitation programs(Prehabilitation)**:
Learn how to develop rehabilitation programs that aim to improve general fitness and body functions before surgery to enhance post-surgical outcomes.

for.Course specific skill objectives.

B1-Assessment of the physical condition of patients:

Develop the skill of assessing the physical and functional status of patients before and after surgery using objective assessment tools such as measuring muscle strength, range of motion, and respiratory function..

B2-Design customized treatment programs:

Ability to design and implement individual rehabilitation programs tailored to the needs of patients before and after surgery, taking into account the type of surgery and the patients' medical history.

B3-Performing therapeutic exercises correctly:

Master the implementation of therapeutic exercises and clinical techniques required to improve movement and flexibility and promote healing after surgery..

B4-Application of pain management techniques:

Learn how to use techniques such as electrical stimulation, manual techniques, and breathing exercises to relieve pain and improve comfort for patients after surgery..

B5-Implementing strategies to prevent complications:

Develop the skill of applying preventive strategies such as deep breathing exercises and early movement, to reduce the risk of complications such as pneumonia or blood clots..

B6-Providing counseling and psychological support to patients:

Improve communication skills to provide psychological support and advice to patients and their families about the stages of recovery and treatment requirements after surgery.

B7-Interact with health teams:

Ability to collaborate and communicate effectively with other health team members, such as surgeons and nurses, to ensure comprehensive and integrated patient care.

B8-Evaluation of treatment outcomes:

The skill of measuring and documenting the progress achieved by patients during the stages of treatment, and evaluating the effectiveness of the treatment programs that have been implemented.

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Promote empathy and compassion:

Instilling values of empathy and compassion towards patients, which enhances the ability to understand their feelings and psychological needs during recovery periods.

A2-Instilling ethical and professional values:

Establishing principles of professional ethics such as honesty, integrity, and commitment to patients and their rights, and emphasizing the importance of maintaining the confidentiality of information..

C3-ReinforcementSocial Responsibility:

Developing a sense of responsibility towards society by providing accessible and equitable health care, and helping patients achieve the best health outcomes..

C4-DevelopmentAwareness of cultural diversity:

Promote respect and appreciation for cultural and social differences among patients, and an understanding of how to provide comprehensive care that takes into account their cultural needs..

C5-ReinforcementTeamwork and collaboration:

Promote the values of collaboration and teamwork in the healthcare environment, helping students understand the importance of interdisciplinary partnerships in improving the quality of care..

A6-Developing leadership and guidance skills:

Encourage students to develop leadership and mentoring skills when dealing with patients or colleagues, enhancing their ability to work as part of a multidisciplinary team..

A7-Promote commitment to continuous learning:

Stimulate the desire for continuous learning and self-development, reflecting a commitment to providing the best possible healthcare based on the latest research and standards..

A8-Enhance the ability to cope with stress:

Develop awareness of the importance of managing stress and tension in the work environment, and enhance skills to deal with psychological and emotional challenges associated with health care. To achieve better treatment outcomes..

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-SkillsProblem solving:

Develop the ability to analyze problems related to medical conditions and develop effective treatment strategies, which helps in making quick and correct decisions in clinical settings.

D2-ThinkingCritical and analytical:

Enhance the ability to critically evaluate clinical information and data, and examine scientific evidence to determine best practices in the delivery of physiotherapy.

D3-SkillsEffective communication:

Improve the ability to communicate with patients and co-workers, both verbally and in writing, to ensure information is conveyed in a clear and professional manner..

D4-CooperationTeamwork:

Develop skills to work as part of a diverse health care team, and enhance collaboration with doctors, nurses, and other health care professionals..

D5-Managementthe time:

Learn how to manage time effectively, which helps in dealing with treatment appointments and organizing schedules in a way that improves the quality of care..

D6-AbilityAdaptable:

Enhance the ability to adapt to rapid changes in the healthcare work environment, including technological updates and changes in treatment plans..

D7-Leadership skills:

Develop leadership skills when working with small teams, and effectively guide patients through recovery periods, enhancing confidence and initiative.

D8-Stress and tension management:

Learn effective strategies to manage the stress and tension associated with working in a healthcare setting, helping to maintain good mental health..

D9-DevelopmentSelf and continuous learning:

Encourage students to adopt an approach to continuous learning and self-development, including seeking additional educational opportunities to improve their skills.

D10-UseTechnology:

Improve skills in using technological tools and techniques in physical therapy, such as measuring devices and health applications, to enhance the effectiveness of treatment.

D11-SkillsResearch and use of evidence:

Enhance the ability to conduct research and use scientific evidence in the practice of physical therapy, which helps in providing research-based care.

D12-ThinkingCreative:

Encouraging creative thinking in designing innovative treatment programs that meet patients' needs, thus contributing to improved treatment outcomes..

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Introduction: Definition, Indications for surgery	Knowledge and application	2 Theoretical + 4 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Postoperative complications.	Knowledge and application	2 Theoretical + 4 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Infection and Inflammation	Knowledge and application	2 Theoretical + 4 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Wounds / ulcers	Knowledge and application	2 Theoretical + 4 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Complications of immobilization	Knowledge and application	2 Theoretical + 4 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Abdominal surgeries for gastrointestinal tract	Knowledge and application	2 Theoretical + 4 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Genito-urinary system surgeries	Knowledge and application	2 Theoretical + 4 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Breast cancer and mastectomy	Knowledge and application	2 Theoretical + 4 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Mastectomy	Knowledge and application	2 Theoretical + 4 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Burn: Definition, Types, Classification	Knowledge and application	2 Theoretical + 4 practical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Burn: Immediate care, physical therapy management.	Knowledge and application	2 Theoretical + 4 practical	eleventh

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Skin grafting: Indications, Types, Post-operative care of plastic surgery with specific role of physiotherapy	Knowledge and application	2 Theoretical + 4 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Tendon repair: Procedure, Recovery, Complications, Pre-operative and post-operative physical therapy management	Knowledge and application	2 Theoretical + 4 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Reconstructive surgery of peripheral nerves	Knowledge and application	2 Theoretical + 4 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Revision.	Knowledge and application	2 Theoretical + 4 practical	fifteenth

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The role	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Physiotherapy for musculoskeletal diseasesPTT204	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year

30 My theory +60practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

The goals of physical therapy for musculoskeletal disorders focus on improving muscle function, relieving pain, and restoring normal movement.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-to understand **Anatomy**

Learn about the anatomy of the muscular system, including the muscular and skeletal structure of muscles and their relationship to the nervous system..

A2-Knowing muscle functions:

Understand muscle function and normal movement patterns, and how diseases and injuries affect these functions..

A3-Understanding Musculoskeletal Diseases:

Learn about the different types of muscular system diseases, such as muscular dystrophy, inflammation, and genetic disorders, and the causes and factors that cause each..

A4-Diagnosis of muscle diseases:

Understand the methods used to diagnose diseases of the musculoskeletal system, including clinical examinations, medical imaging, and laboratory tests..

A5-Know the basic principles of physical therapy:

Learn the principles and goals of physical therapy in treating diseases of the musculoskeletal system, including the use of exercises and manual therapy..

A6-Understanding assessment techniques:

Knowledge of assessment techniques used to determine the level of muscle weakness, range of motion, and functional ability of patients..

A7-Design of rehabilitation programs:

Develop knowledge on how to design individual rehabilitation programmes that take into account the type and severity of the musculoskeletal disease and the patient's specific needs..

A8-Learn about therapeutic techniques:

Knowledge of different physical therapy techniques used to treat musculoskeletal disorders, such as strengthening exercises, flexibility exercises, and electrotherapy..

for.Course specific skill objectives.

B1-Assessment of the physical condition of patients:

Develop the skill to conduct a comprehensive assessment of patients' condition, including measuring muscle strength, range of motion, and balance..

B2-Design customized treatment programs:

Ability to design and implement individual rehabilitation programs that meet the specific needs of patients, taking into account the type and severity of the disease.

B3-Performing therapeutic exercises:

Master the correct and safe performance of various therapeutic exercises, including muscle strengthening and flexibility exercises..

B4-Application of manual therapy techniques:

Develop skills in using manual therapy techniques to improve joint and muscle movement and relieve pain..

B5-Application of electrical techniques:

Learn how to use electrical techniques such as electrical stimulation to improve muscle function and relieve pain..

B6-Providing psychological and emotional support:

Improving communication skills to provide psychological and emotional support to patients, enhancing their treatment experience and increasing their commitment to treatment.

B7-Evaluation of treatment outcomes:

Ability to evaluate the effectiveness of treatment programs by monitoring patients' progress and documenting improvements in their functional ability..

B8-Implementing prevention strategies:

Develop skills to apply preventive strategies to prevent musculoskeletal conditions from worsening, and teach patients how to maintain healthy muscles..

B9-Collaboration with health teams:

Enhance the ability to collaborate and communicate effectively with other members of the health team to ensure comprehensive care is provided. For patients. Skills And Measuring and documenting the progress achieved by patients during the treatment stages, and evaluating the effectiveness of the treatment programs that have been implemented Assessment of the physical condition of patients:

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Promote empathy and compassion:

Instilling the value of empathy towards patients with musculoskeletal diseases, helping students understand their feelings and psychological needs during treatment**.**

C2-PlantingMoral values:

Establishing principles of professional ethics, such as honesty, integrity, and respect, in dealing with patients and co-workers.

C3-ReinforcementSocial Responsibility:

Developing a sense of responsibility towards society by providing fair and appropriate health care to patients, and helping them improve their quality of life**..**

C4-DevelopmentAwareness of cultural diversity:

Promote respect and appreciation for cultural and social differences among patients, and an understanding of how to provide care that takes into account their cultural needs**..**

A5-Promote teamwork:

Promote the values of collaboration and teamwork in the healthcare environment, helping students understand the importance of interdisciplinary partnerships in improving the quality of care..

C6-DevelopmentLeadership skills:

Encourage students to develop leadership and mentoring skills, enhancing their ability to positively influence teams and physical therapy patients**..**

A7-Promote commitment to continuous learning:

Stimulate the desire for continuous learning and self-development, reflecting a commitment to providing the best possible healthcare.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-SkillsProblem solving:

Develop the ability to analyze clinical cases and address problems related to musculoskeletal diseases, which contributes to making effective and rapid decisions**.**

D2-ThinkingCash:

Enhance critical thinking skills by evaluating evidence and knowledge related to the treatment of musculoskeletal diseases, enabling students to make informed decisions..

D3-SkillsEffective communication:

Improve verbal and written communication skills with patients and co-workers, enhancing the ability to convey information clearly and effectively**..**

D4-CooperationTeamwork:

Developing collaboration and teamwork skills within multidisciplinary healthcare teams, helping to deliver integrated patient care**.**

D5-Managementthe time:

Aziz has effective time management skills, which contributes to organizing tasks and timetables in the work environment..

D6-AbilityAdaptable:

Enhance the ability to adapt to rapid changes in the healthcare work environment, including changes in treatment protocols and technology..

D7-SkillsLeadership:

Develop leadership and guidance skills when dealing with work teams and patients, which contributes to improving the quality of care**.**

D8-ManagementStress and tension:

Learn effective strategies to manage stress and tension associated with working in a physical therapy setting, promoting mental health..

D9-DevelopmentSelf and continuous learning:

Motivating students to seek additional educational opportunities and self-development, which contributes to improving their skills and knowledge**.**

D10-UseTechnology:

Improving skills in using modern technology in physical therapy, such as medical devices and applications, which enhances the effectiveness of treatment

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Medical terminology	Knowledge and application	2 Theoretical + 4 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Patient history, Examination	Knowledge and application	2 Theoretical + 4 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Musculoskeletal Signs and Symptoms	Knowledge and application	2 Theoretical + 4 practical	the third
Reports, oral and written	whiteboard, powerpoint slides	Rheumatoid Arthritis: Definition, Epidemiology, Pathology, and	Knowledge and application	2 Theoretical + 4 practical	Fourth

theoretical exams		Pathogenesis, Clinical and Laboratory Manifestations			
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Rheumatoid Arthritis: Assessment and Physical Therapy Management	Knowledge and application	2 Theoretical + 4 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Ankylosing Spondylitis:	Knowledge and application	2 Theoretical + 4 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Psoriatic Arthritis	Knowledge and application	2 Theoretical + 4 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Reactive Arthritis:	Knowledge and application	2 Theoretical + 4 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Systemic lupus erythematosus:	Knowledge and application	2 Theoretical + 4 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Systemic Sclerosis:	Knowledge and application	2 Theoretical + 4 practical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Polymyositis and dermomyositis:	Knowledge and application	2 Theoretical + 4 practical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Polymyalgia Rheumatica:	Knowledge and application	2 Theoretical + 4 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Gout:	Knowledge and application	2 Theoretical + 4 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Pseudo gout:	Knowledge and application	2 Theoretical + 4 practical	fourteenth
Reports, oral and written	whiteboard, powerpoint slides	General Revision	Knowledge and application	2 Theoretica	fifteenth

theoretical exams				**l + 4 practical**	

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of TechnologyHealth and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Primary care equipmentPTT205	• **Course Name/Code**

In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 My theory +45practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

The objectives of the course on primary care devices in physical therapy are to teach students and practitioners how to use different devices and techniques to improve patients' condition and speed up the recovery process.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-UnderstandingDifferent types of primary care devices

Learn about the different types of devices used in primary treatment, such as electrical stimulation devices, ultrasound devices, and heat therapy devices..

A2-KnowledgePhysical principles:

Understand the physical principles behind treatment devices, such as how electrical current and ultrasound work and their effects on tissues..

A3-Understanding how devices work:

Learn how each of the devices used in primary care works, including settings and operating parameters..

A4-EvaluationTreatment effectiveness:

Understand how to evaluate the effectiveness of treatment using these devices by measuring patients' response and changes in symptoms..

A5-KnowledgeClinical uses:

Identify the clinical uses of each device, including the conditions that can be treated with specific devices..

A6-UnderstandingPrecautions and side effects:

Know the necessary precautions when using the devices, as well as the possible side effects and how to deal with them..

A7-ApplicationEthical and Professional Standards:

Understand the ethical and professional principles related to the use of treatment devices, including respecting patients' rights and ensuring their safety.

A8-UnderstandingTechnology updates:

Keeping up with technological updates and developments in the field of primary care devices, which helps improve clinical practices..

A9-ProcedureNecessary tests:

Knowing how to perform the necessary tests before using the devices to ensure their suitability for the patient's condition

for.Course specific skill objectives.

B1-PreparationAnd operating the devices:

Develop skills to set up and operate primary care equipment correctly according to technical guidelines..

B2-EvaluationClinical case:

Ability to assess the clinical condition of patients and determine appropriate treatment requirements using equipment.

B3-ImplementationTreatment:

Proficiency in performing treatment using devices safely and effectively, taking into account the needs of each patient..

B4-MonitoringPatient response:

Learn how to monitor patients' response during treatment and adjust settings based on their needs and progress..

B5-ApplicationNecessary precautions:

Develop skills to apply the necessary precautions to ensure the safety of patients while using devices.

B6-EvaluationTreatment results:

Ability to evaluate the results of treatment using devices by measuring improvement in symptoms and functional performance of patients.

B7-InteractionWith patients:

Improve communication skills with patients, clarify treatment procedures and goals, and enhance their commitment to treatment.

B8-Managementthe time:

Develop effective time management skills while providing treatment, ensuring that the necessary care is provided in a timely manner..

B9-CooperationWith health teams:

Enhance collaboration and communication skills with other health team members to ensure comprehensive and effective care

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Promote compassion and care:

Instilling the value of empathy towards patients, which helps students understand their feelings and psychological needs during treatment.

A2-Promote ethical values:
Establishing principles of professional ethics such as integrity, respect, and responsibility in dealing with patients and co-workers**.**

A3-Social Responsibility Development:
Promote a sense of responsibility towards society by providing fair and comprehensive health care to all patients..

A4-Respect for cultural diversity:
Promote respect and appreciation for cultural and social differences, and an understanding of how to provide care that takes into account the different needs of patients**..**

A5-Promote teamwork:
Encouraging the values of cooperation and teamwork among students and members of the health team, which helps improve the quality of care provided.

A6-Developing leadership skills:
Encourage students to develop leadership and mentoring skills, which contributes to improving their and patients' experience..

A7-Promote commitment to continuous learning:
Motivating students to seek opportunities for continuing education and self-development, reflecting their commitment to providing the best healthcare.

A8-Promote positivity and optimism:
Encouraging students to adopt positive attitudes and promote optimism in dealing with patients, which contributes to improving their treatment experience**.**

A9-Promote commitment to safety practices:
Emphasizing the importance of adhering to safety and prevention standards in providing care, reflecting concern for patients' health and safety**.**

A10-Develop a sense of accomplishment:
Promote the value of achieving personal and professional goals, helping students appreciate their efforts in improving patients' health.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-Skillscommunication:

Enhance the ability to communicate effectively with patients and health team members, helping to convey information clearly and understand patients' needs**.**

D2-SkillsProblem solving:

Develop critical thinking and information analysis skills to solve clinical problems related to the use of therapy devices..

D3-Time management:

Learn how to manage time effectively while providing treatment, ensuring that necessary care is provided in an organized and timely manner..

D4-ThinkingCash:

Promote critical thinking to evaluate evidence and use information to determine the most appropriate treatment for patients.

D5-Collaboration and teamwork:

Develop teamwork skills and cooperation with different health teams, which contributes to improving the quality of care provided**.**

D6-DevelopmentLeadership skills:

Encourage students to develop leadership skills, helping them take initiative and lead teams when needed..

D7-AdaptationAnd flexibility:

Enhance the ability to adapt to rapid changes in the work environment and deal with unexpected situations efficiently.

D8-Knowledge of technology:

Improving skills in using modern technology and devices in treatment, which contributes to providing more effective care**.**

D9-SkillsSearch:

Enhance the ability to conduct research and use scientific resources to advance clinical knowledge and practice**..**

D10-SkillsDocumentation:

Learn how to accurately document medical data and treatment outcomes, which contributes to improving the quality of care and communication**..**

D11-AbilityOn continuous learning:

Stimulate the desire for continuous learning and updating professional information and skills, reflecting students' commitment to self-development**.**

D12-Stress management:

Developing stress management skills in the workplace, which enhances mental health and the ability to provide care effectively

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Electromagnetic Waves: Electromagnetic spectrum, physical properties of Electromagnetic radiations reflection**	**Knowledge and application**	**2 Theoretical + 3 practical**	**the first**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Managing Pain with Therapeutic Modalities**	**Knowledge and application**	**2 Theoretical + 3 practical**	**the second**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Infra-Red Radiation**	**Knowledge and application**	**2 Theoretical + 3 practical**	**the third**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Infra-Red Radiation: technique of application, duration and frequency of treatment**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Fourth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Moist Heat Therapy: Hydro collator packs – in brief, Therapeutic uses, Indications & Contraindications**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Fifth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Moist Heat Therapy: Methods of application, technique of application**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Sixth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Wax Therapy**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Seventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Wax Therapy: Methods of application of Wax, technique of application**	**Knowledge and application**	**2 Theoretical + 3 practical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Contrast Bath**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Fluid therapy: Construction, Therapeutic uses, Indications & Contraindications. Fluid therapy: Methods of applications,**	**Knowledge and application**	**2 Theoretical + 3 practical**	**tenth**

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Ultra Violet Production of UVR physiological effects of UVR	Knowledge and application	2 Theoretical + 3 practical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Ultra Violet Radiation Calculation of E1, E2, E3, E4 doses., technique to find out the test dose and its importance	Knowledge and application	2 Theoretical + 3 practical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	LASER: Define, Types, Principles of Production. Production of LASER by various methods	Knowledge and application	2 Theoretical + 3 practical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	LASER: Methods of application, technique of application	Knowledge and application	2 Theoretical + 3 practical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	General Revision	Knowledge and application	2 Theoretical + 3 practical	fifteenth

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

- **Curriculum Development Plan**

The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Specialized treatment devices /PTT206	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year

30 My theory +45practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

The objectives of the Specialized Therapy Devices course in the field of physical therapy focus on the use of advanced techniques and devices in treating complex cases and providing specialized treatments.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-UnderstandingTypes of specialized devices

Learn about the different types of devices used in specialized treatments, such as ultrasound therapy devices, electrical stimulation devices, and laser devices..

A2-KnowledgeScientific principles:

Understand the physical and biological principles underlying specialized treatment devices and their effects on tissues..

A3-UnderstandingMechanism of action:

Learn how each device works, including the settings and operating parameters needed to achieve the best treatment results..

A4-KnowledgeClinical uses:

Understand the different clinical uses of specialized devices, and the conditions that can be treated with each device..

A5-UnderstandingInteractions and Side Effects:

Know the potential interactions and side effects of using devices and how to deal with them..

A6-EvaluationTreatment effectiveness:

Ability to evaluate the effectiveness of treatments using specialized devices by measuring the improvement in patients' condition.

A7-UnderstandingEthical standards:

Knowledge of ethical and professional standards related to the use of specialized equipment, ensuring patient safety and respect for their rights.

A8-Follow-upTechnological developments:

Learn about the latest developments and innovations in the field of specialized treatment devices and how to apply them in clinical practice..

A9-PlanningFor treatment:

Understand how to plan treatment using specialized devices based on patient needs and clinical assessment.

A10-ProcedureNecessary tests:

Knowing how to perform the necessary tests to determine the suitability of using devices for patients.A11-Documentation**and reports:**

Understand the importance of accurately documenting device use and treatment outcomes to ensure quality.

for.Course specific skill objectives.

B1-Setting up and operating the devices:

Develop skills to set up and operate specialized treatment equipment correctly according to technical guidelines..

B2-Clinical assessment:

Ability to assess the clinical condition of patients and determine appropriate treatment requirements using equipment.

B3-Implementation of treatment:

Proficiency in performing treatment using specialized equipment safely and effectively, taking into account the needs of each patient.

B4-Monitor patient response:

Learn how to monitor patients' response during treatment and adjust settings based on their needs and progress..

B5-Apply necessary precautions:

Develop skills to apply the necessary precautions to ensure patient safety while using devices..

B6-Evaluation of treatment outcomes:

Ability to evaluate the results of treatment using devices by measuring improvement in symptoms and functional performance of patients.

B7-Interact with patients:

Improve communication skills with patients, clarify treatment procedures and goals, and enhance their commitment to treatment.

B8-Time management:

Develop effective time management skills while providing treatment, ensuring that the necessary care is provided in a timely manner..

B9-Collaboration with health teams:

Enhance collaboration and communication skills with other health team members to ensure comprehensive and effective care.

B10-Documentation and Reports:

Develop skills to accurately document device use and treatment outcomes in medical records.

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Promote empathy:

Instilling the value of empathy and the ability to understand patients' feelings and needs, which contributes to providing humane and compassionate health care.

C2-DevelopmentMoral values:

Promote integrity, respect and responsibility in dealing with patients and co-workers, which contributes to promoting a positive work environment..

A3-Promote social responsibility:

Develop a sense of responsibility towards society by providing fair and comprehensive health care to all patients, regardless of their background**..**

A4-Respect for cultural diversity:

Promote the value of respecting cultural and social diversity, and understanding how to provide health care that takes into account the needs of each patient**.**

C5-ReinforcementCommitment to continuous learning:

Encouraging students to pursue continuous learning and develop their skills, reflecting their commitment to improving their health services**..**

C6-ReinforcementValues of cooperation:

Enhancing the importance of cooperation and teamwork among members of the health team, which contributes to improving the quality of care provided.

A7-Developing leadership skills:

Enhancing the spirit of leadership among students, which helps them take initiatives and contribute effectively in the work environment**..**

A8-Promote commitment to safety practices:

Emphasizing the importance of adhering to safety and prevention standards, reflecting their concern for the health and safety of patients.

A9-Develop a sense of accomplishment:

Reinforce the value of achieving personal and professional goals, helping students appreciate their efforts in improving patients' health..

A10-Developing the ability to deal with stress:

Raising awareness of the importance of managing stress and tension at work, which helps students develop coping skills.

A11-Promote critical thinking:

Develop students' critical sense so that they are able to evaluate their practices and treatment guidelines from an ethical perspective..

A12-Encouraging the spirit of initiative:

Encourage students to develop a spirit of initiative in searching for new and effective solutions to improve the quality of care.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1- Effective communication skills:

Develop the ability to communicate clearly and effectively with patients and co-workers, contributing to an improved treatment experience..

D2-Problem solving skills:

Enhance critical thinking skills and information analysis to solve clinical problems that students may encounter while using devices..

D3-Managementthe time:

TLearn how to manage time effectively while providing treatment, ensuring that the necessary care is provided in a timely manner..

D4-critical thinking:

Enhance the ability to think critically to evaluate information and evidence and choose best treatment practices..

D5-CooperationTeamwork:

Develop teamwork skills and cooperation with different health teams, which contributes to improving the quality of care provided.

D6-SkillsLeadership:

Encourage students to develop leadership skills, helping them take initiative and manage teams effectively..

D7-Adaptability and flexibility:

Enhance the ability to adapt to changes in the work environment and deal with unexpected situations efficiently.

D8-KnowledgeWith technology:

Improving skills in using modern devices and technology in treatment, which contributes to providing more effective care.

D9-Research and analysis skills:

Enhance the ability to conduct research and use scientific resources to improve clinical knowledge and practice..

D10-SkillsDocumentation:

Learn how to accurately document medical data and treatment outcomes, which helps improve communication and ensure quality..

D11-LearningContinuous:

Stimulating the desire for continuous learning and updating professional information and skills, reflecting students' commitment to self-development.

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Introduction to Physical Therapy Modalities	Knowledge and application	2 Theoretical + 3 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Electrotherapy Equipment	Knowledge and application	2 Theoretical + 3 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Thermotherapy and cry therapy devices	Knowledge and application	2 Theoretical + 3 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Therapeutic Exercise Devices	Knowledge and application	2 Theoretical + 3 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Hydrotherapy Devices	Knowledge and application	2 Theoretical + 3 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Laser and Light Therapy Devices	Knowledge and application	2 Theoretical + 3 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Introduction to phototherapy	Knowledge and application	2 Theoretical + 3 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Prosthetic Devices	Knowledge and application	2 Theoretical + 3 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Traction Therapy Devices	Knowledge and application	2 Theoretical + 3 practical	Ninth

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Orthotics and Prosthetics**	**Knowledge and application**	**2 Theoretical + 3 practical**	**tenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Robotic and advanced rehabilitation devices**	**Knowledge and application**	**2 Theoretical + 3 practical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Clinical Practicum**	**Knowledge and application**	**2 Theoretical + 3 practical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Traction Therapy Devices**	**Knowledge and application**	**2 Theoretical + 3 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Patient Safety and Equipment Maintenance**	**Knowledge and application**	**2 Theoretical + 3 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Ethical Considerations in Device Use**	**Knowledge and application**	**2 Theoretical + 3 practical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	And GAnd specialized laboratories
	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Pathology /PTT207	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

Pathology goals (Pathology) involves understanding disease processes and analyzing the causes and effects of diseases on the human body. This science plays a fundamental role in diagnosing diseases, directing treatment, and understanding how to prevent diseases.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-UnderstandingScientific foundations:

Study of the scientific foundations of pathology, including definitions and basic concepts..

A2-Knowing the types of diseases:

Identify different types of diseases, including infectious diseases, chronic diseases, and tumors..

A3-UnderstandingPathological mechanisms:

Study of the biological and physiological mechanisms that lead to the occurrence of diseases and how they affect the vital functions of the body**.**

A4-KnowledgeCausative factors:

Understanding the causative factors of disease, including genetic, environmental, and behavioral factors**.**

A5-UnderstandingSigns and Symptoms:

Recognize the different clinical signs and symptoms associated with diseases and how to evaluate them**..**

A6-StudyDiagnostic tests:

Know the examinations and tests used to diagnose diseases and evaluate their condition**..**

A7-UnderstandingHistological changes:

Study of tissue changes associated with diseases and how they are used in diagnosis..

A8-IdentificationOn the principles of treatment:

Understand the basic principles of treatment and management of various diseases..

A9-UnderstandingImpact of diseases on public health:

The study of how diseases affect public health, including epidemics and social spread..

A10-ApplicationClinical knowledge:

Develop the ability to apply academic knowledge to understand and analyze the clinical condition of patients..

A11-UpdateMedical information:

To promote the importance of following up on recent research and studies in pathology to understand new developments in this field.

for.Course specific skill objectives.

B1-Clinical data analysis:

Develop skills in analyzing patient clinical data, including signs, symptoms, and medical history..

B2-Conducting laboratory tests:

Mastering the skills of conducting laboratory tests and analyzing their results to diagnose diseases.

B3-Interpretation of diagnostic tests:

Develop the ability to interpret the results of medical examinations and reports, such as x-rays and laboratory tests..

B4-Identifying pathological signs:

Improve skills in recognizing pathological signs in clinical presentations and how to assess them.

B5-Application of textile techniques:

Gain skills in applying histological techniques such as microscopy and histological imaging..

B6-Case management:

Develop the ability to manage medical conditions and determine the best treatment options..

B7-CommunicationEffective:

Enhance communication skills with patients and colleagues, including explaining findings and treatment recommendations..

B8-Collaboration with health teams:

Developing skills to cooperate with different health teams in diagnosing and treating diseases.

B9-Develop research skills:

Enhance the ability to conduct research and analyze studies related to pathology..

B10-Accurate documentation:

Learn how to accurately document clinical data and notes in medical records.

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation
Evaluation methods
Daily tests, midterm exams - final exams
G.Emotional and value goals **A1-ReinforcementEmpathy**: Instilling the value of empathy and the ability to understand the feelings of patients and their families, which contributes to providing humane health care. **A2-Developing moral values**: Promote integrity, respect, and responsibility in handling sensitive patient health information.. **A3-Promote social responsibility**: Developing a sense of responsibility towards society by understanding the impact of diseases on public health and how to contribute to improving it. **A4-Respect for cultural diversity**: Promote the value of respecting cultural and social diversity and understanding how cultural backgrounds influence perceptions of health and illness.. **A5-Promote commitment to continuous learning**: Encouraging students to pursue continuous learning and develop their skills, reflecting their commitment to improving their health services.. **A6-Promote the values of cooperation:** Enhancing the importance of cooperation and teamwork among members of the health team, which contributes to improving the quality of care provided. **A7-Developing leadership skills**: Enhancing the spirit of leadership among students, which helps them take initiatives and contribute effectively in the work environment.. **A8-Promote commitment to safety practices**: Emphasizing the importance of adhering to safety and prevention standards, reflecting their concern for the health and safety of patients. **A9-Develop a sense of accomplishment:** Reinforce the value of achieving personal and professional goals, helping students appreciate their efforts in improving patients' health.
Teaching and learning methods
(Lectures immanence)
• **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-Effective communication skills:
Develop the ability to communicate clearly and effectively with patients and co-workers, contributing to an improved healthcare experience..

D2-SkillsProblem solving:
Enhance critical thinking skills and information analysis to solve clinical problems that students may encounter during their study of pathology.

D3-Managementthe time:
Learn how to manage time effectively while studying and researching, ensuring academic goals are achieved..

D4-critical thinking:
Enhance the ability to think critically to evaluate information and evidence and select best clinical practices..

D5-Collaboration and teamwork:
Develop teamwork skills and cooperation with different health teams, which contributes to improving the quality of care provided.

D6-Leadership skills:
Encourage students to develop leadership skills, helping them take initiative and manage teams effectively..

D7-Adaptability and flexibility:
Enhance the ability to adapt to changes in the work and study environment and deal with unexpected situations efficiently.

D8-Knowledge of technology:
Improving skills in using technology and medical information to support diagnosis and treatment processes.

D9-Research and analysis skills:
Enhance the ability to conduct research and analyze studies related to pathology, which helps improve clinical knowledge..

D10-Documentation skills:
Learn how to accurately document clinical data and notes in medical records..

D11-LearningContinuous:
Stimulate the desire for continuous learning and updating professional information and skills, reflecting students' commitment to self-development.

D12-ManagementPressures:
Developing stress management skills in the study and work environment, which enhances mental health and the ability to provide care effectively.

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Introduction: Aims and objects of study of pathology. Definitions of health, disease, causes of disease	Knowledge	2 theoretical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Inflammation & Repair (Acute inflammation	Knowledge	2 theoretical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Inflammation & Repair (Chronic inflammation)-	Knowledge	2 theoretical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Wound healing by primary & secondary union promoting factors	Knowledge	2 theoretical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Circulatory disturbances Edema - pathogenesis - types - transudates /exudates. Chronic	Knowledge	2 theoretical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Neoplastic	Knowledge	2 theoretical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Bone & Joints	Knowledge	2 theoretical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Bone & Joints PID- Scoliosis - Hemarthrosis - Gout - TB Arthritis - degenerative - inflammatory - RA-	Knowledge	2 theoretical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Muscle diseases	Knowledge	2 theoretical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Neuro-muscular junction	Knowledge	2 theoretical	tenth

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**GIT System**	**Knowledge**	**2 theoretical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Urinary**	**Knowledge**	**2 theoretical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Deficiency disorders - Vitamins A, B, C, D.**	**Knowledge**	**2 theoretical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Growth Disturbance**	**Knowledge**	**2 theoretical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Endocrine - Hyperthyroidism - Diabetes. Infections - cutaneous TB, leprosy, alopecia.**	**Knowledge**	**2 theoretical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

- **Curriculum Development Plan**

The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of TechnologyHealth and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Pharmacology /PTT208	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

Objectives of the course of pharmacology (Pharmacology) focuses on the study of how drugs affect the body and how they are used to treat diseases. This course aims to develop a comprehensive understanding of how drugs work, appropriate dosages, and their side effects.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-UnderstandingBasic principles of pharmacology:

Introduce students to the basics of pharmacology, including basic terms such as drug, drug toxicity, dosage, and efficacy. Understand the biological processes that affect the absorption, distribution, metabolism, and excretion of drugs (ADME).

A2-Understanding how drugs work:

Study of the mechanism of action of drugs at the level of cells, tissues and organs. Learn about the different types of drug receptors and how drugs act on these receptors to modify physiological activity..

A3-InteractionBetween drugs and biological systems:

Understand how drugs affect different biological systems (such as the central nervous system, cardiovascular system, and immune system). Learn about potential side effects of medications and how to manage them..

A4-Develop the ability to use medications safely and effectively.

Study the clinical use of drugs and how to choose the appropriate dose for each patient based on his health condition. Recognize drug interactions and how to avoid them to ensure safe and effective use of medications.

A5-Understanding the principles of toxicology:

Study of how drug overdoses or exposure to toxic substances affect the body and how to treat poisoning.. Understanding the risk factors associated with long-term exposure to drugs and chemicals**.**

A6-Clinical application:

Develop clinical skills that enable students to apply knowledge in clinical situations, such as selecting appropriate medications for a particular patient condition, and adjusting dosages based on individual needs.

for.Course specific skill objectives.

for1-Develop skills in selecting appropriate medications:

Ability to assess the patient's condition and choose the most appropriate medication based on the medical diagnosis.

Skill in determining the appropriate dose based on patient characteristics (such as age, weight, health condition) and safety criteria.

for2-Drug Interaction Analysis:

Gain the ability to analyze potential interactions between different drugs to avoid harmful interactions..

Skill in identifying interactions between medications and health conditions (such as liver or kidney disease) and their effect on the required dosage.

for3-Evaluating drug side effects:

Develop the skill of recognizing the side effects of medications and identifying potential side effects..

Ability to modify treatment based on patient response to medication and avoid complications.

for4-Dosage calculations:

Gain the ability to calculate doses based on various criteria such as weight, age, and vital functions..

Skill in adjusting doses according to changes in patient response or the appearance of side effects**.**

for5Communication with the medical team and the patient:

Develop communication skills with medical team members to convey drug information clearly..

Ability to provide medication advice to patients including explaining dosage, duration of treatment, possible side effects and how to deal with them**.**

for6-UseModern techniques in drug prescribing:

Gain the ability to use modern software and technologies to assist in selecting medications and monitoring drug interactions..

Apply modern drug information search skills to update knowledge..

for7-skillsClinical assessment:

Ability to evaluate the effectiveness of drug therapy by monitoring the patient's response and observing improvement.

Determine when a patient needs a modification in the treatment plan based on periodic evaluation**..**

for8-Drug poisoning management:

Gain the skill to deal with drug poisoning cases by identifying symptoms and signs and using antidotes (Antidotes) appropriate.

for9-Continuous learning and analysis of drug evidence:

Develop the skill of searching for recent scientific studies and analyzing evidence related to the effectiveness and safety of new drugs..

Ability to apply clinical research findings into daily medical practice to improve patient care

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Reinforcementsense of moral responsibility:

Develop a sense of responsibility for using medicines in a safe and effective manner, in order to protect patients' health and reduce the risks associated with drug treatments.. Adherence to ethical standards in prescribing medications, including avoiding over prescription or improper use of medications.

C2-EstimateImportance of drug safety:

Instilling values of patient safety through applying correct practices in prescribing medications and monitoring side effects and drug interactions.. Raising awareness of the importance of reporting medication errors and how to deal with them to prevent their recurrence.

A3-CommitmentBy continuous learning:

Develop a positive attitude towards continuous learning and the search for new knowledge in the field of pharmacology, by following up on clinical studies and modern scientific research.. Recognizing the importance of continually updating information about new drugs and developments in drug therapy.

C4-ReinforcementCompassion and concern for patient care:

Promoting the values of empathy and personal interest in each patient's condition, by choosing medications that suit his individual health condition and listening to his concerns and inquiries about treatment. Appreciate the importance of clear communication with patients about how to use medications and potential side effects, which helps build a trusting relationship between patient and doctor..

C5-EncouragementCompliance with health laws and standards:

Promote compliance with health laws and regulations related to the use of medicines, such as prescription laws and drug control. Emphasizing the importance of adhering to the standards of clinical pharmacy practices and work controls within medical teams.

C6-ReinforcementProfessional and Human Values:

Encourage students to adopt professional behaviors based on integrity and honesty in dealing with drug information and clinical practices.. Instilling human values in healthcare delivery, with an emphasis on the importance of providing efficient and safe drug treatment to every patient regardless of background or financial capabilities..

A7-appreciationIntegrated interaction between the medical team:

Promote the values of teamwork and cooperation among the various members of the medical team to ensure the provision of integrated and comprehensive care for patients. Appreciating the role of each team member in achieving the best treatment outcomes for the patient through cooperation and effective communication.

A8-AwarenessOn the social risks of illicit drug use:

Raising awareness about the dangers of misusing or taking medicines without a prescription, and raising awareness of the social and economic harms associated with this.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-skillsProblem solving:

Develop the ability to analyze complex clinical cases and select appropriate drug therapy based on patient data.

Promote critical thinking to solve problems related to dosage, drug interactions, and side effects..

D2-ThinkingAnalytical:

Ability to analyze drug data and information in a logical manner to understand how drugs work and their effects.

Develop the skill of evaluating scientific evidence and research studies to make decisions based on reliable information.

D3-CommunicationThe effective one:

Improve verbal and written communication skills to interact effectively with medical team colleagues and patients..

Ability to clearly present medical and pharmaceutical information to patients from different backgrounds in a way that is easy to understand..

D4-the jobCollective and cooperative:

Develop skills to work within a multidisciplinary medical team, including collaboration with pharmacists, physicians, and nurses to ensure comprehensive patient care. Ability to exchange information and coordinate with coworkers to ensure informed treatment decisions are made..

D5-SkillsTime management:

Improve the ability to manage time efficiently, whether in clinical contexts that require rapid decision-making or in studying and applying drug information correctly.

Organize priorities to ensure timely delivery of medication care to each patient..

D6-LearningSelf and personal development:

Develop the ability to continuously learn and be self-reliant in searching for new drug information and updating medical knowledge.. Develop curiosity and openness to self-learning to continually improve skills and information..

D7-skillsLeadership and decision making:

Enhance confidence in making clinical decisions regarding prescribing medications and adjusting dosages based on the patient's medical condition. Ability to take responsibility for decisions regarding drug treatment and ensure adherence to medical standards.

D8-UseModern technologies:

Develop skills in using medical software and applications that help in searching for drug information and managing prescriptions.. Mastering technological tools that facilitate the analysis of clinical data and follow-up of disease cases.

D9-Research and scientific thinking skills:

Develop the ability to conduct scientific research and use research methodologies to analyze the effectiveness of drugs and assess the risks associated with them.. Improve the ability to access and use reliable information sources in medical decision-making..

D10-FlexibilityAnd adaptation:

Ability to adapt to rapid changes in the pharmaceutical field and develop flexibility in dealing with new technological and scientific developments. Enhancing resilience in the face of various medical and pharmaceutical challenges and developing innovative solutions

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Pharmacology – general principles of pharmacology	Knowledge	2 theoretical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Drugs acting on cardiovascular system	Knowledge	2 theoretical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Drugs Affecting the Autonomic Nervous system	Knowledge	2 theoretical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Drugs Affecting the central Nervous system - Anxiolytic and hypnotic analgesic	Knowledge	2 theoretical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	General anesthetics: (inhaled) and (intravenous) - local anesthesia	Knowledge	2 theoretical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Drugs affecting the endocrine system, hormones	Knowledge	2 theoretical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Drugs acting on digestive system: antacids – gastric	Knowledge	2 theoretical	Seventh

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	peptic ulcer treatment – laxatives – purgatives – antidiarrheal agents – digestives – antiemetic – antifleutents	Knowledge	2 theoretical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Drugs acting on respiratory system	Knowledge	2 theoretical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Analgesics (non-opioids) – anti-inflammatory drugs – SAIDs and NSAIDs	Knowledge	2 theoretical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Antibiotics and antibacterial agents-	Knowledge	2 theoretical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Antibiotics and antibacterial agents – classification – spectrum – therapeutic uses – side effects. Antiseptic and disinfectants: types and uses	Knowledge	2 theoretical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Antiviral Agents - Antifungal - Antiparasitic Agents: Cancer Chemotherapy and immunopharmacology	Knowledge	2 theoretical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Toxicology: toxic doses – lethal doses – therapeutic index.	Knowledge	2 theoretical	fourteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Revision	Knowledge	2 theoretical	fifteenth

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Orthopedic Physical Therapy /PTT209	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 Theoretical + 45 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**
• **Course objectives**	
The goals of physical therapy in orthopedics are to promote healing and improve function of muscles, bones, and joints after injuries or surgeries.	
• **Course outcomes, teaching, learning and assessment methods**	
A.Cognitive objectives **A1-Understanding the scientific foundations of physical therapy:** Introducing students to the basic concepts of physical therapy and its role in treating bone and musculoskeletal problems.. Understand the physiological and anatomical principles related to the musculoskeletal system and how it is affected by injuries and diseases.. **A2-Understanding bone injuries and diseases:** Study common bone injuries such as fractures, sprains, and ligament injuries, and learn how they affect movement and physical function.. Learn about chronic bone diseases such as arthritis and osteoporosis and how to manage them using physical therapy techniques..**A3- Identify the methods and techniques used in physical therapy.:** Understand a variety of physical therapy techniques such as therapeutic exercises, therapeutic massage, and manual techniques to treat bone diseases and injuries.. Learn how to use modern electrical and technological devices to enhance physical therapy for orthopedic patients..	

A4-Understanding Musculoskeletal Assessment: Gain knowledge of musculoskeletal assessment through motor tests and clinical diagnosis.. Learn how to use diagnostic tests to determine how an injury or disease affects movement and function of muscles and joints..

A5-to understand **Rehabilitation principles:** Study the principles of rehabilitation after orthopedic injuries and surgery, and how to develop appropriate rehabilitation programs to restore strength, flexibility, and motor function.. Learn how to monitor the progress of the condition and adjust physical therapy plans based on the patient's progress..

A6-Learn about pain science and its control: Study of the neurological and physiological basis of pain and how it affects movement and physical function.. Understand ways to control pain using physical therapy techniques, including therapeutic exercises, manual techniques, and cold or heat therapy..

A7-Knowledge of injury prevention: Gain the knowledge necessary to develop preventive programs aimed at reducing the risk of musculoskeletal injuries in individuals, especially in sports and occupational activities.. Recognizing the importance of patient health education about maintaining bone and joint health and preventing future injuries..

A8- Identify the role of physical therapy in improving functional performance.: Understand how physical therapy can be used to improve physical and functional performance in daily activities and sports after injuries or surgery.. Study how to enhance mobility, flexibility and strength through appropriate physical therapy programs for each condition.

.**A9-**to understand **Psychosocial factors related to treatment:** Identify the impact of psychological and social factors on rehabilitation and the recovery process.. Understand the importance of treating patients holistically, including psychological support and good communication to enhance their adherence to the treatment plan.

for.Course specific skill objectives.

B1-Musculoskeletal status assessment:

Ability to perform a complete clinical assessment of patients, including assessment of muscle strength, joint range of motion, and functional balance.. Use of motor and diagnostic tests such as gait testing, mobility assessment, and flexibility tests to identify musculoskeletal problems..

B2-Design individual treatment plans:

Gain the skill to develop a personalized physical therapy plan for each patient based on their health condition and diagnostic assessments.. Determine realistic short- and long-term treatment goals, taking into account the patient's individual needs and health conditions..

B3-Application of physical therapy techniques:

Mastering physical therapy techniques used in orthopedics, such as therapeutic exercises, therapeutic massage, manual therapy, and stretching techniques.. Ability to

use modern devices and techniques, such as electrotherapy, ultrasound, and laser therapy to improve treatment results..

B4-Pain management and control:

Develop skills in using physical therapy techniques to control pain caused by bone injuries or diseases, including therapeutic exercises and heat or cold therapy.. Gain the ability to assess the severity of pain and its impact on the patient's movement and functional ability, and choose appropriate methods to relieve it.

B5-Providing motor support and rehabilitation:

Skilled in providing rehabilitation programs after surgery or musculoskeletal injuries, with an emphasis on improving strength, flexibility and balance.. Ability to modify treatment programs based on the patient's response and the evolution of his condition, to achieve the best possible results.

B6-Patient education and prevention advice:

Develop communication skills with patients to educate them about their health condition and how to improve their lifestyle to avoid future injuries.. Providing advice on injury prevention techniques and how to maintain healthy bones and joints in daily or sporting activities..

B7-DealingWith medical tools and equipment:

Ability to use physical therapy tools and equipment, such as braces and walking aids. Skill in guiding patients in using medical devices appropriate to their condition.

B8-Performing manual therapeutic interventions:

Gain skill in performing manual interventions such as joint manipulation, mobilization techniques, and deep tissue massage to improve movement and relieve pain.. Use of manual techniques to improve soft tissue flexibility and reduce muscle spasms..

B9-Monitor and evaluate the progress of the case:

Ability to monitor the patient's progress through periodic assessment and recording changes in motor ability and physical functions. Modify treatment plans based on improvement or changes in the patient's condition to ensure that treatment goals are achieved..

B10-Teamwork skills:

Develop the skill of working within a multidisciplinary medical team to ensure the provision of comprehensive and integrated care for patients.

Ability to coordinate with physicians, surgeons, and pharmacists to ensure optimal physical therapy outcomes.

Teaching and learning methods
Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation
Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Enhancesense of moral and professional responsibility:

Promote adherence to the principles of medical ethics when providing physical therapy, including confidentiality, integrity, and good treatment of the patient..

Feeling responsible for providing health care based on respect for patients' rights and safety**.**

A2-Empathy and concern for patients' care:

Instilling values of empathy with patients and understanding their emotional and psychological needs during treatment. Developing a humane attitude that reflects genuine concern for the patient’s health and providing the necessary psychological and moral support during the treatment stages.

A3-Commitment to continuous learning and self-development:

Promote the desire for continuous learning and updating knowledge in the field of physiotherapy and orthopedics to ensure the provision of the best health care. The student's commitment to developing his skills and knowledge in line with the latest scientific and technical developments in the field..

A4-Promote teamwork and cooperation:

Encourage effective collaboration with medical team members and appreciate the role of each specialty in improving the patient's condition..

Develop the ability to work in a team and respect the opinions of colleagues, with a focus on achieving the best treatment outcomes for the patient through the exchange of knowledge and experiences..

A5-Appreciating the importance of safety and quality in treatment:

To raise awareness of the importance of providing safe and effective physical therapy, while adhering to the highest quality standards in dealing with medical cases..

Promote values related to occupational safety and concern for reducing potential risks during treatment provision.

A6- Instilling the values of patience and perseverance:

Understand the importance of patience in dealing with patients, especially in cases that require long periods of treatment and rehabilitation.

Promote the values of perseverance and continuity in monitoring the progress of the patient’s condition and ensuring the achievement of treatment goals..

A7-CommitmentBy health laws and standards:

Comply with health laws and regulations governing physical therapy practice, including professional standards and evidence-based practices.. Promote a deep understanding of the legal rules related to patients’ rights and maintaining their privacy and confidentiality of information..

A8-EnhanceIndependence and personal responsibility:
Encourage students to take personal responsibility for making treatment decisions based on an accurate assessment of the condition, and develop critical thinking skills.. Promote independence in professional practice while maintaining effective communication with the medical team to ensure the best possible care is provided..
A9-Commitment to research ethics:
Raising awareness of the importance of following scientific research ethics in collecting and analyzing data, while adhering to transparency and accuracy when dealing with information. Encourage respect for the rights of patients and research participants and ensure their safety and well-being..
A10-Raising awareness of the importance of public health:
Instilling values of concern for public health and prevention of diseases and injuries by educating patients and the community about the importance of prevention and self-care. Enhancing contribution to improving community health by providing educational and awareness programs on the importance of preventing bone and joint injuries..
A11-Respect for cultural and social diversity:
Promote respect for cultural and social diversity in dealing with patients from different backgrounds, taking into account differences in cultures and values in providing health care. Develop the ability to communicate effectively with patients from different cultures and ensure equal and fair care for all..
A12-appreciationPersonal and professional development:
Enhance self-esteem for personal and professional development by improving practical skills and interacting with colleagues in constructive ways.. Encouraging a work-life balance to ensure sustainable career success.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

D.General and transferable skills (other skills related to employability and personal development).
D1-ThinkingCritical and problem solving:
Ability to analyze complex medical cases, and select appropriate treatment methods based on an accurate assessment of the condition.

Enhance problem-solving skills in a systematic way using critical thinking to make evidence-based decisions..

D2-skillsEffective communication:

Develop the ability to communicate effectively with patients and medical team members in a clear and professional manner, both verbally and in writing.. Ability to explain complex medical information to patients in simple language and provide advice in an understandable and supportive manner.

D3-the job Collective and interdisciplinary collaboration:

Skilled in working within a multidisciplinary medical team and collaborating with various health professionals to ensure the best patient care is provided.. Ability to interact positively with colleagues and contribute to the achievement of common therapeutic goals..

D4-administrationTime and task organization:

Ability to organize time effectively and handle multiple workloads by prioritizing to ensure timely care is provided.. Enhance personal organizational skills to ensure tasks and work commitments are completed on time..

D5-Flexibilityand adaptability:

Develop skills to adapt to changes in the healthcare work environment, such as dealing with unexpected medical conditions or changes in patient condition.. Ability to modify treatment plans based on clinical developments and individual patient needs.

D6-LearningContinuous and self-development:

Ability to adapt to new developments in the field of physical therapy and orthopedics through continuous learning and following the latest research and studies. Enhance knowledge seeking and application skills to improve professional practices and advance career paths..

D7-Leadershipand decision making:

Gain leadership skills in situations that require making treatment decisions, and take responsibility for those decisions to ensure the patient's well-being. Ability to direct work teams and supervise the implementation of physical therapy plans in an effective manner.

D8-SkillsTechnology:

Develop the ability to use modern technology and specialized applications in physical therapy, such as patient management systems and assessment programs.. Learn how to use advanced equipment in physical therapy and analyze clinical data to improve treatment..

D9-IndependenceAnd the initiative:

Enhance the ability to work independently and make appropriate treatment decisions based on clinical examinations and assessments.. Encourage students to take the

initiative in developing new treatment plans or improving existing treatment processes..

D10-communicationInterculturalism and respect for diversity:

Develop the ability to deal with patients from diverse cultural backgrounds and understand the impact of cultural and social factors on health and treatment.. Promote respect for cultural diversity and the ability to provide equitable health care that takes into account the needs of all patients..

D11-SkillsAdministrative and organizational:

Ability to organize medical records and track case progress in a systematic and efficient manner.

Gain the administrative skills necessary to manage clinics or work in health institutions effectively.

D12-Research and analytical skills:

Gain the ability to read and analyze scientific studies and apply their results to improve therapeutic practices..

Learn how to conduct clinical research and evaluate treatment outcomes in a scientific and thoughtful manner.

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Anatomy of bone	Knowledge and application	2 Theoretical + 3 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Fractures: Definition, Types of Bone Fracture, Pathophysiology of Bone Healing.	Knowledge and application	2 Theoretical + 3 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Fractures: Clinical Features, Factors affecting healing, Radiological features	Knowledge and application	2 Theoretical + 3 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Fractures: Outlines of treatment and prognosis	Knowledge and application	2 Theoretical + 3 practical	Fourth
Reports, oral and written	whiteboard, powerpoint slides	Fractures: Assessment, Physiotherapy	Knowledge and application	2 Theoretical + 3 practical	Fifth

theoretical exams					
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Fractures: Complications, Rehabilitation**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Sixth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Specific fractures and dislocations**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Seventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Total knee replacement: Definition, Indications, Complications, Pre-operative assessment, Pre-surgical Physiotherapy**	**Knowledge and application**	**2 Theoretical + 3 practical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Total knee replacement: Post-surgical Physiotherapy, Outcome Measures**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Total hip replacement: Definition, Indications, Complications, Surgical Approaches,**	**Knowledge and application**	**2 Theoretical + 3 practical**	**tenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Total hip replacement: Post-surgical Physiotherapy, Outcome Measures**	**Knowledge and application**	**2 Theoretical + 3 practical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Shoulder instabilities**	**Knowledge and application**	**2 Theoretical + 3 practical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Shoulder joint:**	**Knowledge and application**	**2 Theoretical + 3 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Deformities of lower limb**	**Knowledge and application**	**2 Theoretical + 3 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Benign and malignant bone tumor:**	**Knowledge and application**	**2 Theoretical + 3 practical**	**fifteenth**

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Human Anatomy /PTT210	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year
30 Theoretical + 45 practical	• Number of study hours (total)
1/9/2024	• Date this description was prepared

• Course objectives
The objectives of the Human Anatomy course focus on understanding the structure of the human body, how it is organized and functions.
• Course outcomes, teaching, learning and assessment methods
A.Cognitive objectives **A1-Understanding the anatomical foundations of the human body:** Gain basic knowledge of the anatomical structures of the human body, including bones, muscles, blood vessels, nerves, and internal organs.. Identify the anatomical organization of the human body and divide it into systems (such as the muscular, skeletal, circulatory, and nervous systems)..

A2- Identify the main organs and their functions:
Understand the location and function of vital organs such as the heart, lungs, liver, kidneys, and brain..
Learn how these organs interact with each other to maintain the body's vital functions..
A3-StudyAnatomical structures of the musculoskeletal system:
Study of the major bones, joints, and muscles that make up the human skeleton, and understand their role in movement and support.. Learn about the relationships between bones and muscles and how they work together to provide movement..
A4-Learn about superficial anatomy:
Recognize the superficial anatomy of the body and identify prominent anatomical structures that can be felt or seen through the skin.. Understand how surface landmarks are used in clinical examinations..
A5-Understanding the Central and Peripheral Nervous System:
Study of the components of the central nervous system (brain and spinal cord) and the peripheral nervous system (peripheral nerves).. Understanding how nerve signals are transmitted and control different body functions..
A6-Studycirculatory system and cardiovascular anatomy:
Understand the detailed anatomy of the heart and blood vessels (arteries and veins) and how blood is distributed throughout the body..
Understand the relationship between the structure of the heart and its function in pumping blood and maintaining blood circulation..
A7-UnderstandingRespiratory system:
Study of the detailed anatomy of the respiratory system including the nose, trachea, lungs, and diaphragm..
Learn how the respiratory system is organized to complete the process of gas exchange and supply the body with oxygen..
A8-Study of the digestive system:
Study of the major components of the digestive system such as the stomach, small and large intestines, liver, and pancreas..
Understand how this system regulates food digestion and nutrient absorption..
A9-Understanding the urinary and reproductive system:
Identify the urinary system including the kidneys, ureters, bladder, and urethra and their functions in eliminating waste..
Study of the male and female reproductive organs and understanding their role in reproduction..
A10-Understanding the Lymphatic System and the Immune System:
Identify the main components of the lymphatic system, including lymph vessels and lymph nodes, and understand its role in the body's defense.. Study the role of the immune system in protecting the body from diseases.
A11-AcquisitionAbility to read anatomical drawings:
Learn how to interpret anatomical drawings and images, including diagrams and cross-sectional anatomy.. Ability to relate theoretical information to practical images of human anatomy.

A12-Recognizing individual anatomical differences:
Understand that there are normal anatomical differences between individuals and that these differences may affect diagnosis and treatment..
Learn how anatomical differences can impact medical and clinical practice.

for.Course specific skill objectives.

B1-Ability to identify anatomical structures:
Gain the ability to identify different anatomical structures of the human body through practical examination of cadavers or anatomical models.. Develop the skill of distinguishing between bones, muscles, internal organs, and blood vessels in humans..

B2-Use of anatomical tools:
Learn how to use anatomical instruments safely and accurately in anatomy studies..
Gain skill in performing simple dissections of tissues and structures to demonstrate anatomical details of various organs and systems..

B3-Anatomical medical image analysis:
Ability to read and interpret anatomical images such as X-rays, MRI(MRI), and computed tomography (CT). Learn how to link theoretical information to practical applications by analyzing clinical images of real patients.

B4-Identifying basic anatomical sites:
Gain skill in identifying superficial anatomical landmarks and locating important internal structures in the human body..
The ability to use this knowledge in clinical examination to locate organs and bones during physical examination..

B5-Application of Anatomy in Clinical Contexts:
Learn how to use anatomical knowledge to understand clinical conditions, such as fractures, muscle tears, nerve injuries, and other conditions.. The ability to interpret the relationship between human anatomy and disease symptoms in patients, which helps in providing appropriate medical care.

B6-Practical anatomical assessment skill:
Ability to perform a practical assessment of anatomical structures through physical examination or medical imaging techniques..
Develop skills in applying clinical examination to evaluate injuries or anatomical abnormalities in patients..

B7-Communicating using anatomical terms:
Gain the ability to use anatomical terminology accurately in communication with colleagues and health professionals..
Improve the ability to clearly describe anatomical structures while preparing medical reports or clinical discussions..

B8-Virtual and technological anatomy:
Using technology such as 3D applications and virtual reality to study and dissect the human body virtually.. Ability to analyze anatomical dimensions and structures in innovative ways using modern technological tools..
B9-Collaboration within anatomical teams:
Develop teamwork skills while performing dissections or analyzing clinical cases related to dissection..
Ability to share knowledge and contribute effectively to medical teams to provide accurate anatomical analyses.
B10-Interaction with rare anatomical cases:
Ability to deal with anatomical diversity and individual differences, and adapt to rare or unfamiliar situations.
Learn how to recognize congenital malformations or abnormal conditions that may affect anatomical structures..

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals
A1-Promote the values of respect and appreciation for the human body:
Develop a deep understanding of the importance of the human body as a value that must be respected and protected, including recognition of the importance of maintaining the integrity of tissues and organs. Promote awareness of the importance of respecting human privacy when dealing with anatomical structures..
A2-to encourage moral thinking:
Developing the ability to think ethically when dealing with anatomical information, especially when dealing with cadavers or anatomical models. Promote ethical responsibility in the appropriate and fair use of anatomical information in medical contexts..
A3-Enhancespirit of cooperation and participation:
Encouraging teamwork and cooperation among students, which helps to enhance human relations and positive interaction in learning environments.. Enhance the value of knowledge and experience exchange through group discussions and teamwork..

C4-InteractionPositive with patients:
Promote human values in dealing with patients, including compassion, patience, and respect, which contributes to improving patients' experiences. Developing emotional communication skills that help build trusting relationships with patients, contributing to the provision of comprehensive health care..
A5-to bear Professional Responsibility:
Promote the value of commitment to ethical and professional practices in all aspects of health work, including education and training.. Develop awareness of the importance of taking responsibility for decisions and treatments provided to patients, and recognizing the consequences of those decisions.
A6-ResponsibilitySocial:
Encouraging awareness of the importance of providing health care as part of social responsibility towards society. Promote the value of working to improve public health and raise health awareness among the local community..
A7-respectHealth laws and standards:
Promote adherence to laws and ethical standards related to medical and anatomical practice..
Promote values of integrity and professionalism in the research and study of anatomy..
A8-Enlightened critical thinking:
Develop the ability to think critically about ethical issues related to dissection and the use of anatomical data in medical contexts.. Promote awareness of the ethical and social implications of using anatomical knowledge in medical research and practice..
A9-CommitmentBy continuous learning:
Promote the value of continuous learning and update knowledge about new developments in anatomy and health practices..
Encourage students to be curious, research-oriented and expand their horizons in the field of anatomy.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

D.General and transferable skills (other skills related to employability and personal development).
D1-SkillsEffective communication:

Improve the ability to communicate clearly and effectively with colleagues, teachers, and patients, including using medical terminology accurately.. Learn how to present information in a clear and understandable way during presentations or lectures..

D2-skillsTeamwork:

Enhance the ability to work effectively within multidisciplinary teams, facilitating collaboration in medical work environments..

Developing effective listening skills and respecting the opinions of others, which contributes to achieving common goals.

D3-skillsResearch and Analysis:

Enhance the ability to search for information related to anatomy from reliable sources and analyze data critically.

Develop skills in analyzing and using medical information in clinical contexts..

D4-time management skills:

Learn how to manage time effectively between study, work activities and other commitments..

Improve the ability to prioritize and manage tasks to achieve academic and professional goals..

D5-SkillsCritical thinking and problem solving:

Develop critical thinking skills to evaluate information and diagnose cases based on anatomical knowledge..

Improve the ability to identify health problems and suggest appropriate solutions based on anatomical understanding..

D6-SkillsLeadership:

Enhance the ability to take leadership roles in group projects or academic activities..

Learn how to motivate and direct others to achieve group goals..

D7-skillsAdaptability and flexibility:

Develop the ability to adapt to changing conditions in learning and work environments..

Enhancing resilience to challenges and changes in the medical field.

D8-skillsSelf-learning:

Encourage students to take the initiative in enhancing their skills and knowledge through self-learning and continuous research..

Promote awareness of the importance of lifelong personal and professional development..

D9-skillsHealth education:

Enhance the ability to communicate health and anatomical information in a way that enhances others' understanding..

Develop skills in organizing awareness workshops or seminars on health and anatomy topics..

D10-skillsProfessional ethics:
Promote awareness of the importance of ethical behavior in medical and anatomical work.
Develop the skills needed to deal with ethical issues in healthcare settings..

D11-skillsTechnology:
Gain skills in using technological tools and applications related to anatomy such as educational software and 3D simulations.. Learn how to use modern technologies in scientific research and treatment..

D12-skillsPlanning and organizing:
Develop the ability to plan lessons and projects in an organized and effective manner..
Improve skills in organizing activities and events related to anatomy and health.

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Nervous system: Central Nervous System: Disposition	Knowledge and application	2 Theoretical + 3 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Nervous system: Cerebrum, Cerebellum, Thalamus, Hypothalamus, Internal Capsule, Blood Supply of Brain	Knowledge and application	2 Theoretical + 3 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Cardio-Vascular system: Comprehend the external and internal features of the structure of the heart and their implications	Knowledge and application	2 Theoretical + 3 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Cardio-Vascular system: Mention the Internal features of the chambers of the heart, State the basic features of the blood	Knowledge and application	2 Theoretical + 3 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Cardio-Vascular system: Identify the coronary arteries and coronary sinus, Name the parts of the conducting system of heart	Knowledge and application	2 Theoretical + 3 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Nervous system, Autonomic nervous system, its components, Nerve receptors	Knowledge and application	2 Theoretical + 3 practical	Sixth

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Spinal cord**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Seventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Lymphatic system**	**Knowledge and application**	**2 Theoretical + 3 practical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Respiratory system**	**Knowledge and application**	**2 Theoretical + 3 practical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Endocrine System**	**Knowledge and application**	**2 Theoretical + 3 practical**	**tenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Genito-urinary system**	**Knowledge and application**	**2 Theoretical + 3 practical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Digestive system**	**Knowledge and application**	**2 Theoretical + 3 practical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Embryology: Development of bones, axial and appendicular skeleton and muscles,**	**Knowledge and application**	**2 Theoretical + 3 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Embryology: Ovum, Spermatozoa, fertilization and formation of the Germ layers and their derivations**	**Knowledge and application**	**2 Theoretical + 3 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Revision**	**Knowledge and application**	**2 Theoretical + 3 practical**	**fifteenth**

• Infrastructure	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• Curriculum Development Plan
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• Educational institution
Techniques Physiotherapy	• Scientific Department / Center
Medical Psychology /MTCD201	• Course Name/Code
In-person lectures	• Available attendance forms
Decisions	• Chapter/Year
30 theoretical	• Number of study hours (total)
1/9/2024	• Date this description was prepared

- **Course objectives**

The objectives of the medical psychology course focus on studying the relationship between psychological and health aspects, and the impact of psychological factors on health and disease.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-Understanding the psychological factors associated with health: Studying how emotions and behaviors influence patients' health and improve physical therapy outcomes.

A2-DevelopmentPsychological assessment skills: Enable students to assess patients' psychological state and how it affects their physical treatment..

A3-Teaching coping strategies: Providing techniques to help patients cope with pain and anxiety, and enhance their ability to cope with their health conditions.

A4-Enhancing interaction between practitioners and patients: Understand the importance of effective communication and how it can impact treatment outcomes..

A5-Exploring the psychological effects of illness and injury: Study how injuries or chronic diseases affect the psychological state of patients.

A6-Improving cultural awareness: Promote understanding of how cultural and social factors influence mental health and treatment behaviors..

A7-Application of psychological theories in physical therapy: Study how psychological principles can be used to improve therapeutic techniques..

A8-Guiding patients towards a healthy lifestyle: Providing the knowledge needed to help patients make health decisions that enhance their recovery.

for.Course specific skill objectives.

B1-SkillsEffective communication: Enhance the ability to communicate effectively with patients, including active listening, expressing empathy, and asking appropriate questions to understand their needs..

B2-EvaluationPsychological state: Develop skills to assess patients' psychological status through psychological assessment tools and observation, and identify factors that may affect their therapeutic progress..

B3-ApplicationCoping strategies: Learn how to use techniques such as relaxation, mental imagery, and breathing techniques to help manage anxiety and pain in patients..

B4-Develop comprehensive treatment plans: Learn how to integrate psychological knowledge into physical therapy plans, so that they include both psychological and physical aspects of treatment..

B5-Dealing with stress: Gain skills in dealing with patients suffering from psychological stress or depression and its impact on the recovery process.

B6-Develop leadership and teamwork skills: Enhance the ability to work effectively within a multidisciplinary team, including physicians and psychologists..

B7-Training in providing psychological support: Learn how to provide psychological support to patients and their families during the different stages of treatment..

B8-Behavioral analysis and interaction with patients: Gain the ability to analyze behaviors and interact in ways that support the improvement of patients' mental and physical health.

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Promote empathy and compassion: Developing a sense of empathy for patients and understanding their psychological and physical experiences, which enhances the quality of care provided.

A2-Respect for cultural diversity: Promote values of respect for cultural and social diversity and recognize the importance of differences in how cultural factors influence mental health.

A3-Promoting moral values: Teaching students the ethical values related to privacy, confidentiality, and respect in dealing with patients and their health information..

A4-Motivating social responsibility: Encouraging students to be socially responsible by providing psychological support to the community and sharing psychological knowledge to improve public health..

A5-Promote professional commitment: Promote values of commitment to professional quality and ethics in the provision of health care, including commitment to achieving positive patient outcomes.

A6-Developing self-awareness: Encourage students to reflect on their personal feelings and experiences and how they influence their professional practice and interactions with patients..

A7-Promote teamwork and collaboration: Encouraging values related to teamwork and collaboration between different disciplines in providing health care.

A8-Encourage continuous learning: To promote the value of continuing education and personal and professional development to keep abreast of the latest developments in the field of medical psychology and physical therapy.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-SkillsEffective communication: Ability to express ideas clearly and listen to others, facilitating interaction with patients and co-workers.

D2-SkillsCritical thinking: Develop the ability to analyze information, make informed decisions, and solve problems in clinical contexts..

D3-Adapting to changes: Ability to adapt to different work environments and rapid changes in the healthcare field.

D4-Organization and time management skills: Develop the ability to manage time effectively, organize tasks, and set priorities to achieve goals..

D5-Research and development skills: The ability to seek out new information, evaluate sources, and apply it in practical contexts to improve therapeutic practices..

D6-Technological skills: Enhance the ability to use modern technology in treatment and health care, including the use of software and medical devices..

D7-Leadership skills: Develop leadership skills that help guide teams and work collaboratively to achieve common goals..

D8-Creative thinking skills: Enhance the ability to think creatively to develop new solutions to challenges you may face in the field of physical therapy..

D9-Social skills: Improve the ability to build relationships and foster collaboration with individuals from different backgrounds and disciplines..

D10-Self-learning and continuous development: Reinforcing the importance of self-learning and continuous development as part of a successful career.

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Introduction to the science of psychology	Knowledge	2 theoretical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Schools of thoughts in psychology – Gestalt psychology – psychoanalysis	Knowledge	2 theoretical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Humanistic psychology - Behaviorism	Knowledge	2 theoretical	the third

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Mental process: Memory – Forgetting – Thinking – Language**	**Knowledge**	**2 theoretical**	**Fourth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Senses - Attention - Imagination**	**Knowledge**	**2 theoretical**	**Fifth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**The Structural Model of Personality**	**Knowledge**	**2 theoretical**	**Sixth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Psychological Defense Mechanisms**	**Knowledge**	**2 theoretical**	**Seventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Methods of Study in Psychology**	**Knowledge**	**2 theoretical**	**The eighth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**The psychological causes for the appearance of disorder**	**Knowledge**	**2 theoretical**	**Ninth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**The psychosomatic disorder: Hypochondriasis - Somatization disorder**	**Knowledge**	**2 theoretical**	**tenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**The doctor – patients relationship – medical consultation**	**Knowledge**	**2 theoretical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Psychotherapy – Medical applications of psychotherapy**	**Knowledge**	**2 theoretical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Biological base of behavior**	**Knowledge**	**2 theoretical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Suicide: The etiology of suicide**	**Knowledge**	**2 theoretical**	**fourteenth**

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Drug Addiction**	**Knowledge**	**2 theoretical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
MetabolismMTCD202	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 Theoretical + 30 practical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

Focuses on the study of how the body processes food and uses it to produce energy and support various body functions.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-Understanding metabolic processes: Enable students to understand how metabolism occurs in the body, including the metabolism of fats, carbohydrates, and proteins..

A2-Application of nutritional knowledge: Teaching students how to apply nutritional knowledge to improve athletic performance and the overall health of patients..

A3-Nutritional status assessment: Training students on how to assess the nutritional status of patients and use the necessary tools for this purpose..

A4-Diet planning: Enable students to design appropriate nutritional plans that meet the needs of patients in different treatment conditions..

A5-Understanding the impact of nutrition on healing: Study how proper nutrition affects the healing and recovery process from injuries..

A6-For nutritional education: Enhance the ability to educate patients about the importance of proper nutrition and how to achieve it in their daily lives

for.Course specific skill objectives.

B1-Nutritional data analysis: Develop students' skills in analyzing nutritional information, including reading food labels and understanding the contents of foods..

B2-Nutritional status assessment: Gain the ability to conduct a comprehensive assessment of patients' nutritional status using tools such as questionnaires and physical scales..

B3-Meal planning: Learn how to design personalized meal plans to fit your patients' needs, including calculating calories and nutrients..

B4-Patient guidance: Improve communication skills to guide patients on healthy food choices and how to improve their eating habits..

B5-Implementation of food programs: Gaining the ability to implement various nutritional programs that suit different patients' conditions.

B6-Use of technology: Develop skills in using technological programs and applications that help in tracking diet and planning meals..

B7-Research Analysis: Gain skills in analyzing research and studies related to nutrition and understanding their impact on clinical practice..

B8-Impact assessment: Learn how to evaluate the impact of dietary changes on physical performance and injury recovery.

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Appreciating the importance of nutrition: Promote the value of proper nutrition as an essential component of maintaining health and well-being..

A2-Respect for dietary diversity: Develop students' awareness of the importance of dietary diversity and respect for different cultures in food practices..

A3-Promote professional responsibility: Develop a sense of responsibility for providing sound and appropriate nutritional advice to patients, taking into account their individual needs..

A4-Developing empathy: Enhance empathy skills and the ability to understand patients' needs and provide emotional support regarding lifestyle changes..

A5-Encouraging personal commitment: To promote the value of personal commitment to adopting healthy eating habits in the lives of the students themselves as a role model for patients..

A6-Ethics awareness: Promote awareness of ethical values in the provision of food services, including respect for patients' privacy and consideration of their cultural differences..

A7-Promote teamwork: Developing the value of cooperation and teamwork among specialists in different fields to improve health outcomes for patients.

A8-Appreciating the importance of continuing education: Encouraging students to continue learning and self-development in the field of nutrition and health

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-Communication skills: Improve the ability to communicate effectively with patients, colleagues, and family members, including active listening and expressing ideas clearly..

D2-Teamwork skills: Develop the ability to work within a multidisciplinary team, which enhances collaboration and leads to better patient outcomes..

D3-Critical thinking skills: Enhance the ability to analyze information and make evidence-based decisions, enabling students to make effective nutritional recommendations..

D4-Time management skills: Gain time management and prioritization skills to ensure academic and professional goals are achieved..

D5-Research and analysis skills: Develop the ability to conduct research, analyze data, and evaluate scientific studies related to nutrition and metabolism..

D6-Innovative problem solving skills: Enhance the ability to think creatively and provide innovative solutions to challenges that nutritionists and physiotherapists may face..

D7-Self-learning skills: Encourage students to develop lifelong learning and self-assessment skills to ensure their professional development..

D8-Adaptation skills: Enhance the ability to adapt to changes in different work environments and respond positively to challenges.

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Metabolism	Knowledge and application	2 Theoretical + 2 practical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Enzymes	Knowledge and application	2 Theoretical + 2 practical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Michaels – Menten theory	Knowledge and application	2 Theoretical + 2 practical	the third
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Carbohydrates Metabolism	Knowledge and application	2 Theoretical + 2 practical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Lactic Acid Fermentation	Knowledge and application	2 Theoretical + 2 practical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Citric and cycle /TCA cycle / Krebs cycle	Knowledge and application	2 Theoretical + 2 practical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	The electron transport chain	Knowledge and application	2 Theoretical + 2 practical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Fructose Metabolism	Knowledge and application	2 Theoretical + 2 practical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Galactose Metabolism	Knowledge and application	2 Theoretical + 2 practical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Glycogen metabolism	Knowledge and application	2 Theoretical + 2 practical	tenth

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Protein metabolism**	**Knowledge and application**	**2 Theoretical + 2 practical**	**eleventh**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Protein Synthesis**	**Knowledge and application**	**2 Theoretical + 2 practical**	**twelfth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Lipid Metabolism**	**Knowledge and application**	**2 Theoretical + 2 practical**	**thirteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Cholesterol metabolism**	**Knowledge and application**	**2 Theoretical + 2 practical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Nucleotide metabolism**	**Knowledge and application**	**2 Theoretical + 2 practical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Crimes of the Baath regime in IraqNTU203	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

Focuses on studying the crimes and practices committed by the Baath regime in Iraq during its rule.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-Understanding the historical context: Learn about the political and social circumstances that led to the emergence of the Baath regime in Iraq and how it affected the country..

A2-Violation Analysis: Study the crimes committed by the regime, such as genocide, torture, and arbitrary arrests, and their effects on Iraqi society..

A3-Impact assessment: Assessing the psychological, social and economic impacts of the crimes committed by the Baath regime on individuals and society.

A4-Raising awareness of rights: Promote understanding of human rights and relevant international laws, and how they can be used to hold those responsible for these crimes accountable..

A5-Study of transitional justice: Identify the transitional justice and reparations initiatives that were taken after the fall of the regime and how they impacted national reconciliation..

A6-Evidence analysis: Learn how to analyze crime-related documents and testimonies, and understand the importance of archiving and historical documentation..

A7-Promote critical thinking: Develop critical thinking skills by analyzing and interpreting crime-related information and evidence in their historical and political context.

for.Course specific skill objectives.

B1-Fostering empathy: Developing the ability to empathize with victims and their families, and to understand their suffering resulting from the violations committed by the regime.

B2-Raising awareness of human values: Promoting the values of justice, equality and respect for human rights, and recognizing the importance of protecting these values in societies.

B3-Appreciating cultural diversity: Promote appreciation of cultural and religious diversity in Iraq, and an understanding of how violations affect relations between different communities..

B4-Stimulating critical ethical thinking: Encourage students to think critically about ethical issues related to crimes, such as individual and collective responsibility..

B5-Developing a sense of responsibility: Promote a sense of responsibility towards social change and contribute to building a more just society.

B6-Strengthening the capacity for effective participation Encourage students to participate in activities that support human rights and reconciliation, such as awareness-raising and community education..

B7-Dealing with pain and loss: Providing spaces to talk about the pain and loss resulting from abuse, contributing to individual and collective healing processes.

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals

A1-Developing empathy: Enhance the ability to understand the feelings of victims and their families, helping students connect with human suffering..

A2-Awareness of psychological effects: Recognizing the psychological and social impacts of violations on individuals and communities, which enhances a deeper understanding of the psychological consequences of crimes.

A3-Encourage emotional critical thinking: Enhance the ability to think critically about the emotional experiences associated with crimes, and how they can influence the formation of individual and collective identity.

A4-Appreciating individual experiences: Reinforcing the importance of listening to the personal experiences of survivors, which contributes to building a culture of respect and appreciation.
A5-Promoting human rights values: Affirming the importance of human rights as a basis for protecting human dignity, and raising awareness of the need to defend them.
A6-Promoting justice and equality: Promoting the values of justice and equality, and emphasizing the importance of holding those responsible for crimes accountable.
A7-Appreciating peace and reconciliation: Encouraging values related to peace and reconciliation, and supporting the importance of building a society of tolerance and mutual respect..
A8-Promoting commitment to active citizenship: Motivating students to participate actively in society by working to promote human rights and contributing to building a more just society.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-skillsResearch and Analysis:
Information gathering: the ability to research historical and legal information related to crimes..
Data analysis: Analyzing evidence and testimonies to understand different contexts and assess their validity..
D2-Communication skills:
Effective Communication: Develop the ability to express ideas clearly, both in writing and orally, including presentations and discussions..
Active Listening: Enhancing listening skills to understand other people's perspectives and appreciate different experiences..
D3-skillscritical thinking:
Critical Evaluation: The ability to think critically about information and ideas, which helps in making informed decisions..
Ethical Analysis: Understanding the moral aspects of historical and societal issues related to crimes..

D4-Teamwork skills:

Collaboration: Enhance the ability to work within multidisciplinary teams, contributing to the development of group projects that reflect a diverse understanding of issues..

Conflict Resolution: Learn how to handle conflicts constructively and achieve positive outcomes..

D5-Self-management skills:

Planning and Organizing: The ability to make personal and academic plans to achieve goals effectively..

Time Management: Develop time management skills to ensure balance between study and other activities..

D6-Creative thinking skills:

Solution Creation: Develop the ability to think outside the box and find new solutions to complex problems..

Project Development: Ability to envision and design projects aimed at raising awareness about human rights issues..

D7-SkillsCultural and social:

Cultural Awareness: Promoting understanding of cultural and religious diversity in Iraqi society, thus promoting understanding and tolerance..

Social Responsibility: Promoting a sense of responsibility towards society and participating in initiatives that promote human rights and reconciliation..

D8-skillsTechnology:

Use of technology: The ability to use modern technology in research and communication, such as using digital tools to collect and analyze information.

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Violations of rights and freedoms	Knowledge	2 theoretical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	A descriptive overview of the political systems in Iraq (1921-2003)	Knowledge	2 theoretical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Violations of public rights and freedoms by the Baath regime	Knowledge	2 theoretical	the third

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	The impact of the Baath regime's behavior on society	Knowledge	2 theoretical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	The impact of the transitional phase in combating authoritarian politics	Knowledge	2 theoretical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Psychological field	Knowledge	2 theoretical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Social field	Knowledge	2 theoretical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Religion and State	Knowledge	2 theoretical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Culture, media and the militarization of society	Knowledge	2 theoretical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	The impact of oppression and wars on the environment and population	Knowledge	2 theoretical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Use of internationally prohibited weapons and environmental pollution	Knowledge	2 theoretical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	scorched earth policy	Knowledge	2 theoretical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Drying of the marshes and forced migration	Knowledge	2 theoretical	thirteenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Destruction of agricultural and animal environment and radioactive contamination	Knowledge	2 theoretical	fourteenth

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Mass graves and bombing of places of worship**	**Knowledge**	**2 theoretical**	**fifteenth**

• **Infrastructure**	
	Presence of classrooms
	andGAnd specialized laboratories
	The presence of qualified cadres

• **Curriculum Development Plan**
The course is updated periodically to add materials that are in line with modern scientific developments..

Northern Technical University College of Technology Health and medical The dour	• **Educational institution**
Techniques Physiotherapy	• **Scientific Department / Center**
Professional ethicsNTU204	• **Course Name/Code**
In-person lectures	• **Available attendance forms**
Decisions	• **Chapter/Year**
30 theoretical	• **Number of study hours (total)**
1/9/2024	• **Date this description was prepared**

- **Course objectives**

It focuses on promoting a deep understanding of the values and ethical principles that individuals should adopt in their fields of work.

- **Course outcomes, teaching, learning and assessment methods**

A.Cognitive objectives

A1-Understanding basic ethical principles:

Learn about key ethical values and principles such as integrity, confidentiality, and respect, and how to apply them in the field of physical therapy.. Understand the therapist's responsibility to patients, coworkers, and the community..

A2-Learn about professional laws and standards.:

Understanding the laws and regulations relevant to the practice of physical therapy, including regulations governing the profession and the treatment of patients. Learn about the approved professional regulations and standards that define how to practice the profession safely and responsibly..

A3-Analysis of ethical issues in health care:

Ability to analyze ethical problems and issues that may arise in everyday work situations, such as challenges related to patient privacy, informed consent, and conflicts of interest. Learn how to handle difficult situations ethically by using an ethical framework..

A4-Distinguishing between rights and duties:

Learn about patients' rights and therapist responsibilities, including the right to privacy, information, and access to appropriate treatment..

A5-Promote critical thinking:

Develop critical thinking skills to analyze ethical situations and make professional decisions based on sound ethical foundations.. The ability to recognize the ethical consequences of decisions and actions taken in the practice of physical therapy..

A6-Understanding Professional Relationships:

Recognize the importance of building professional relationships based on mutual respect and trust between therapists, patients, and coworkers.. Study how ethical values can influence the quality of health care and professional relationships..

A7-Learn about research ethics:

Understand the ethical principles associated with scientific research in the field of physical therapy, including how to respect the rights of research participants and ensure transparency and integrity in the presentation of results.

A8-Promoting responsible professional practices:

Understand the importance of responsible business practices and how to ensure compliance with ethical standards in all aspects of business. Study how to handle ethical violations and report them when necessary.

for.Course specific skill objectives.

B1-Ethical decision making skills:

Develop the ability to make sound ethical decisions when dealing with complex professional situations..

The ability to use an ethical framework to analyze and evaluate options in situations that require an ethical solution..

B2-Effective communication skills:

Enhance oral and written communication skills with patients and co-workers, while observing ethical values such as honesty and respect.. Ability to explain complex ethical decisions to patients in a clear and understandable manner, and respect the patient's right to participate in making decisions about their care.

B3-Conflict resolution skills:

Learn how to deal with ethical and professional conflicts in an effective and constructive manner.. Ability to negotiate and reach solutions that satisfy all parties involved, while maintaining commitment to ethical values..

B4-Confidentiality and information protection skills:
Develop the ability to handle personal and sensitive patient information in a manner that respects privacy and confidentiality..
Learn how to store and process medical information in a secure manner that complies with legal and ethical standards..
B5-Skills for dealing with complex cases:
Ability to identify complex ethical situations that may arise in clinical practice, such as providing care in situations of conflict of interest or special patient circumstances.
Learn how to provide optimal care, taking into account ethical and humane considerations when dealing with different patients, especially sensitive or vulnerable cases..
B6-.Cooperation and teamwork skills:
Develop teamwork skills with the medical team and support professions in a healthcare environment, taking into account ethical aspects in dealing with colleagues.
Enhance the ability to provide assistance and advice to colleagues regarding ethical issues.

Teaching and learning methods

Theoretical lectures, practical lectures, clinical training, group discussions, presentations Presentation

Evaluation methods

Daily tests, midterm exams - final exams

G.Emotional and value goals
A1-Promote empathy for patients:
Develop students' ability to understand and empathize with patients' feelings and pain, which enhances human communication and personal care.. Instilling the importance of respecting patients' feelings and working to provide care that takes into account their emotional and psychological needs.
A2-Developing a sense of moral responsibility:
Promote a sense of responsibility towards patients and society in all aspects of professional practice..
Instilling a commitment to providing medical care in an ethical and transparent manner, and keeping the patient's interest above all else..
A3-Enhance self-confidence in making ethical decisions:
Developing students' self-confidence when faced with situations that require complex ethical decisions.
Instilling a belief in the importance of making decisions based on ethical and professional principles.

A4-Developing moral sensitivity:
Increase students' awareness of cultural and ethical sensitivities in dealing with patients of different social, religious and cultural backgrounds.. Promote awareness of the importance of respecting the values and beliefs of patients and co-workers..
A5-Encourage personal commitment to continuous improvement.:
Promote awareness of the importance of continuous personal development in the field of professional ethics.
Promote the desire for self-improvement and continuous learning to ensure higher adherence to ethical standards.

Teaching and learning methods

(Lectures immanence)

- **Evaluation methods**

Daily tests, midterm exams - final exams

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

D1-skillsEffective communication:
Ability to communicate clearly and effectively with patients, co-workers, and medical team members. Improve active listening skills to better interact with patients' problems and understand their needs.. Ability to provide detailed and clear explanations of complex ethical issues.
D2-Critical thinking and problem solving skills:
Develop critical thinking skills to analyze complex ethical situations and provide solutions based on professional values..
The ability to make informed and sound decisions when faced with ethical and professional challenges at work**..**
D3-skillsTeamwork and collaboration:
Enhance the ability to work effectively as part of a multidisciplinary team, contributing to improved overall health care.. Learn how to manage conflicts and solve problems collaboratively while maintaining ethical values..
D4-skillsSelf-management and organization:
Develop the ability to organize time and tasks efficiently to ensure professional and sustainable healthcare delivery..
Improve stress management skills and resilience in dealing with difficult and complex situations in the work environment.

D5-skillsEmpathy and emotional connection:

Ability to show empathy and respect for the feelings of patients and coworkers, which fosters trust and positive interactions..

Develop emotional intelligence to understand and respond appropriately to the emotional reactions of others..

D6-Ethical leadership skills:

Develop the ability to be a role model for ethical behavior and contribute to promoting a culture of integrity and transparency in the work environment.. Ability to guide co-workers and vocational students on how to handle ethical situations responsibly..

D7-skillsContinuous learning and professional development:

Enhance the ability to continuously learn to keep pace with changes in ethical and professional standards..

Develop a sense of initiative to seek opportunities for self-improvement and development in professional and ethical areas..

D8-Adaptability and flexibility skills:

Ability to adapt to changing circumstances and new professional situations that may require different ethical decisions..

Improve skills in dealing with unexpected situations and maintaining ethical behavior at all times..

D9-skillsProviding ethical advice:

Ability to advise and counsel colleagues on ethical issues based on professional principles..

Improve coaching skills and participate in developing ethical solutions to professional conflicts.

Course structure

Evaluation method	Teaching method	Unit name/topic	Required learning outcomes	Watches	The week
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Principles of professional ethics in the stages of civilizational developments	Knowledge	2 theoretical	the first
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Principles of Professional Ethics in Arab and Islamic Civilization	Knowledge	2 theoretical	the second
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Professional behavior, its definition, concept, practical applications, and the relationship between employees and their managers	Knowledge	2 theoretical	the third

Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Basic ethics of the profession	Knowledge	2 theoretical	Fourth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Characteristics of professional ethics as a guide and guide to behavior	Knowledge	2 theoretical	Fifth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Characteristics and qualities of health workers: appearance, behaviour and commitment	Knowledge	2 theoretical	Sixth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	The moral and legal rights of the patient and dealing and dealing according to the behavior of the patient and his companions	Knowledge	2 theoretical	Seventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Patterns Behavioral/Humanistic Definition, nature, motives, and interpretations	Knowledge	2 theoretical	The eighth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Communication Styles/Linguistic and Non-Linguistic Definition, types and effects Designing Successful Communication Methods	Knowledge	2 theoretical	Ninth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	How communication styles affect behavior, listening and hearing	Knowledge	2 theoretical	tenth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Behavioral trends and tendencies Definition, classification, factors affecting it, methods of measuring it	Knowledge	2 theoretical	eleventh
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Personality types and how to deal with them	Knowledge	2 theoretical	twelfth
Reports, oral and written theoretical exams	whiteboard, powerpoint slides	Definition of personality, its types and its relationship to the profession Technician personality and its manifestations	Knowledge	2 theoretical	thirteenth

Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Conditions of professional compatibility and the work relationship associated with it, its concept, its conditions, and poor professional availability**	**Knowledge**	**2 theoretical**	**fourteenth**
Reports, oral and written theoretical exams	**whiteboard, powerpoint slides**	**Behavioral treatment of patients: receiving the patient, dealing with him, gaining his trust, and maintaining professional secrets.**	**Knowledge**	**2 theoretical**	**fifteenth**

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- **Curriculum Development Plan**

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