



THE VISION OF THE UNIVERSITY OF JORDAN

A university excelling in pedagogy, research, and innovation and advancing in global standing

THE MISSION OF THE UNIVERSITY OF JORDAN

Providing students with fulfilling learning experiences, conducting knowledge-producing research, and building firm societal ties, within an environment conducive to creativity, innovation, and entrepreneurship: making efficient use of resources and forging fruitful partnerships.

THE VISION OF THE SCHOOL OF REHABILITATION SCIENCES

Leadership in the creation and development of knowledge, and in the preparation of human resources aspiring for excellence regionally and internationally

THE MISSION OF THE SCHOOL OF REHABILITATION SCIENCES

To excel in the preparation and training of model rehabilitation personnel, who participate in the health and community sector, and provide the local and regional community with appropriate rehabilitation services based on needs. Through educational curricula that facilitates the implementation of up to date rehabilitation services based on the best available evidence.

THE VISION OF THE DEPARTMENT OF PHYSIOTHERAPY

To be recognized as an outstanding educational program with high quality faculty members, staff and students

THE MISSION OF THE DEPARTMENT OF PHYSIOTHERAPY

To graduate professionals in the field of physical therapy who are to contribute to the health needs of society through education, scholarly activities, research, service and professional practice.

Course Syllabus

1	Course title	Advanced Musculoskeletal Physiotherapy Practice
2	Course number	1801710
3	Credit hours	3 (2, 1)
	Contact hours (theory, practical)	5 (2, 3)
4	Prerequisites/corequisites	--
5	Program title	Master of Science in Physiotherapy/ Neuromusculoskeletal
6	Program code	1807
7	Awarding institution	The University of Jordan
8	School	School of Rehabilitation Sciences
9	Department	Physiotherapy
10	Course level	Graduate/ first year
11	Year of study and semester (s)	2023-2024/ 2 nd semester
12	Other department (s) involved in teaching the course	None
13	Main teaching language	English
14	Delivery method	<input type="checkbox"/> Face to face learning <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Fully online
15	Online platforms(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
16	Issuing/Revision Date	February 2024

17 Course Coordinator:

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**18 Other instructors:****19 Course Description:**

This course critically evaluates the assessment and management of the complexity of the musculoskeletal dysfunction of the body to enable evidence-based management. This is achieved through a focus on the development of the clinical reasoning and clinical expertise. Each region of the body is considered critically by integrating all approaches to manipulative physiotherapy.

20 Course aims and outcomes:

A- Aims: this course aims to help students:

1. Develop clinical reasoning skills in their assessment and management of different musculoskeletal problems
2. Critically evaluate the evidence of different assessment and treatment techniques related to diseases of the musculoskeletal system
3. Apply different assessment and treatment techniques related to different regions of the body

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

SLOs	SLO (1)	SLO (2)	SLO (3)	SLO (4)	SLO (5)	SLO (6)	SLO (7)
SLOs of the course							
1. Critically evaluate assessment methods, including functional evaluation tools, and treatment strategies	x		x				
2. Demonstrate clinical reasoning skills in the assessment and management of different problems		X					
3. Identify patients who need referral to other health care practitioners based on evaluation and response to treatment		X					
4. Apply assessment and management techniques correctly based on evidence and according to the condition of the patient	X	X					

Program SLOs:

1. Develop the skills required to implement evidence-based practice in the field of neurological and musculoskeletal disorders in physiotherapy.
2. Utilize the knowledge and skills of clinical reasoning to guide assessment, evaluation, and management of clients with neuromusculoskeletal conditions.
3. Critique and adopt physiotherapy theories, approaches, and frameworks in the practice of physiotherapy.
4. Build the spirit of team work and communicate effectively with clients, peers and health care providers.
5. Adhere to the ethical and professional standards in research and clinical practice according to the national and international standards of physiotherapy practice.
6. Develop critical thinking and problem-solving skills to implement research projects to improve clinical practices.
7. Engage in continuing professional development activities.

21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	Course overview/ Introduction	-----	Blended	Microsoft Teams	Asynchronous lecturing	-----	-----
	Lab	-----	-----	-----	-----	-----	-----	-----
2	2.1	Neurodynamics I	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	4,5,7

	Lab	Clinical reasoning models in physiotherapy/ Case studies	1,2,3	-----	-----	Synchronous lecturing	Theoretical and practical exams	7
3	3.1	Neurodynamics II	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	4,5,7
	Lab	L.L. neurodynamics assessment techniques	1,2,3,4	-----	-----	Synchronous lecturing	Theoretical and practical exams	4,5,7
4	4.1	Evidence based assessment of the cervical spine	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	1,2,3,6,7
	Lab	U.L. neurodynamics assessment techniques	1,2,3,4	-----	-----	Synchronous lecturing	Theoretical and practical exams	4,5,7
5	5.1	Evidence based management of the cervical spine	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	1,2,3,6,7
	Lab	Neurodynamic management techniques + case studies	1,2,3,4	-----	-----	Synchronous lecturing	Theoretical and practical exams	1,2,3,7

6	6.1	Evidence based assessment and management of the thoracic spine	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	1,2,3,6,7
	Lab	Upper Quarter screening	1,2,3,4	-----	-----	Synchronous lecturing	Theoretical and practical exams	1,2,3,7
7	7.1	Functional assessment tools	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	7
	Lab	Assessment and management of the cervical spine (PPIVMs and PAIVMs)	1,2,3,4	Blended	-----	Synchronous lecturing	Theoretical and practical exams	1,2,3,6,7
8	8.1	Evidence based assessment of the lumbar spine and sacroiliac joints	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	1,2,3,6,7
	Lab	Assessment and management of the thoracic spine	1,2,3	-----	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	7

9	9.1	Midterm theory exam 23/4/2024	1,2,3	-----	-----	On site	-----	-----
	Lab	-----	-----	-----	-----	-----	-----	-----
10	10.1	Evidence based assessment of the lumbar spine and sacroiliac joints	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	1,2,3,6,7
	Lab	Midterm practical exam 30/4/2024 Lower quarter Screening (online)	1,2,3,4	-----	-----	Synchronous lecturing	Theoretical and practical exams	1,2,3,6,7
11	11.1	Evidence based management of shoulder, elbow and wrist	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and practical exams	1,2,3,6,7
	Lab	Assessment and management of the lumbar spine and sacroiliac joint	1,2,3,4	-----	-----	Synchronous lecturing	Theoretical and practical exams	1,2,6,7
12	12.1	Evidence based management	1,2,3	Blended	Microsoft Teams	Asynchronous lecturing	Theoretical and	1,2,3,7

		nt of shoulder, elbow and wrist Project submissio n deadline					practical exams	
	Lab	Upper limb assessment and manageme nt techniques	1,2,3,4	-----	-----	Synchronou s lecturing	Theoretica l and practical exams	1,2,3,7
13	13.1	Evidence based manageme nt of hip, knee and ankle	1,2,3	Blended	Microsof t Teams	Asynchrono us lecturing	Theoretica l and practical exams	1,2,3,7
	Lab	Lower limb assessment and manageme nt techniques	1,2,3,4	-----	-----	Synchronou s lecturing	Theoretica l and practical exams	1,2,3,7
14	14.1	Evidence based manageme nt of hip, knee and ankle	1,2,3	Blended	Microsof t Teams	Asynchrono us lecturing	Theoretica l and practical exams	1,2,3,7
	Lab	Final practical 28/5/2024	1,2,3,4	-----	-----	On site	-----	-----

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Midterm theory	30%	Weeks 1-7	1,2,3,4	Week 9	On site
Midterm practical	15%	Weeks 1-7	1,2,3,4	Week 10	On site
Project	15%	----	1,2,3,4	Week 12 14/5/2024	-----
Final theory	25%	All topics	1,2,3,4	TBC	On site
Final practical	15%	All topics	1,2,3,4	Week 14	On site

Project	
Title:	Clinical reasoning and evidence-based practice with different musculoskeletal problems
<u>Project description:</u>	A written account of a hypothetical or real case that you have managed with a complete and detailed recording of the assessment and management techniques you have used (or will use) that would show sound clinical reasoning
<u>Project objective:</u>	To show clinical reasoning and evidence-based practice in the assessment and management of patients with different musculoskeletal problems
<u>Project due date:</u>	Week 12
<u>Grade:</u>	15%
<u>Rubric:</u>	In Appendix

23 Course Requirements

(e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):



You will need access to a display device (computer, laptop, tablet or your mobile phone), internet connection and access to the e-learning system and Microsoft Teams. Please ensure to check the e-learning website regularly.

24 Course Policies:

A- Attendance will be taken periodically throughout the semester.

- Students are expected to attend and actively participate in all classes.
- Students are expected to be on time.
- When the student is unable to attend class, it is a courtesy to notify the instructor in advance using either e-mail or phone.
- Repeated tardiness or leaving early will not be accepted.
- Students who miss class (or any portion of class) are responsible for the content. Any student who misses a class has the responsibility for obtaining copies of notes, handouts, assignments, etc. from class members who were present. If additional assistance is still necessary, an appointment should be scheduled with the instructor. Class time is not to be used to go over material with students who missed class(es).
- An absence of more than 20% of all the number of classes, which is **equivalent of (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 module.
- If the excuse was rejected the student will fail the module and mark of zero will be assigned as suggested by the laws and regulations of the University of Jordan.

B- Absences from exams and handing in 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 by the regulations of UJ .
- It is the student's responsibility to contact the instructor as soon as possible to inform the instructor of the excuse for missing the exam.
- If the excuse was approved, make-up exams will be arranged with the student.
- late submission of assignments will result in 3 grades deduction per day of delay.

C- Health and safety procedures:

- Students **will not** be in direct contact with patients during this course.
- If you have any symptom that is flu related you should stay at home (e.g., fever, cough, sore throat).
- If you tested positive for COVID you should stay at home and inform your instructor.

D- Honesty policy regarding cheating, plagiarism, 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, clinic forms, or another student work) will be considered plagiarism and the student/group will get a zero grade for that work if part of an assignment. 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.
- Students are expected to do work required for assignments on their own. Asking other instructors at the JU clinic or the staff, or other students to assist in or do any part of the assignment for them will negatively affect their grade on that assignment. The course instructor is the person the student needs to talk to if s/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.
- If a student submits work that is deemed plagiarized by the course instructors, the student will be reported to the Department's Committee of Higher Education, further disciplinary action will be sought according to the regulations of the University of Jordan.
- 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 staff of Services for Student with Disabilities (Deanship of Students Affairs) as soon as possible. Please also contact the instructor as soon as possible (email is acceptable) so the appropriate accommodations for this course can be made.

25 References:

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



This course will be based on the latest evidence in form of research articles and review papers that will be provided for each topic

Assigned-readings, lecture slides, and vidoes will be provided via:

elearning.ju.edu.jo

B- Recommended books, materials and media:

1. Giangarra C.E., Manske R.C. (2018) Clinical Orthopaedic Rehabilitation. A Team Approach. 4th edition
2. Magee D. and Manske R. (2020) Orthopaedic physical assessment. 7th edition, Saunders Elsevier
3. Kinser C., Colby LA. And Borstad J (2022) Therapeutic Exercises Foundations and Techniques. 8th edition, F.A. Davis Company
4. Shacklock M. (2005) Clinical neurodynamics. A new system of musculoskeletal treatment. Elsevier Butterworth Heinemann
5. Butler D. (2006) The sensitive nervous system. oigroup Publications
6. Hengeveld E and Banks K (2005) Maitland's Peripheral Manipulation: Management of Neuromusculoskeletal Disorders - Volume 2 4th Edition
7. Peer-reviewed journal articles

26 Additional information:

All material related to the course will be uploaded on Moodle website (<https://elearning.ju.edu.jo/>)

Name of Course Coordinator: --Lara Al-Khlaifat-----Signature: ---LK--- Date: --25-2-2024-----
Head of Curriculum Committee/Department: Dr. Ibrahim AlTobasi Signature: Ibrahim AlTobasi
Head of Department: Dr. Ibrahim AlTobasi Signature: Ibrahim AlTobasi
Head of Curriculum Committee/Faculty: ----- Signature: -----
Dean: ----- Signature: -----



Appendix 1: Project and assessment criteria

A written account of a hypothetical or real case that you have managed with a complete and detailed recording of the assessment and management techniques you have used (or will use) that would show sound clinical reasoning.

The following should be submitted:

- A complete description of your case study (real or hypothetical) with enough information to determine what is needed
- Show proper clinical reasoning process in your assessment and management based on what was taught in class and the patient's functional goals
- Describe the assessment and management techniques thoroughly
- Justify the use of one of the selected assessment methods based on the literature showing keywords used (and their combinations) and databases searched.
- Justify the use of one of the selected management methods based on the literature showing keywords used (and their combinations) and databases searched.
- A brief summary of the two chosen articles and why you have chosen them
- References (Vancouver style).

Format

- Use the following headings: Case study, Physical examination and management (describing each and showing clinical reasoning), evidence for one assessment technique (including summary and keywords and databases used), and evidence for one management technique (including summary and keywords and databases used), references.
- Font: Times New Roman, size 12
- 1.5 spaced
- Margins 2.5cm (Left, Right, Top, Bottom)
- Word count: 2000 words +/- 20%
- References Vancouver style

Rubric (26% then converted to 15%)

Criteria	Excellent (4 points)	Good (3 points)	Fair (2 points)	Poor (1 point)	Very poor (0 points)
Case study description	Detailed description of a case scenario relevant to the topics taught in this course, with detailed information to efficiently assess and manage the patient. All information required in history taking are mentioned	Detailed description of a case scenario relevant to the topics taught in this course with enough information to efficiently assess and manage the patient. Most information required in history taking are mentioned	Description of a case scenario relevant to the topics taught in this course with little information to efficiently assess and manage the patient. Few missing information in history taking	Description of a case scenario relevant to the topics taught in this course with many missing pieces of information to efficiently assess and manage the patient. History taking is incomplete	Description of a case scenario NOT relevant to the topics taught in this course
Clinical reasoning (assessment methods)	The student shows outstanding clinical reasoning skills in the planning of all of his/her assessment plan	The student shows average clinical reasoning skills in the planning of most of his/her assessment plan	The student shows clinical reasoning skills in the planning of some parts of his/her assessment plan	The student shows poor clinical reasoning skills in the planning of his/her assessment plan	The student lacks clinical reasoning skills in the planning of his/her assessment plan
Clinical reasoning (management techniques)	The student shows outstanding clinical reasoning skills in	The student shows average clinical reasoning skills in	The student shows clinical reasoning skills in the	The student shows poor clinical reasoning skills in	The student lacks clinical reasoning skills in the

	the planning of all of his/her management plan	the planning of most of his/her management plan	planning of some parts of his/her management plan	the planning of his/her management plan	planning of his/her management plan
Evidence-based assessment	The student demonstrates excellent research skills (using proper keywords and databases), and a complete and detailed summary to inform decision making	The student demonstrates good research skills (using proper keywords and databases) and a summary with enough information to inform decision making	The student demonstrates good research skills (using proper keywords and databases) and a summary with few missing information to inform decision making	The student demonstrates poor research skills (using improper keywords and databases) and a summary with many missing information to inform decision making	The student does not demonstrate any research skills and a poor summary is provided
Evidence-based management	The student demonstrates excellent research skills (using proper keywords and databases), and a complete and detailed summary to inform decision making	The student demonstrates good research skills (using proper keywords and databases) and a summary with enough information to inform decision making	The student demonstrates good research skills (using proper keywords and databases) and a summary with few missing information to inform decision making	The student demonstrates poor research skills (using improper keywords and databases) and a summary with many missing information to inform decision making	The student does not demonstrate any research skills and a poor summary is provided

Referencing (3 marks)	All references are correctly cited in text and in the reference list (3)	Most references are correctly cited in text and in the reference list (2)	Many references are incorrectly cited in text and in the reference list (1)	Wrong references and referencing style (0)	
Word count and formatting (3 marks)	The student followed all recommended guidelines (3)	The student followed most of the recommended guidelines (2)	The student followed few of the recommended guidelines (1)	The student did not follow the recommended word count or (0)	