



Jerash University
Faculty of Applied Medical Sciences
Physical Therapy Department



Course Syllabus

<u>Course title:</u>	Neuromuscular Development	<u>Course No:</u>	1201327
<u>Course level:</u>	Third year	<u>Course prerequisite (s) and/or co-requisite (s):</u>	Human physiology (1201208)
<u>Lecture ti11me:</u>	S-M-T-W (19:30-20:45)	<u>Credit hours:</u>	3 Hours

Academic Staff Specifics

<u>Name</u>	<u>Rank</u>	<u>Office Number and location</u>	<u>Office hours</u>	<u>E.mail address</u>
Dr: Rashed ALadwan	Assistant professor	Physical Therapy Department	12:00-13:00	king_20081979@yahoo.com

Course Description

The course is designed to provide the student basic information about Bone development Postnatal bone growth walking development Problems during prenatal development Brachial plexuses injury Developmental sequence summary

Course Objectives

The course is designed to help the student learn about knowing about Bone development Postnatal bone growth Walking development Problems during prenatal development Brachial plexuses injury Developmental sequence summary

Learning Outcome

Knowledge and understanding, by the end of this course, students should be able to:

- 1) Describe the suitable management techniques for either upper or lower motor lesions.
- 2) Categorize the problems in relation to upper and lower motor neurons lesions.
- 3) Identify patient's neurological and neurosurgical disorders.
- 4) Select the suitable technique for either upper or lower motor lesions.

Cognitive skills (thinking and analysis):

Interactive learning by participating the student into the lectures content.

Communication skills (personal and academic):

Review concept at office hours

Practical and subject specific skills (Transferable Skills):.

Doing homework and simple reports.

Course Outline and Time schedule

Week	Course Outline
First week	Bone development
2nd week	Postnatal bone growth
3rd week	Physical development
4th week	Locomotion development
5th week	Crawling development
6th week	Walking development
7th week	Fine movement development
8th week	Problems during prenatal development
9th week	Problems during prenatal development
10th week	Club foot
11th week	Osteogenesis imperfecta
12th week	Brachial plexuses injury
13th week	Erbs palsy arm deformities
14th week	Developmental sequence summary
15thweek	Developmental sequence summary

Presentation methods and techniques

Methods of teaching varied according to the type of text, student and situation. The following techniques are usually used:

- ❖ Interactive Live **Online** Lectures
- ❖ Cooperative learning.
- ❖ Discussion.
- ❖ Learning by activities.
- ❖ Connecting students with different sources of information

Sources of information and Instructional Aids

- ❖ Computer ... power point ...etc.
- ❖ Transparencies
- ❖ Distance learning
- ❖ Library sources

Assessment Strategy and its tools

The assigned syllabus is assessed and evaluated through: feedback and the skills that are acquired by the students

The tools:

- 1- Diagnostic tests to identify the students level and areas of weakness
- 2- Formal (stage) evaluation
 - a) Mid-term exam
 - b) Class Participation
 - c) Activity file
 - d) Final exam

Tool & Evaluation

The following table clarifies the organization of the assessment schedule:

Test	Grade
Mid-term Exam	30
Activities & Participation	30
Final Exam	40
Total	100

Activities and Instructional Assignment

Practical assignments to achieve the syllabus objectives.

Regulations to maintain the teaching-Learning Process in the Lecture:

- 1- Regular attendance online live lectures.
- 2- Respect of commencement and ending of the lecture time.
- 3- Positive relationship between student and teacher.
- 4- Commitment to present assignments on time.
- 5- High commitment during the lecture to avoid any kind of disturbance and distortion.
- 6- High sense of trust and sincerity when referring to any piece of information and to mention the source.
- 7- The student who absents himself should submit an accepted excuse.
- 8- University relevant regulations should be applied in case the student's behavior is not accepted.
- 9- Allowed Absence percentages is (not exceed 15 %.).

References

- ❖ Chiba R, Nozu T, Okumura T. Brainstem control of locomotion and muscle tone with special reference to the role of the mesopontine tegmentum and medullary reticulospinal systems. *J Neural Transm (Vienna)* 2016;123:695–729.
- ❖ *Motor Control and Learning: A Behavioral Emphasis.*, 2018.
- ❖ *Neurological Physiotherapy Pocketbook, 2nd Edition.*, 2018.
- ❖ Takakusaki K. Neurophysiology of gait: from the spinal cord to the frontal lobe. *Mov Disord.* 2013;28:1483–1491.
- ❖ *Umphred's Neurological Rehabilitation , 7th Edition.*, 2020