



### **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	<b>Course title</b>	Clinical Reasoning in Physiotherapy
2	<b>Course number</b>	1801708
3	<b>Credit hours</b>	3 credit hours
	<b>Contact hours (theory, practical)</b>	2, 3 contact hours
4	<b>Prerequisites/corequisites</b>	-
5	<b>Program title</b>	MSc in Physiotherapy / Neuro-musculoskeletal
6	<b>Program code</b>	1801-7
7	<b>Awarding institution</b>	The University of Jordan
8	<b>School</b>	School of Rehabilitation Sciences
9	<b>Department</b>	Department of Physiotherapy
10	<b>Course level</b>	Graduate- Master of Science
11	<b>Year of study and semester (s)</b>	2023/ 2024 First Term
12	<b>Other department (s) involved in teaching the course</b>	NA
13	<b>Main teaching language</b>	English
14	<b>Delivery method</b>	Face to Face
15	<b>Online platforms(s)</b>	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
16	<b>Issuing/Revision Date</b>	11/10/2023

#### 17 Course Coordinator:

Name: Jennifer Muhaidat, PhD  
Office number: 321  
Email: j.muhaiddat@ju.edu.jo

Contact hours: Thursday 10-12  
Phone number: 23215

#### 18 Other instructors:

NA

#### 19 Course Description:

This course aims to provide students with theoretical and practice-based knowledge on the nature of clinical reasoning and the process of clinical decision-making in physiotherapy practice. A focus of the course will be on the place of interests and motivations in shaping the behavior and decisions of therapists and patients in relation to collaborative decision making, patient-centered care, multidisciplinary decision making, shared decision making, language, communication, and decision aids that involve clients. Students will be required to apply clinical reasoning skills to a range of conditions using case studies to inform clinical decision-making. They will select and evaluate an actual patient to practice clinical reasoning on and provide justification on their decisions and how that reflected in the practice

#### 20. Course aims and outcomes:

**A- Aims:**

To develop advanced professional skills and readiness by integrating and applying physiotherapy knowledge, skills, and attitudes in providing services for patients in different rehabilitation contexts within a multidisciplinary team and patients centered context.

**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. Demonstrate comprehensive understanding of the clinical reasoning process, models and frameworks	x		x				
2. Analyse clinical case scenarios using clinical reasoning models	x	x					
3. Solve ethical delimmias in clinical practice through clinical reasoning					x	x	
4. Discuss the interaction between evidence-based practice and clinical reasoning	x	x					
5. Reflect and self-assess clinical practice using reflection models	x					x	
6. Plan future actions to improve clinical reasoning	x						x

**Program SLOs:**

1. Develop the skills needed to adopt the evidence-based practice in the field of physiotherapy for neurological and musculoskeletal disorders.
2. Utilize clinical reasoning knowledge and skills to guide assessment, measurement, and providing care to clients with neuromusculoskeletal conditions.
3. Criticize and adopt physiotherapy theories, approaches, and frameworks in the practice of physiotherapy.
4. Build the ability to work and communicate effectively with clients, peers, and healthcare 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 that improve clinical practices.
7. Engage in continuous professional development activities.

**21. Topic Outline and Schedule:**

Week/ecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Evaluation Methods	Resources
1	Introduction to the course Introduction to clinical reasoning in Physiotherapy	1	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
2	Self-assessment and reflective practice	2, 5	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Selected articles
3	Clinical reasoning models: ICF	1,2,5	Face to face	Written exams Discussions Portfolio	Higgs et al., 2019 Selected articles
4	Clinical reasoning models – HOAC II	1,2,5	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
5	Clinical reasoning and standardized tests and statistics	2,4,5,6	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
6	Ethics and clinical reasoning	2-6	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
7	Collaborative and transdisciplinary reasoning	2-5	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
8	<b>Midterm theory</b>				
9	Evidence-based practice and clinical reasoning	2,4	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
10	Using guidelines, scores and aids in reasoning	2,4,5,6	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
11	Cognitive bias and errors in reasoning	1,2,3,5,6	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
12	Clinical reasoning and virtual services	2-6	Face to face	Written exams	Musolino and Jensen, 2020 Higgs et al., 2019

				Discussions Portfolio	Cooper and Frain, 2017 Selected articles
13	Selected clinical cases in Neurology Physiotherapy	2-6	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles
14	Selected Clinical cases in Orthopedic Physiotherapy	2-6	Face to face	Written exams Discussions Portfolio	Musolino and Jensen, 2020 Higgs et al., 2019 Cooper and Frain, 2017 Selected articles

## 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 exam	30	Weeks 1-7	1-6	Week 8	Face to face
Project See appendix 1 for details	30		1-6		Face to face
Final examination	40	Weeks 1-15	1-6	To be announced by the registrar	Face to face

## 23 Course Requirements

Each student needs access to a computer, tablet, or mobile phone.

Each student needs to ensure they have adequate internet connection, access to course platforms such as E-learning, and MS teams.

Each student needs to have a copy of the required references.

## 24 Course Policies:

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. All classes will be recorded and uploaded on Microsoft Stream. 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 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 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 by the regulations of UJ (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 homework 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:

- Students should adhere to the university's general safety measures.
- Students will not be in direct contact with patients during this course.

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, 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.
- Students are expected to do work required for homework on their own. Asking other instructors at JU, 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.
- 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.
- The University of Jordan provides internet access for students who request such services. Please contact the Assistant Dean for Student Affairs for such requests.

## 25 References:



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

- 1- Musolini and Jensen (2019) Clinical Reasoning and Decision Making in Physical Therapy: Facilitation, Assessment and Implementation. Slack
- 2- Higgs, Jensen, Loftus and Christensen (2019). Clinical reasoning in the health professions. Elsevier.
- 3- Cooper and Frain (2017). ABC of clinical reasoning. Wiley Balckwwell.

**B- Recommended books, materials, and media:**

- Atkinson HL, Nixon-Cave K (2011). A tool for clinical reasoning and reflection using the International Classification of Functioning, Disability, and Health (ICF) framework and patient management model. Physical therapy, 91 (3): 416-430.
- Rothstein, Echternach and Riddle (2003). The Hypothesis-Oriented Algorithm for Clinicians II (HOAC II): A Guide for Patient Management. Physical therapy, 83 (5): 455-470.
- Additional articles posted on e-learning.
- Furze, Gale, Black, Cochran and Jensen (2015). GailClinical Reasoning: Development of a Grading Rubric for Student Assessment. Journal of Physical Therapy Education, 29(3):p 34-45.

**26 Additional information:**

**Students with disabilities:**

- If you are a student with disability, please contact the course coordinator at the beginning of the term to inform them of any needs or adjustments you might have.
- According to University regulations, some students with disabilities can be allowed additional time during exams. This extra time is granted by an official letter from the University administration. Please discuss with the course coordinator your need for such extra time at the start of the term.
- All information you provide to the course coordinator will be dealt with confidentially.

**Course material and copy rights:**

- All material prepared by the course coordinator for the purposes of this course are the intellectual property of the course coordinator. It is only intended for the personal use of students for their individual learning.
- Sharing of course content with other people or via different platforms other than those used by the course coordinator is prohibited. The permission of the course coordinator must be sought before sharing of content.

Name of Course Coordinator: Jennifer Muhaidat	Signature: <i>Jennifer Muhaidat</i>	Date 9/10/2022
Head of Curriculum Committee/Department: Dr. Ibrahim Tobasi	Signature: Ibrahim Tobasi	
Head of Department: Dr. Ibrahim Tobasi	- Signature: Ibrahim Tobasi	
Head of Curriculum Committee/Faculty: ---Prof. Kamal A. Hadii-----	Signature: ----KAH-----	
Dean: ---Prof. Kamal A. Hadii-----	Signature: ----KAH-----	

## Appendix 1 Project details

This project aims to encourage students to develop a critical reflection on their clinical practice to identify their clinical reasoning abilities. Moreover, this project aims to enhance critical thinking and clinical reasoning skills using real-life client cases. This project is divided into three parts.

### Part I: Reflection and self-assessment (20%)

This part of the project aims to grant students experience in reflecting on their actions. Each student will reflect on his/her clinical decisions in assessing and designing intervention plans for one case that they have worked with. Each student will use the Gibbs reflection model discussed during the course. A self-assessment using the SWOT analysis.

Use the reflection on action model:

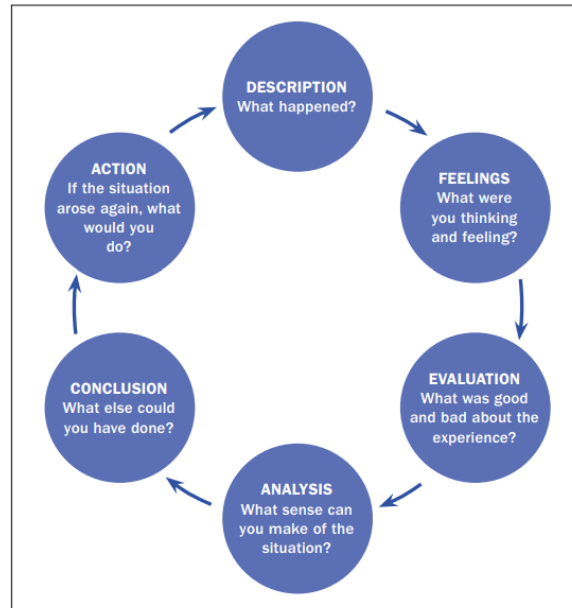


Figure 1. Gibbs Reflective Cycle (1988)

You will submit a written account that includes the reflection elements described by Gibbs supported by evidence. You need to provide a detailed description of the case and the clinical decisions that you have made, provide insight into your feelings and thoughts, evaluate what was good and what was bad, analyse why things happened the way they did, what else could you have done and what future steps would you take. Support your arguments with evidence.

Perform a SWOT analysis to assess your strengths, weaknesses, opportunities and threats associated with your work with this case.



<b>Strengths</b>	<b>Weaknesses</b>
<b>Opportunities</b>	<b>Threats</b>

Figure 1. Usual layout for SWOT analysis.

Each student will develop and action plan to improve their clinical reasoning skills using the following proforma.

Strategies through which you formalise your ideas about necessary actions you need to take in order to achieve your desired goals.

Be sure to make your action plan **SMART**:

**Specific:** Be clear about your objectives / goals.

**Measurable** (or at least assessable): Will you know when you have achieved each goal?

**Achievable:** Are the goals achievable? Are they compatible with each other?

**Realistic:** Be realistic about the goals and the time scales.

**Time specific:** Be clear about when you want to achieve each goal, it is always possible to revise time scales if problems occur.

#### Action Planning Proforma

Goals	Proposed evidence of achievement of goals	Who / what help is needed	Date to achieve goal by
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#### Grading criteria for part I (25 converted to 20%)

Criteria	Excellent (4)	Good (3)	Fair (2)	Poor (1)
Use of Gibbs' cycle	The student demonstrates excellent understanding of the Gibbs' reflective cycle and includes all elements of the cycle	The student demonstrates good understanding of the Gibbs' reflective cycle and includes most elements of the cycle	The student demonstrates fair understanding of the Gibbs' reflective cycle and includes some elements of the cycle	The student demonstrates poor understanding of the Gibbs' reflective cycle and does not use elements of the cycle or appropriately
Depth of reflection	The student demonstrates a conscious and thorough understanding of the incident described and	The group student a adequate understanding of the incident described and does not diverge from the topic	The student demonstrates lack of understanding of the incident described and mostly does not diverge from the topic	The student demonstrates a lack of understanding of the incident described and frequently diverges from the topic

	does not diverge from the topic			
Use of evidence	The student supports all required sections with suitable evidence	The student supports most required sections with suitable evidence or all sections with mostly suitable evidence	The student supports some required sections with suitable evidence or uses mostly unsuitable evidence	The student does not support the required sections with suitable evidence or uses unsuitable evidence throughout
SWOT analysis	The student correctly identifies several points under each SWOT item	The student correctly identifies some points under each SWOT item	The student inaccurately identifies points under each SWOT item	The student only covers some items of the SWOT analysis and misses many
Action plan development	The student develops an action plan that covers all elements provided in the proforma. The goals are SMART Help needed is properly identified and the date set is realistic	The student develops an action plan that covers most elements provided in the proforma. The goals are mostly SMART, the help needed is mostly identified and the the dates are mostly realistic	The student develops an action plan that covers some elements provided in the proforma. The goals are somewhat SMART, the help needed is somewhat identified and the the dates are rarely realistic	The student develops an action plan that covers few or none of the elements provided in the proforma. The goals not SMART. Help needed is rarely identified and the dates are not realistic

### Part II: Clinical reasoning using the ICF model (10%).

Each student will use either the ICF model to demonstrate how he/she would work with a current case. Students should demonstrate sufficient understanding of all sections of the chosen model and apply it to the case.

A written account with details about the case and how the model has been used should be submitted.

The Clinical Reasoning Grading Rubric developed by Furze et al. (2005) will be used to grade this part.

[https://journals.lww.com/jopte/fulltext/2015/29030/clinical\\_reasoning\\_development\\_of\\_a\\_grading.6.aspx](https://journals.lww.com/jopte/fulltext/2015/29030/clinical_reasoning_development_of_a_grading.6.aspx)

Furze, Gale, Black, Cochran and Jensen (2015). Gail Clinical Reasoning: Development of a Grading Rubric for Student Assessment. Journal of Physical Therapy Education, 29(3):p 34-45.