

ELT Journal	Recommended books and references (scientific journals (...and reports
BBC Learning English	Electronic references and websites

### Course Description / Level Two

Foundations of therapeutic exercises	Course Name -1
PTT201	Course code -2
First semester / 2025-2026	Semester / Year -3

15/9/2025	Date of preparation of –4 the description
In-person lectures	Available forms of –5 attendance
hours of theory + 45 hours of practical 30 work / 3 units	Number of credit hours (total) –6 Number of units (total) /
Dr. Fawzi Hammadi Mahdi	course Name of the –7 coordinator (list all names, if (there is more than one
<b>Course Objectives–8</b>	
Understanding the basic principles of therapeutic exercises: Recognizing the scientific basis of exercises and their effect on the musculoskeletal and nervous .systems	
<b>9 Teaching and Learning Strategies –</b>	
<p><b>A. Cognitive objectives</b></p> <p><b>foundations</b> : Learning the physiological and anatomical A-1–Understanding <b>the scientific</b> .principles related to therapeutic exercises and how they affect the body</p> <p>A-2–Designing <b>treatment programs</b> : The ability to design treatment programs suitable for .different medical conditions based on the clinical assessment of the patient's condition</p> <p>A-3 <b>Classifying the different types of therapeutic exercises</b> : Identifying the different types of therapeutic exercises (e.g., aerobic exercises, muscle strengthening, flexibility exercises) and .determining when and how to use them</p> <p>assess the patient's condition and use A-4–<b>Assessment and Diagnosis</b> : Learn how to .therapeutic exercises as part of the overall treatment plan</p> <p>A-5– <b>Understanding the stages of recovery</b> : Knowing how each type of exercise affects the .stages of recovery and injury, and providing appropriate care during each stage</p> <p>A-6–<b>Management of injuries and chronic conditions</b> : The ability to effectively manage .injuries and chronic conditions through therapeutic exercises</p> <p>A-7–<b>Adjusting exercises according to individual needs</b> : Learning how to modify therapeutic exercises based on the individual's abilities and needs</p>	

**.B. The specific skills objectives of the course**

**B1. Developing empathy for patients:** Enhancing the ability to empathize with patients and understand their psychological and emotional needs in addition to .their physical needs

**B2–Stimulating professional commitment:** Encouraging students to adhere to professional standards and ethics, with a focus on responsibility and transparency in working with patients.

**B3– Promoting patience and understanding:** Developing patience and understanding skills, especially when working with patients who suffer from chronic pain or significant physical challenges.

**B4–Building self–confidence in providing care:** Developing confidence in the ability to provide appropriate therapeutic care and to use therapeutic exercises .effectively

**B5– Encouraging a spirit of cooperation:** Stimulating teamwork and cooperation among members of the medical team and with patients to jointly .achieve treatment goals

**Teaching and learning methods**

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

**Assessment methods**

**Daily tests, term exams – final exams**

**C. Affective and value–based objectives**

**A1. Promoting respect and appreciation for patients:** Understanding the value of respecting patients' privacy and dignity, regardless of their health condition. Developing the ability to treat all patients with respect and appreciation for their specific needs.

**C2– Developing a sense of professional responsibility:** Cultivating a commitment to professional ethics and the importance of providing safe and effective therapeutic care. Enhancing a sense of responsibility towards improving patients' quality of life through the application of therapeutic exercises.

**Q3– Encouraging Empathy and Care:** Motivating students to show empathy and humane care towards patients, and to understand their experiences and suffering. Working to build humane relationships based on trust and support between the therapist and the patient.

**C4– Instilling ethical values in practice:** Emphasizing integrity and transparency in work, and avoiding bias or exploitation. Developing a commitment to providing .care based on human values such as justice, equality, and mutual respect

**C5– Promoting Teamwork and Collaboration:** Instilling the value of cooperation and teamwork among the medical team, students, and patients to effectively achieve treatment goals. Fostering a spirit of collaboration among medical team .members to provide a supportive and comprehensive treatment environment

#### Teaching and learning methods

(In-person lectures)

#### ● Assessment methods

Daily tests, term exams – final exams

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

**:D1– Effective communication skills**

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

**Written communication:** Accurately and clearly recording medical observations, and preparing reports on the condition and progress of patients.

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

**:2D – Critical thinking and problem-solving skills**

The ability to analyze clinical cases and determine the most appropriate therapeutic exercises for each patient based on an objective assessment. Developing strategies to solve problems that the patient may encounter during treatment, such as pain resistance or mobility challenges.

**:D3– Time management and organizational skills**

Learn how to manage your time effectively when working with diverse patients and tailor treatment plans to each patient's needs. Organize appointments and exercise schedules to ensure effective and consistent care

**:D4– Teamwork and cooperation**

Developing skills to work within a multidisciplinary healthcare team, collaborating with colleagues and medical staff to provide the best possible care.

Understanding the role of each team member and coordinating their efforts to ensure the treatment plan is implemented effectively

**:D5 – Leadership and responsibility skills**

Taking responsibility for making appropriate treatment decisions for each patient, and being able to lead therapy sessions and supervise the correct execution of exercises. Developing leadership skills to guide treatment teams or manage treatment centers in the future.

**:D6– Adaptability and flexibility skills**

The ability to adapt to changes in the patient's condition and modify therapeutic exercises according to the progression or deterioration of their health. Flexibility in working within different environments with diverse types of patients.

### **:D7– Continuous learning and self–development**

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

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

### **:D8–Technology skills**

Learning how to use technological tools in therapeutic exercises, such as computer programs for assessing health conditions, and applying therapeutic .exercises using modern equipment

The ability to use technological tools for diagnosis or monitoring treatment .progress

### **.:D9– Social and emotional skills**

Developing emotional intelligence to deal with the various emotional states of patients.

Building healthy and positive relationships with patients and colleagues in the .treatment environment

## **Course Structure–10**

<b>Evaluation Method</b>	<b>Teaching method</b>	<b>Unit/Topic Name</b>	<b>Required learning outcomes</b>	<b>Hours</b>	<b>Week</b>
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	INTRODUCTION TO EXERCISE THERAPY	Knowledge and Application	Theory 2 3 + Practical	the first
Reports, oral and written	Whiteboard, PowerPoint slides	BASICS OF EXERCISE:	Knowledge and Application	Theory 2 3 + Practical	the second

theory exams					
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Disability models	Knowledge and Application	Theory 2 3 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Exercise physiology	Knowledge and Application	Theory 2 3 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	JOINT MOVEMENTS: – • Terminology. Range of motion. axes and Planes of movement levers	Knowledge and Application	Theory 2 3 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Passive movements	Knowledge and Application	Theory 2 3 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Active movements	Knowledge and Application	Theory 2 3 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	STARTING POSITIONS:– 1–Fundamental starting positions. 2– Derived positions. 3– Muscle work – effects and uses	Knowledge and Application	Theory 2 3 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	MANUAL MUSCLE TEST :–	Knowledge and Application	Theory 2 3 + Practical	Ninth

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	<b>GONIOMETRY:-</b>	<b>Knowledge and Application</b>	<b>Theory 2 3 + Practical</b>	<b>tenth</b>
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	<b>CAUSES FOR RESTRICTION OF RANGE OF MOTION:-</b>	<b>Knowledge and Application</b>	<b>Theory 2 3 + Practical</b>	<b>eleventh</b>
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	<b>Mobility aids – crutches, canes, walker</b>	<b>Knowledge and Application</b>	<b>Theory 2 3 + Practical</b>	<b>twelfth</b>
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	<b>Measurement of limb length, girth</b>	<b>Knowledge and Application</b>	<b>Theory 2 3 + Practical</b>	<b>thirteenth</b>
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	<b>SUSPENSION THERAPY</b>	<b>Knowledge and Application</b>	<b>Theory 2 3 + Practical</b>	<b>fourteenth</b>
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	<b>RELAXATION:-</b> • Types & Techniques. • Effects & Uses	<b>Knowledge and Application</b>	<b>Theory 2 3 + Practical</b>	<b>fifteenth</b>

<b>Course Evaluation -11</b>
<b>Student activities and reports, oral and written theoretical and practical exams</b>
-15

<b>12 Learning and Teaching Resources –</b>	
Kisner, C., & Colby, L. A. (2017). <i>Therapeutic Exercise: Foundations and Techniques</i> (7th ed.). F. A. Davis	Required textbooks (curriculum (books, if available
Goodman, C. C., & Fuller, K. S. (2020). <i>Pathology for the Physical Therapist Assistant</i> (2nd ed.). Elsevier	Main references (sources)
Journal of Orthopedic & Sports Physical Therapy (JOSPT	Recommended books and references (scientific journals (...and reports
American Physical Therapy Association (APTA)	Electronic references and websites

<b>Advanced therapeutic exercises</b>	<b>Course Name –1</b>
<b>PTT202</b>	<b>Course code –2</b>
<b>Chapter Two / 2025–2026</b>	<b>Semester / Year –3</b>
<b>5 1/9/2025</b>	<b>Date of preparation of –4 the description</b>
<b>In–person lectures</b>	<b>Available forms of –5 attendance</b>
<b>30 hour theory + 45 hours practical / 3 1 units</b>	<b>Number of credit hours –6 (total) / Number of units (total)</b>
<b>Dr. Fawzi Hammadi Mahdi</b>	<b>course Name of the –7 coordinator (list all names, if (there is more than one</b>

## 8– Course Objectives

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

## 9 Teaching and learning strategies –

### A. Cognitive objectives

A1 –Understanding **the basic principles of therapeutic exercises** : This includes understanding the motor, physiological and biomechanical systems that affect the body's response to therapeutic exercises

A2– **Analysis and assessment of therapeutic needs** : The ability to analyze the individual needs of patients and assess their health conditions in order to design customized therapeutic exercise programs

A3– **Designing and implementing advanced therapeutic exercise programs**  
Learning how to create therapeutic exercise programs that suit specific conditions such as sports injuries, musculoskeletal diseases, and chronic diseases

A4– **Applying advanced rehabilitation strategies** : Learning advanced strategies to increase rehabilitation efficiency and improve physical performance through the use of therapeutic exercises

A5– **Getting acquainted with modern techniques in physiotherapy** : Knowing how to use modern devices and techniques in the field of therapeutic exercises to enhance the effectiveness of treatment

A6– **Evaluating Treatment Outcomes** : The ability to measure and assess the impact of therapeutic exercises on patient progress using scientific and objective measures

**.B. The specific skills objectives of the course**

**Accurate physical assessment: The ability to conduct a B1– comprehensive and accurate assessment of the patient’s physical condition using clinical examinations and modern assessment methods to .determine treatment needs**

**B2– Developing individual therapeutic 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– Performing therapeutic exercises correctly: Mastering the performance 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–Using advanced technologies and equipment: The ability to use modern devices and equipment used in rehabilitation such as balance .devices, strength training equipment, and movement simulators**

**Adjusting exercises according to patient progress: Developing the B5– skill of adjusting doses and therapeutic techniques according to the .improvement of the patient’s condition or the emergence of new problems**

**Effective communication with patients and healthcare team: The ability B6– to provide clear and accurate guidance to patients and members of the healthcare team, while promoting collaboration between stakeholders in treatment plans.**

**Teaching and learning methods**

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

**Assessment methods**

## Daily tests, term exams – final exams

### **objectives C. Affective and value-based**

#### **:A1– Promoting empathy and humane care**

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

#### **:C2– Instilling the values of professional responsibility**

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

#### **:C3– Encouraging self-discipline and professionalism**

Enhancing discipline at work and maintaining professional conduct in dealing with patients and colleagues, in addition to observing schedules and accuracy in providing treatments.

#### **:C4– Promoting awareness of professional ethics**

Instilling 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– Developing awareness of cultural diversity**

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

#### **:C6– Encouraging teamwork and cooperation**

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

## Teaching and learning methods

(In-person lectures)

### ● Assessment methods

Daily tests, term 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, thereby enhancing students' competence in .clinical situations that require quick and accurate decision-making

##### **:D2– Critical and analytical thinking**

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

##### **:D3–Time Management**

Improving time management and treatment schedule management skills, enabling students to deal with multiple patients effectively and efficiently within .a defined timeframe

##### **:D4– Effective communication skills**

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

##### **:D5– Teamwork and cooperation**

Developing skills to work as part of a multidisciplinary team in a medical setting, and to collaborate with other specialists to improve treatment outcomes, is 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 therapeutic technology or facing complex and .unexpected health conditions

**:D7–Leadership skills**

Developing the ability to lead small teams or guide patients towards achieving their treatment goals, with the ability to make appropriate decisions independently when needed. Building healthy and positive relationships with patients and colleagues in the treatment environment.

**Course structure –10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	MAT EXERCISES:-	Knowledge and Application	Theory 2 3 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	FREE EXERCISES:-	Knowledge and Application	Theory 2 3 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Resisted exercise:	Knowledge and Application	Theory 2 3 + Practical	the third
Reports, oral and written	Whiteboard, PowerPoint slides	Progressive Resistance Exercise – de Lormes, Oxford,	Knowledge and Application	Theory 2 3 + Practical	Fourth

theory exams		MacQueen, Circuit Weight			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Stretching:	Knowledge and Application	Theory 2 3 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	BREATHING EXERCISES:-	Knowledge and Application	Theory 2 3 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	AEROBIC EXERCISE:	Knowledge and Application	Theory 2 3 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Coordination	Knowledge and Application	Theory 2 3 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Posture:	Knowledge and Application	Theory 2 3 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Gait Training:	Knowledge and Application	Theory 2 3 + Practical	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	SOFT TISSUE LESIONS	Knowledge and Application	Theory 2 3 + Practical	eleventh

Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Massage: Define and describe the various manipulation techniques used in massage.	Knowledge and Application	Theory 2 3 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Hydrotherapy:	Knowledge and Application	Theory 2 3 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Transfers training:– selection of transfers, levels, amount of assist transfer, belt of transfers	Knowledge and Application	Theory 2 3 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Proprioceptive Neuromuscular Facilitation	Knowledge and Application	Theory 2	fifteenth

### Course Evaluation –11

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

### 12 Learning and Teaching Resources –

Kisner, C., Colby, L. A., & Borstad, J. (2017). <i>Therapeutic Exercise: Foundations and Techniques</i> (7th ed.). F. A. Davis	Required textbooks (curriculum (books, if available
Magee, D. J. (2014). <i>Orthopedic Physical Assessment</i> (6th ed.). Elsevier	Main references (sources)
Journal of Orthopedic & Sports Physical Therapy (JOSPT)	Recommended books and references (scientific journals (...and reports

American Physical Therapy Association (APTA)	Electronic references and websites
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Physical therapy for general surgery	Course Name -1
PTT203	Course code -2
First semester / 2025-2026	Semester / Year -3
5 1/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
hours of theory + 60 hours of practical 30 work / 4 units	Number of credit hours (total) -6 Number of units (total) /
Dr. Salam Muhannad Salman	course Name of the -7 coordinator (list all names, if (there is more than one
<b>Course Objectives-8</b>	
The goals of physiotherapy in the field of general surgery vary and focus on .supporting rapid recovery and improving quality of life after surgical operations	

## learning strategies Teaching and –9

### **A. Cognitive objectives**

#### **1– Understanding the physiological foundations of surgery:**

Understanding the impact of surgical procedures on the body, including vital systems such as the respiratory, cardiovascular, and musculoskeletal systems

#### **To learn about the different types of surgical procedures –2:**

Understanding the differences between various types of surgery (such as abdominal, thoracic, and reconstructive surgery) and their effects on movement and physical function

#### **3– Knowledge of the basic principles of post–operative physiotherapy:**

Understanding the role of physiotherapy in rehabilitating patients after surgery, including techniques to improve movement and flexibility, reduce pain, and accelerate the healing process

#### **4– Understanding the effect of anesthesia and surgery on breathing:**

Understanding the effects of anesthesia and surgery on the respiratory system and how to apply breathing exercises and improve lung function after surgery

#### **5– Clinical assessment of patients before surgery:**

Knowing how to conduct a comprehensive pre–operative assessment of a patient's condition, including evaluating muscle strength, flexibility, and respiratory function

#### **6– Designing pre–operative rehabilitation programs:**

Learn how to prepare rehabilitation programs aimed at improving general fitness and body functions before surgery to enhance post–operative results

### **.B. The specific skills objectives of the course**

#### **:Assessing the physical condition of patients –1**

Developing 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 functions.

**:customized treatment programs Designing –2**

The ability to design and implement individualized rehabilitation programs that are tailored to the needs of patients before and after surgery, taking into account the .type of surgery and the patient's medical history

**:Performing the therapeutic exercises correctly –3**

Mastering the execution of therapeutic exercises and clinical techniques required .to improve mobility and flexibility and promote recovery after surgical procedures

**:Applying pain management techniques –4**

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

**:Implementing strategies to prevent complications –5**

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

**:Providing counseling and psychological support to patients –6**

Improving communication skills to provide psychological support and advice to patients and their families about the stages of recovery and post-operative treatment requirements.

**:health teams Interacting with –7**

The ability to cooperate and communicate effectively with other members of the healthcare team, such as surgeons and nurses, to ensure that comprehensive and .integrated patient care is provided

**:Evaluating the results of the treatment –8**

The skill of measuring and documenting the progress made 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**

## **Assessment methods**

**Daily tests, term exams – final exams**

### **C. Affective and value-based objectives**

#### **:Promoting empathy and compassion –1**

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

#### **:Instilling ethical and professional values –2**

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

#### **:Promoting social responsibility –3**

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

#### **:Developing awareness of cultural diversity –4**

Promoting respect and appreciation for cultural and social differences among patients, and understanding how to provide holistic care that takes into account their cultural needs.

#### **:Promoting teamwork and cooperation –5**

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

#### **:Developing leadership and guidance skills –6**

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

**:Promoting a commitment to lifelong learning –7**

Stimulating the desire for continuous learning and self–development, commitment to providing the best possible healthcare based on the latest research and standards.

**:Enhancing the ability to cope with stress –8**

Developing awareness of the importance of managing stress and tension in the workplace, and enhancing skills in dealing with psychological and emotional challenges related to healthcare, in order to achieve better therapeutic outcomes.

**Teaching and learning methods**

(In–person lectures)

**●Assessment methods**

**Daily tests, term exams – final exams**

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

**:Problem–solving skills –1**

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

**:Critical and analytical thinking –2**

Enhancing the ability to critically evaluate clinical information and data, and to examine scientific evidence to identify best practices in the delivery of physical .therapy

**:Effective communication skills –3**

Improving the ability to communicate with patients and colleagues, both orally and in writing, to ensure that information is conveyed in a clear and professional manner

**:Cooperation and teamwork –4**

Developing skills to work as part of a diverse healthcare team, and fostering collaboration with doctors, nurses, and other healthcare providers

**:Time management –5**

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

**:Adaptability –6**

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

**:Leadership skills –7**

Developing leadership skills when working with small teams, and effectively guiding patients during recovery periods, which enhances confidence and initiative.

**:Stress and tension management –8**

Learn effective strategies for managing stress and tension associated with working in a healthcare environment, which helps maintain good mental health.

**:Self-development and continuous learning –9**

Encouraging students to adopt a lifelong learning and self-development approach, including seeking additional educational opportunities to improve their skills

**Using technology –10:**

Improving skills in using technological tools and techniques in physiotherapy, such as measuring devices and health applications, to enhance treatment effectiveness

**:Research skills and use of evidence –11**

Enhancing the ability to conduct research and use scientific evidence in the .practice of physiotherapy, which helps in providing research–based care

**:Creative thinking –12**

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

**Course Structure–10**

<b>Evaluation Method</b>	<b>Teaching method</b>	<b>Unit/Topic Name</b>	<b>Required learning outcomes</b>	<b>Hours</b>	<b>Week</b>
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Introduction: Definition, Indications for surgery	Knowledge and Application	Theory 2 4 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Postoperative complications.	Knowledge and Application	Theory 2 4 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Infection and Inflammation	Knowledge and Application	Theory 2 4 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Wounds / ulcers	Knowledge and Application	Theory 2 4 + Practical	Fourth

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Complications of immobilization	Knowledge and Application	Theory 2 4 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Abdominal surgeries for gastrointestinal tract	Knowledge and Application	Theory 2 4 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Genito-urinary system surgeries	Knowledge and Application	Theory 2 4 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Breast cancer and mastectomy	Knowledge and Application	Theory 2 4 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Mastectomy	Knowledge and Application	Theory 2 4 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Burn: Definition, Types, Classification	Knowledge and Application	Theory 2 4 + Practical	tenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Burn: Immediate care, physical therapy management.	Knowledge and Application	Theory 2 4 + Practical	eleventh
Reports, oral and written	Whiteboard,  PowerPoint slides	Skin grafting: Indications, Types, Post-operative care of plastic surgery	Knowledge and Application	Theory 2 4 + Practical	twelfth

theory exams		with specific role of physiotherapy			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Tendon repair: Procedure, Recovery, Complications, Pre-operative and post-operative physical therapy management	Knowledge and Application	Theory 2 4 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Reconstructive surgery of peripheral nerves	Knowledge and Application	Theory 2 4 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Revision.	Knowledge and Application	Theory 2 4 + Practical	fifteenth

### Course Evaluation –11

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

### 12 Learning and Teaching Resources –

Goodman, C. C., & Fuller, K. S. (2020). <i>Pathology for the Physical Therapist Assistant</i> (2nd ed.). Elsevier	Required textbooks (curriculum (books, if available
Cameron, M. H. (2017). <i>Physical Agents in Rehabilitation: From Research to Practice</i> (5th ed.). Elsevier	Main references (sources)
Archives of Physical Medicine and Rehabilitation	Recommended books and references (scientific journals (...and reports

American Physical Therapy Association (APTA)	Electronic references and websites
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Physical therapy for muscular system diseases	Course Name -1
PTT204	Course code -2
Chapter Two / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of -4 the description
In-person lectures	Available forms of -5 attendance
hours of theory + 60 hours of practical work / 4 units	Number of credit hours (total) -6 Number of units (total) /
Dr. Muhannad Imad Majeed	course Name of the -7 coordinator (list all names, if (there is more than one
<b>Course Objectives -8</b>	
The goals of physiotherapy for musculoskeletal disorders focus on improving .muscle function, relieving pain, and restoring normal mobility	
<b>learning strategies Teaching and -9</b>	
<b>A. Cognitive objectives</b> 1- <b>Understanding Anatomy :</b> Understanding the anatomy of the muscular system, including the muscular and .structural composition of muscles and their relationship to the nervous system 2- <b>Knowledge of muscle functions:</b> Understanding muscle functions and normal movement patterns, and how diseases .and injuries affect these functions 3- <b>Understanding diseases of the muscular system:</b>	

Identifying the different types of muscular system diseases, such as muscular dystrophy, inflammation, and genetic disorders, and the causes and contributing factors of each

**4– Diagnosis of muscular diseases:**

Understanding the methods used in diagnosing diseases of the muscular system, including clinical examinations, medical imaging, and laboratory tests

**5– Knowledge of the basic principles of physiotherapy:**

Understanding the principles and objectives of physiotherapy in treating diseases of the muscular system, including the use of exercises and manual therapy

**6– Understanding assessment techniques:**

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

**7– Designing rehabilitation programs:**

Developing knowledge about how to design individualized rehabilitation programs that take into account the type and severity of the muscular disease and the patient's specific needs

**8– Identifying treatment techniques:**

Knowledge of the various physiotherapy techniques used to treat muscular system disorders, such as strengthening exercises, flexibility exercises, and electrotherapy

**.B. The specific skills objectives of the course**

**:Assessing the physical condition of patients –1**

Developing the skill of conducting a comprehensive assessment of patients' condition, including measuring muscle strength, range of motion, and balance

**:Designing customized treatment programs –2**

The ability to design and implement individualized rehabilitation programs that meet the specific needs of patients, taking into account the type and severity of the illness

**:Performing therapeutic exercises –3**

Mastering the correct and safe execution of various therapeutic exercises, including muscle strengthening and flexibility exercises

**:Applying manual therapy techniques –4**

Developing skills in using manual therapy techniques to improve joint and muscle .mobility and relieve pain

**Application of electrical technologies –5:**

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

**Providing psychological and emotional support –6:**

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

**Evaluating the results of the treatment –7:**

The ability to assess the effectiveness of treatment programs by monitoring .patient progress and documenting improvements in their functional capacity

**Implementing prevention strategies –8:**

Developing skills to implement preventive strategies to prevent the worsening of muscular system conditions, and teaching patients how to maintain the health of .their muscles

**:health teams Cooperation with –9**

Enhancing the ability to collaborate and communicate effectively with other healthcare team members to ensure comprehensive patient care. Developing the skill to measure and document patient progress throughout treatment and to .evaluate the effectiveness of implemented treatment programs Assessing the :physical condition of patients

**Teaching and learning methods**

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

## Assessment methods

### Daily tests, term exams – final exams

#### **C. Affective and value-based objectives**

##### **:Promoting empathy and compassion –1**

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

##### **:Instilling moral values –2**

To establish the principles of professional ethics, such as honesty, integrity, and respect, in dealing with patients and colleagues

##### **:Promoting social responsibility –3**

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

##### **:Developing awareness of cultural diversity –4**

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

##### **:Promoting teamwork –5**

Promoting the values of cooperation and teamwork in the healthcare environment, helping students understand the importance of interdisciplinary partnerships in improving the quality of care

##### **:Developing leadership skills –6**

Encouraging students to develop leadership and mentoring skills, which enhances their ability to positively influence work teams and physical therapy patients.

##### **:Promoting a commitment to lifelong learning –7**

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

## Teaching and learning methods

(In–person lectures)

### ●Assessment methods

Daily tests, term exams – final exams

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

**:Problem–solving skills –1**

Developing the ability to analyze clinical cases and address problems related to muscular system diseases, which contributes to making effective and rapid decisions.

**:Critical thinking –2**

Enhancing critical thinking skills through the evaluation of evidence and knowledge related to the treatment of muscular system diseases, enabling .students to make informed decisions

**:Effective communication skills –3**

Improving oral and written communication skills with patients and colleagues, which enhances the ability to convey information clearly and effectively.

**:Cooperation and teamwork –4**

Developing skills in collaboration and teamwork within multidisciplinary healthcare teams, which helps in providing integrated patient care.

**:Time management –5**

It enhances time management skills effectively, which contributes to organizing .tasks and schedules in the work environment

**:Adaptability –6**

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

**:Leadership skills –7**

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

**:Stress and tension management –8**

Learn effective strategies for managing stress and tension associated with working in a physical therapy environment, which promotes mental health.

**:Self–development and continuous learning –9**

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

**:Using technology–10**

Improving skills in using modern technology in physiotherapy, such as medical .devices and applications, enhances the effectiveness of treatment

**Course Structure–10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Medical terminology	Knowledge and Application	Theory 2 4 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Patient history, Examination	Knowledge and Application	Theory 2 4 + Practical	the second

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Musculoskeletal Signs and Symptoms	Knowledge and Application	Theory 2 4 + Practical	the third
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Rheumatoid Arthritis: Definition, Epidemiology, Pathology, and Pathogenesis, Clinical and Laboratory Manifestations	Knowledge and Application	Theory 2 4 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Rheumatoid Arthritis: Assessment and Physical Therapy Management	Knowledge and Application	Theory 2 4 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Ankylosing Spondylitis:	Knowledge and Application	Theory 2 4 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Psoriatic Arthritis	Knowledge and Application	Theory 2 4 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Reactive Arthritis:	Knowledge and Application	Theory 2 4 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Systemic lupus erythematosus:	Knowledge and Application	Theory 2 4 + Practical	Ninth

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Systemic Sclerosis:	Knowledge and Application	Theory 2 4 + Practical	tenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Polymyositis and dermomyositis:	Knowledge and Application	Theory 2 4 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Polymyalgia Rheumatica:	Knowledge and Application	Theory 2 4 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Gout:	Knowledge and Application	Theory 2 4 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Pseudo gout:	Knowledge and Application	Theory 2 4 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	General Revision	Knowledge and Application	Theory 2 4 + Practical	fifteenth

### Course Evaluation –11

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

Magee, D. J. (2014). <i>Orthopedic Physical Assessment</i> (6th ed.). Elsevier	Required textbooks (curriculum books, if available)
O'Sullivan, S. B., Schmitz, T. J., & Fulk, G. D. (2019). <i>Physical Rehabilitation</i> (7th ed.). F. A. Davis.	Main references (sources)
Journal of Orthopedic & Sports Physical Therapy (JOSPT)	Recommended books and references (scientific journals (...and reports
Physiopedia – Musculoskeletal Physiotherapy	Electronic references and websites

Primary treatment devices	Course Name -1
PTT205	Course code -2

<b>Chapter One / 2025–2026</b>	<b>Semester / Year –3</b>
<b>15/9/2025</b>	<b>Date of preparation of the –4 description</b>
<b>In–person lectures</b>	<b>Available forms of –5 attendance</b>
<b>hours of theory + 45 hours of practical 30 work / 3 units</b>	<b>Number of credit hours (total) / –6 Number of units (total)</b>
<b>Dr. Mazhar Ali Aboud</b>	<b>course coordinator Name of the –7 list all names, if there is more ) (than one</b>

### **Course Objectives–8**

The objectives of the Primary Therapy Devices course in physiotherapy are to teach students and practitioners how to use various devices and techniques to improve .patients' conditions and accelerate the recovery process

### **9 Teaching and learning strategies –**

#### **A. Cognitive objectives**

##### **Understanding the different types of primary therapy devices–1**

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

##### **:physical principles Knowledge of –2**

Understanding the physical principles underlying treatment devices, such as how .electrical current and ultrasound waves work and their effects on tissues

##### **Understanding how devices work –3:**

Understanding how each device used in primary therapy works, including settings .and operating parameters

##### **:Evaluating the effectiveness of the treatment –4**

Understanding how to assess the effectiveness of treatment using these devices by .measuring patient response and changes in symptoms

##### **Knowledge of clinical uses –5:**

Identifying the clinical uses of each device, including medical conditions that can be .treated using the specific devices

**Understanding precautions and side effects –6:**

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

**:Applying ethical and professional standards –7**

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

**:Understanding technological updates –8**

Keeping up with technological updates and developments in the field of primary .treatment devices helps to improve clinical practices

**:Conducting the necessary tests –9**

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

**.B. The specific skills objectives of the course**

**:Setting up and operating the devices –1**

Developing skills to properly set up and operate primary treatment devices in accordance with technical guidelines.

**:Clinical assessment –2**

The ability to assess the clinical condition of patients and determine appropriate treatment requirements using devices.

**:Implementing the treatment –3**

Mastering the safe and effective implementation of treatment using devices, taking .into account the needs of each patient

**:Monitoring the patient's response –4**

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

**:Applying the necessary precautions –5**

Developing skills to apply the necessary precautions to ensure patient safety during the use of devices.

**:Evaluating the results of treatment –6**

The ability to assess treatment outcomes using devices by measuring improvement in symptoms and functional performance For patients.

**:Interacting with patients –7**

Improving communication skills with patients, clarifying treatment procedures and goals, and enhancing their commitment to treatment.

**:Time management –8**

Developing effective time management skills during treatment delivery, ensuring that .necessary care is provided in a timely manner

**:Cooperation with health teams –9**

Enhancing collaboration and communication skills with other members of the .healthcare team to ensure the delivery of comprehensive and effective care

**Teaching and learning methods**

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

**Assessment methods**

**Daily tests, term exams – final exams**

**C. Affective and value-based objectives**

**:Promoting empathy and care –1**

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

**:Promoting moral values –2**

Establishing professional ethics principles such as integrity, respect, and responsibility in dealing with patients and colleagues.

**:Developing social responsibility –3**

To promote a sense of responsibility towards society by providing fair and .comprehensive healthcare to all patients

**:Respect for cultural diversity –4**

Promoting respect and appreciation for cultural and social differences, and understanding how to provide care that takes into account the different needs of patients.

**:Promoting teamwork –5**

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

**:Developing leadership skills –6**

Encouraging students to develop leadership and mentoring skills, which contributes .to improving their experience and the experience of patients

**:Promoting a commitment to lifelong learning –7**

Encouraging students to seek opportunities for continuing education and self- .development, reflecting their commitment to providing the best healthcare

**:Promoting positivity and optimism –8**

Encouraging students to adopt positive attitudes and promote optimism in dealing with patients, which contributes to improving their treatment experience.

**:Promoting adherence to safety practices –9**

Emphasizing the importance of adhering to safety and prevention standards in providing care, which reflects concern for the health and safety of patients.

**:Developing a sense of accomplishment –10**

Promoting the value of achieving personal and professional goals, which helps students appreciate their efforts in improving patient health.

## Teaching and learning methods

(In-person lectures)

### ● Assessment methods

Daily tests, term exams – final exams

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

##### :Communication skills –1

Enhancing the ability to communicate effectively with patients and members of the healthcare team, which helps in conveying information clearly and understanding patients' needs.

##### :Problem-solving skills –2

**Developing** critical thinking and information analysis skills to solve clinical  
. problems related to the use of treatment devices

##### :Time management –3

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

##### :Critical thinking –4

Enhancing critical thinking to evaluate evidence and use information to determine  
. the best treatment methods appropriate for patients

##### :Cooperation and teamwork –5

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

##### :Developing leadership skills –6

Encouraging students to develop leadership skills, which helps them to take  
. initiatives and guide teams when needed

**:Adaptability and flexibility –7**

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

**:Knowledge of technology –8**

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

**:Research skills –9**

Enhancing the ability to conduct research and use scientific resources to promote clinical knowledge and practices.

**:Documentation skills –10**

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

**Course Structure–10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Electromagnetic Waves: Electromagnetic spectrum, physical properties of Electromagnetic radiations reflection	Knowledge and Application	Theory 2 3 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Managing Pain with Therapeutic Modalities	Knowledge and Application	Theory 2 3 + Practical	the second
Reports, oral and written	Whiteboard,	Infra-Red Radiation	Knowledge and Application	Theory 2 3 + Practical	the third

theory exams	PowerPoint slides				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Infra-Red Radiation: technique of application, duration and frequency of treatment	Knowledge and Application	Theory 2 3 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Moist Heat Therapy: Hydro collator packs – in brief, Therapeutic uses, Indications & Contraindications	Knowledge and Application	Theory 2 3 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Moist Heat Therapy: Methods of application, technique of application	Knowledge and Application	Theory 2 3 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Wax Therapy	Knowledge and Application	Theory 2 3 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Wax Therapy: Methods of application of Wax, technique of application	Knowledge and Application	Theory 2 3 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Contrast Bath	Knowledge and Application	Theory 2 3 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Fluid therapy: Construction, Therapeutic uses, Indications & Contraindications. Fluid therapy: Methods of applications,	Knowledge and Application	Theory 2 3 + Practical	tenth

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Ultra Violet Production of UVR physiological effects of UVR	Knowledge and Application	Theory 2 3 + Practical	eleventh
Reports, oral and written theory 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	Theory 2 3 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	LASER: Define, Types, Principles of Production. Production of LASER by various methods	Knowledge and Application	Theory 2 3 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	LASER: Methods of application, technique of application	Knowledge and Application	Theory 2 3 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	General Revision	Knowledge and Application	Theory 2 3 + Practical	fifteenth

### Course Evaluation –11

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

### 12 Learning and Teaching Resources –

Cameron, M. H. (2017). <i>Physical Agents in Rehabilitation: From Research to Practice</i> (5th ed.). Elsevier	Required textbooks (curriculum (books, if available
Licht, S. (2002). <i>Therapeutic Heat and Cold</i> (4th ed.). Williams & Wilkins	Main references (sources)
Physiotherapy Research International	Recommended books and references (scientific journals and (...reports
American Physical Therapy Association (APTA).	Electronic references and websites

Specialized treatment devices	Course Name -1
PTT206	Course code -2
Chapter Two / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of the -4 description
In-person lectures	Available forms of -5 attendance
hours of theory + 45 hours of practical work 30 units 3 /	Number of credit hours (total) / -6 Number of units (total)
Dr. Mazhar Ali Aboud	course coordinator Name of the -7 list all names, if there is more ) (than one
<b>8 – Course Objectives</b>	
The objectives of the subject of Specialized Therapeutic Devices in the field of physiotherapy focus on the use of advanced technologies and devices in treating .complex cases and providing specialized treatments	
<b>Teaching and learning strategies -9</b>	

## **A. Cognitive objectives**

### **Understanding the types of specialized equipment –1**

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

### **:Knowledge of scientific principles –2**

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

### **:Understanding the working mechanism –3**

Understanding how each device works, including the settings and operating .parameters necessary to achieve the best therapeutic results

### **:Knowledge of clinical uses–4**

Understanding the different clinical uses of specialized devices, and the medical .conditions that can be treated using each device

### **:Understanding interactions and side effects –5**

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

### **:Evaluating the effectiveness of the treatment –6**

The ability to assess the effectiveness of treatments using specialized devices by measuring the improvement in patients' condition.

### **:Understanding ethical standards –7**

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

### **:Keeping up with technological developments –8**

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

### **:Treatment planning –9**

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

### **:Conducting the necessary tests –10**

Knowing how to conduct the necessary tests to determine the suitability of using

:devices for patients. **11–Documentation and Reporting**

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

**.B. The specific skills objectives of the course**

**:up and operating the devices Setting –1**

Developing skills to properly set up and operate specialized treatment devices in accordance with technical guidelines.

**:Clinical assessment –2**

The ability to assess the clinical condition of patients and determine appropriate treatment requirements using devices.

**:Implementing the treatment –3**

Mastering the safe and effective implementation of treatment using specialized .equipment, taking into account the needs of each patient

**:Monitoring the patient's response –4**

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

**:Applying the necessary precautions –5**

Developing skills to apply the necessary precautions to ensure patient safety during the use of devices.

**:Evaluating the results of treatment –6**

The ability to assess treatment outcomes using devices by measuring improvement in symptoms and functional performance of patients.

**:Interacting with patients –7**

Improving communication skills with patients, clarifying treatment procedures and goals, and enhancing their commitment to treatment.

**:Time management –8**

Developing effective time management skills during treatment delivery, ensuring that necessary care is provided in a timely manner.

**:Cooperation with health teams –9**

Enhancing collaboration and communication skills with other healthcare team members to ensure the delivery of comprehensive and effective care

**:Documentation and Reporting –10**

Developing skills in accurately documenting the use of devices and treatment outcomes in medical records

**Teaching and learning methods**

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

**Assessment methods**

Daily tests, term exams – final exams

**C. Affective and value-based objectives**

**:Promoting empathy –1**

Instilling the value of empathy and the ability to understand the feelings and needs of patients, which contributes to providing humane and compassionate healthcare

**:Developing moral values –2**

Promoting integrity, respect, and responsibility in dealing with patients and colleagues, which contributes to fostering a positive work environment

**:responsibility Promoting social –3**

Developing a sense of responsibility towards society by providing fair and comprehensive healthcare to all patients, regardless of their background.

**:Respect for cultural diversity –4**

Promoting the value of respecting cultural and social diversity, and understanding how to provide healthcare that takes into account the needs of each patient.

**:Promoting a commitment to lifelong learning –5**

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

**:the values of cooperation Promoting –6**

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

**:Developing leadership skills –7**

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

**:Promoting adherence to safety practices –8**

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

**:Developing a sense of accomplishment –9**

Promoting the value of achieving personal and professional goals, which helps .students appreciate their efforts in improving patient health

**:Developing the ability to cope with stress –10**

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

**:Enhancing critical thinking –11**

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

**:Stimulating the spirit of initiative –12**

Encouraging students to develop a spirit of initiative in seeking new and effective .solutions to improve the quality of care

**Teaching and learning methods**

(In-person lectures)

**●Assessment methods**

**Daily tests, term exams – final exams**

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

**1- :Effective communication skills**

Developing the ability to communicate clearly and effectively with patients and colleagues, which contributes to improving the treatment experience.

**:Problem-solving skills -2**

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

**:Time management -3**

**Learn** how to manage time effectively during treatment, ensuring that necessary care is provided in a timely manner.

**:Critical thinking -4**

Enhancing the ability to think critically to evaluate information and evidence and .choose the best therapeutic practices

**:Cooperation and teamwork -5**

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

**:Leadership skills -6**

Encouraging students to develop leadership skills, which helps them to take initiatives and manage teams effectively.

**:Adaptability and flexibility -7**

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

**:Knowledge of technology -8**

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

**:skills Research and analysis -9**

Enhancing the ability to conduct research and use scientific resources to improve clinical knowledge and practices.

**:Documentation skills –10**

Learn how to accurately document medical data and treatment results, which .contributes to improved communication and quality assurance

**:Continuous learning –11**

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

**Course Structure–10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Introduction to Physical Therapy Modalities	Knowledge and Application	Theory 2 3 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Electrotherapy Equipment	Knowledge and Application	Theory 2 3 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Thermotherapy and cry therapy devices	Knowledge and Application	Theory 2 3 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Therapeutic Exercise Devices	Knowledge and Application	Theory 2 3 + Practical	Fourth

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Hydrotherapy Devices	Knowledge and Application	Theory 2 3 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Laser and Light Therapy Devices	Knowledge and Application	Theory 2 3 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Introduction of phototherapy	Knowledge and Application	Theory 2 3 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Prosthetic Devices	Knowledge and Application	Theory 2 3 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Traction Therapy Devices	Knowledge and Application	Theory 2 3 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Orthotics and Prosthetics	Knowledge and Application	Theory 2 3 + Practical	tenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Robotic and advanced rehabilitation devices	Knowledge and Application	Theory 2 3 + Practical	eleventh
Reports, oral and written	Whiteboard,  PowerPoint slides	Clinical Practice	Knowledge and Application	Theory 2 3 + Practical	twelfth

theory exams					
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Traction Therapy Devices	Knowledge and Application	Theory 2 3 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Patient Safety and Equipment Maintenance	Knowledge and Application	Theory 2 3 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Ethical Considerations in Device Use	Knowledge and Application	Theory 2 3 + Practical	fifteenth

### Course Evaluation – 11

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

### 12 Learning and Teaching Resources –

Prentice, W. E. (2015). <i>Therapeutic Modalities in Rehabilitation</i> (4th ed.). McGraw–Hill.	Required textbooks (curriculum (books, if available
Kitchen, S., & Bazin, S. (2015). <i>Clayton's Electrotherapy</i> (13th ed.). Elsevier.	Main references (sources)
Journal of Electromyography and Kinesiology	Recommended books and references (scientific journals (...and reports
American Physical Therapy Association (APTA):	Electronic references and websites

pathology	Course Name -1
PTT207	Course code -2
First semester / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of the -4 description
In-person lectures	Available forms of -5 attendance
hours of theory / 2 units 30	Number of credit hours (total) / -6 Number of units (total)
M.M. Amna Muhannad Abdul Rahman	course coordinator Name of the -7 list all names, if there is more ) (than one
<b>Course Objectives-8</b>	
of pathology include understanding disease processes and analyzing the causes and effects of diseases on the human body. This science plays a fundamental role in diagnosing diseases, guiding treatment, and understanding how to prevent .disease	
<b>9 Teaching and learning strategies -</b>	
<b>A. Cognitive objectives</b>	
<b>:Understanding the scientific principles -1</b>	
Studying the scientific foundations related to pathology, including definitions and basic .concepts	
<b>:Knowledge of the types of diseases-2</b>	

Identifying the different types of diseases, including infectious diseases, chronic diseases, and tumors

**:Understanding the pathological mechanisms –3**

Studying the biological and physiological mechanisms that lead to the occurrence of diseases and how they affect the body's vital functions.

**:Identifying the causative factors –4**

Understanding the factors that cause diseases, including genetic, environmental, and behavioral factors.

**:Understanding the signs and symptoms –5**

Identifying the various clinical signs and symptoms associated with diseases and how to assess them.

**:Study of diagnostic tests –6**

Knowledge of the tests and examinations used to diagnose and assess diseases.

**:Understanding tissue changes –7**

Studying the tissue changes associated with diseases and how they are used in diagnosis

**:Understanding the principles of treatment –8**

Understanding the basic principles of treatment and methods of managing different diseases

**:Understanding the impact of diseases on public health –9**

.Studying how diseases affect public health, including epidemics and social spread

**:Applying clinical knowledge –10**

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

**:Updating medical information–11**

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

**.B. The specific skills objectives of the course**

**Analysis of clinical data –1:**

Developing skills in analyzing patients' clinical data, including signs, symptoms, and .medical history

**Conducting laboratory tests –2:**

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

**Interpretation of diagnostic tests –3:**

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

**Identifying the signs of illness –4:**

Improving skills in recognizing and evaluating pathological signs in clinical .presentations

**of textile techniques Application –5:**

Acquiring skills in applying tissue techniques such as microscopy and histological .imaging

**Managing medical cases–6:**

Developing the ability to manage medical conditions and identify the best treatment .options

**Effective communication –7:**

Enhancing communication skills with patients and colleagues, including explaining .results and treatment recommendations

**Cooperation with health teams –8:**

Developing skills to collaborate with different healthcare teams in diagnosing and .treating diseases

**:Developing research skills –9**

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

**:Accurate documentation –10**

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

## Teaching and learning methods

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

## Assessment methods

Daily tests, term exams – final exams

### C. Affective and value-based objectives

#### **Promoting empathy –1:**

Instilling the value of empathy and the ability to understand the feelings of patients .and their families, which contributes to providing humane healthcare

#### **Developing moral values –2:**

Promoting integrity, respect, and responsibility in handling sensitive information .related to patient health

#### **Promoting social responsibility –3:**

Developing a sense of responsibility towards society by understanding the impact of .diseases on public health and how to contribute to improving it

#### **Respect for cultural diversity –4:**

To promote the value of respecting cultural and social diversity and understanding .how cultural backgrounds influence perceptions of health and illness

#### **Promoting a commitment to lifelong learning –5:**

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

#### **:Promoting the values of cooperation –6**

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

#### **Developing leadership skills –7:**

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

**Promoting adherence to safety practices –8:**

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

**:Developing a sense of accomplishment –9**

Promoting the value of achieving personal and professional goals, which helps students appreciate their efforts in improving patient health

**Teaching and learning methods**

(In-person lectures)

**●Assessment methods**

**Daily tests, term exams – final exams**

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

**Effective communication skills –1:**

Developing the ability to communicate clearly and effectively with patients and colleagues, which contributes to improving the healthcare experience

**:Problem-solving skills –2**

Enhancing critical thinking and information analysis skills to solve clinical problems that students may encounter while studying pathology

**:Time management –3**

Learn how to manage your time effectively while studying and researching, ensuring you achieve your academic goals

**Critical thinking –4:**

Enhancing the ability to think critically to evaluate information and evidence and select best clinical practices

**:Cooperation and teamwork –5**

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

**Leadership skills –6:**

Encouraging students to develop leadership skills, which helps them to take  
.initiatives and manage teams effectively

**:Adaptability and flexibility –7**

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

**Knowledge of technology –8:**

Improving skills in using technology and medical information to support diagnostic  
.and treatment processes

**Research and analysis skills –9:**

Enhancing the ability to conduct research and analyze studies related to pathology,  
.which helps improve clinical knowledge

**:Documentation skills –10**

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

**Continuous learning –11:**

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

**Stress management –12:**

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

**Course Structure–10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
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Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Introduction: Aims and objects of study of pathology. Definitions of health, disease, causes of disease	Knowledge	Theory 2	the first
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Inflammation & Repair ( Acute inflammation	Knowledge	Theory 2	the second
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Inflammation & Repair (Chronic inflammation)-	Knowledge	Theory 2	the third
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Wound healing by primary & secondary union promoting factors	Knowledge	Theory 2	Fourth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Circulatory disturbances Edema - pathogenesis - types - transudates /exudates. Chronic	Knowledge	Theory 2	Fifth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Neoplastic	Knowledge	Theory 2	Sixth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Bone & Joints	Knowledge	Theory 2	Seventh
Reports, oral and written	Whiteboard,	Bone & Joints PID- Scoliosis - Hemarthrosis - Gout - TB Arthritis -	Knowledge	Theory 2	Eighth

theory exams	PowerPoint slides	degenerative – inflammatory – RA-			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Muscle diseases	Knowledge	Theory 2	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Neuro–muscular junction	Knowledge	Theory 2	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	GIT System	Knowledge	Theory 2	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Urinary	Knowledge	Theory 2	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Deficiency disorders – Vitamins A, B, C, D.	Knowledge	Theory 2	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Growth Disturbance	Knowledge	Theory 2	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Endocrine – Hyperthyroidism – Diabetes. Infections – cutaneous TB, leprosy, alopecia.	Knowledge	Theory 2	fifteenth

**Course Evaluation –11**

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

**12 Learning and Teaching Resources –**

Kumar, V., Abbas, A. K., & Aster, J. C. (2018). <i>Robbins Basic Pathology</i> (10th ed.). Elsevier.	<b>Required textbooks (curriculum (books, if available</b>
Underwood, J., & Cross, S. (2018). <i>General and Systematic Pathology</i> (6th ed.). Elsevier	<b>Main references (sources)</b>
Journal of Pathology	<b>Recommended books and references (scientific journals (...and reports</b>
World Health Organization (WHO) – Pathology & Disease:	<b>Electronic references and websites</b>

**Pharmacology****Course Name –1****PTT208****Course code –2**

<b>Chapter Two / 2025–2026</b>	<b>Semester / Year –3</b>
<b>15/9/2025</b>	<b>Date of preparation of the –4 description</b>
<b>In–person lectures</b>	<b>Available forms of –5 attendance</b>
<b>hours of theory / 2 units 30</b>	<b>Number of credit hours (total) / –6 Number of units (total)</b>
<b>Dr. Ahmed Moussa Khalaf</b>	<b>course coordinator Name of the –7 list all names, if there is more ) (than one</b>
<b>Course Objectives–8</b>	
of pharmacology focus on studying the effects of drugs on 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	
<b>Teaching and learning strategies –9</b>	
<p><b>A. Cognitive objectives</b></p> <p><b>:Understanding the basic principles of pharmacology –1</b> Introducing students to the fundamentals of pharmacology, including basic terms such as drug, drug poisoning, dosage, and efficacy. Understanding the biological processes ) that affect the absorption, distribution, metabolism, and excretion of drugsADME .(</p> <p><b>:Understanding the mechanism of action of drugs –2</b> This study examines the mechanisms of drug action at the cellular, tissue, and organ levels. It also explores the different types of drug receptors and how drugs affect .these receptors to modify physiological activity</p> <p><b>:Interaction between drugs and biological systems –3</b> Understanding how drugs affect different biological systems (such as the central nervous system, cardiovascular system, and immune system). Recognizing potential .drug side effects and how to manage them</p> <p><b>:Developing the ability to use medications safely and effectively –4</b></p>	

Studying the clinical use of medications and how to choose the appropriate dose for each patient based on their health condition. Identifying drug interactions and how to avoid them to ensure safe and effective use of medications.

**:Understanding the principles of toxicology –5**

This course examines the effects of drug overdoses or exposure to toxic substances, and how to treat poisoning. It also explores the risk factors associated with prolonged exposure to drugs and chemicals.

**:Clinical application –6**

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

**.B. The specific skills objectives of the course**

**:Developing skills in selecting appropriate medications –1**

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

The skill of determining the appropriate dose based on patient characteristics (such as age, weight, health condition) and safety criteria

**:Analysis of drug interactions –2**

Gaining the ability to analyze potential interactions between different drugs to avoid harmful reactions

The skill of identifying drug interactions with health conditions (such as liver or kidney disease) and their effect on the required dose

**:Evaluating the side effects of medications –3**

Developing the skill of recognizing the side effects of medications and identifying potential side effects

The ability to adjust treatment based on the patient's response to medication and avoid complications

#### **:Performing dosage calculations –4**

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

The skill of adjusting doses according to changes in patient response or the appearance of side effects.

#### **:Communication with the medical team and the patient .5**

Developing communication skills with members of the medical team to convey drug .information clearly

The ability to provide pharmaceutical advice to patients, including explaining .dosages, treatment duration, **potential side effects and how to deal with them**

#### **:Using modern technologies in prescribing medications –6**

Acquiring the ability to use modern software and technologies to assist in drug .selection and monitoring drug interactions

.Applying modern pharmaceutical information research skills to update knowledge

#### **:Clinical assessment skills –7**

The ability to assess the effectiveness of drug therapy by monitoring the patient's .response and observing improvement

Determining when a patient needs to adjust their treatment plan based on periodic assessment.

#### **:Management of drug poisoning–8**

Acquiring the skill to deal with cases of drug poisoning by identifying symptoms and signs and using appropriateantidotes .

#### **:Continuous learning and analysis of pharmaceutical evidence –9**

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

The ability to apply clinical research findings in daily medical practice to improve .patient care

## Teaching and learning methods

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

## Assessment methods

Daily tests, term exams – final exams

### C. Affective and value-based objectives

#### **:Promoting a sense of moral responsibility –1**

Developing a sense of responsibility towards the safe and effective use of medications to protect patient health and minimize risks associated with drug treatments. Adhering to ethical standards in prescribing medications, including .avoiding over-prescriptions or the inappropriate use of drugs

#### **Appreciating the importance of drug safety –2:**

Instilling a commitment to patient safety through proper medication prescribing practices and monitoring side effects and drug interactions. Promoting awareness of the importance of reporting medication errors and how to manage them to prevent .recurrence

#### **:Commitment to continuous learning –3**

Developing a positive attitude towards lifelong learning and the pursuit of new knowledge in the field of pharmacology, through following clinical studies and the latest scientific research. Recognizing the importance of continuously updating .information on new drugs and developments in pharmacotherapy

#### **:Promoting empathy and concern for patient care –4**

Promoting empathy and personalized attention to each patient's condition by selecting medications that suit their individual health status and listening to their

concerns and questions about treatment. Recognizing 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

**Encouraging compliance with health laws and standards –5:**

Strengthening compliance with health laws and regulations related to medication use, such as prescribing laws and controlled substances. Emphasizing the importance of adhering to clinical pharmacy practice standards and work protocols within healthcare teams

**:Promoting professional and human values –6**

Encouraging students to adopt professional conduct based on integrity and honesty in handling pharmaceutical information and clinical practices. Instilling human values in healthcare delivery, emphasizing the importance of providing effective and safe medication to every patient, regardless of their background or financial means

**:Assessing the integrated interaction between the medical team –7**

Promoting teamwork and collaboration among all members of the medical team to ensure comprehensive and integrated patient care. Recognizing the role of each team member in achieving the best possible patient outcomes through effective cooperation and communication

**Raising awareness of the social risks of the illicit use of medicines –8:**

Raising awareness about the dangers of misusing or taking medications without a prescription, and raising awareness of the associated social and economic harms

**Teaching and learning methods**

(In-person lectures)

● **Assessment methods**

**Daily tests, term exams – final exams**

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

**:Problem-solving skills –1**

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

Enhancing critical thinking to solve problems related to dosages, drug interactions, .and side effects

**:Analytical thinking –2**

The ability to analyze pharmaceutical data and information in a logical way to .understand how drugs work and their effects

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

**:Effective communication –3**

Improving oral and written communication skills to interact effectively with .colleagues in the medical team and patients

The ability to present medical and pharmaceutical information clearly to patients .from different backgrounds in an easy-to-understand way

**:Teamwork and cooperation –4**

Developing skills to work within a multidisciplinary medical team, including collaborating with pharmacists, physicians, and nurses to ensure comprehensive patient care. The ability to share information and coordinate with colleagues to .ensure informed treatment decisions

**Time management skills –5:**

Improving the ability to manage time effectively, both in clinical settings requiring rapid decision-making and in the proper study and application of drug information.

.Prioritizing tasks to ensure timely medication care for each patient

**:Self-learning and personal development –6**

Developing the ability for continuous learning and self-reliance in seeking new pharmaceutical information and updating medical knowledge. Cultivating curiosity and openness to self-learning to continuously improve skills and knowledge

**Leadership and decision-making skills –7:**

Enhancing confidence in clinical decision-making regarding medication prescribing and dosage adjustments based on the patient's medical condition. The ability to take responsibility for drug therapy decisions and ensure their adherence to medical standards

**Using modern technologies –8:**

Developing skills in using medical software and applications that assist in researching drug information and managing prescriptions. Mastering technological tools that facilitate the analysis of clinical data and monitoring patient cases

**Research and scientific thinking skills –9:**

Developing the ability to conduct scientific research and use research methodologies to analyze drug effectiveness and assess associated risks. Improving the skill of accessing and using reliable information sources in medical decision-making

**Flexibility and adaptability –10:**

The ability to adapt to rapid changes in the pharmaceutical field and develop flexibility in dealing with new technological and scientific advancements. Enhancing resilience in the face of diverse medical and pharmaceutical challenges and developing innovative solutions

**Course Structure–10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written	Whiteboard,	Pharmacology – general principles of pharmacology	Knowledge	Theory 2	the first

theory exams	PowerPoint slides				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Drugs acting on cardiovascular system	Knowledge	Theory 2	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Drugs Affecting the Autonomic Nervous system	Knowledge	Theory 2	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Drugs Affecting the central Nervous system – Anxiolytic and hypnotic analgesic	Knowledge	Theory 2	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	General anesthetics: (inhaled) and (intravenous) – local anesthesia	Knowledge	Theory 2	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Drugs affecting the endocrine system, hormones	Knowledge	Theory 2	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Drugs acting on digestive system: antacids – gastric	Knowledge	Theory 2	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	peptic ulcer treatment – laxatives – purgatives – antidiarrheal agents – digestives – antiemetic – antifileutents	Knowledge	Theory 2	Eighth

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Drugs acting on respiratory system	Knowledge	Theory 2	Ninth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Analgesics (non- opioids) – anti- inflammatory drugs – SAIDs and NSAIDs	Knowledge	Theory 2	tenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Antibiotics and antibacterial agents –	Knowledge	Theory 2	eleventh
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Antibiotics and antibacterial agents – classification – spectrum – therapeutic uses – side effects. Antiseptic and disinfectants: types and uses	Knowledge	Theory 2	twelfth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Antiviral Agents – Antifungal – Antiparasitic Agents: Cancer Chemotherapy and immunopharmacology	Knowledge	Theory 2	thirteenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Toxicology: toxic doses – lethal doses – therapeutic index.	Knowledge	Theory 2	fourteenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Revision	Knowledge	Theory 2	fifteenth

**Course Evaluation –11**

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

**12 Learning and Teaching Resources –**

<b>Katzung, B. G., Vanderah, T. W. (2020). <i>Basic and Clinical Pharmacology</i> (15th ed.). McGraw–Hill</b>	<b>Required textbooks (curriculum (books, if available</b>
<b>Benowitz, N. L. (2018). <i>Clinical Pharmacology</i>. McGraw–Hill.</b>	<b>Main references (sources)</b>
<b>European Journal of Pharmacology</b>	<b>Recommended books and references (scientific journals (...and reports</b>
<b>PubMed – Pharmacology Research</b>	<b>Electronic references and websites</b>

Physical therapy for osteopathy	Course Name -1
PTT209	Course code -2
Chapter Two / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of the -4 description
In-person lectures	Available forms of -5 attendance
hours of theory + 45 hours of practical 30 work / 3 units	Number of credit hours (total) / -6 Number of units (total)
Dr. Salam Muhannad Salman	course coordinator Name of the -7 list all names, if there is more ) (than one
<b>8 – Course Objectives</b>	
The goals of physiotherapy in orthopedics relate to promoting healing and improving .the function of muscles, bones, and joints after injuries or surgeries	
<b>Teaching and learning strategies -9</b>	
<p><b>A. Cognitive objectives</b></p> <p><b>:Understanding the scientific foundations of physiotherapy -1</b></p> <p>Introducing students to the basic concepts of physiotherapy and its role in treating .bone and musculoskeletal problems</p> <p>Understanding the physiological and anatomical principles related to the musculoskeletal system and how it is affected by injuries and diseases.</p> <p><b>2- :Understanding bone injuries and diseases</b></p> <p>Studying common bone injuries such as fractures, sprains, and ligament injuries, .and understanding how they affect movement and bodily functions .3</p> <p><b>Understanding</b> chronic bone diseases such as arthritis and osteoporosis and how to manage them using physiotherapy techniques.</p> <p>Understanding a variety of physical therapy techniques such as therapeutic exercises, therapeutic massage, and manual techniques for treating bone diseases</p>	

.and injuries Learn about the methods of using modern electrical and technological devices to enhance physical therapy for bone patients.

**:Understanding the assessment of musculoskeletal condition –4**

Acquiring knowledge related to assessing musculoskeletal condition through motor tests and clinical diagnosis Learn how to use diagnostic tests to determine the extent to which an injury or disease affects movement and the function of muscles and joints.

**5– :Understanding the principles of rehabilitation**

Studying the principles of rehabilitation after orthopedic injuries and surgery, and how to develop appropriate rehabilitation programs to restore strength, flexibility, and motor function Understanding how to monitor the progression of the condition and adjust physical therapy plans based on the patient's progress.

**:managing pain Understanding and –6** Studying the neurological and physiological

.basis of pain and how it affects movement and physical functions Understanding methods of pain control using physical therapy techniques, including therapeutic exercises, manual methods, and cryotherapy or heat therapy.

**:Knowledge of how to prevent injuries–7** Acquiring 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 regarding maintaining bone and joint health and preventing future injuries

**Understanding the –8**

**:role of physiotherapy in improving functional performance**

Understanding how to use physiotherapy to improve physical and functional performance in daily and athletic activities after injuries or surgery Studying how to enhance mobility, flexibility, and strength through appropriate physical therapy programs for each individual case.

**9– :Understanding the psychological and social factors related to treatment**

Identifying the impact of psychological and social factors on rehabilitation and the recovery process Understanding the importance of dealing with patients holistically, including providing them with psychological support and good communication to enhance their commitment to the treatment plan

## **.B. The specific skills objectives of the course**

### **:Assessment of musculoskeletal condition –1**

The ability to perform a complete clinical assessment of patients, including evaluation of muscle strength, joint range of motion, and functional balance. The use of kinesiological and diagnostic tests such as gait testing, mobility assessment, and flexibility tests to identify musculoskeletal problems

### **:Designing individualized treatment plans –2**

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

### **:Applying physiotherapy techniques –3**

Mastering physiotherapy techniques used in orthopedics, such as therapeutic exercises, therapeutic massage, manual therapy, and stretching techniques. Being able to use modern devices and techniques, such as electrotherapy, ultrasound, and laser therapy, to enhance treatment outcomes

### **:Pain management and control –4**

Developing skills in using physiotherapy techniques to manage pain caused by bone injuries or diseases, including therapeutic exercises and heat or cold therapy. Acquiring the ability to assess pain intensity and its impact on the patient's mobility and functional abilities, and to select appropriate methods for pain relief

### **:Providing mobility support and rehabilitation –5**

Skilled in delivering rehabilitation programs following surgeries or musculoskeletal injuries, with a focus on improving strength, flexibility, and balance. The ability to modify treatment programs based on the patient's response and progress to achieve the best possible outcomes

**:Educating the patient and providing preventive advice –6**

Developing communication skills to educate patients about their health condition and how to improve their lifestyle to avoid future injuries. Providing consultations on injury prevention techniques and how to maintain bone and joint health during daily .activities or sports

**:Handling medical instruments and equipment –7**

The ability to use medical tools and devices specific to physical therapy, such as braces and walking aids. The skill to guide patients in using medical devices .appropriate to their condition

**:Performing manual therapeutic interventions –8**

Gaining proficiency in manual interventions such as joint manipulation, mobilization techniques, and deep tissue massage to improve mobility and relieve pain. Using .manual techniques to improve soft tissue flexibility and reduce muscle spasms

**:Monitoring and evaluating the progress of the case –9**

The ability to monitor patient progress through periodic assessments and recording changes in motor skills and physical functions. Adjusting treatment plans based on improvement or changes in the patient's condition to ensure therapeutic goals are .achieved

**:Teamwork skills –10**

Developing the skill of working within a multidisciplinary medical team to ensure the .provision of comprehensive and integrated patient care

The ability to coordinate with physicians, surgeons, and pharmacists to ensure the .best possible outcomes for physiotherapy

**Teaching and learning methods**

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

**Assessment methods**

## Daily tests, term exams – final exams

### C. Affective and value-based objectives

#### **:Promoting a sense of moral and professional responsibility –1**

Promoting adherence to the principles of medical ethics in the provision of physiotherapy, including confidentiality, integrity, and respectful patient treatment. A sense of responsibility towards providing healthcare based on respect for patients' rights and safety.

#### **:Empathy towards patients and concern for their care –2**

Instilling values of empathy towards patients and understanding their emotional and psychological needs during treatment. Developing a humane approach that reflects genuine concern for the patient's health and providing the necessary psychological and moral support throughout the treatment process

#### **:Commitment to continuous learning and self-development –3**

To foster a desire for continuous learning and to update knowledge in the field of physiotherapy and orthopedics to ensure the provision of the best possible healthcare. The student is committed to developing their skills and knowledge in line with the latest scientific and technological advancements in the field

#### **:cooperation Promoting teamwork and a spirit of –4**

Encouraging effective collaboration with members of the medical team and appreciating the role of each specialty in improving the patient's condition  
Developing the ability to work as a team and respect the opinions of colleagues, with a focus on achieving the best therapeutic outcomes for the patient through the exchange of knowledge and experiences

#### **:Appreciating the importance of safety and quality in treatment –5**

Promoting awareness of the importance of providing safe and effective physiotherapy, while adhering to the highest quality standards in patient care.

Strengthening professional safety values and emphasizing the need to minimize .potential risks during treatment

**:Instilling the values of patience and perseverance –6**

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

Promoting the values of perseverance and continuity in monitoring the patient's .progress and ensuring the achievement of therapeutic goals

**:Compliance with health laws and standards –7**

Compliance with health laws and regulations governing physiotherapy practices, including professional standards and evidence–based practices. Fostering a deep understanding of legal rules concerning patient rights and the protection of their .privacy and confidentiality

**:Promoting independence and personal responsibility –8**

Encouraging students to take personal responsibility for making treatment decisions based on a thorough assessment of their condition, and to develop critical thinking skills. Promoting independence in professional practice while maintaining effective .communication with the medical team to ensure the best possible care

**:Adherence to the ethics of scientific research –9**

To raise awareness of the importance of adhering to scientific research ethics in data collection and analysis, while committing to transparency and accuracy when handling information. To encourage respect for the rights of patients and research .participants and to ensure their safety and well–being

**:Promoting awareness of the importance of public health –10**

Instilling values of public health awareness and disease and injury prevention by educating patients and the community about the importance of prevention and self–care. Promoting contributions to improving community health through educational

.programs And raising awareness about the importance of preventing bone and joint  
.injuries

**:Respect for cultural and social diversity –11**

Promoting respect for cultural and social diversity in dealing with patients from different backgrounds, taking into account the differences in cultures and values in providing healthcare. Developing the ability to communicate effectively with patients from different cultures and ensuring equal and equitable care for all.

**:Appreciating personal and professional development –12**

Enhancing the intrinsic value of personal and professional development by improving practical skills and interacting constructively with colleagues. Promoting a .healthy work–life balance to ensure sustained professional success

**Teaching and learning methods**

(In–person lectures)

● **Assessment methods**

**Daily tests, term exams – final exams**

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

**:Critical thinking and problem–solving –1**

The ability to analyze complex medical cases and choose appropriate treatment .methods based on a thorough assessment of the condition

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

**:Effective communication skills –2**

Developing the ability to communicate effectively with patients and medical staff in a clear and professional manner, both verbally and in writing. The ability to explain

complex medical information to patients in simple language and provide  
.consultations in an understandable and supportive way

**:Teamwork and interdisciplinary collaboration –3**

The ability to work effectively within a multidisciplinary medical team and collaborate with various healthcare professionals to ensure optimal patient care. The capacity to interact positively with colleagues and contribute to achieving shared therapeutic  
.goals

**:Time management and task organization –4**

The ability to manage time effectively and handle multiple workloads by prioritizing tasks to ensure timely care delivery. Enhancing personal organizational skills to  
.ensure that work tasks and commitments are completed on schedule

**:Flexibility and adaptability –5**

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

**:Continuous learning and self–development –6**

The ability to adapt to new developments in the fields of physiotherapy and orthopedics through continuous learning and staying up–to–date with the latest research and studies. Enhancing knowledge–seeking skills and applying them to  
.improve professional practice and advance in career paths

**:Leadership and decision–making –7**

Developing leadership skills in situations requiring therapeutic decisions, and taking responsibility for those decisions to ensure patient well–being. The ability to guide  
.work teams and supervise the effective implementation of physiotherapy plans

**:Technological skills –8**

Developing the ability to use modern technology and specialized applications in physiotherapy, such as patient management systems and assessment programs.

Learning how to use advanced physiotherapy equipment and analyze clinical data  
.to improve treatment

**:Independence and initiative –9**

To enhance the ability to work independently and make appropriate treatment decisions based on clinical examinations and assessments. To encourage students to take the initiative in developing new treatment plans or improving existing  
.treatment processes

**Intercultural communication and respect for diversity –10:**

Developing the ability to interact with patients from diverse cultural backgrounds and understand the impact of cultural and social factors on health and treatment.

Promoting respect for cultural diversity and the ability to provide equitable  
.healthcare that considers the needs of all patients

**:Managerial and organizational skills –11**

The ability to organize medical records and monitor the progress of cases in a  
.systematic and effective manner

Acquiring the managerial skills necessary to effectively manage clinics or work in  
.healthcare institutions

**:Research and analytical skills –12**

Acquiring the ability to read and analyze scientific studies and apply their findings to  
.improve therapeutic practices

Learn how to conduct clinical research and evaluate treatment outcomes  
.scientifically and thoughtfully

<b>Evaluation Method</b>	<b>Teaching method</b>	<b>Unit/Topic Name</b>	<b>Required learning outcomes</b>	<b>Hours</b>	<b>Week</b>
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Anatomy of bone	Knowledge and Application	Theory 2 3 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Fractures: Definition, Types of Bone Fracture, Pathophysiology of Bone Healing.	Knowledge and Application	Theory 2 3 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Fractures: Clinical Features, Factors affecting healing, Radiological features	Knowledge and Application	Theory 2 3 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Fractures: Outlines of treatment and prognosis	Knowledge and Application	Theory 2 3 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Fractures: Assessment, Physiotherapy	Knowledge and Application	Theory 2 3 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Fractures: Complications, Rehabilitation	Knowledge and Application	Theory 2 3 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Specific fractures and dislocations	Knowledge and Application	Theory 2 3 + Practical	Seventh

Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Total knee replacement: Definition, Indications, Complications, Pre-operative assessment, Pre-surgical Physiotherapy	Knowledge and Application	Theory 2 3 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Total knee replacement: Post-surgical Physiotherapy, Outcome Measures	Knowledge and Application	Theory 2 3 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Total hip replacement: Definition, Indications, Complications, Surgical Approaches,	Knowledge and Application	Theory 2 3 + Practical	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Total hip replacement: Post-surgical Physiotherapy, Outcome Measures	Knowledge and Application	Theory 2 3 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Shoulder instabilities	Knowledge and Application	Theory 2 3 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Shoulder joint:	Knowledge and Application	Theory 2 3 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Deformities of lower limb	Knowledge and Application	Theory 2 3 + Practical	fourteenth

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Benign and malignant bone tumor:	Knowledge and Application	Theory 2 3 + Practical	fifteenth
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<b>Course Evaluation -11</b>
<b>Student activities and reports, oral and written theoretical and practical exams</b>
-16

<b>12 Learning and Teaching Resources –</b>	
Magee, D. J. (2014). <i>Orthopedic Physical Assessment</i> (6th ed.). Elsevier	Required textbooks (curriculum (books, if available
Brukner, P., & Khan, K. (2016). <i>Brukner &amp; Khan's Clinical Sports Medicine: Injuries, Volume 1</i> (5th ed.). McGraw-Hill	Main references (sources)
Journal of Orthopedic & Sports Physical Therapy (JOSPT)	Recommended books and references (scientific journals (...and reports
American Physical Therapy Association (APTA)	Electronic references and websites

Human anatomy	Course Name -1
PTT210	Course code -2
First semester / 2025-2026	Semester / Year -3

15/9/2025	Date of preparation of the –4 description
In-person lectures	Available forms of –5 attendance
hours of theory + 45 hours of practical 30 work / 3 units	Number of credit hours (total) / –6 Number of units (total)
Dr. Muhannad Imad Majeed	course coordinator Name of the –7 list all names, if there is more ) (than one
<b>Course Objectives–8</b>	
The objectives of the human anatomy course focus on understanding the structure .of the human body, how it is organized, and its functions	
<b>Teaching and learning strategies –9</b>	
<p><b>A. Cognitive objectives</b></p> <p><b>:Understanding the anatomical foundations of the human body –1</b> Gaining basic knowledge of the anatomical structures of the human body, including bones, muscles, blood vessels, nerves, and internal organs. Recognizing the anatomical organization of the human body and its division into systems (such as .the muscular, skeletal, circulatory, and nervous systems</p> <p><b>:Identifying the main organs and their functions –2</b> Understanding the location and function of vital organs such as the heart, lungs, .liver, kidneys, and brain Understanding how these organs interact with each other to maintain the body's .vital functions</p> <p><b>:Studying the anatomical structures in the musculoskeletal system –3</b> This course examines the bones, joints, and major muscles that make up the human skeleton, and understands their role in movement and support. It also explores the relationships between bones and muscles and how they work together .to provide movement</p> <p><b>:Identifying surface anatomy –4</b></p>	

To learn about the body's surface anatomy and identify prominent anatomical structures that can be felt or seen through the skin. To understand how to use surface landmarks in clinical examinations

#### **:Understanding the central and peripheral nervous systems –5**

Studying 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 how different bodily functions are controlled

#### **:Study of the circulatory system and cardiovascular anatomy –6**

Understanding the detailed anatomy of the heart and blood vessels (arteries and veins) and how blood is distributed in the body

Understanding the relationship between the structure of the heart and its function in pumping blood and maintaining blood circulation

#### **:Understanding the respiratory system –7**

The study of the detailed anatomy of the respiratory system, including the nose, trachea, lungs, and diaphragm

Understanding how the respiratory system is organized to complete the process of gas exchange and supply the body with oxygen

#### **:Study of the digestive system –8**

Studying the main components of the digestive system such as the stomach, small and large intestines, liver, and pancreas

Understanding how this system regulates the digestion of food and the absorption of nutrients

#### **:Understanding the urinary and reproductive systems –9**

Learn about the urinary system, including the kidneys, ureters, bladder, and urethra, and their functions in eliminating waste

Studying the male and female reproductive organs and understanding their role in reproduction

#### **Understanding the lymphatic system and the immune system –10:**

Learn about the main components of the lymphatic system, including lymphatic 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 disease

#### **:Acquiring the ability to read anatomical diagrams –11**

Learn how to interpret anatomical drawings and images, including diagrams and cross-sectional anatomy. Be able to connect theoretical information with practical images of human anatomy

**:Recognizing individual anatomical differences –12**

He understood that there are normal anatomical differences between individuals and that these differences may affect diagnosis and treatment

.To understand how anatomical differences can affect medical and clinical practices

**.B. The specific skills objectives of the course**

**:The ability to identify anatomical structures –1**

To acquire the ability to identify the different anatomical structures of the human body through the practical examination of cadavers or anatomical models. To develop the skill of distinguishing between bones, muscles, internal organs, and blood vessels in humans

**:Using anatomical instruments –2**

.Learn how to use anatomical instruments safely and accurately in anatomy studies

Acquiring the skill to perform a simple dissection of tissues and structures to display the anatomical details of different organs and systems

**:Analysis of anatomical medical images–3**

The ability to read and interpret anatomical images such as X-rays, magnetic resonance imaging (MRI) and computed tomography (CT). Learning how to link theoretical information to practical applications by analyzing clinical images of real patients

**:Identifying the basic anatomical sites –4**

Acquiring the skill to identify surface anatomical landmarks and locate important internal structures in the human body

The ability to use this knowledge in clinical examination to locate organs and bones during the physical examination

**:Applying anatomy in clinical contexts –5**

Learn how to use anatomical knowledge to understand clinical conditions, such as fractures, muscle tears, nerve injuries, and other conditions. Develop the ability to interpret the relationship between human anatomy and patient symptoms, which helps in providing appropriate medical care

**:Practical anatomical assessment skill –6**

The ability to conduct a practical assessment of anatomical structures through physical examination or medical imaging techniques

Developing skills in applying clinical examination to assess injuries or anatomical abnormalities in patients

**:Communicating using anatomical terminology–7**

Acquiring the ability to use anatomical terminology accurately in communication with colleagues and healthcare professionals

Improving the ability to clearly describe anatomical structures during medical reporting or clinical discussions

**:technological anatomy Virtual and –8**

Using technology such as 3D applications and virtual reality to study and dissect the human body virtually. The ability to analyze anatomical dimensions and structures in innovative ways using modern technological tools

**:Collaborating within anatomical work teams –9**

Developing teamwork skills while performing dissections or analyzing clinical cases related to dissection

The ability to share knowledge and contribute effectively to medical work teams to provide accurate anatomical analyses

**:Interaction with rare anatomical cases –10**

The ability to deal with anatomical diversity and individual differences, and to adapt to rare or unusual cases

Learn how to identify congenital malformations or abnormal conditions that may .affect anatomical structures

### **Teaching and learning methods**

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

### **Assessment methods**

**Daily tests, term exams – final exams**

### **C. Affective and value-based objectives**

#### **:Promoting values of respect and appreciation for the human body –1**

Developing a deep understanding of the importance of the human body as a value that must be respected and protected, including recognizing the importance of preserving the integrity of tissues and organs. Promoting awareness of the .importance of respecting human privacy when handling anatomical structures

#### **:Encouraging ethical thinking –2**

Developing the capacity for ethical reasoning when dealing with anatomical information, especially when working with cadavers or anatomical models.

Promoting ethical responsibility in the appropriate and equitable use of anatomical .information in medical contexts

#### **:Promoting a spirit of cooperation and participation –3**

Encouraging teamwork and collaboration among students helps foster interpersonal relationships and positive interaction in learning environments. It also promotes the value of knowledge and experience sharing through group discussions and .teamwork

#### **:Positive interaction with patients –4**

Promoting human values in patient care, including empathy, patience, and respect, contributes to improving patient experiences. Developing empathetic communication

skills helps build trusting relationships with patients, contributing to the provision of  
.comprehensive healthcare

**:Taking professional responsibility –5**

To promote the value of adhering to ethical and professional practices in all aspects of healthcare, including education and training. To develop awareness of the importance of taking responsibility for decisions and treatments provided to patients, .and acknowledging the consequences of those decisions

**Social responsibility –6:**

Encouraging awareness of the importance of providing healthcare as part of social responsibility towards the community. Promoting the value of working to improve .public health and raising health awareness within the local community

**:Respecting health laws and standards –7**

Promoting adherence to ethical laws and standards relating to medical and .anatomical practice

Promoting values related to integrity and professionalism in research and study .related to anatomy

**:Enlightened critical thinking –8**

Developing the ability to think critically about ethical issues related to anatomy and the use of anatomical data in medical contexts. Enhancing awareness of the ethical and social implications of using anatomical knowledge in medical research and .practice

**:Commitment to continuous learning –9**

To promote the value of continuous learning and to update knowledge about new .developments in anatomy and health practices

Encouraging students to be curious, to pursue research, and to broaden their .horizons in the field of anatomy

**Teaching and learning methods**

(In-person lectures)

● **Assessment methods**

**Daily tests, term exams – final exams**

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

**:Effective communication skills –1**

Improve your ability to communicate clearly and effectively with colleagues, teachers, and patients, including using medical terminology accurately. Learn how .to present information clearly and smoothly during presentations or lectures

**:Teamwork skills –2**

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

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

**Research and analysis skills –3:**

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

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

**:Time management skills –4**

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

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

**:Critical thinking and problem-solving skills –5**

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

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

**:Leadership skills –6**

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

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

**:Adaptability and flexibility skills –7**

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

.Enhancing resilience in the face of challenges and changes in the medical field

**:Self-learning skills –8**

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

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

**:Health education skills –9**

Enhancing the ability to convey health and anatomical information in a way that  
.promotes understanding by others

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

**Professional Ethics Skills –10:**

Promoting awareness of the importance of ethical conduct in medical and  
.anatomical work

.Developing the skills necessary to deal with ethical issues in healthcare settings

**:Technology skills–11**

Acquire 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

### **:Planning and organizational skills –12**

Developing the ability to plan lessons and projects in an organized and effective .manner

.Improving skills in organizing activities and events related to anatomy and health

### **Course Structure–10**

<b>Evaluation Method</b>	<b>Teaching method</b>	<b>Unit/Topic Name</b>	<b>Required learning outcomes</b>	<b>Hours</b>	<b>Week</b>
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Nervous system: Central Nervous System: Disposition	Knowledge and Application	Theory 2 3 + Practical	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Nervous system: Cerebrum, Cerebellum, Thalamus, Hypothalamus, Internal Capsule, Blood Supply of Brain	Knowledge and Application	Theory 2 3 + Practical	the second
Reports, oral and written theory 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	Theory 2 3 + Practical	the third
Reports, oral and written theory 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	Theory 2 3 + Practical	Fourth

Reports, oral and written theory 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	Theory 2 3 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Nervous system, Autonomic nervous system, its components, Nerve receptors	Knowledge and Application	Theory 2 3 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Spinal cord	Knowledge and Application	Theory 2 3 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Lymphatic system	Knowledge and Application	Theory 2 3 + Practical	Eighth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Respiratory system	Knowledge and Application	Theory 2 3 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Endocrine System	Knowledge and Application	Theory 2 3 + Practical	tenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	genito–urinary system	Knowledge and Application	Theory 2 3 + Practical	eleventh
Reports, oral and written	Whiteboard,	Digestive system	Knowledge and Application	Theory 2 3 + Practical	twelfth

theory exams	PowerPoint slides				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Embryology: Development of bones, axial and appendicular skeleton and muscles,	Knowledge and Application	Theory 2 3 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Embryology: Ovum, Spermatozoa, fertilization and formation of the Germ layers and their derivations	Knowledge and Application	Theory 2 3 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Revision	Knowledge and Application	Theory 2 3 + Practical	fifteenth

### Course Evaluation – 11

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

### 12 Learning and Teaching Resources –

Drake, R. L., Vogl, W., & Mitchell, A. W. M. (2019). <i>Gray's Anatomy for Students</i> (4th ed.). Elsevier	Required textbooks (curriculum (books, if available
Snell, R. S. (2011). <i>Clinical Anatomy by Systems</i> . Lippincott Williams & Wilkins.	Main references (sources)
Journal of Anatomy	Recommended books and references (scientific journals and (...reports
Visible Body – Anatomy Learning Tools	Electronic references and websites

Medical psychology	Course Name -1
MTCD201	Course code -2
Chapter Two / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of the -4 description
In-person lectures	Available forms of -5 attendance
30 Theoretical hour / 2 units	Number of credit hours (total) / -6 Number of units (total)
M.M. Taha Akram Shbeeb	course coordinator Name of the -7 list all names, if there is more ) (than one
<b>Course Objectives-8</b>	
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 illness	
<b>Teaching and learning strategies -9</b>	
<p><b>A. Cognitive objectives</b></p> <p><b>Understanding psychological factors related to health :</b> Studying how -1 emotions and behaviors affect patients' health and improve physical therapy outcomes</p> <p><b>Developing psychological assessment skills:</b> Enabling students to assess the -2 .psychological state of patients and how it affects their physical treatment</p> <p><b>Teaching coping strategies:</b> Providing techniques to help patients cope with -3 .pain and anxiety, and enhance their ability to adapt to their health conditions</p> <p><b>Enhancing interaction between practitioners and patients:</b> Understanding -4 the importance of effective communication and how it can affect treatment .outcomes</p>	

**Exploring the psychological effects of illness and injury:** Studying how –5  
.injuries or chronic illnesses affect the psychological state of patients

**awareness:** Enhancing understanding of how cultural and **Improving cultural** –6  
.social factors influence mental health and therapeutic behaviors

**Applying psychological theories in physiotherapy:** Studying how to use –7  
.psychological principles to improve therapeutic techniques

**Guiding patients towards a healthy lifestyle:** Providing the necessary –8  
.knowledge to help patients make healthy decisions that promote their recovery

## **.B. The specific skills objectives of the course**

**Effective communication skills:** Enhancing the ability to communicate –1  
effectively with patients, including active listening, expressing empathy, and asking  
.appropriate questions to understand their needs

**the psychological state:** Developing skills to assess the **Assessing** –2  
psychological state of patients through psychological assessment tools and  
.observation, and identifying factors that may affect their therapeutic progress

**Applying coping strategies:** Learn how to use techniques such as relaxation, –3  
mental imagery, and breathing techniques to help manage anxiety and pain in  
.patients

**Developing comprehensive treatment plans:** Learning how to integrate –4  
psychological knowledge with physical therapy plans, so that they include both  
.psychological and physical aspects of treatment

**Dealing with cases of psychological stress :** Acquiring skills to deal with –5  
patients suffering from psychological stress or depression and the effect of this on  
.the recovery process

**Developing leadership and teamwork skills:** Enhancing the ability to work –6  
.effectively within a multidisciplinary team, including doctors and psychologists

**Training in providing psychological support:** Learning how to provide –7  
psychological support to patients and their families during the different stages of  
.treatment

**Analyzing behaviors and interacting with patients:** Acquiring the ability to –8  
analyze behaviors and interact in ways that support improving the mental and  
physical health of patients

### Teaching and learning methods

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

### Assessment methods

Daily tests, term exams – final exams

### C. Affective and value-based objectives

**Promoting empathy and compassion:** Developing a sense of empathy for –1  
patients and understanding their psychological and physical experiences, which  
.enhances the quality of care provided

**Respecting cultural diversity:** Promoting the values of respecting cultural and –2  
social diversity and recognizing the importance of differences in how cultural factors  
.affect mental health

**Promoting ethical values:** Teaching students ethical values related to privacy, –3  
.confidentiality, and respect in dealing with patients and their health information

**Promoting social responsibility:** Encouraging students to be socially –4  
responsible by providing psychological support to the community and sharing  
.psychological knowledge to improve public health

**professional commitment:** Promoting the values of commitment to **Promoting** –5  
professional quality and ethics in providing healthcare, including the commitment to  
.achieving positive patient outcomes

**Developing self-awareness:** Encouraging students to reflect on their feelings –6  
and personal experiences and how these affect their professional practice and  
.interaction with patients

**Promoting teamwork and cooperation:** Encouraging values related to –7  
.teamwork and cooperation between different disciplines in providing healthcare

**Encouraging lifelong learning:** Promoting the value of lifelong learning and –8  
personal and professional development to keep up with the latest developments in  
.the field of medical psychology and physical therapy

## Teaching and learning methods

(In-person lectures)

## ● Assessment methods

Daily tests, term exams – final exams

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

**Effective communication skills:** The ability to express ideas clearly and listen –1  
.to others, which facilitates interaction with patients and colleagues

**Critical thinking skills:** Developing the ability to analyze information, make –2  
.informed decisions, and solve problems in clinical contexts

**Adapting to changes:** The ability to adapt to different work environments and –3  
.rapid changes in the healthcare field

**Organizational and time management skills:** Developing the ability to manage –4  
.time effectively, organize tasks, and prioritize to achieve goals

**development skills:** The ability to search for new information, **Research and** –5  
evaluate sources, and apply them in practical contexts to improve therapeutic  
.practices

**Technological skills:** Enhancing the ability to use modern technology in –6  
 .treatment and healthcare, including the use of medical software and devices

**Leadership Skills:** Developing leadership skills that help in guiding teams and –7  
 .working collectively to achieve common goals

**Creative thinking skills:** Enhancing the ability to think creatively in order to –8  
 .develop new solutions to the challenges you may face in the field of physiotherapy

**Social skills:** Improving the ability to build relationships and enhance –9  
 .cooperation with individuals from different backgrounds and disciplines

**continuous development:** Promoting the importance of **Self-learning and** –10  
 self-learning and continuous development as part of a successful career path

### Course Structure–10

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Introduction to the science of psychology	Knowledge	Theory 2	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Schools of thoughts in psychology – Gestalt psychology – psychoanalysis	Knowledge	Theory 2	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Humanistic psychology – Behaviorism	Knowledge	Theory 2	the third
Reports, oral and written	Whiteboard,	Mental process: Memory – Forgetting – Thinking – Language	Knowledge	Theory 2	Fourth

theory exams	PowerPoint slides				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Senses – Attention – Imagination	Knowledge	Theory 2	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The Structural Model of Personality	Knowledge	Theory 2	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Psychological Defense Mechanisms	Knowledge	Theory 2	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Methods of Study in Psychology	Knowledge	Theory 2	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The psychological causes for the appearance of disorder	Knowledge	Theory 2	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The psychosomatic disorder: Hypochondriasis – Somatization disorder	Knowledge	Theory 2	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The doctor – patients relationship – medical consultation	Knowledge	Theory 2	eleventh

Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Psychotherapy – Medical applications of psychotherapy	Knowledge	Theory 2	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Biological base of behavior	Knowledge	Theory 2	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Suicide: The etiology of suicide	Knowledge	Theory 2	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Drug Addiction	Knowledge	Theory 2	fifteenth

### Course Evaluation –11

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

### 12 Learning and Teaching Resources –

Taylor, S. E. (2017). *Health Psychology* (10th ed.). McGraw-Hill.

Required textbooks (curriculum (books, if available

Lloyd, G. G., & Bor, R. (2009). *Practical Medical Psychology*. Springer.

Main references (sources)

Psychosomatic Medicine	Recommended books and references (scientific journals (...and reports
PubMed – Medical & Health Psychology Research:	Electronic references and websites
metabolism	Course Name –1
MTCD202	Course code –2
First semester / 2025–2026	Semester / Year –3
15/9/2025	Date of preparation of the –4 description
In–person lectures	Available forms of –5 attendance
hours of theory + 30 hours of practical work / 30 work / 3 units	Number of credit hours (total) / –6 Number of units (total)
Dr. Ghaith Muhannad Salman	course coordinator Name of the –7 list all names, if there is more ) (than one
<b>Course Objectives–8</b>	
It focuses on studying how the body processes food and uses it to produce energy .and support various bodily functions	
<b>Teaching and learning strategies –9</b>	
<b>A. Cognitive objectives</b> <b>Understanding metabolic processes:</b> Enabling students to understand how –1 food metabolism occurs in the body, including the metabolic processes of fats, .carbohydrates, and proteins <b>Applying nutritional knowledge:</b> Teaching students how to apply nutritional –2 .knowledge to improve athletic performance and the general health of patients <b>Nutritional status assessment:</b> Training students on how to assess the –3 .nutritional status of patients and use the necessary tools for this	

**Nutritional planning:** Enabling students to design appropriate nutritional plans –4  
.that meet the needs of patients in different treatment conditions

**Understanding the effect of nutrition on healing:** Studying how proper –5  
.nutrition affects the healing and recovery process from injuries

ability to educate patients about the **Nutrition education:** Enhancing the –6  
importance of proper nutrition and how to achieve it in their daily lives

### **.B. The specific skills objectives of the course**

**Nutritional Data Analysis:** Developing students' skills in analyzing nutritional –1  
.information, including reading food labels and understanding food contents

**Nutritional status assessment:** Acquiring the ability to conduct a –2  
comprehensive assessment of patients' nutritional status using tools such as  
.questionnaires and physical scales

**Meal planning:** Learn how to design customized meal plans that suit patients' –3  
.needs, including calculating calories and nutrients

skills to guide patients on choosing **Patient guidance:** Improving communication –4  
.healthy foods and how to improve their eating habits

**Implementing nutritional programs:** Acquiring the ability to implement diverse –5  
.nutritional programs that suit the different conditions of patients

**Using technology:** Developing skills in using technological programs and –6  
.applications that help in tracking the diet and planning meals

**Research Analysis:** Acquiring skills in analyzing research and studies related to –7  
.nutrition and understanding their impact on clinical practice

**Assessing the effects:** Learn how to evaluate the impact of dietary changes on –8  
.physical performance and injury recovery

### **Teaching and learning methods**

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

### **Assessment methods**

**Daily tests, term exams – final exams**

**C. Affective and value-based objectives**

**Appreciating the importance of nutrition:** Promoting the value of proper –1  
.nutrition as an essential element for maintaining health and well-being

**diversity:** Developing students' awareness of the **Respecting dietary** –2  
.importance of dietary diversity and respecting different cultures in food practices

**Promoting professional responsibility:** Developing a sense of responsibility –3  
towards providing sound and appropriate nutritional advice to patients, taking into  
.account their individual needs

**Developing empathy:** Enhancing empathy skills and the ability to understand –4  
.patients' needs and provide emotional support in relation to lifestyle changes

**Encouraging personal commitment:** Promoting the value of personal –5  
commitment by adopting healthy eating habits in the lives of the students  
.themselves as a role model for the patients

**Ethical awareness:** Promoting awareness of ethical values in the provision of –6  
food services, including respecting patient privacy and taking into account their  
.cultural differences

**Promoting teamwork:** Developing the value of cooperation and teamwork –7  
.among specialists in different fields to improve patient health outcomes

**Appreciating the importance of lifelong learning:** Encouraging students to –8  
continue learning and self-development in the field of nutrition and health

**Teaching and learning methods**

(In-person lectures)

● **Assessment methods**

**Daily tests, term exams – final exams**

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

**Communication skills:** Improving the ability to communicate effectively with –1 patients, colleagues, and family members, including active listening and expressing .ideas clearly

**Teamwork skills:** Developing the ability to work within a multidisciplinary team, –2 .which promotes collaboration and leads to better patient outcomes

**Critical thinking skills:** Enhancing the ability to analyze information and make –3 evidence–based decisions, enabling students to provide effective nutritional .recommendations

**Time management skills:** Acquiring time management and prioritization skills to –4 .ensure the achievement of academic and professional goals

**Research and analysis skills:** Developing the ability to conduct research, –5 .analyze data, and evaluate scientific studies related to nutrition and metabolism

**Innovative problem–solving skills:** Enhancing the ability to think creatively –6 and provide innovative solutions to challenges that nutrition and physical therapy .professionals may face

**Self–learning skills:** Encouraging students to develop continuous learning and –7 .self–assessment skills to ensure the improvement of their professional level

ability to adapt to changes in different work **Adaptability skills:** Enhancing the –8 .environments and respond positively to challenges

**Course Structure–10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written	Whiteboard,	Metabolism	Knowledge and Application	Theory 2 2 + Practical	the first

theory exams	PowerPoint slides				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Enzymes	Knowledge and Application	Theory 2 + Practical	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Michaels – Menten theory	Knowledge and Application	Theory 2 + Practical	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Carbohydrates Metabolism	Knowledge and Application	Theory 2 + Practical	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Lactic Acid Fermentation	Knowledge and Application	Theory 2 + Practical	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Citric and cycle /TCA cycle / Krebs cycle	Knowledge and Application	Theory 2 + Practical	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The electron transport chain	Knowledge and Application	Theory 2 + Practical	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Fructose Metabolism	Knowledge and Application	Theory 2 + Practical	Eighth

Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Galactose Metabolism	Knowledge and Application	Theory 2 2 + Practical	Ninth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Glycogen metabolism	Knowledge and Application	Theory 2 2 + Practical	tenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Protein metabolism	Knowledge and Application	Theory 2 2 + Practical	eleventh
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Protein Synthesis	Knowledge and Application	Theory 2 2 + Practical	twelfth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Lipid Metabolism	Knowledge and Application	Theory 2 2 + Practical	thirteenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Cholesterol metabolism	Knowledge and Application	Theory 2 2 + Practical	fourteenth
Reports, oral and written theory exams	Whiteboard,  PowerPoint slides	Nucleotide metabolism	Knowledge and Application	Theory 2 2 + Practical	fifteenth

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

**12 Learning and Teaching Resources –**

Nelson, D. L., & Cox, M. M. (2017). <i>Lehninger Principles of Biochemistry</i> (7th ed.). WH Freeman	Required textbooks (curriculum (books, if available
Brody, T. (1999). <i>Nutritional Biochemistry</i> (2nd ed.). AcademicPress.	Main references (sources)
American Journal of Clinical Nutrition (AJCN)	Recommended books and references (scientific journals (...and reports
World Health Organization (WHO) – Nutrition	Electronic references and websites

Crimes of the Ba'ath regime in Iraq	Course Name –1
NTU203	Course code –2
Chapter One / 2025–2026	Semester / Year –3
15/9/2025	Date of preparation of the –4 description
In–person lectures	Available forms of –5 attendance
30 Theoretical hour / 2 units	Number of credit hours (total) / –6 Number of units (total)
Dr. Shaimaa Ibrahim Taha	course coordinator Name of the –7 list all names, if there is more ) (than one

**8 – Course Objectives**

It focuses on studying the crimes and practices committed by the Ba'ath regime in .Iraq during its rule

## Teaching and learning strategies –9

### A. Cognitive objectives

**Understanding the historical context:** Identifying the political and social –1  
conditions that led to the emergence of the Ba'ath regime in Iraq and how this  
.affected the country

**Analysis of violations :** Studying the crimes committed by the regime, such as –2  
.genocide, torture, and arbitrary arrests, and their effects on Iraqi society

**Assessment of the effects:** Evaluating the psychological, social and economic –3  
.effects of the crimes committed by the Baath regime on individuals and society

**Promoting awareness of rights:** Enhancing understanding of human rights and –4  
relevant international laws, and how they can be used to hold those responsible for  
.these crimes accountable

**Studying Transitional Justice:** Identifying the transitional justice and –5  
reparations initiatives undertaken after the fall of the regime and how they affect  
.national reconciliation

documents and testimonies related **Evidence Analysis:** Learn how to analyze –6  
.to crimes, and understand the importance of archiving and historical documentation

**Enhancing critical thinking:** Developing critical thinking skills by analyzing and –7  
interpreting information and evidence related to crimes within their historical and  
.political context

### .B. The specific skills objectives of the course

**Promoting empathy:** Developing the ability to empathize with victims and their –1  
families, and to understand their suffering resulting from the violations committed by  
.the regime

**Raising awareness of human values:** Promoting the values of justice, equality, –2  
and respect for human rights, and recognizing the importance of protecting these  
.values in societies

**cultural diversity:** Promoting appreciation of cultural and religious **Appreciating** –3  
diversity in Iraq, and understanding how violations affect relations between different  
.communities

**Stimulating critical moral thinking:** Encouraging students to think critically –4  
.about moral issues related to crimes, such as individual and collective responsibility

**Developing a sense of responsibility:** Promoting a sense of responsibility –5  
.towards social change and contributing to building a more just society

**Enhancing the ability to participate effectively :** Encouraging students to –6  
participate in activities that support human rights and reconciliation, such as  
.community awareness and education

**Dealing with pain and loss:** Providing spaces to talk about the pain and loss –7  
resulting from violations, which contributes to individual and collective healing  
.processes

#### **Teaching and learning methods**

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

#### **Assessment methods**

**Daily tests, term exams – final exams**

#### **C. Affective and value-based objectives**

**Developing empathy:** Enhancing the ability to understand the feelings of –1  
.victims and their families, which helps students connect with human suffering

**Awareness of psychological effects:** Recognizing the psychological and social –2  
impacts of violations on individuals and communities, which promotes a deep  
.understanding of the psychological consequences of crimes

**Encouraging emotional critical thinking:** Enhancing the ability to think –3  
critically about emotional experiences related to crimes, and how they can affect the  
.formation of individual and collective identity

**Appreciating individual experiences:** Promoting the importance of listening to –4  
the personal experiences of survivors, which contributes to building a culture of  
.respect and appreciation

**Promoting human rights values:** Emphasizing the importance of human rights –5  
as a basis for protecting human dignity, and promoting awareness of the need to  
.defend them

**Promoting justice and equality:** Strengthening the values of justice and –6  
equality, and emphasizing the importance of holding those responsible for crimes  
.accountable

**Appreciating peace and reconciliation :** Encouraging values related to peace –7  
and reconciliation, and supporting the importance of building a society characterized  
.by tolerance and mutual respect

**Promoting a commitment to active citizenship:** Motivating students to actively –8  
participate in society by working to promote human rights and contributing to  
.building a more just society

## Teaching and learning methods

(In-person lectures)

## ● Assessment methods

Daily tests, term exams – final exams

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

**:Research and analysis skills –1**

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

**:Communication skills –2**

Effective communication: Developing the ability to express ideas clearly, both in  
.writing and orally, including giving presentations and participating in discussions

Active listening: Enhancing listening skills to understand other people's perspectives  
.and appreciate different experiences

**:Critical thinking skills –3**

Critical evaluation: The ability to think critically about information and ideas, which  
.helps in making informed decisions

Ethical analysis: Understanding the ethical aspects of historical and societal issues  
.related to crimes

**:Teamwork skills –4**

Collaboration: Enhancing the ability to work within multidisciplinary teams,  
contributing to the development of collaborative projects that reflect a diverse  
.understanding of the issues

Conflict resolution: Learn how to deal with conflicts constructively and achieve  
.positive outcomes

**:Self-management skills .5**

Planning and organization: The ability to develop personal and academic plans to  
.achieve goals effectively

Time management: Developing time management skills to ensure a balance  
.between studying and other activities

**:Creative thinking skills –6**

Innovating solutions: Developing the ability to think outside the box and find new  
.solutions to complex problems

Project development: The ability to conceive and design projects aimed at raising awareness about human rights issues

**:Cultural and social skills –7**

Cultural awareness: Promoting an understanding of cultural and religious diversity in Iraqi society, which fosters understanding and tolerance

Social responsibility: Promoting a sense of responsibility towards society and participating in initiatives that promote human rights and reconciliation

**:Technology skills–8**

Technology utilization: The ability to use modern technology in research and communication, such as using digital tools to collect and analyze information

**Course Structure–10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Violations of rights and freedoms	Knowledge	Theory 2	the first
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	A descriptive overview of the political systems in Iraq (1921–2003	Knowledge	Theory 2	the second
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Ba'athist regime's violations of public rights and freedoms	Knowledge	Theory 2	the third
Reports, oral and written	Whiteboard,	The impact of the Ba'athist regime's behavior on society	Knowledge	Theory 2	Fourth

theory exams	PowerPoint slides				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The impact of the transitional phase on combating authoritarian politics	Knowledge	Theory 2	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Psychological field	Knowledge	Theory 2	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Social field	Knowledge	Theory 2	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Religion and State	Knowledge	Theory 2	Eighth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Culture, media, and the militarization of society	Knowledge	Theory 2	Ninth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The impact of oppression and wars on the environment and population	Knowledge	Theory 2	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The use of internationally prohibited weapons and environmental pollution	Knowledge	Theory 2	eleventh
Reports, oral and	Whiteboard,	scorched earth policy	Knowledge	Theory 2	twelfth

written theory exams	PowerPoint slides				
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Marsh draining and forced migration	Knowledge	Theory 2	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Destruction of the agricultural and animal environment and radioactive pollution	Knowledge	Theory 2	fourteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Mass graves and the bombing of places of worship	Knowledge	Theory 2	fifteenth

### Course Evaluation –11

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

### 12 Learning and Teaching Resources –

Al-Rubaie, Hassan (2009). <i>Baathist Crimes: Testimonies and Documents</i> . Dar Al-Jamal	Required textbooks (curriculum (books, if available
Tripp, C. (2007). <i>A History of Iraq</i> (3rd ed.). Cambridge University Press.	Main references (sources)
Human Rights Watch Reports on Iraq	Recommended books and references (scientific journals (...and reports
United Nations – Archive of Crimes Against Humanity	Electronic references and websites

Professional ethics	Course Name -1
NTU204	Course code -2
Chapter Two / 2025-2026	Semester / Year -3
15/9/2025	Date of preparation of the -4 description
In-person lectures	Available forms of -5 attendance
30 Theoretical hour / 2 units	Number of credit hours (total) / -6 Number of units (total)
Dr. Shaimaa Ibrahim Taha	course coordinator Name of the -7 list all names, if there is more ) (than one
8- Course Objectives	

It focuses on fostering a deep understanding of the values and ethical principles that individuals should adopt in their fields of work

## Teaching and learning strategies –9

### A. Cognitive objectives

#### **:A1 – Understanding basic ethical principles**

To learn about key ethical values and principles such as integrity, confidentiality, and respect, and how to apply them in the field of physiotherapy. To understand the therapist's responsibility towards patients, colleagues, and the community

#### **:Familiarization with professional laws and standards –2**

Understanding the laws and regulations relevant to the practice of physiotherapy, including those governing the profession and patient care. Familiarity with the established professional standards and regulations that define how to practice the profession safely and responsibly

#### **:Analyzing ethical issues in healthcare –3**

The 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. Understanding how to handle ethically difficult situations using an ethical framework

#### **Distinguishing between rights and duties –4:**

Understanding patients' rights and therapists' duties, including the right to privacy, information, and access to appropriate treatment

#### **:Enhancing critical thinking –5**

Developing critical thinking skills to analyze ethical situations and make ethically sound professional decisions. The ability to recognize the ethical consequences of decisions and actions taken in physiotherapy practice

#### **Understanding professional relationships –6:**

Understanding the importance of building professional relationships based on mutual respect and trust between therapists, patients, and colleagues. Exploring how ethical values can impact the quality of healthcare and professional relationships

#### **:Understanding the ethics of scientific research –7**

Understanding the ethical principles associated with scientific research in the field of physiotherapy, including how to respect the rights of research participants and .ensure transparency and integrity in presenting results

**:Promoting responsible professional practices –8**

Understanding the importance of responsible professional practices and how to ensure compliance with ethical standards in all aspects of work; studying how to .deal with ethical violations and report them when necessary

**.B. The specific skills objectives of the course**

**:making skills–Ethical decision –1**

Developing the ability to make sound ethical decisions when dealing with complex .professional situations

The ability to use an ethical framework to analyze and evaluate the options .available in situations that require an ethical solution

**:Effective communication skills –2**

Enhance oral and written communication skills with patients and colleagues, while upholding ethical values such as honesty and respect. Be able to explain complex ethical decisions to patients in a clear and understandable manner, respecting the .patient's right to participate in decisions concerning their care

**:Conflict resolution skills –3**

Learn how to handle ethical and professional conflicts effectively and constructively. Develop the ability to negotiate and reach solutions that satisfy all parties involved, .while maintaining a commitment to ethical values

**:Confidentiality and information protection skills –4**

Developing the ability to handle patients' personal and sensitive information in a .way that respects privacy and confidentiality

Learn how to store and process medical information in a secure manner that .complies with legal and ethical standards

**:Skills for dealing with complex cases –5**

The 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 while taking into account ethical and humanitarian considerations in dealing with different patients, especially sensitive or .vulnerable cases

**:Cooperation and teamwork skills .6**

Developing teamwork skills with the medical team and allied health professionals in a healthcare setting, while respecting ethical considerations in interactions with colleagues. Enhancing the ability to offer assistance and advice to colleagues .regarding ethical issues

**Teaching and learning methods**

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

**Assessment methods**

**Daily tests, term exams – final exams**

**C. Affective and value-based objectives**

**:empathy towards patients Promoting –1**

Developing students' ability to understand and empathize with patients' feelings and pain, thus fostering human connection and personalized care. Instilling the importance of respecting patients' feelings and providing care that considers their .emotional and psychological needs

**:Developing a sense of moral responsibility –2**

To promote a sense of responsibility towards patients and the community in all .aspects of professional practice

Instilling a commitment to providing medical care ethically and transparently, and  
.keeping the patient's best interests above all else

**:Enhancing self-confidence in making ethical decisions –3**

Developing a sense of self-confidence in students when faced with situations that  
.require complex ethical decisions

Instilling belief in the importance of making decisions based on ethical and  
.professional principles

**:Developing moral sensitivity –4**

To increase students' awareness of cultural and ethical sensitivities when interacting  
with patients from diverse social, religious, and cultural backgrounds. To promote  
awareness of the importance of respecting the values and beliefs of patients and  
.colleagues

**:Encouraging personal commitment to continuous improvement –5**

Promoting awareness of the importance of continuous personal development in the  
.field of professional ethics

Fostering a desire for self-improvement and continuous learning to ensure a higher  
commitment to ethical standards

**Teaching and learning methods**

(In-person lectures)

● **Assessment methods**

**Daily tests, term exams – final exams**

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

**:Effective communication skills –1**

The ability to communicate clearly and effectively with patients, colleagues, and members of the medical team. Improving active listening skills to better address patients' problems and understand their needs. The ability to provide detailed and .clear explanations of complex ethical issues

**:Critical thinking and problem-solving skills -2**

Developing critical thinking skills to analyze complex ethical situations and provide .solutions based on professional values

The ability to make well-informed and sound decisions when faced with ethical and professional challenges at work.

**:Teamwork and cooperation skills -3**

Enhance the ability to work effectively as part of a multidisciplinary team, contributing to improved overall healthcare. Learn how to manage conflicts and .solve problems collaboratively while upholding ethical values

**:Self-management and organizational skills -4**

Developing the ability to organize time and tasks efficiently to ensure the delivery of .healthcare in a professional and sustainable manner

Improving stress management skills and resilience in dealing with difficult and .complex situations in the work environment

**:Empathy and emotional communication skills .5**

The ability to show empathy and respect for the feelings of patients and colleagues, .which fosters trust and positive interaction

Developing emotional intelligence to understand and respond appropriately to the .emotional reactions of others

**:Ethical leadership skills -6**

Developing the ability to be a role model in ethical conduct and contribute to fostering a culture of integrity and transparency in the workplace. The ability to

guide colleagues and vocational trainees on how to handle ethical situations

.responsibly

**:Continuous learning and professional development skills –7**

Enhancing the ability to learn continuously to keep pace with changes in ethical and

.professional standards

Developing a sense of initiative to seek opportunities for self–improvement and

.development in professional and ethical fields

**:Adaptability and flexibility skills –8**

The ability to adapt to changing circumstances and new professional situations that

.may require different ethical decisions

Improving skills in dealing with unexpected situations and maintaining ethical

.behavior at all times

**:Skills for providing ethical advice –9**

The ability to provide advice and counsel to colleagues on ethical issues based on

.professional principles

Improving mentoring skills and participating in developing ethical solutions to

professional conflicts

**Course Structure–10**

Evaluation Method	Teaching method	Unit/Topic Name	Required learning outcomes	Hours	Week
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Principles of professional ethics in the stages of civilizational development	Knowledge	Theory 2	the first
Reports, oral and written	Whiteboard, PowerPoint slides	Principles of professional ethics in Arab and Islamic civilization	Knowledge	Theory 2	the second

theory exams					
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Professional conduct: its definition, concept, practical applications, and the relationship between employees and their .superiors	Knowledge	Theory 2	the third
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Basic professional ethics	Knowledge	Theory 2	Fourth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Characteristics of professional ethics as a guide and mentor for behavior	Knowledge	Theory 2	Fifth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Characteristics and attributes of healthcare workers: appearance, behavior, and commitment	Knowledge	Theory 2	Sixth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	The patient's moral and legal rights, and how to deal with and treat the patient and their companions according to their .behavior	Knowledge	Theory 2	Seventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Patterns Behavioral/Humanistic c Its definition, nature, motives, and interpretations	Knowledge	Theory 2	Eighth
Reports, oral and written	Whiteboard,	Communication methods / linguistic and non-linguistic	Knowledge	Theory 2	Ninth

theory exams	PowerPoint slides	Definition, types, effects Designing successful communication methods			
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	How do communication styles affect listening ?behavior	Knowledge	Theory 2	tenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Behavioral trends and tendencies Its definition, classification, influencing factors, and methods of .measurement	Knowledge	Theory 2	eleventh
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Personality types and how to deal with them	Knowledge	Theory 2	twelfth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Defining personality, its types, and its relationship to profession The techie's personality and characteristics	Knowledge	Theory 2	thirteenth
Reports, oral and written theory exams	Whiteboard, PowerPoint slides	Conditions for professional compatibility and the associated employment relationship: its concept, conditions, and poor professional .availability	Knowledge	Theory 2	fourteenth
Reports, oral and written	Whiteboard,	Patient interaction behavior includes receiving the patient,	Knowledge	Theory 2	fifteenth

theory exams	PowerPoint slides	dealing with them, gaining their trust, and maintaining professional .confidentiality			
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<b>Course Evaluation – 11</b>
<b>Student activities and reports, oral and written theoretical and practical exams</b>

<b>12 Learning and Teaching Resources –</b>	
Beauchamp, T. L., & Childress, J. F. (2019). <i>Principles of Biomedical Ethics</i> (8th ed.). Oxford University Press	<b>Required textbooks (curriculum (books, if available</b>
Banks, S. (2016). <i>Ethics and Values in Social Work</i> (4th ed.). Palgrave	<b>Main references (sources)</b>
Journal of Medical Ethics	<b>Recommended books and references (scientific journals (...and reports</b>
American Medical Association (AMA) – Code of Ethics	<b>Electronic references and websites</b>