ACADEMIC GUIDLINES FOR PHYSIOTHERAPY STUDENT PROGRAM

First semester

1435- 1436

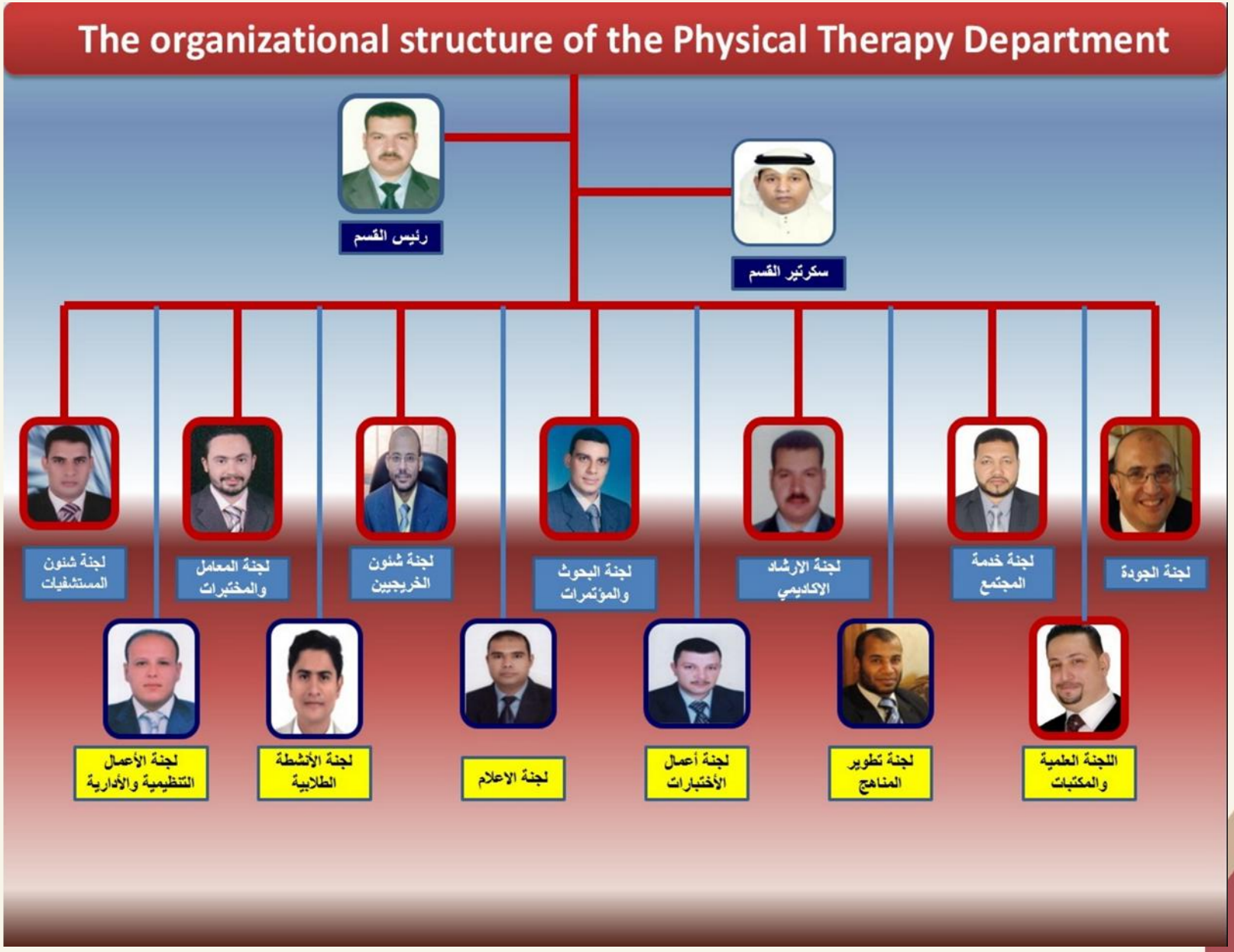
To be a distinct and competent academic and research physical therapy center, nationally as well as regionally and classified internationally, in the medical rehabilitation field.

To provide a high intellectual challenging physiotherapy education, that based on utilizing appropriate, modern and advanced methods of teaching and learning for providing knowledgeable, competent and skilled physiotherapist, who able to apply a new advanced methods of prevention, assessments and rehabilitation for different physical disabilities to meet the current and future society needs and advance the profession through excellence in research based on Islamic values and believes.

Our Objectives are

1. To achieve national and international academic accreditation.
2. To adopt the optimal investment of the university resources.
3. To monitor the job market for new medical specialties in order to provide the required cadre.
4. To prepare graduates to pursue higher studies in their respective fields.
5. To prepare graduates for lifelong learning (i.e. continuous education, self-development, carrier development), and contribution to the community.
6. To collaborate with other medical science colleges to advance medical education in our faculty, and in the region.
7. To organize local symposia and GCC or international conferences to enhance medical education and profession.
8. To achieve a regionally and internationally recognized role in medical education, research and health services.
9. To position the faculty to take a leading role in identifying pilgrims' medical difficulties and to provide the optimal health care solutions and consultations to develop the pilgrim’s health services.
10. To participate in developing the strategic plans for medical education in the kingdom.

The organizational structure of the Physical Therapy Department



FIRST YEAR

First Term					Second Term				
P	T	CU	Course	Course No.	P	T	CU	Course	Course No.
-	2	2	Holy Quran	605101	-	2	2	Islamic Culture	605101
-	2	2	Arabic Language	501101	1	2	3	Medical Physics	403101
1	1	2	Computer Science	10001113	-	2	2	Learning Skills	10001112
					-	2	2	Medical Profession Ethics	10001111
6	6	12	English Language						705200
2	6	8	Approach to Medical Sciences						10011101
9	17	26	TOTAL		1	8	9	TOTAL	
TOTAL: **35**									

SECOND YEAR

First Term					Second Term				
P	T	CU	Course	Course No.	P	T	CU	Course	Course No.
-	2	2	Holy Quran	605201	-	2	2	Islamic Culture	605201
-	2	2	Prophet Curricula	102101	-	2	2	Human Physiology 2	1702212
-	3	3	Human Physiology 1	1702211	1	2	3	Regional Anatomy	1702214
1	2	3	Systematic Anatomy	1702213	-	2	2	Pathology	1702222
-	2	2	Biochemistry	1702221	-	2	2	Human Development	1702223
1	2	3	Physiotherapy Tests and Measurements	1702231	-	2	2	Pharmacology	1702224
1	1	2	Electrotherapy 1	1702241	-	2	2	Psychology	1702225
					1	1	2	Electrotherapy 2	1702242
3	14	17	TOTAL		2	15	17	TOTAL	
TOTAL: **34**									

THIRD YEAR

First Term					Second Term				
P	T	CU	Course	Course No.	P	T	CU	Course	Course No.
-	2	2	Holy Quran	605301	-	3	3	Islamic Culture	605301
-	3	3	Fundamentals of Internal Medicine	1702351	-	3	3	Fundamentals of Orthopedics	1702371
1	2	3	Physiotherapy for Internal Medicine	1702352	1	2	3	Orthopedic Physiotherapy	1702372
2	-	2	Internal Medicine Physiotherapy Clinical Practice	1702353	2	-	2	Orthopedic Physiotherapy Clinical Practice	1702373
-	2	2	Documentation Skills for Physiotherapists	1702361	1	1	2	Rehabilitation of Sport Injuries	1702374
-	3	3	Radiology	1702326	3	1	4	Therapeutic Exercises	1702343
1	2	3	Biomechanics and Kinesiology	1702332	1	1	2	Hydrotherapy	1702344
4	14	18	TOTAL		8	11	19	TOTAL	
TOTAL: **37**									

FOURTH YEAR

First Term					Second Term				
P	T	CU	Course	Course No.	P	T	CU	Course	Course No.
-	2	2	Holy Quran	605401	-	2	2	Islamic Culture	605401
-	3	3	Fundamentals of Neurology	1702481	1	2	3	Pediatrics Physiotherapy	1702491
1	1	2	Neurological Physiotherapy	1702482	2	-	2	Pediatrics Physiotherapy Clinical Practice	1702492
2	-	2	Neurological Physiotherapy Clinical Practice	1702483	1	1	2	Geriatric Physiotherapy	1702493
1	2	3	Interdisciplinary Rehabilitation Care(1)	1702495	1	1	2	Burn Rehabilitation	1702475
-	2	2	Biostatistics and Research Methodology	1702427	1	2	3	Interdisciplinary Rehabilitation Care(2)	1702494
					-	2	2	Administrative Skills for Physiotherapists	1702461
1	3	4	Research Project						
5	13	18	TOTAL		6	10	16	TOTAL	
TOTAL: **34**									

FIFTH YEAR

Internship (Hospital and Community–Based Training -12 months)

Course No.	Course	C.U.		Day				
				Sunday	Monday	Tuesday	Wednesday	Tuesday
1704211-3	Exercise Physiology (1)	T	2	3-4 Hall C				
		T	1					3 hall A
21701221-	Biochemistry	T	2			1-2 Hall A		
1701213-3	Regional Anatomy	T	2				3-4 Hall A	
		P	1	5-6 Lab				
1704241-2	Electrotherapy	T	1			3 Hall A		
		P	1			5-6 Lab		
1704231-3	Physiotherapy Tests and Measurements	T	2		1-2 Hall A			
		P	1		5-6 Lab			
102101-2	Prophet curricula	T	2					1-2 hall A
601101-2	Islamic culture	T	2					5-6 Hall A
605101-2	Holly Quran	T	2				5-6 Hall A	
501101-2	Arabic Language	T	2				1-2 Hall A	

Second year – Group I

Course No.	Course	C.U.		Day				
				Sunday	Monday	Tuesday	Wednesday	Tuesday
1704211-3	Exercise Physiology (1)	T	2	3-4 Hall C				
		T	1					3 hall A
21701221-	Biochemistry	T	2			1-2 Hall A		
1701213-3	Regional Anatomy	T	2				3-4 Hall A	
		P	1	5-6 Lab				
1704241-2	Electrotherapy	T	1			4 Hall A		
		P	1			5-6 Lab		
1704231-3	Physiotherapy Tests and Measurements	T	2		1-2 Hall A			
		P	1		5-6 Lab			
102101-2	Prophet curricula	T	2					1-2 hall A
601101-2	Islamic culture	T	2					5-6 Hall A
605101-2	Holly Quran	T	2				5-6 Hall A	
501101-2	Arabic Language	T	2				1-2 Hall A	

Second year – Group II

Electrotherapy (1)

Objective

1. Identify the basic structure of the skin, muscles and types of the receptors and types of sensation and the mechanism of stimulation.
2. Discuss the basic principles of physics, frequencies and types of electromagnetic spectrum.
3. Distinguish the physiological response to thermal, magnetic and electromagnetic fields on skeletal muscles and the nerve.
4. Identify the therapeutic effects, indications, Contraindications, dangers, and precautions of each selected electrical modality.
5. Demonstrate competence in the application of electrical modalities in a safe and effective manner.
6. Compare the therapeutic effects of different modalities.

Course instructors

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N	Lecture	Tutorial	No of Weeks	Contact hours
1.	- **Structure and function of skin**	- **Biophysical Properties of the skin**	**1**	1 Theoretical 2 Practical
2.	- **Physiology of muscle and nerve.**	- **Physiology of muscle and nerve.**	**1**	1 Theoretical 2 Practical
3.	- **Electromagnetic spectrum.**	- **Methods of heat transfer.**	**1**	1 Theoretical 2 Practical
4.	- **Physiological effect of heat.**	- **Body response to heat.**	**1**	1 Theoretical 2 Practical
		First Quiz		
5.	- **Infrared therapy.**	- **Practical application of infrared therapy.**	**1**	1 Theoretical 2 Practical
6.	- **Ultraviolet therapy**	- **Practical application of ultraviolet therapy**	**1**	1 Theoretical 2 Practical
		Second Quiz		
7.	- **Shortwave diathermy.**	- **Practical application of shortwave diathermy.**	**2**	2 Theoretical 4 Practical
8.	- **Microwave diathermy.**	- **Practical application of microwave diathermy.**	**1**	1 Theoretical 2 Practical
		Third Quiz		
9.	- **Ultrasound**	- **Practical application of ultrasound**	**2**	4 Theoretical 8 Practical
		Forth Quiz		
10.	- **LASER therapy.**	- **Practical application of LASER therapy.**	**1**	1 Theoretical 2 Practical
11.	- **Magnetic therapy.**	- **Practical application of magnetic therapy.**	**1**	1 Theoretical 2 Practical
12.	- **Shock wave therapy.**	- **Practical application of shock wave therapy.**	**1**	1 Theoretical 2 Practical
13.	- **Revision**	- **Revision**	**1**	1 Theoretical 2 Practical
14.	**Final Tutorial Exam**			
15.	**Final Written Exam**			

Schedule of Assessment Tasks for Students During the Semester

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1.	Attendance	2-14	5%
2.	Periodical Practical and oral exams	4,6,9,11	30%
3.	Assignments.	10	5%
4.	Semester practical activities	2-14	10%
5.	Final practical exam.	15	10 %
6.	Final written exam	16	40 %
	TOTAL	**-**	**100%**

1. Michelle HC: **Physical Agents in rehabilitation; from research to practice.**2nd edition. Saunders Company. USA 2003
2. Val R. Alex W. John L. Ann R. **Electrotherapy Explained: Principles and Practice**, 4th edition, Blutterworth-Heinermann, UK, 2006.

Human Physiology

Human Physiology

Objective

1. Understand the cell structure, function and mechanisms of communication between cells.
2. Understand the function of the major systems of the human body relevant to the study of practice of physiotherapy.
3. Understand the role of the human systems on the general functions of the human body.

Course instructor

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1. Stuart I. F. **Human Physiology**. 9th edition, McGraw-Hill Science/Engineering/Math, New York, 2006
2. Elaine N. M. and Katja H. **Human Anatomy & Physiology.** 7th Edition, Benjamin, Cummings, California, 2006

List of Topics	No of Weeks	Contact hours
Introduction to physiology.	1	3 theoretical hours
Summary of cell structure.	1	3 theoretical hours
Blood and cardiovascular physiology with its relation to physiotherapy practice.	1	3 theoretical hours
Respiratory physiology and the effect of exercises on human respiration.	2	6 theoretical hours
Digestive physiology.	1	3 theoretical hours
Reproductive physiology.	1	3 theoretical hours
Endocrine physiology.	1	3 theoretical hours
Renal physiology.	1	3 theoretical hours
Body fluids physiology.	1	3 theoretical hours
Acid-base balance.	1	3 theoretical hours
Special senses.	1	3 theoretical hours
Temperature regulation.	1	3 theoretical hours
Regulation of Metabolism: (nutritional requirements, regulation of energy metabolism, energy regulation by islets of Langerhans).	3	9 theoretical hours

Schedule of Assessment Tasks for Students During the Semester:

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	Attendance	Every week	0 %
2	Quiz	Every week	30%
3	Presentation of a study project	8th week	15 %
4	Final examination	17th week	55 %

Systemic Anatomy

Course instructor

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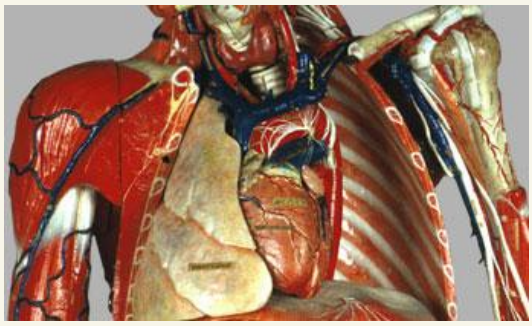
Systemic Anatomy

Objective

1. UnSderstand gross structure and function of different body systems such as musculoskeletal systems of the upper and lower limbs, head and neck, thorax, abdomen, pelvis and back.



Schedule of Assessment Tasks for Students During the Semester

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	Quiz (1) (written, practical)	5	10%
2	Midterm examination (written, practical)	9	20%
3	Quiz (2) (written, practical)	12	10%
4	Student activity		10%
5	Final examination (written, practical)	16	50%

1. Principles of Anatomy & Physiology, Gerard J. Tortora:11th ed.2005
2. Gray's Anatomy: Williams 12th ed 2005

Topics to be covered

Weeks	TOPICS	PRACTICAL
Week 1	Title 1. Introduction (tissues).	Bones.
Week 2	Title 1. Bones and joints.	Bones, joints
Week 3	Title1: Heart- blood vessels of the body.	Bones, muscles
Week 4	Title 1. Respiratory system, endocrine glands.	Bones, muscles.
Week 5	Title 1: Nervous system. - 1st quiz.	Bones, muscles
Week 6	Title 2: Nervous system.	Bones, joints
Week 7	Title1: Back.	Bones, joints
Week 8	Title 2. Back.	Bones, muscles
Week 9	Title 1. Thorax - Midterm exam.	Bones
Week 10	Title 1. Abdomen and pelvis.	Bones
Week 11	Title 1. Gastrointestinal tract.	Bones, muscles
Week12	Title 2. Gastrointestinal tract - 2nd quiz	Bones, muscles
Week13	Title. Urinary system.	Bones, muscles
Week14	Title 1. Male and female genital system.	Bones, joints
Week15	Title 1. Organs of special senses.	Bones, joints
Week 16	Final exam	

Biochemistry

Objective

Biochemistry

Course instructor

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1. To strengthen the student understands the basic biochemical parameters and profiles
2. Learning outcome for students highlight the metabolic bases of disease. The student will study and understand the normal metabolic pathways of large and small molecules, beside study generation and storage of energy. Once the normal pathways and understood, defective steps causing diseases will be introduced.
3. Identify the interaction between different metabolic pathways under normal physiological condition.
4. Explain hormonal and non-hormonal control of theses major metabolic pathway and impact of any abnormality to medical status.
5. To encourage the students to integrate all aspects of clinical biochemical results into a single entity instead of just a collection of unrelated data points.

Topics to be covered

List of theoretical topics	No of weeks	Contact hours
Introduction to biochemistry- overview of metabolic pathways and fuel energy	1	2
Carbohydrate digestion and absorption- glycolysis	1	2
TCA cycle Oxidative phosphorylation	1	2
Glycogen metabolism -regulation	1	2
Gluconeogenesis- maintenance of blood glucose	1	2
Pentose phosphate pathway	1	2
Lipid digestion, absorption	1	2
Lipolysis- oxidation of fatty acids	1	2
Midterm		
Ketone bodies metabolism	1	2
Cholesterol synthesis	1	2
Lipoprotein metabolism	1	2
Proteins: Structure of protein, Types of amino acid, nitrogen balance	1	2
Protein digestion and absorption	1	2
Amino acid metabolism	1	2
Important compounds derived from amino acids Inborn error metabolic disease of amino acids metabolism	1	2

Schedule of Assessment Tasks for Students During the Semester

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Proportion of Final Assessment
1	Midterm and activities throughout the term	40%
2	Final term exam (multiple choice questions)	60%
3	Total	100%

1. Biochemistry, Harper`s illustrated biochemistry

عزيزي الطالب

يسعدني استقبالكم بمكتبي في المواعيد المحددة كما يسرني تلقي أسئلتكم في أي وقت والإجابة عليها قبل وبعد المحاضرة أو اثناء الساعات المكتبية لي بالقسم

مع خالص أمنياتي للجميع بالتوفيق والتفوق

توقيع: عضو هيئة التدريس ببرنامج العلاج الطبيعي

Physiotherapy tests and measurements

Objective

1. Describe the principles and skills of measuring joints physiological range of motion.
2. Recognize the principles and skills of examination of passive movements of the joints.
3. Define different types of muscle testing.
4. Identify the fundamentals of muscle testing for all the muscle groups of the body.
5. Recall the principles and skills of the measurement of limb circumference and lengths using the appropriate specific landmarks.
6. Demonstrate and apply a manual muscle test for the upper limb, lower limb, trunk, neck and face muscles.

Course instructors

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Topics to be covered

Week	Lectures	Tutorial	No of Weeks	Contact hours
1.	Objectives and introduction of joint motion and muscle test	Human skeletal system anatomy	**1**	2 Theoretical 2 Practical
2.	Active and passive range of motion.	Range of motion measurement.	**1**	2 Theoretical 2 Practical
3.	Long and round measurement, End feels.	Long and round measurement, End feels.	**1**	2 Theoretical 2 Practical
4.	Muscle test and range of motion for Scapular abduction & downward rotation/ Scapular elevation/ Scapular adduction/ Scapular depression & Adduction.	Muscle test and range of motion for Scapular abduction & downward rotation/ Scapular elevation/ Scapular adduction/ Scapular depression & Adduction.	**1**	2 Theoretical 2 Practical
5.	Muscle test and range of motion for Scapular adduction & downward rotation/ Shoulder flexion, extension & Abduction.	Muscle test and range of motion for Scapular adduction & downward rotation/ Shoulder flexion, extension & Abduction.	**1**	2 Theoretical 2 Practical
6.	Muscle test and range of motion for Shoulder horizontal abduction & adduction, Internal and external rotation.	Muscle test and range of motion for Shoulder horizontal abduction & adduction, Internal and external rotation.	**1**	2 Theoretical 2 Practical
7.	Muscle test and range of motion for Elbow flexion, extension/ forearm supination & pronation.	Muscle test and range of motion for Elbow flexion, extension/ forearm supination & pronation.	**1**	2 Theoretical 2 Practical
8.	Muscle test and range of motion for Wrist flexion, and extension.	Muscle test and range of motion for Wrist flexion, and extension.	**1**	2 Theoretical 2 Practical
9.	Muscle test and range of motion for Hip flexion, extension, abduction & adduction.	Muscle test and range of motion for Hip flexion, extension, abduction & adduction.	**1**	2 Theoretical 2 Practical
10.	Muscle test and range of motion for Hip internal, external rotation/ Testing Sartorius & Tensor fascia late.	Muscle test and range of motion for Hip internal, external rotation/ Testing Sartorius & Tensor fascia late.	**1**	2 Theoretical 2 Practical
11.	Muscle test and range of motion for Knee flexion & extension.	Muscle test and range of motion for Knee flexion & extension.	**1**	2 Theoretical 2 Practical

12.	Muscle test and range of motion for Ankle dorsiflexion & planter flexion / Foot inversion & eversion.	Muscle test and range of motion for Ankle dorsiflexion & planter flexion / Foot inversion & eversion.	**1**	2 Theoretical 2 Practical
13.	Muscle test and range of motion for Neck flexion &extension. Muscle test and range of motion for Trunk flexion, Extension& rotation.	Muscle test and range of motion for Neck flexion &extension. Muscle test and range of motion for Trunk flexion, Extension& rotation.	**1**	2 Theoretical 2 Practical
14.	Muscle test for Face muscles	Muscle test for Face muscles	**1**	2 Theoretical 2 Practical
15.	**Final Tutorial Exam**			
16.	**Final Written Exam**			

Schedule of Assessment Tasks for Students During the Semester

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1.	Attendance	2-14	5%
2.	Periodical Practical and oral exams	2,4,9,12	30%
3.	Assignments.	9,12	5%
4.	Semester practical activities	2-14	10%
5.	Final practical exam.	15	10 %
6.	Final written exam	16	40 %
	TOTAL	**-**	**100%**

1. Helen J.H. Daniels and Worthington's **Muscle Testing: Techniques of Manual Examination,** 8th edition, Saunders, London, 2007.

Course No.	Course	C.U.		Day				
				Sunday	Monday	Tuesday	Wednesday	Thursday
1704353-2	Internal Medicine Physiotherapy Clinical Practice	P	2			1-2-3-4 Elnoor Hospital		
1704352-3	Physiotherapy for Internal Medicine	T	2		1-2 Hall C			
		P	1					3-4 lab
1704432-2	Documentation Skills for Physiotherapists	T	2				3-4 Hall C	
1704326-3	Radiology	T	3	4-5-6 Hall C				
1704333-3	Biomechanics and Kinesiology	T	2				1-2 Hall C	
		P	1					1-2 lab
1704351-3	Fundamentals of Internal Medicine	T	3					1-2-3 Hall A
605301-2	Holy Quran(3)	T	2				5-6 Hall C	

Third year – Group I

Course No.	Course	C.U.		Sunday	Monday	Tuesday	Wednesday	Thursday
1704353-2	Internal Medicine Physiotherapy Clinical Practice	P	2			1-2-3-4 King Abdullah		
1704352-3	Physiotherapy for Internal Medicine	T	2		3-4 Hall C			
		P	1					1-2 lab
1704432-2	Documentation Skills for Physiotherapists	T	2				3-4 Hall C	
1704326-3	Radiology	T	3	1-2-3 Hall B				
1704333-3	Biomechanics and Kinesiology	T	2				1-2 Hall C	
		P	1				3-4 lab	
1704351-3	Fundamentals of Internal Medicine	T	3	4-5-6 HallB				
605301-2	Holy Quran(3)	T	2				5-6 Hall C	

Third year – Group II

Radiology

Course instructor

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Radiology

Objective

1. Identify background about radiology.
2. Recognize the importance of radiology in physical therapy.
3. List the purposes of radiology in medical field.
4. List indication of different types of radiological investigation.
5. Identify the different radiological investigations of musculoskeletal disorders.
6. Recognize the need of radiology for different pathological conditions.
7. Identify how to differentiate between different images.
8. Ability to read different pathological conditions related to musculoskeletal system.

Topics to be covered

Topics	No of Weeks	Contact hours
Introduction to radiology.	**One week**	**3**
Types of diagnostic imaging	**One week**	**3**
Skeletal trauma	**One week**	**3**
Plain x-ray for skull and spine	**One week**	**3**
Plain x-ray for upper limb	**One week**	**3**
Plain x-ray for pelvic injury	**One week**	**3**
Plain x-ray for lower limb	**One week**	**3**
Basics of diagnostic ultrasound and Isotope scan	**One week**	**3**
Basic principle of computed tomography (CT)	**One week**	**3**
CT of fracture spine	**One week**	**3**
CT for disc pathology	**One week**	**3**
Basic principle of magnetic resonance imaging	**One week**	**3**
MRI of fracture spine	**One week**	**3**
MRI for disc pathology	**One week**	**3**
MRI knee joint	**One week**	**3**
Final Written Exam		

Schedule of Assessment Tasks for Students During the Semester

Assessment	Assessment task	Week due	Proportion of Final Assessment
1	Quiz	Every week	20%
2	Class activity	Every week	10%
3	Assignment-Posters	Week (6^{1h} -end of semester)	10%
4	Written (Mid Term)	Week (9^{th}).	10%
5	Written (Final Exam)	Week (17^{th}).	50%

1. William E.E. Wilbur L.S. **The Radiology 101: The Basics and Fundamentals of Imaging**. 2nd edition, Lippincott Williams & Wilkins, New York, 2004
2. Wolfgang F.D. **Radiology Review Manual.** 6th edition, Lippincott Williams & Wilkins, New York, 2007.

Biomechanics and Kinesiology

Course instructors

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Biomechanics and Kinesiology

Objective

This course is designed to prepare the students to have sufficient base about the theoretical and academic knowledge in laws of mechanics, which related to physical therapy applications and the various aspects of mechanics, which affect human body. Also, to enable the student to comprehend and apply this knowledge at various clinical and practical situations, like locating the total body or segmental center of gravity, analysis of normal and pathological posture and gait, know the different force systems with anatomical examples from the human body, state Newton's laws and apply them on the human body, identify biomechanics of fracture fixation, discuss various factors affect stress strain curve of bone and muscle and analyze factors affect joint mechanics.

Topics to be covered

List of Topics	No of Weeks	Contact hours
Introduction to Biomechanics and kinesiology	One week	2 theoretical + 2 practical
Center of Gravity (COG), Stability and Equilibrium.	One week	2 theoretical +2 practical
Force Systems.	One week	2 theoretical +2 practical
Simple Body Machine and exercises.	One week	2 theoretical +2 practical
Motion and Newton's laws.	One week	2 theoretical +2 practical
Gait mechanics	One week	2 theoretical +2 practical
Gait analysis	One week	2 theoretical +2 practical
Pathomechanics of gait	One week	2 theoretical +2 practical
Biomechanics of bone.	One week	2 theoretical +2 practical
Behavior of bone under stress and stress strain curve	One week	2 theoretical +2 practical
Possible fracture patterns and various loading modes	One week	2 theoretical +2 practical
Biomechanics of fracture fixation.	One week	2 theoretical +2 practical
Soft tissue biomechanics(mechanical properties of skeletal muscles)	One week	2 theoretical +2 practical
Biomechanics of hip joint (Kinetics and kinematics).	One week	2 theoretical +2 practical
Biomechanics of knee joint (Kinetics and kinematics).	One week	2 theoretical +2 practical

Final Practical Exam	One week	
Final Written Exam	One week	

Schedule of Assessment Tasks for Students during the Semester

Assessment	Assessment task (e.g. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	Regular quizzes and other activities	Every 2 weeks	40 %
2	Semester practical activities	Every 6 week	10%
3	Final practical exam	16th Week	10%
4	Final written exam	17th Week	40%

1. Margareta N. Victor H.F. Basic Biomechanics of the Musculoskeletal System. 3rd edition, Lippincott Williams & Wilkins, New York, 2001
2. Lynn S.L. Clinical Kinesiology for Physical Therapist Assistance. 3rd edition, F. A. Davis Company, Philadelphia, 2000
3. Joseph E.M. Kinesiology: The Skeletal System and Muscle Function. Mosby, London, 2006
4. Kathryn L. Kinesiology: Scientific Basis of Human Motion. 10th edition, McGraw-Hill Humanities/Social Sciences/Languages, New York, 2001.

Fundamental of Internal Medicine

Course instructors

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Fundamental of Internal Medicine

Objective

1. Define the most common cardiopulmonary, metabolic diseases, and cardiothoracic surgeries commonly related and need the physical therapy intervention.
2. Interpret different pathology and aetiology of different cardiopulmonary and metabolic diseases.
3. Mention the clinical picture of different cardiopulmonary and metabolic disease.
4. Describe the management of different cardiopulmonary and metabolic diseases.
5. Document the patient's information in written.
6. Communicate effectively on the health service teamwork.
7. Prepare oral presentation.
8. Use the internet to cope with the course demand.

Topics to be covered

Week	The Topics	No of Weeks	Contact hours
1	Anatomy and Physiology of the Respiratory System	1	3
2	Signs and symptoms of chest disease	1	3
3	Chronic Obstructive Pulmonary Diseases	1	3
4	Restrictive lung diseases.	1	3
5	Suppuratives and Infective lung diseases	1	3
6	Respiratory Failure-Pulmonary Tuberculosis.	1	3
7	General Background on the Anatomy and Physiology of the Circulatory System - Signs and symptoms of cardiac diseases.	1	3
8	Congenital heart diseases	1	3
9	Week of Students Assignment		
10	Ischemic heart diseases-	1	3
11	Rheumatic heart diseases	1	3
12	Heart Failure	1	3
13	Cardio thoracic Surgery	1	3
14	Intensive Care Unit Monitoring	1	3
15	Diabetes and nutritional requirement	1	3
16	**Final Written Examination**		

Schedule of Assessment Tasks for Students during the Semester

	Assessment task	Week due	Proportion of Final Assessment
1	Attendance and class activity	Every week	10 %
2	Quiz (The higher 3 scores)	Week 3rd , 5th , 7th, 10th, 12th and 14th	30%
3	Assignment	9th week	10 %
4	Final examination	17th week	50 %

1. Wolfsthal, S. **NMS Medicine.** 6th Edition. Lippincott William and Wilkins.2008

Physiotherapy of Internal Medicine

Course instructors

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Dr. Ashraf Abd Alaal
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Physiotherapy of Internal Medicine

Objective

1. Understand and recognize the importance of physical therapy management for studying pulmonary, cardiac and metabolic disorders and its surgeries.
2. List the common pulmonary, cardiac and metabolic disorders treated by physical therapists.
3. Identify physiological basis, indications and contraindications for the use of different treatment modalities.
4. Choose and apply appropriate physical therapy techniques for patients suffering from pulmonary, cardiac or metabolic disorders for either evaluation or treatment.
5. Demonstrate skills in arranging and organizing treatment programs of patients with pulmonary, cardiac and metabolic disorders in different clinical departments: ICU, inpatient departments, surgical departments, or outpatient departments as a member of the teamwork.

6. Modify the treatment plan as needed and re-arrange problems' solving priorities according to surrounding modifiable events during treatment.
7. Explain physical therapy treatment outcomes and discuss the underlying mechanism for each.
8. Take a part in-group working to solve encountered problems during the physical therapy management of pulmonary, cardiac and metabolic disorders.
9. Analyze and interpret the results of evaluation to record the problems in order of priority.
10. Develop effective interpersonal relationships with patients' relatives and other health professional.
11. Demonstrate competence in the application of therapeutic modalities in a safe and effective manner.
12. Discover the new technological tools utilized in the physical therapy field for management of pulmonary, cardiac and metabolic disorders.

1. Pryor J. A. and Webber B. A.: Physiotherapy for Respiratory & Cardiac Problems: Adults and Paediatrics, 3rd edition, Churchill Livingstone, New York, 2002.
2. Frownfelter D. and Dean E.: Cardiovascular and Pulmonary Physical Therapy; evidence and practice. 4th edition, Mosby Elsevier, New York, 2006.

Topics to be covered

Week	Lecture	Tutorial/Practical	No. of Weeks	Contact Hours
1	Introduction, signs and symptoms of pulmonary system disorders	Application of Physical therapy evaluation of vital signs.	1	4 Theoretical 4 Practical
2	Physical therapy evaluation of patient with chest diseases ;	Application of physical therapy evaluation of patient with chest diseases (1).	1	4 Theoretical 4 Practical
3	Physical therapy evaluation of patient with chest diseases.	Application of physical therapy evaluation of patient with chest diseases (2).	1	4 Theoretical 4 Practical
4	Pulmonary function testing (PFT)	Application of pulmonary function testing	1	4 Theoretical 4Practical
5	Physical therapy Procedures for patients with pulmonary diseases	Application respiratory muscle training and relaxation techniques	1	4 Theoretical 4 Practical
6	Physical therapy management for COPD	Application of postural correction exercises and stretching techniques	1	4 Theoretical 4 Practical
7	Physical therapy management for restrictive lung disease	Application of airway clearance techniques (1); cough, percussion, vibration and autogenic drainage	1	4 Theoretical 4 Practical
8	Physical therapy management for suppurative lung diseases.	Application of airway clearance techniques (2); postural drainage	1	4 Theoretical 4 Practical
9	Student's assignment	Mid-Term Tutorial Exam	1	4 Theoretical 4 Practical
10	Physical therapy evaluation for cardiac patient	Application of physical therapy evaluation for cardiac patient.	1	4 Theoretical 4 Practical
11	Cardiopulmonary graded exercise testing and electrocardiogram.	Application cardiopulmonary graded exercise testing and electrocardiogram.	1	4 Theoretical 4 Practical

12	Cardiac rehabilitation (1)	Application of physical therapy treatment procedures for cardiac patient (1)	1	4 Theoretical 4 Practical
13	Cardiac rehabilitation (2)	Application of physical therapy treatment procedures for cardiac patient (2)	1	4 Theoretical 4 Practical
14	Physical therapy for cases with cardiothoracic surgeries and intensive care unit (ICU).	Application of physical therapy procedures in cardiothoracic Surgery cases and intensive care unit (ICU).	1	4 Theoretical 4 Practical
15	Physical therapy for selected metabolic disorder (Diabetes)	Application of physical therapy management procedures for diabetic patients	1	4 Theoretical 4 Practical
16	**Final Tutorial Exam**			
17	**Final Written Exam**			

Schedule of Assessment Tasks for Students during the Semester

Assessment	Assessment task	Week due	Proportion of Final Assessment
1-	Attendance	Every Week	5 %
2-	Class activity	Every Week	5 %
3-	Assignments.	9th Week	20 %
4-	Quiz (written or tutorial)	Every Week	20 %
5-	Final Tutorial Examination	16th Week	10 %
6-	Final Written Examination	17th Week	40 %

Internal Medicine Physiotherapy Clinical Practice

Course instructors

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Internal Medicine Physiotherapy Clinical Practice

Objectives

1. Select, design and apply proper physical therapy examination procedures for patients with pulmonary, cardiac or metabolic disorders.
2. List the common evaluation outcome findings during evaluation of patients with pulmonary, cardiac or metabolic disorders.
3. Practically differentiate between normal and abnormal findings of those examinations.
4. Reasonably decide, choose, and apply proper physical therapy preventive or treatment modalities, procedures and techniques for patients with pulmonary, cardiac and metabolic disorders.
5. Demonstrate skills in the practical application of physical therapy procedures for patients with pulmonary, cardiac and metabolic disorders in different clinical departments: medical wards, surgical wards, intensive care units, or outpatient departments.
6. Develop effective interpersonal relationships with patients' relatives and other health professional.
7. This course aims to train students how to plan and carry out physical therapy evaluations and treatment methodologies based on a clinical understanding of pulmonary, cardiac and metabolic disorders. The skills of patient handling and community-related ethical issues are also covered in this course.

Topics to be covered

N	Lecture	Tutorial	No of Weeks	Contact hours
1.	General Concepts of Therapeutic Exercises	General Concepts of Therapeutic Exercises	1	1 theoretical 6 Practical
2.	Passive Range of motion Exercises	Passive Range of motion Exercises	1	1 theoretical 6 Practical
3.	Active and Active Assisted Range of motion Exercises	Active and Active Assisted Range of motion Exercises	1	1 theoretical 6 Practical
4.	Muscle Performance	Muscle Performance	1	1 theoretical 6 Practical
5.	Manual Resisted Exercises	Manual Resisted Exercises	1	1 theoretical 6 Practical
6.	Mechanical Resisted Exercises	Mechanical Resisted Exercises	1	1 theoretical 6 Practical
7.	Stretching exercises	Stretching exercises	1	1 theoretical 6 Practical
8.	Peripheral joint mobilization	Peripheral joint mobilization	1	1 theoretical 6 Practical
9.	Mobilization of the spine	mobilization of the spine	1	1 theoretical 6 Practical
10.	Spinal traction	Spinal traction	1	1 theoretical 6 Practical
11.	Neural mobilization	Neural mobilization	1	1 theoretical 6 Practical
12.	Posture	Posture	1	1 theoretical 6 Practical
13.	PNF Exercises	PNF Exercises	2	2 theoretical 12 Practical
14.	Revision	Revision	1	1 theoretical 6 Practical
15.	Final Tutorial Exam			
16.	Final Written Exam			

Schedule of Assessment Tasks for Students during the Semester

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1.	Attendance	2-14	5%
2.	Periodical Practical and oral exams	2,4,7,11	30%
3.	Assignments.	10	5%
4.	Semester practical activities	2-14	10%
5.	Final practical exam.	15	10 %
6.	Final written exam	16	40 %
	TOTAL	**-**	**100%**

1. Carolyn K. **Therapeutic Exercise: Foundations and Techniques** (Therapeutic Exercise: Foundations and Techniques). 5th edition, F. A. Davis, Philadelphia, 2007.
2. Eric O. **Proven Therapeutic Exercise Techniques**: Best Practice for Therapist and Trainers. Charles C. Thomas, USA, 2004.
3. Carolyn R. **Therapeutic Exercise for Lumbopelvic Stabilization**: A Motor Control Approach for the Treatment and Prevention of Low Back Pain. 2nd edition, by Churchill Livingstone, New York, 2004.

Documentation Skills for Physiotherapist

Course instructors

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Documentation Skills for Physiotherapist

Objective

1. By the end of this course, the student will be able to accurately and professionally write documentations in patient's files. The student will have the skills to communicate with health team professional through written reports and documents.

1. **Eric Shamus, PT, PhD, CSCS; Debra Feingold Stern, PT, MSM, DBA**: Effective Documentation for Physical Therapy Professionals.1st McGraw-Hill-Medical, 2003.
2. **Lori Q., Games G.**: Functional outcome documentation for rehabilitation, 1st ed., Saunders, New York, 2003

Topics to be covered

List of Topics	No of Weeks	Contact hours
Introduction, Purpose, and General Rules for Health Information Management (Medical Record Keeping).	**One week**	2
Record Organization and General Principles.	**One week**	2
Application of Models for Organization and Guidelines for Content.	**One week**	2
Component Requirement	**One week**	2
Component Requirement	**One week**	2
Standardized Forms and Content (part 1).	**One week**	2
Standardized Forms and Content (part 2).	**One week**	2
SOAP documentation(part 1)	**One week**	2
SOAP documentation(part 2)	**One week**	2
Initial evaluation format (Reasons for referral)	**One week**	2
Initial evaluation format (Functional status)	**One week**	2
Initial evaluation format (Impairments)	**One week**	2
Initial evaluation format (Assessment)	**One week**	2
Initial evaluation format (Goals)	**One week**	2
Initial evaluation format (Intervention plane)	**One week**	2
Case study and Revision	**One week**	2

Schedule of Assessment Tasks for Students during the Semester

Assessment	Assessment task	Week due	Proportion of Final Assessment
1	Quiz	Every week	20%
2	Class activity	Every week	10%
3	Assignment	Week (6^{1h} -end of semester)	10%
4	Written (Mid Term)	Week (9^{th}).	10%
5	Written (Final Exam)	Week (17^{th}).	50%

المعامل الموجودة بقسم العلاج الطبيعي

المعامل التدريسية

وهي معامل يتم فيها تدريب الطلاب بواسطة أعضاء هيئة التدريس على اكتساب المهارات الاساسية اليدوية ومهارات التعامل مع أجهزة العلاج الطبيعي التشخيصية والعلاجية وهي

١- مختبر العلاج الكهربائي والمغناطيسي
٢- مختبر العلاج الطبيعي لإعاقات الجهاز العضلي
٣- مختبر العلاج الطبيعي لإعاقات الجهاز العصبي
٤- مختبر التمرينات العلاجية

ثانيا المعامل البحثية

وفيها يتم اجراء الابحاث العلمية بالقسم بواسطة اعضاء هيئة التدريس وبمساعدة الطلاب لتنمية مهارات البحث العلمي لديهم وخاصة طلاب الفرقة الرابعة والذين يدرسون مادة (مشروع التخرج) والمختبرات هي:

١- مختبر التشخيص الكهربائي
٢- معمل التشخيص بالموجات فوق الصوتية
٣- مختبر قياس وعلاج تشوهات القوام
٤- مختبر قياس وعلاج اضطرابات الاتزان
٥- مختبر قياس المعايير والقياسات الفيزيقية المختلفة للعضلات والمفاصل.
٦- معمل قلب رئوي.
٧- معمل تحليل الحركة

Course No.	Course	C.U.		Day				
				Sunday	Monday	Tuesday	Wednesday	Thursday
1704419-2	Biostatistics and Research Methodology	T	2					1-2 Hall C
1704483-2	Neurological Physiotherapy Clinical Practice	P	2		1-2-3-4 Elnoor Hospital			
1704499-4	Research Project	T	2				5-4-3	
		P	2	3-4 Lab				
1704494-3	Interdisciplinary Rehabilitation Care(1)	T	3	4-5-6 Hall C				
1704482-2	Neurological Physiotherapy	T	2				1-Hall B	
		P	1				2-3 lab	
1704481-3	Fundamentals of Neurology	T	3					1-2-3 Hall A
605401-2	Holy Quran(4)	T	2				5-6 Hall C	

Fourth year – Group I

Fourth year – Group II

Course No.	Course	C.U.		Day				
				Sunday	Monday	Tuesday	Wednesday	Thursday
1704419-2	Biostatistics and Research Methodology	T	2					1-2 Hall C
1704483-2	Neurological Physiotherapy Clinical Practice	P	2		1-2-3-4 Elnoor Hospital			
1704499-4	Research Project	T	2				5-4-3	
		P	2	3-4 Lab				
1704494-3	Interdisciplinary Rehabilitation Care(1)	T	3	4-5-6 Hall C				
1704482-2	Neurological Physiotherapy	T	2				1-Hall B	
		P	1				2-3 lab	
1704481-3	Fundamentals of Neurology	T	3					1-2-3 Hall A
605401-2	Holy Quran(4)	T	2				5-6 Hall C	

Fundamentals of Neurology

Fundamentals of Neurology

Objective

This course provides the students with the basic theoretical neurological knowledge. It teaches the student how to describe neurological illness accurately and identify the basic terms commonly used in neurology. It provides the students with the ability to differentiate between the upper motor neuron lesions and lower motor neuron lesions , differentiate between the different neurological disorders and identify accurately the etiology, clinical picture, and symptoms, related investigations and finally to identify the management of different neurological disorders.

Course instructors

Dr. Shamekh El-Shamy

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Topics to be covered

Week	The Topics	No of Weeks	Contact hours
1	Introduction to neurology (I)	1	3
2	Introduction to neurology (II)	1	3
3	Pyramidal tract lesions, Stroke (CVA)	1	3
4	Extra-pyramidal tract lesions Parkinson disease	1	3
5	Disorders of cerebellum Ataxia	1	3
6	Cranial nerve lesions Facial palsy	1	3
7	Muscle disorders Muscular dystrophies	1	3
8	Paraplegia.	1	3
9	Spinal cord injuries & cauda equina	1	3
10	Disorders of peripheral nerves: Polyneuropathy	1	3
11	Neurogenic bladder	1	3
12	Cervical & Lumbar disc lesions	1	3
13	Demyelination diseases of the nervous system : Multiple Sclerosis	1	3
14	Motor neuron Disease	1	3
15	Traumatic head injury	1	3
16	**Final Written Examination**		

Schedule of Assessment Tasks for Students During the Semester

Assessment	Assessment task	Week due	Proportion of Final Assessment
1	Attendance and class activity	Every week	10 %
2	Regular Quizzes	Every week	20%
3	Assignment	9th week	20 %
4	Final examination	17th week	50 %

1. Mumenthaler and Heinrich Mattle M.D: **Fundamentals of Neurology: An Illustrated Guide.** Thieme Medical Publishers, New York, 2006.

Neurological Physiotherapy

Course instructors

Dr: Amir Abdel-Raouf

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Neurological Physiotherapy

Objective

1. Define different neurological conditions and identify their pathological mechanisms
2. Identify general principles of physical therapy evaluation for different neurological cases.
3. List the problems facing different neurological conditions in priority.
4. Describe physical therapy techniques used specifically in treating neurological cases.
5. Identify the role of physiotherapy intervention with other health care in treatment of common neurological and neurosurgical conditions.
6. Classify the different neurological symptoms according to site of lesion.
7. Differentiate between upper motor neuron lesion and lower motor neuron lesion.
8. Interpret the results of evaluation to list the problems in order of priority.
9. Discuss programs of physical therapy for different neurological cases.
10. Apply various methods of assessment for patients with neurologic problems.
11. Manipulate different cases of neurology from physical therapy point of view.
12. Create and apply a proper physical therapy program for treating neurological cases.

Topics to be covered

	Lecture	Tutorial	No of Weeks	Contact Hours
1-2	Principles of evaluation for neurological conditions	Application of neurological sheet.	2	2h Theoretical 4h Practical
3-4	Principles of treatment for neurological conditions	Application of Principles of treatment for neurological conditions	1	1h Theoretical 2h Practical
5-6	Physical therapy management for Stroke cases	Application of Physical therapy management for Stroke cases	2	2h Theoretical 4h Practical
7	Physical therapy management for Bell's palsy	Application of Physical therapy management for Bell's palsy	1	1h Theoretical 2h Practical
8	Physical therapy management for Parkinsonism	Application of Physical therapy management for Parkinsonism	1	1h Theoretical 2h Practical
9	Physical therapy management for Ataxia	Application of Physical therapy management for Ataxia	1	1h Theoretical 2h Practical
10-11	Physical therapy management for Spinal cord injuries (Paraplegia & Quadriplegia)	Application of Physical therapy management for Spinal cord injuries (Paraplegia & Quadriplegia)	2	2h Theoretical 4h Practical
12	Physical therapy management for Polyneuropathy	Application of Physical therapy management for Polyneuropathy	1	1h Theoretical 2h Practical
13	Physical therapy management for Multiple sclerosis	Application of Physical therapy management for Multiple sclerosis	1	1h Theoretical 2h Practical
14	Physical therapy management for Motor neuron disorders	Application of Physical therapy management for Motor neuron disorders	1	1h Theoretical 2h Practical
15	**Revision and Final Tutorial Exam**			
16	**Final Written Exam**			

Schedule of Assessment Tasks for Students during the Semester

Assessment	Assessment task	Week due	Proportion of Final Assessment
1-	Attendance	Every week	10 %
2-	Class activity	Every week	10 %
3-	Assignments.	Every week	10 %
3-	Quiz (written or tutorial)	5th, 8th, 11th &14th	20 %
4-	Final Practical Examination	15th Week	10 %
5-	Final Written Examination	16th Week	40%

1. Physical rehabilitation, assessment and treatment; Q'sullivan,S.B. and Schmitz, T.J., F. A. Davis company, Philadelphia 2007.
2. Neurological Rehabilitation. Darcy A.U. 5th edition, Mosby, London, 2006.
3. Clinical Neurodynamics: A New System of Neuromusculoskeletal Treatment. Michael S. Butterworth-Heinemann, UK, 2005.

Neurological Physiotherapy Clinical Practice

Course instructors

Dr. Shamekh El-Shamy

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Dr: Amir Abdel-Raouf

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Neurological Physiotherapy Clinical Practice

Objective

1. Recognize Different Neurological Diagnosis and describe each of them.
2. Write the proper steps of patient assessment.
3. List the problems according to priorities.
4. Describe the optimal physical therapy treatment procedures.
5. Select the proper choices according to stage of the disease.
6. Identify the role of physiotherapy intervention with other health care in treatment of common neurological conditions.
7. Differentiate between central nervous system lesions and peripheral nervous system lesions.
8. Analyze assessment findings in terms of patient problems.
9. Explain different neurological rehabilitation procedures.
10. Assess different neurological disorders and provide clinical symptoms.
11. Explore evaluation procedures and problem list.
12. Decide appropriate treatment approaches suitable for each neurological problem.
13. Collect information from patient chart.
14. Articulate the patient's information in written way.

Topics to be covered		No of Weeks	Contact Hours
1 - 2	Practical training for physical therapy evaluation for neurological conditions	2	8
3 - 4	Practical training for physical therapy treatment for neurological conditions.	2	8
5 - 6	Practical training for Physical therapy management for stroke	2	8
7	Practical training for Physical therapy management for Bell's palsy	1	4
8	Practical training for Physical therapy management for Parkinsonism	1	4
9	Practical training for Physical therapy management for Ataxia	1	4
10 - 11	Practical training for Physical therapy management for Spinal cord injuries (Paraplegia & Quadriplegia)	2	8
12	Practical training for Physical therapy management for Polyneuropathy	1	4
13	Practical training for Physical therapy management for multiple sclerosis	1	4
14	Practical training for Physical therapy management for Motor neuron.	1	4
15	**Revision**		
16	**Final Practical (Tutorial) Exam**		
17	**Final Written Exam**		

Schedule of Assessment Tasks for Students during the Semester

Assessment	Assessment task	Week due	Proportion of Final Assessment
1-	Attendance	Every week	10 %
2-	Periodical Practical and oral exams	6th & 12th	20 %
3-	Assignments.	4th, 8th & 14th	10 %
3-	Presentation of a case study and reports	Every week	10 %
4-	Final Practical Examination	16th Week	40 %
5-	Final Oral Examination	16th Week	10 %

1. Handbook of Neurological Rehabilitation, Richard J. Greenwood; Thomas M. McMillan; Michael P. Barnes; Christopher D. Ward. Routledge Publisher, UK ,2005.
2. Neurological rehabilitation. Darcy A.U. 5th edition, Mosby, London, 2006.
3. Fundamentals of Neurology. An illustrated guide. Mumenthaler and Heinrich M.D Mattle M.D. Thieme medical publisher, New York, 2006.

Interdisciplinary Rehabilitation Care (1)

Course instructors

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Interdisciplinary Rehabilitation Care (1)

Objective

1. Define and discuss the benefits of ergonomics
2. Apply the ergonomics principles when design the work place
3. design including design of tools, equipment and the total environment
4. Define the lifting process and identify the mechanism of correct lifting.
5. Identify the role of ergonomics in prevention and management of injuries.
6. Understand the importance of the human- machine systems.
7. Design human- machine systems
8. Apply the ergonomics principles in design hand held tools.
9. Understanding about the relations between the ergonomics as a science and the orthoses and the prostheses designs and applications for spine and upper and lower limbs.
10. Differentiate between orthoses and prostheses
11. Define occupational therapy and discuss its benefits

Topics to be covered

List of Topics		No of Weeks	Contact hours	
Theoretical	**practical**		**Theo.**	**Prac.**
Introduction to ergonomics	Practical session about Ergonomics	**One week**	2	2
Human machine system	Practical session about Human machine system	**One week**	2	2
Anthropometry application on factories	Practical session about Anthropometry	**One week**	2	2
Hand held tools	Practical session about Hand held tools	**One week**	2	2
Lifting techniques and proper lifting	Practical session about Lifting techniques and proper lifting	**One week**	2	2
Visit to El Nor hospital for revisions and application		**One week**	2	2
Work related LBP Biomechanical factors	Practical session	**One week**	2	2
Wheelchair ambulation Biomechanics and ergonomics considerations	Practical session	**One week**	2	2
Effective utilization of assistive devices in the work place	Practical session	**One week**	2	2
Introduction and different types of orthoses and prostheses	Practical session	**One week**	2	2
Orthoses of upper, lower limbs and spine	Practical session	**One week**	2	2
Prostheses of upper and lower limbs	Practical session	**One week**	2	2
Visit to El Nor hospital for revisions and application		**One week**	2	2

Occupational therapy(1)	Practical session	**One week**	2	2
Occupational therapy (2)	Practical session	**One week**	2	2
Final Written Exam				

Schedule of Assessment Tasks for Students during the Semester

Assessment	**Assessment task (e.g. essay, test, group project, examination etc.)**	**Week due**	**Proportion of Final Assessment**
1	Regular quizzes and Semester activities	Every 2 week	40 %
2	Semester practical exam	Every 6 week	10 %
3	Final practical exam	17th week	10 %
4	Final written exam	18th week	40 %

1. Kumar S.: **Ergonomics for rehabilitation professionals**.1st ed, Taylor & Francis Group, LLC, Boca Raton ,2008.
2. Marras WS, Karwowskiw W.:**Fundamentals and assessment tools for occupational ergonomics,** 2nd ed, Taylor & Francis Group, LLC, Boca Raton ,2006.
3. Murray C.: **Amputation, prosthesis use, and phantom limb pain. An interdisciplinary perspective**, springer, New York ,2010.

Biostatistics and research Methodology

Course instructors

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Biostatistics and research Methodology

Objective

1. Recognize the types of research its needs and types of statistical used in research.
2. Write the knowledge about skills of measurement and scientific thinking.
3. List the methods of manipulating data and how to select a scientific Problem
4. Mention the meaning and estimate the measures of variability for a given set of biologic measurements.
5. Manage a research problem with a statistical design.
6. Differentiate between quantitative and qualitative data, construct, and interpret frequency distribution tables and graphic displays
7. Criticize a scientific paper in physical therapy
8. Assess all the data and select the appropriate statistical design.
9. Compare different study designs
10. Prepare a research proposal
11. Present the role of biostatistics and research methodology in the improvement of the physical therapy field with others medical fields

Topics to be covered

List of Topics	No of Weeks	Contact hours
Fundamental of research	**1**	**2**
Types of Research	**1**	**2**
Proposal Format	**1**	**2**
Research Designs	**1**	**2**
Sampling	**1**	**2**
Factors Affecting Research Validity	**1**	**2**
Validity and Reliability	**1**	**2**
Measure of central tendency	**1**	**2**
Measure of dispersion.	**1**	**2**
Normal distribution curve	**1**	**2**
Screening	**1**	**2**
Epidemiological studies	**1**	**2**
Presentation of data	**1**	**2**
Statistical significance	**1**	**2**
Revision	**1**	**2**

Schedule of Assessment Tasks for Students during the Semester

Assessment	Assessment task	Week due	Proportion of Final Assessment
1	Class activity	Every week	10 %
2	Quiz	Selected 6 Weeks	30%
3	Assignment	9th week	10 %
4	Final examination	17th week	50 %

1. Elizabeth Domholdt: Physical Therapy Research: Principles and Applications. W.B. Saunders Company; 2nd edition London 2000.
2. Carolyn H. Research Methods for Clinical Therapists: Applied Project Design and Analysis. 4th edition, Churchill Livingstone, New York, 2004
3. Wayne W.D. Biostatistics: A Foundation for Analysis in the Health Sciences. 8th edition, Wiley, New York, 2004.

Rules of the Study and Exam Regulations for Undergraduates

Semester Information

Semester

A period of time not less than fifteen weeks during which courses are to be taught not including the registration and the final exams period.

Summer semester:

A period of time not more than eight weeks not including the registration and the final exams period, during which the time allocated for each course is doubled.

Study level:

Is indicative of the academic stage where the required number of study levels for graduation is eight levels or more, according to the approved study plans.

Course:

A curriculum provided in a specific level which is approved within the study program. Each course has a number, code, name and description for its vocabulary that distinguishes it from other levels and is maintained documented in a special file in the department for the purpose of follow-up, rating and development. Moreover, there may be specific requirements or [pre-requisites for some courses.

Module Unit:

The weekly duration of theoretical lecture is not less than fifty minutes, while practical or tutorial sections are not less than a hundred minutes.

Academic Warning:

The warning sent to the student due to the low cumulative grade point average under the minimum requirement previously described in this regulation. Each student would have only one chance to pass before the enrollment is terminated.

Semester marks

The marks granted to the student that show his achievement during the semester exams, educational research and activities related to the academic course.

Final exam

Is an exam for each academic course taking place at the end of each study semester.

Grades of the final exam:

Are the marks each student earns in the final exam of the semester.

Final grade:

Is the sum of the semester activity degrees added to the final exam degrees for each course, calculated from a total of one hundred degrees.

Estimate :

Description of the percentage or the symbol alphabet of the final grade obtained by the student in any course.

Incomplete Estimate :

Temporary estimate for each course the student is unable to complete requirements in a timely manner, symbolized in his academic record in the letter (IC).

Continuous assessment :

A temporary estimate made for each course studied over more than a semester to complete and has the symbol (IP).

Overall rating :

Measuring the level of educational attainment of the student during the period of study at the university.

Denied:

An estimate made for each course the student is deprived of attending and admitting in its final exam caused by exceeding the t allowed percentage for absence and has the symbol (DN).

Excused withdrawal:

An estimate made for each course the student is withdrawn from by an accepted apology and has the symbol (W).

Symbol (K):

An estimate given in the student's academic when caught cheating, attempting to cheat or violating the rules and procedures of the exams and has no point or grade reference.

Semester Grade point average:

The result of dividing each student’s points by the total number of credit units studied during that semester.

Cumulative grade point average:

The result of dividing the total sum of points for each student by the total number of credit units studied during the entire period of the program since admission

Academic guidance office:

An office established in each department of each faculty consisting of one department coordinator and one or more of the faculty academic section staff.

The office is established by a decision from the faculty dean based on the nominations of the department head to provide the following:

1. Academic follow up of students and filing reports to the department heads in case of failing to fulfill the conditions needed to continue his/her university studies.
2. Student registration for courses and following registration in the database.
3. Cooperating with the faculty coordinator in cases of postponement or apology from studying.
4. Revision of the graduation recommendation of each graduate to be sent to the specialized sectors for approval.
5. Following the process of curriculum equivalences.

Exams and Estimates

1. Based on the recommendation of the department council providing the course, the faculty board may define the degrees of semester activities and achievements by no less than 30% of the total final grade of the course.
2. Based on the recommendation of the department council the faculty board may include practical or oral exams to the final exam and determine the designated degrees from the total.
3. Based on the recommendation of the course instructor, the department council providing the course may allow a student to complete the requirements of a semester granted an estimate of (IC). Only the estimate of the completed requirements is granted and if one academic year passes while the student fails to complete the requirements, he/she will attain an (F) estimate added to the total GPA.
4. The semester degrees are calculated by either:
   - Oral or practical exams, research assignments, summer activities and one written exam.
   - Two written exams at least.

5. a student is not considered passing of a study course including clinical examinations unless achieving no less than 60% of the clinical exam , and if not achieved, the student is considered failed attaining (F).
6. Curriculums of symposiums, research and other courses with a practical or field characteristic may be relieved from the rules of articles 1, 2 and 4 with a decision from the College Board based on the recommendation from the department providing the course.The faculty council will determine the method to assess these courses.
7. If research courses would demand more than one study level, the student is granted an estimate of continuous (IP) and after completion; the student is granted the obtained estimate and degrees.
8. If the course is not completed in the designated time, the department providing the course may approve granting an estimate of incomplete (IC) in the student record.
9. If a student is absent in the second round of testing without an excuse acceptable to the College Board the student would receive a result fail (F) .
10. If the student is unable to attend the final exam in any of the courses for a compelling excuse accepted by the College Board, the Board may, in extreme cases , accept his excuse and allow him to re-examine during a period no longer than the end next semester granted his full estimate.

Learning Resources Library

الهيئة التدريسية

م	الاسم	الدرجة	التخصص
١.	د/ محمد محمد إبراهيم	استاذ مشارك (رئيس القسم)	اصابة وجراحة العظام
٢.	د/ إيهاب محمد عبد الكافي	استاذ مشارك	تأهيل اطفال
٣.	د/ على عبد المنصف ثابت	استاذ مشارك	امراض نساء وتوليد
٤.	د/ أنور عبد الجيد عبيد	استاذ مشارك	جراحه وحروق
٥.	د/ عمر فاروق هلال	استاذ مشارك	قلب رئوي
٦.	د/شامخ محمد الشامي	استاذ مشارك	تأهيل أطفال
٧.	د/ محمد صلاح الدين محمد	استاذ مساعد	اسس علوم عصبيه
٨.	د/ أمير عبد الرؤوف الفقى	استاذ مساعد	مخ وأعصاب
٩.	د/ هشام جلال مهران	استاذ مساعد	جراحه وحروق
١٠.	د/ أشرف محمد عبد العال	استاذ مساعد	قلب رئوي
١١.	د/ أحمد عبد الرحمن السوداني	استاذ مساعد	أسس علوم عصبيه
١٢.	د/ تامر محمد شوشه	استاذ مساعد	اصابة وجراحة العظام
١٣.	أ/ عبد الجليل علام	محاضر	اصابة وجراحة العظام

أن يكون القسم مركزا أكاديمياً وبحثياً في العلاج الطبيعي منافسا ومتميزاً في مجال التأهيل الطبي على المستوى المحلي والإقليمي ومعترفا به عالميا.

السعي إلى تقديم برنامج علاج طبيعي تعليمي متفوق ومتميز مبنيا على استخدام أحدث الوسائل والتقنيات في مجال التعليم والتعلم من اجل تقديم أخصائي علاج طبيعي منافس لدية من المعلومات والمهارات ما يؤهله من استخدام الوسائل والطرق الحديثة في مجالات الوقاية والتقييم وإعادة التأهيل لحالات الإعاقات البدنية المختلفة من اجل توفير احتياجات المجتمع الحالية والمستقبلية والمساهمة في إعلاء شان مهنة العلاج الطبيعي من خلال التميز في مجال البحوث العلمية وان يكون كل ذلك مبنيا ومتماشيا مع مبادئ وقواعد الدين الإسلامي.


كلية العلوم الطبية التطبيقية
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علاج طبيعي
طب مختبرات
تغذية اكلينيكية