



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

1.	Course Title	<b>Behavioural Neuroscience</b>
2.	Course Number	<b>1802208</b>
3.	Credit Hours (Theory, Practical)	<b>3 hours/week (theory)</b>
	Contact Hours (Theory, Practical)	<b>3 credit hours</b>
4.	Prerequisites/Corequisites	-
5.	Program Title	<b>BSc Occupational therapy</b>
6.	Program Code	<b>1802</b>
7.	School/Center	<b>The University of Jordan</b>
8.	Academic Department	<b>Occupational Therapy</b>
9.	Course Level	<b>Undergraduate</b>
10.	Year of Study/Semester	<b>2024/2025, 2<sup>nd</sup> semester</b>
11.	Program Degree	<b>BSc</b>
12.	Other Departments involved in Teaching the course	<b>None</b>
13.	Main Teaching Instruction	<b>The University of Jordan</b>
14.	Learning Types	<input type="checkbox"/> Face to Face <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Fully Online
15.	Online Platform(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams
16.	Issuing Date	<b>18/9/2024</b>
17.	Revision Date	

#### 18. Course Coordinator

Name: Dua'a Alwawi	Contact hours:
Office number: 523	Phone number: 23234
Email: <a href="mailto:d.alwawi@ju.edu.jo">d.alwawi@ju.edu.jo</a>	

#### 19. Other Instructors

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## 20. Course Description

This course examines the neuroscientific concepts underlying somatosensory, special sensory, motor, cognition, and emotional functional systems. It also explores the manifestations of the dysfunction of major neural elements, and its effects on occupational performance.

## 21. Program Learning Outcomes

### Program Learning Outcomes Descriptors (PLOD)

PLO	National Qualification Framework Descriptors*		
	Knowledge (A)	Skills (B)	Competency (C)
Develop and integrate knowledge from foundational courses; including basic sciences, medical sciences, and research methods to reflect on rehabilitation sciences practice.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrate knowledge of occupational therapy history, values, and fundamentals across the lifespan, population groups, and cultures, and show knowledge of occupational therapy skills, techniques, modalities, and trends.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Evaluate client abilities to participate in occupations considering personal and environmental factors in various clinical settings.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perform skills, techniques, and therapeutic modalities needed for occupational therapy practice.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Compose effective oral and written communication for clinical and professional purposes including the use of information technology resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Operate within interprofessional teams of healthcare providers, clients, communities, and organizations in traditional and emerging practices and illustrate the qualities of a lifelong learner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Apply leadership and management skills to advance Jordan and the global community scientifically, socially, and technologically in rehabilitation sciences	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Generate scientific research that advances rehabilitation practices locally and globally.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Apply and integrate clinical reasoning, ethical principles, occupation-based theories, models, and evidence-based interventions to achieve meaningful client outcomes in clinical settings and promote inclusion, participation, safety, and wellbeing for all clients.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



Navigate occupational therapy practice locally and globally through innovation and creativity.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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\*Choose only one 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. Outline the mechanisms that facilitate repair and reorganization of the nervous system following injury
2. Assess the short-term and long-term effects of neurological injuries on body structures, functions, and activities based on the specific neurological regions impacted by disorders and diseases.
3. Evaluate neurological signs and symptoms to identify the potential neurological regions affected by various diseases and disorders of the nervous system and its support systems.
4. Analyze neurological signs and symptoms to determine the potential neurological regions affected by diseases and disorders of the nervous system and support systems.
5. Interpret clinical tests results related to neurological structures and functions.

**Matrix of Course Learning Outcomes according to National Qualification Framework Descriptors**

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

**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.	X												
2.		X											
3.		X											
4.		X											
5.			X										

\*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	Lecture	Topic	ILO/s Linked to the Topic	Learning Types (Face to Face/ Blended/ Fully Online)	Platform Used	Synchronous / Asynchronous Evaluation Methods	Learning Resources
1	1. 1	Introduction: Why neuroscience for OT	Face to Face			Ref1- Ch 2	
	1. 2		Face to Face				
2	2. 1	Neural Cells, Synapses, and Communication	Blended	Team s eLear ning		Ref1- Ch 2	
	2. 2		Face to Face				
3	3. 1	Neuroplasticity and Recovery	Blended	Team s eLear ning		Ref1- Ch 1	
	3. 2		Face to Face				
4	4. 1	Development of the Nervous System	Blended	Team s eLear ning		Ref1- Ch 1	
	4. 2		Face to Face				
5	5. 1	Somatosensory System	Blended	Team s eLear ning		PPT, YouTube video, in class Discussion	
	5. 2		Face to Face				
6	6. 1	Pain and Temperature Systems	Blended	Team s eLear ning		PPT, YouTube video, in class Discussion	

	6. 2		Face to Face				
7	7. 1	Motor Systems I: Upper Motor Neurons & Corticospinal Tracts	Blended	Teams eLearning			Ref 2, PPT, YouTube video, in class Discussion
	7. 2		Face to Face				PPT, YouTube video, in class Discussion
8	8. 1	Motor Systems II: Basal Ganglia and Cerebellum	Blended	Teams eLearning			Ref 1-
	8. 2		Face to Face				Ref1- Ch 6
9	9. 1	Cranial Nerves and Brainstem	Blended	Teams eLearning			Ref1- Ch 6
	9. 2		Face to Face				Ref1- Ch 6
10	1. 0. 1	Emotion, Motivation, and the Limbic System	Blended	Teams eLearning			Ref1- Ch 6
	1. 0. 2		Face to Face				Ref1- Ch 8
11	1. 1. 1	Cognition and Executive Function	Blended	Teams eLearning			Ref1- Ch 8
	1. 1. 2		Face to Face				Ref1- Ch 12
12	1. 2. 1	Language and Perception	Blended	Teams eLearning			Ref1- Ch 12
	1. 2. 2		Face to Face				Ref1- Ch 12
13	1. 3. 1	Autonomic System and Homeostasis	Blended	Teams			Ref1- Ch 12

				eLearn ning			
1 3. 2			Face to Face				PPT, YouTube video, in class Discussion
1 4	1 4. 1	Integration: Neuroscience & Occupation	Blende d	Team s eLearn ning			PPT, YouTube video, in class Discussion
	1 4. 2		Face to Face				Ref1- Ch 2
1 5	1 5. 1	Review and Final Exam	Blende d	Team s eLearn ning			Ref1- Ch 2
	1 5. 2						

## 25. Evaluation Methods:

Course Evaluation Plan							
Evaluation Activity	Mark*	Course Learning Outcomes					
		1	2	3	4	5	6
First Exam (mid exam)	30						
Second Exam							
Final Exam	40						
Classwork							
Evaluation of Semester work	Projects\Reports						
	Research\Worksheets						
	Fieldwork visits						
	Clinical and practical performance						
	Portfolio						
	Presentations Teams select a neurological condition and present neural mechanisms, occupational impacts, and OT interventions.	10					
	Simulation/Modeling						
	Discussion						



Quizzes	20						
Exercises							
Interviews							
Conferences							
Any other evaluation activities approved by the faculty committee							
<b>Total Marks (100%)</b>	<b>100</b>						

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

[القوانين والأنظمة والتعليمات :: الجامعة الاردنية \(ju.edu.jo\)](http://jordan.edu.jo)

\*\*According to the instructions of organizing semester work, tests, examinations, and grades for the bachelor's degree.

## 26. Course Requirements

'Neuroscience: Fundamentals for Rehabilitation' by Laurie Lundy-Ekman (6th Edition)

## 27. Course Policy

### A- Attendance policies:

- 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 15% of all the number of classes, which is equivalent of (5) 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. Please refer to pages 133, 134 of the student handbooks.

### 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).
- Make-up exams will be arranged if justifications for missing the exam satisfy the above. It is the student's responsibility to contact the instructor within 24 hours of the original exam to schedule a make-up session. A make-up exam should be taken within a week from the original exam date,



unless the student can provide documentation that makes meeting that deadline impossible; otherwise, the recorded score for that exam for the student will be a zero.

- Late assignments will not be accepted and submission of assignments (due to unjustified absence from class) by other students will not be accepted regardless of how much work the student put into its preparation.

**C- Health and safety procedures:**

- Students will not be in direct contact with patients during this course.
- Students are not expected to use any heavy tools or equipment that might impose health and safety issues during this course.
- Students should work safely, including being able to select appropriate hazard control and risk management, reduction or elimination techniques in a safe manner in accordance with health and safety legislation.
- Students should understand the importance of and be able to maintain confidentiality.
- Students should understand the importance of and be able to obtain informed consent.
- Students should know the limits of their practice and when to seek advice or refer to another professional

**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.
- 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 Faculty 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 (Faculty 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.

## 28. References

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

1. O'Brien, J. (2018). Introduction to Occupational Therapy 5th edition. USA: Elsevier incorporated.
2. American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3<sup>rd</sup> ed.). American Journal of Occupational Therapy, Suppl. 1
3. Abu-Tariah, H. S., Abu-Dahab, S. M. N., Hamed, R. T., AlHeresh, R. A., & Yousef, H. A. (2011). Working conditions of occupational therapists in Jordan. *Occupational Therapy International*, 18, 187-193

B- Recommended books, materials, and media:

اطار ممارسة العلاج الوظيفي: النطاق والعملية – كتاب مترجم للوثيقة: Occupational Therapy Practice Framework: Domain and Process

ملكاوي (2017) مقدمة في العلاج الوظيفي – مطبعة الجامعة الأردنية – عمان – الأردن

1. Hagedorn, R. (2000). Tools for Practice in Occupational Therapy: A Structured Approach to Core Skills and Processes. Edinburgh: Churchill Livingstone.
2. Molineux, M. (2004). Occupation for Occupational Therapists. Oxford: Blackwell publishing.

Punwar & S. M. Peloquin (Eds.) (2000). Occupational therapy: Principles and practice. Philadelphia: Lippincott Williams & Wilkins

## 29. Additional Information

Name of the Instructor or the Course Coordinator: Dua'a Alwawi	Signature: D.A	Date: 16/10/2025
Head of Curriculum Committee/Department: Dua'a Iwawi	Signature: 	Date: 29.10.2025
Head of Department: Duaa Alwawi	Signature: 	Date: 29.10.2025
Head of Curriculum Committee/Faculty: Dr. Lara Al-khlaifat	Signature: L.K	Date: 2.11.2025
Dean: Dr. Lara Al-khlaifat	Signature: L.K	Date: 2.11.2025