Form: Course Syllabus		
	Form Number	EXC-01-02-02A
	Issue Number and Date	2/3/24/2022/2963 05/12/2022
	Number and Date of Revision or Modification	
	Deans Council Approval Decision Number	2/3/24/2023
	The Date of the Deans Council Approval Decision	23/01/2023
	Number of Pages	06

1.	Course Title	**Musculoskeletal assessment**
2.	Course Number	**1801207**
3.	Credit Hours (Theory, Practical)	**1 practical**
	Contact Hours (Theory, Practical)	**4 practical**
4.	Prerequisites/Corequisites	**(0532108) Anatomy of extremities and Trunk**
5.	Program Title	**B.Sc. in Physiotherapy**
6.	Program Code	**1801**
7.	School/Center	**Rehabilitation Sciences**
8.	Academic Department	**Physiotherapy**
9.	Course Level	**Undergraduate/ Second year**
10.	Year of Study/Semester	**2024/2025 – First semester**
11.	Program Degree	**Bachelor**
12.	Other Departments involved in Teaching the course	**None**
13.	Main Teaching Instruction	**English**
14.	Learning Types	**✓Face to Face ☐ Blended ☐ Fully Online**
15.	Online Platform(s)	**✓Moodle ✓Microsoft Teams**
16.	Issuing Date	**Oct - 2025**
17.	Revision Date	**Oct – 2025**

18. Course Coordinator

Name: Jennifer Muhaidat	Contact hours: Monday & Wednesday 11:30-12:30
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Email: j.muhaidat@ju.edu.jo	Teams account: Jennifer Muhaidat

19. Other Instructors

Name: Abd Al-Razaq Al-Hadid	Contact hours:

Office number:	Phone number:
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Name: Yasmeen Nafe'a	Contact hours:
Office number:	Phone number:
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20. Course Description

This is a practical course that introduces the students to the principles and practical application of musculoskeletal assessment. Students will apply the practical techniques of range of motion and manual muscle testing.

21. Program Learning Outcomes

Program Learning Outcomes Descriptors (PLOD)

PLO	National Qualification Framework Descriptors*		
	Knowledge (A)	Skills (B)	Competency (C)
PLO 1. Develop and integrate knowledge from foundational courses; including basic sciences, medical sciences, and research methods to reflect on rehabilitation sciences practice.	☒	☐	☐
PLO 2. Demonstrate knowledge of fundamentals of physiotherapy.	☒	☐	☐
PLO 3. Apply adequate physiotherapy techniques and skills according to professional standards of physiotherapy practice.	☐	☐	☒
PLO 4. Promote healthy lifestyle and convey health messages to clients.	☐	☐	☒
PLO 5. Compose effective oral and written communication for clinical and professional purposes including the use of information technology resources.	☐	☐	☒
PLO 6. Operate within interprofessional teams of healthcare providers, clients, communities, and organizations in traditional and emerging practices and illustrate the qualities of a lifelong learner.	☐	☐	☒
PLO 7. Apply leadership and management skills to advance Jordan and the global community scientifically, socially, and technologically in rehabilitation sciences.	☐	☐	☒
PLO 8. Generate scientific research that advances rehabilitation practices locally and globally.	☐	☐	☒

PLO 9. Implement clinical reasoning, reflection and decision-making to deliver evidence-based physiotherapy practice, adhering to ethical principles to promote inclusion, participation, safety, and wellbeing for all clients.	☐	☐	☒
PLO 10. Exercise autonomy while appreciating the challenges associated with delivering physiotherapy services.	☐	☐	☒

*Choose only on descriptor for each PLO; either knowledge, or skills, or competencies.

22. Course Learning Outcomes: By the end of this course, the student is expected to achieve the following Learning outcomes:

1. **CLO 1** Identify the anatomical structures and normal range of motion for major joints, and muscles performing anatomical movements.
2. **CLO 2** Explain the principles and techniques of manual muscle testing and range of motion assessment, including muscle grading, goniometer placement and the importance of proper positioning and stabilization.
3. **CLO 3** Apply appropriate assessment techniques to measure range of motion and perform manual muscle testing on peers, accurately recording findings.
4. **CLO 4** Analyze assessment results to differentiate between normal and pathological findings, integrating this information to identify potential diagnoses and guide treatment planning.

Matrix of Course Learning Outcomes according to National Qualification Framework Descriptors

CLO Number	Knowledge		Skills				Competencies
	Remember	Understand	Apply	Analyze	Evaluate	Create	
CLO 1		✓					
CLO 2		✓					
CLO 3			✓				
CLO 4				✓			

23. Matrix linking Course Learning Outcomes (CLOs) with Program Learning Outcomes (PLOs)

PLO* / CLO	1	2	3	4	5	6	7	8	9	10	**Descriptors		
											A	B	C
1.	✓										✓		
2.		✓									✓		
3.			✓									✓	
4.			✓									✓	

*Map each Course Learning Outcome to ONLY one Program Learning Outcome based on Courses Matrix

** Descriptors are assigned based on (PLO) that was chosen and specified in the program learning outcomes matrix in item (21)

23. Topic Outline and Schedule:

Week	Topic	ILO/s Linked to the Topic	Learning Types (Face to Face/ Blended/ Fully Online)	Platform Used	Synchronous / Asynchronous Lecturing	Evaluation Methods	Learning Resources
1	Principles and methods of measurement	2	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
2	Shoulder ROM	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
3	Shoulder MMT	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
4	Elbow ROM &MMT	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
5	Wrist ROM & MMT	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
6	Revision						
7	Midterm exam						

8	Hip ROM	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
9	Hip MMT	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
10	Knee ROM & MMT	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
11	Ankle ROM & MMT	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
12	Head and neck ROM & MMT	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
13	Trunk ROM & MMT	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
14	Revision	1-4	Face to face	MS teams/ e-learning	Synchronous	Practical exam	Clarkson (2021)
15	Practical exam						

25. Evaluation Methods:

Evaluation Activity		Mark*	1	2	3	4	
Midterm practical exam		30	✓	✓	✓	✓	Practical assessment criteria are provided in appendix 1 &2
Final practical exam		50	✓	✓	✓	✓	
Evaluation of Semester work	Projects\Reports	15			✓	✓	Project details are provided in appendix 3
	Quiz	5	✓	✓	✓	✓	Details provided in appendix 4
Total Marks (100%)		100					

* According to the instructions for granting a bachelor's degree

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26. Course Requirements

Students should have a computer, internet connection, webcam, and an account on a Microsoft teams. They should regularly check e-learning portal for any announcements, tasks, and learning materials.

Please ensure to check the e-learning website and the teams page regularly to prepare all lab material and download the reading materials uploaded for each session.
The practical session content videos will be uploaded on the e-learning system and on the course, teams page a week before the session, so make sure to watch the videos, go through the book chapter and come to the lab prepared. This is your responsibility, and the practical session time is dedicated for practice only.

For each lab and clinical session, you should have:

- A tape measure (each student should have one).
- A goniometer (each student should have one).
- A note taking pad, pen, highlighter and a marker (each student should have one).
- A small sanitizer, and your own towel.

Your dress code is light loose clothing that allows for free movement such as training suits or scrubs. Males and females will be separated during practical application so make sure that you are dressed in a way that allows access to different body parts (shorts and vests).

27. Course Policy

A- Attendance policies:

- Students are expected to be on time.
- Repeated tardiness or leaving early will not be accepted.
- Students who miss class (or any portion of class) are responsible for the content. Online classes will be recorded and uploaded on Microsoft Teams. It is the student's responsibility to review the material of classes they missed.
- Attendance will be taken on every class throughout the semester.
- Absence of more than 15% of all the number of face-to-face classes (which is equivalent to 3 classes) requires that the student provides an official excuse to the instructor and the dean.
- If the excuse was accepted, the student is required to withdraw from the course.
- If the excuse was rejected, the student will not be allowed to sit for the final exam according to the regulations of The University of Jordan.

B- Absences from exams and submitting assignments on time:

- The instructor will not do any make-up exams.
- Exceptions for make-up exams and late submission of class assignments will be made on a case-by-case basis for true personal emergencies that are described as accepted in the regulations of the University of Jordan (e.g., documented medical, personal, or family emergency).
- It is the student's responsibility to contact the instructor within 24 hours of the original exam time to schedule a make-up exam.
- Late submission of assignments will result in deduction of 2 points for each day of delay.
- Makeup for the final exam may be arranged according to the regulations of The University of Jordan.

C- Health and safety procedures:

- This course is offered using face to face learning method.

D- Honesty policy regarding cheating, plagiarism, and misbehavior:

- Students are expected to observe all University guidelines pertaining to academic misconduct.
- Any work submitted by a student for academic credit must be the student's own work. Submission of work taken directly from another source (e.g., book, journal, internet, or another student work) will be considered plagiarism and the student/group will get a zero grade on that homework. In addition, if copying occurred, both the student who copied the work and the student who gave material to be copied (if applicable) will receive a zero for the assignment.
- All submitted work will be checked for the use of Artificial Intelligence resources. Usage of such resources should not exceed the percentage set in the homework guidelines.
- Students are expected to do work required for homework on their own. Asking other instructors at the University, staff, or other students to assist in or do any part of the assignment will negatively affect their grade on that assignment. The course instructor is the person the student needs to talk to if she/he has any difficulties pertaining to an assignment or project and is strongly encouraged to schedule an appointment with the instructor if such difficulties arise during the semester.
- Course materials prepared by the instructor, together with the content of all lectures and review sessions presented by the instructor are the property of the instructor. Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited.
- Any forms of academic misconduct will be handled according to the University of Jordan guidelines.

E- Grading policy:

- Grading for this course will be determined based upon the accumulation of points for variety of assignments and exams.
- All work will be evaluated on completeness, organization, clarity of information, and the integration and application of the material.

F- Available university services that support achievement in the course:

- The University of Jordan provides many services to support social, health, and mental well-being of students in general and students with disabilities in specific. Students are advised to visit the Deanship of Students Affairs to learn more about those services.
- If you are a student with a disability for which you may request accommodations, please notify the instructor as soon as possible (email is acceptable) so the appropriate accommodations for this course can be made. Also, notify the staff of Services for Student with Disabilities (Deanship of Students Affairs) as soon as possible.

28. References

A- Required book(s), assigned reading and audio-visuals:

- Clarkson, 2021. Musculoskeletal assessment: Joint range of motion, muscle testing and function. A research-based practical guide. 4th Edition. Wolters Kluwer.
- Videos uploaded by course instructor.

B- Recommended books, materials, and media:

- Williams and Robinson, 2024. Strength and Range of Motion Assessment for Today's Student: The Abbreviated Guide. Premier PT education.

29. Additional Information

- This course builds upon knowledge students obtained in the following courses: anatomy of the extremities and trunk. This means that you need to ensure that you review the anatomy of muscles, joints, and nerve supply and that your knowledge is sufficient.
- The videos of the techniques are available on the e-learning website. These need to be viewed by the students prior to each week's face-to-face session.
- If you require any further information, make sure to e-mail the instructors and arrange for a meeting during the announced office hours.

Name of the Instructor or the Course Coordinator:	Signature:	Date:
Jennifer Muhaidat	JM	2.10.2025
Name of the Head of Quality Assurance Committee/ Department	Signature:	Date:
… Mayis Aldughmi …….	…MA…...……	……..……
Name of the Head of Department	Signature:	Date:
… Mayis Aldughmi …….	…MA…...……	……..……
Name of the Head of Quality Assurance Committee/ School or Center	Signature:	Date: 2/11/2025
……Dr. Lara Al-Khlaifat ……	……LK……	……..……
Name of the Dean or the Director	Signature:	Date:
Dr.Lara Al-Khlaifat …….		2/11/2025
	……LK……	……..……

Appendix 1

Midterm practical exam details

A midterm practical exam will be conducted during the official midterm exam period (week 7). This exam aims to evaluate the student's practical skills in measuring ROM and muscle strength. Students will enter the exam in pairs. Each student will randomly choose two questions, one on ROM and the other on MMT. Students will be evaluated using the following rubric. The exam will be graded out of 30.

Criteria	Comprehensive (2)	Adequate - some missing components (1)	Inadequate - significantly missing components (0)
Professionalism (8)			
Dress code			
Communication			
Autonomous practice and tool availability			
Time management			
ROM (12)			
Position of patient			
Position of therapist			
Placement of goniometer or tape measure			
Stabilization			
Movement			
Explanation of results			
MMT (10)			
Position of patient			
Position of therapist			
Stabilization			
Grading			
Muscles			
Total out of 30			

Appendix 2

Final practical exam details

A final practical exam will be conducted during the official final exam period (week 15). This exam aims to evaluate the student's practical skills in measuring ROM and muscle strength. Students will enter the exam in pairs. Each student will randomly choose four questions, two on ROM and the other two on MMT. Students will be evaluated using the following rubric. The exam will be graded out of 50.

Criteria	Comprehensive (2)	Adequate - some missing components (1)	Inadequate - significantly missing components (0)
Professionalism (8)			
Dress code			
Communication			
Autonomous practice and tool availability			
Time management			
ROM Q1 (12)			
Position of patient			
Position of therapist			
Placement of goniometer or tape measure			
Stabilization			
Movement			
Explanation of results			
ROM Q2 (12)			
Position of patient			
Position of therapist			
Placement of goniometer or tape measure			
Stabilization			
Movement			
Explanation of results			
MMT Q1 (10)			
Position of patient			
Position of therapist			
Stabilization			
Grading			
Muscles			
MMT Q2 (10)			
Position of patient			
Position of therapist			
Stabilization			
Grading			
Muscles			
Total out of 52 converted to 50			

Appendix 3

Project details

Group Project: Musculoskeletal Assessment Across Age Groups

Purpose

This project gives students the chance to practice basic assessment skills in a group. By working with people of different ages, students will see how joint mobility and muscle strength can vary compared to typical ("normative") values.

Group Tasks

Form a group (3–4 students)

Select a joint to study (e.g., knee, shoulder, elbow, ankle, neck, trunk, wrist).

Recruit subjects: each group should measure at least 3 people of different ages (child, young adult, older adult).

Perform assessments on each subject:

Range of Motion (ROM): Measure two movements at the chosen joint (e.g., flexion and extension).

Manual Muscle Testing (MMT): Test at least two muscles around the chosen joint.

Record the values clearly.

Compare your results to normative data for each age group (this requires looking up credible resources and referencing in the submitted report.

Group discussion: What differences did you notice between age groups? Were your subjects close to or different from the normal values?

What to Hand In

Group Report

Introduction – what are ROM and MMT, and why are they important?

Method – which joint did you choose, who did you measure, and how?

Results – a simple table showing ROM values and MMT grades for each subject, compared to normative data.

Discussion – simple comments on differences between age groups.

Reflection – what the group learned, and what was easy or hard.

Category	3 points – Exemplary	2 points – Competent	1 point – Developing	0 points – Missing
Understanding of Concepts	Clear explanation of ROM and MMT, why they matter, and clinical relevance	Adequate explanation, some detail missing	Basic or incomplete explanation	Not addressed
Data Collection & Methods	Joint chosen, three age groups, and measurement procedures described clearly and replicable	Mostly clear methods, but some missing details	Vague/minimal description of how data were collected	Not described
Results Presentation	Organized, accurate table with ROM & MMT values; includes normative data with sources referenced	Mostly complete table, minor omissions or unclear labels	Table incomplete/unclear; missing normative comparisons	No usable results
Analysis & Critical Thinking	Thoughtful discussion of age differences, linked to normative data; reasoning shown	Some discussion of differences, limited reasoning or weak linkage to norms	Superficial (lists differences without explanation)	No discussion
Reflection & Teamwork	Clear, specific reflection on learning, challenges, teamwork, and skills gained	General reflection with some insights but limited detail	Minimal, vague reflection	Not included
Total out of 15				

Appendix 4

Quiz details

This quiz evaluates students' ability to demonstrate either ROM measurement or MMT technique, applying correct procedures, accuracy, and interpretation.

Students will be assigned one joint and one movement (for ROM) OR one muscle (for MMT)

- **If ROM:** Demonstrate correct goniometer placement, stabilization, and measurement for the assigned movement.
- **If MMT:** Demonstrate correct positioning, stabilization, resistance application, and grade assignment.

Category	Exemplary (3)	Competent (2)	Developing (1)	Missing/Incorrect (0)
Preparation & Positioning	Positions subject and self correctly; stabilizes appropriately; demonstrates confidence	Mostly correct positioning: minor errors not affecting measurement	Frequent errors in positioning or stabilization	Unable to position subject correctly
Technique	Executes ROM or MMT procedure with proper hand placement, alignment, and smooth technique	Technique mostly correct; minor inconsistencies	Several errors in technique affecting validity	Technique incorrect or not demonstrated
Accuracy	ROM: Correct goniometer alignment and reading within 5° of actual; MMT: Correct grade applied with sound rationale	Generally accurate but off by 6–10° (ROM) or slightly inconsistent grading (MMT)	Larger errors (>10°) or incorrect grade assignment	Inaccurate or missing measurement/grade
Knowledge & Explanation	Clearly explains purpose of ROM/MMT, normative values	Adequate explanation with some detail missing	Vague or incomplete explanation	No meaningful explanation
Professionalism & Communication	Communicates clearly with subjects, uses professional language,	Generally clear communication with minor lapses	Communication is somewhat unclear or awkward	Poor/no communication; unsafe or unprofessional

	maintains safety and respect	
Total 15 converted to 5		