KINGDOM OF SAUDI ARABIA

MINISTERY OF HIGH EDUCATION

NAJRAN UNIVERSITY

1433-1434-H

College of Applied Medical Sciences

Department of Physiotherapy

Study Plan

FIRST YEAR, Semester 1

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS		CREDIT UNITS (CU)	ACTUAL HOURS	PRE-REQUISITES
			L	P			
English Language: Reading skills	140	ENG	2	-	2	2	-
English Language: Writing skills	141	ENG	2	-	2	2	-
English Language: Listening and Conversation Skills	142	ENG	2	-	2	2	-
English Language: Grammars	143	ENG	2	-	2	2	-
Introduction To Mathematics	140	MATH	2	-	2	2	-
Ideation and Thinking Skills	140	ETHC	2	-	2	2	-
Computer Skills	140	TECH	3	-	3	2	-
Total			15	-	15	15	

FIRST YEAR, Semester 2

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS		CREDIT UNITS (CU)	ACTUAL HOURS	PRE-REQUISITES
			L	P			
General English Language	150	ENG	3	-	3	3	-
Writing Reports	151	ENG	2	-	2	2	-
Professional Ethics	150	ETHC	1	-	1	1	-
Communication Skills	150	SCI	2	-	2	2	-
Algebraic Sciences	150	MATH	4	-	4	4	-
Total			12	-	12	12	

SECOND YEAR, Semester 3

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS		CREDIT UNITS (CU)	ACTUAL HOURS	PRE-REQUISITES
			L	P			
Human Anatomy (Limbs)	201	ANATp	2	1	3	4(2+2)	-
Human Physiology	223	PHYSp	1	1	2	3(1+2)	-
Introduction to Biochemistry	207	BICHp	1	1	2	3(1+2)	-
Introduction to Physics	204	PHSTp	1	-	1	1	-
Arab Writing Skills1	201	ARB	2	-	2	2	-
Computer Application for Health Sciences	250	TECHp	1	1	2	3(1+2)	-
Biostatistics	241	RESHp	2	-	2	2	-
Islamic Culture 1	111	ISLM	2	-	2	2	-
Basic Histology	231	HISTp	1	1	2	3(1+2)	-
Total			13	5	18	23	

SECOND YEAR, Semester 4

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS		CREDIT UNITS	ACTUAL HOURS	PRE-REQUISITES
			L	P			
Neuroanatomy	202	ANAT	2	1	3	4(2+2)	ANATp 201
Islamic Culture 2	112	ISLM	2	-	2	2	-
Biochemistry	208	BICH	1	1	2	3(1+2)	BICHp 207
Neurophysiology	224	PHYS	2	1	3	4(2+2)	PHYSp 223
Electrotherapy 1	201	PHTH	1	1	2	3(1+2)	PHSTp 204
Test and Measurements	202	PHTH	2	1	3	4(2+2)	ANApT 201
Biomechanics and Kinesiology 1	203	PHTH	2	1	3	4(2+2)	ANATp 201
Total			12	6	18	24	

THIRD YEAR, Semester 5

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS			CREDIT UNITS (CU)	ACTUAL HOURS	PRE-REQUISITES
			L	P	T			
Thorax and Abdomen Anatomy	310	ANAT	2	1	-	3	4(2+2)	ANATp 201
Principles of Exercise Physiology	311	PHYS	2	-	-	2	2	PHYS 224
Therapeutic Exercises	301	PHTH	1	1	-	2	3(1+2)	PHYSp 223
Electrotherapy 2	302	PHTH	2	1	-	3	4(2+2)	PHTH 201
Hydrotherapy	303	PHTH	1	1	-	2	3(1+2)	PHSTp 204
Biomechanics and Kinesiology 2	304	PHTH	2	1	-	3	4(2+2)	PHTH 203
Medical physics	312	MPHY	1	-	-	1	1	PHSTp 204
Islamic Culture 3	113	ISLM	2	-	-	2	2	-
Total			13	5	-	18	23	

THIRD YEAR, Semester 6

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS			CREDIT UNITS (CU)	ACTUAL HOURS	PRE-REQUISITES
			L	P	T			
Principles of Musculoskeletal Disorders and it's Surgery	312	ORTH	2	-	-	2	2	ANATp 201
Physiotherapy of Musculoskeletal Disorders and it's Surgery (Limbs and Spine)	305	PHTH	2	2	-	4	6(2+4)	ANAT p201
Rehabilitation for Sports Injuries	306	PHTH	1	1	-	2	3(1+2)	ANAT p201
Prosthetics and Orthotics	308	PHTH	1	1	-	2	3(1+2)	PHTH 304
Clinical Practice 1	307	PHTH	-	4	-	4	8(4+4)	PHTH 302
Pathology	312	PATH	2	-	-	2	2	HIST p231
Islamic Culture 4	114	ISLM	2	-	-	2	2	-
Total			10	8	0	18	26	

FOURTH YEAR, Semester 7

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS			CREDIT UNITS (CU)	ACTUAL HOURS	PRE-REQUISITES
			L	P	T			
Principles of Cardiac Disorders and it's Surgery	410	CARD	2	-	-	2	2	ANAT 310
Physiotherapy for Cardiac Disorders and it's Surgery	401	PHTH	2	1	-	3	4(2+2)	PHYS 311
Principles of Internal Medicine and Geriatric Diseases	411	INTM	2	-	-	2	2	ANAT 310
Physiotherapy for Internal Medicine and Geriatric Diseases	402	PHTH	2	2	-	4	6(2+4)	PHTH 305,
Pulmonary Rehabilitation	403	PHTH	2	1	-	3	4(2+2)	PHYS 311
Clinical Practice 2	404	PHTH	-	4	-	4	8(4+4)	PHTH 307
Total			10	8	0	18	26	

FOURTH YEAR, Semester 8

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS			CREDIT UNITS (CU)	ACTUAL HOURS	PRE-REQUISITES
			L	P	T			
Principles of Neuromuscular Disorders and it's Surgery	411	NEUR	2	-	-	2	2	INTM 411
Physiotherapy for Neuromuscular Disorders and it's Surgery	405	PHTH	2	2	-	4	6(2+4)	PHTH402
Psychology	412	PSYC	1	-	-	1	1	INTM 411
Arab writing Skills2	202	ARB	2	-	-	2	2	-
Clinical Practice 3	407	PHTH	-	4	-	4	8(4+4)	PHTH 404
Evidence-Based Practice	409	PHTH	1	-	1	2	3(1+2)	-
Pharmacology	413	PHCL	1	-	-	1	1	BICH208,
Research Methodology 1	414	RESH	1	-	1	2	3(1+2)	RESHp 141
Total			10	6	2	18	26	

FIVTH YEAR, Semester 9

COURSE TITLE	CODE	SYMBOL	WEEKLY HRS			CREDIT UNITS (CU)	ACTUAL HOURS	PRE-REQUISITES
			L	P	T			
Principles of Pediatrics Disorders and its Surgery	510	PED	2	-	-	2	2	NEUR 411
Physiotherapy for Pediatric Disorders and its Surgery	501	PHTH	2	2	-	4	6(2+4)	PHTH 405
Burn Rehabilitation	502	PHTH	1	1	-	2	3(1+2)	ANATp 231
Clinical Practice 4	503	PHTH	-	4	-	4	8(4+4)	PHTH 407
Principles of Occupational Therapy	504	PHTH	1	1	-	2	3(1+2)	PHTH 405
Research Methodology 2	511	RESH	1	-	1	2	3(1+2)	RESH 414
Radiology	512	RAD	1	1	-	2	3(1+2)	ORTH 312
Total			8	9	1	18	28	

TOTAL HOURS			CREDIT UNITS (CU)	Total Actual Hours
Literatures (L)	Practical (P)	Tutorial (T)		
103	47	3	153	203

Practical Training (Internship)
Hospital and Community – Based Training – 06 Months

Course description

ANATp 201: Human Anatomy (Limbs)
This course aims at giving students a useful foundation in basic anatomy and anatomy of the limbs which is important for understanding and utilizing applied medical practice in physiotherapy program.
PHYSp 223: Human Physiology
A two-credit, university-level course that covers different aspects of the physiology of the human body, including basic cellular structure and function, and the integration, organization, and control of the organism's body systems. After completing this course, student will have acquired an understanding of physiology, physiological adaptations to special conditions, and some of the physiological factors in disease processes
BICHp 207: Introduction to Biochemistry
The basic concept of biochemistry including classification and reactions of organic compounds, stereochemistry, water and pH. Structure and functions of biomolecules in living matter. It contrasts the simplicity of the building blocks of macromolecules (amino acids, monosaccharides, fatty acids and purine and pyrimidine bases) with the enormous variety and adaptability of the different macromolecules they form (proteins, carbohydrates, lipids and nucleic acids). It highlights the nature of the electronic and molecular structure of macromolecules and their interactions within the cellular environment. Role of vitamins and minerals in biochemical processes.
PHSTp 204: Introduction to Physics
This course provides basics of Physics. Students will be introduced to basic of units and dimensions, vectors and motion laws, it will examine the structure of waves together with physical phenomena such as types of electromagnetic waves, electricity, magnetism and optics, production of X-rays and construction of the X-ray tube, and brief introduction to Physics in Medicine
ARB 201: Arab Writing Skills1
This course aims at reaching the student to correct pronunciation and writing correctly, and to know a brief summary of some Flags of language and literature and identify some common mistakes.
TECHp 250: Computer Application for Health Sciences
The course discusses the identification and management of computer programs such as word, excel, power point and the method of their use in the field of health.
RESHp 241: Biostatistics
This course provides principles of biostatistics as related to medical sciences. It will refresh the mathematical, statistical background that will introduce the students to the display and communication of statistical data using different tools of statistical measures. During Biostatistics course, students will build on the basic statistical skills they gained in basic concepts of statistics. Upon successful completion of the course, the student is expected to have knowledge about relevant statistical terminology and the role of statistics as scientific method recognize different types and structures of data.
ISLM 111: Islamic Culture 1
The course aims at determining the correct doctrine derived from the Qur'aan and Sunnah and establishing it in the hearts of students in light of the approach of the righteous ancestors.

HISTp 231: Basic Histology
Introduction to basic histology emphasizing aspects of particular relevance to physiotherapy; including general basic of histology, microscope, staining, Epithelium, Connective tissue, bone and cartilage, skin and oral cavity, organelles EM, Cytoskeleton EM. Function of neural tissue.
ANAT 202: Neuroanatomy
This course will provide the students with the general concept of components and functions of the nerves system, central and peripheral nervous system in addition to the autonomic nervous system. This course will justify the relationship between different parts of the nervous system and its functions.
ISLM 112: Islamic Culture 2
This course highlights the characteristics of the Islamic community and the foundations on which it is based, and the means of social cohesion, and the most important problems in the community. To embody the teachings of Islam in the field of family formation and to show the role of women in building the family and forming the society. A statement of the guidance of Islam and guidance in the issues of marriage and raising children, which helps to maintain the family entity and stability, and thus the community and strengthen and explain the treatment of Islam to what is happening within the family of issues and problems.
BICH 208: Biochemistry
The course covers basic concept and metabolic pathways of carbohydrates، lipids، amino acids، nucleotides and their abnormalities regarding health and disease state. It also covers the important practical session related to the different metabolic defect، and the methods of laboratory diagnosis of certain diseases related to metabolic pathways.
PHYS 224: Neurophysiology
This course studies general organization and functions of different parts of nervous system including the motor and sensory systems and the essential knowledge of electrophysiology of nerve and muscle with special emphasis on mechanisms of muscle contraction.
PHTH 201: Electrotherapy 1
The Course is designed for undergraduate physical therapy students to provide them with the basic knowledge about electrical methods and to use this methods in treatment program related to human injuries and diseases with description of these devices to achieve the main goals and clinical practice. In addition, the course includes concise aspects of pain control and pathway. This course provides the basic physical therapy examination skills. Include application of short wave and microwave to treatment different injuries and application of laser and ultraviolet therapy on patient with different acute and chronic conditions and how to use ultrasonic on fracture points and other injuries.
PHTH 202: Test and Measurements
This course introduces the student to the processes of evaluation by helping him to start evaluating the muscle strength, range of motion and the long and circumference measurement of both upper and lower limb. The assessment procedures include the use of manual muscles test, range of motion test using basic instrumented measurers. It also helps the student to understand and demonstrate the theoretical and basic practical skills needed for manual muscle testing, range of motion measurement, selected instrumented measurements, length and circumferences measurements for the upper limb, lower limb, neck and trunk muscles.

PHTH 203: Biomechanics and Kinesiology 1
The course provides an overview of the basic mechanical principles and terminology. The course explains mechanical properties and structural behavior of biological tissues (muscles and bones). Specific course topics will include basic mechanical concepts, structure and function relationships in tissues; analysis of forces in human function and movement with special emphasizing on analysis of therapeutic exercises.
ANAT 310: Thorax and Abdomen Anatomy
The course provides an overview on the basic of theoretical knowledge, and practical for the anatomy of the trunk and its surface anatomy and functional anatomy.
PHYS 311: Principles of Exercise Physiology
In this course the students acquire basic knowledge on the types of exercise, fuel used during exercise, short term and long term adaptation of the body to exercise with main concentration on cardiopulmonary responses to exercise and building of physical fitness.
PHTH 301: Therapeutic Exercises
This course introduces the therapeutic exercises which explore the different forms of exercises and how to use these modalities in treatment program related to human injuries and diseases. The course contains detailed information on the physiological effects، therapeutic benefits، indications، contraindications، precautions، techniques of application and safety measures for each type of exercise.
PHTH 302: Electrotherapy 2
This course introduces the electrotherapy which explores the different types of electrical stimulation currents and how to use these modalities in treatment program related to human injuries and diseases. The course contains detailed information on the physical and physiological principles, therapeutic effects, indications, contraindications, precautions and techniques of application for low and medium frequency currents as well as the hazards of electricity and electric shock.
PHTH 303: Hydrotherapy
This course introduces the hydrotherapy which describes the physical properties of water and how to benefit from these properties in treatment program related to human injuries and diseases. The course contains detailed information on the physiological changes, therapeutic effects, indications, contraindications, precautions, techniques of application and safety measures for each hydrotherapy modality.
PHTH 304: Biomechanics and Kinesiology 2
The course provides an overview of the osteokinematics, arthrokinematics and pathomechanics of the hip, knee, patellofemoral, ankle and foot joints. Emphasis is placed on the study of normal and abnormal mechanics of the lower extremities joints. The course provides basic description of normal gait cycle and kinematics and kinetics gait analysis.
MPHY 312: Medical physics
Medical Physics is the application of physics in medicine. The course is designed to provide an understanding of the medical imaging and medical physics of the human body. In addition، the course provides an understanding about how to deal with radioactive sources; distinguish between different types of radiation exposures; and protect from radiation hazards.
ISLM 113: Islamic Culture 3
The course aims to demonstrate the importance of rights in Islamic law. And the statement that Islamic law has taken precedence in the attention to rights interest cannot be up to the legislations status. And to educate students on various types of rights in Islam to be a good citizen and a useful member of his society, which is religious.

ORTH 312: Principles of Musculoskeletal Disorders and it's Surgery
This course guides the students to acquire sound knowledge of general principles of orthopaedics & fractures, and describe the symptoms and signs of fractures &their radiological appearances & general plan of treatment & treatment of multiple injured patients, and explain the pathogenesis of common orthopaedics disease categories and their presentation.
PHTH 305: Physiotherapy of Musculoskeletal Disorders and it's Surgery (Limbs and Spine)
This course demonstrates and practice of the evaluative and effective physical therapy management procedures used in orthopedic conditions. And teach the students how to evaluate, plan and implement the appropriate physical therapy to individuals with orthopedic problems treated by medical or surgical procedures. Pre and post-operative care will be emphasized.
PHTH 306: Rehabilitation for Sports Injuries
This course demonstrates the evaluative and effective physical therapy management procedures used in sports injuries conditions and teach the students how to evaluate, plan and implement the appropriate physical therapy program to individuals with sports injuries Pre and post-operative physiotherapy intervention will be emphasized.
PHTH 308: Prosthetics and Orthotics
This course demonstrates and practice of the evaluative and effective use of different type of Prosthetics and Orthotics in physical therapy management procedures used in orthopedic and neurological conditions. And teach the students how to evaluate, plan and implement the appropriate use them and how to apply them to individuals with orthopedic and neurological problems treated by medical or surgical procedures.
PHTH 307: Clinical Practice 1
This course provides clinical practice in the assessment and intervention procedures used with clients severing from various musculoskeletal pathologies. The course applies and builds on the concepts of how to evaluate، determine problems، and plan In addition demonstrate physiotherapy treatment on patients. This course conducted in physiotherapy clinics (college campus) under supervised sessions.
PATH 312: Pathology
This course will provide the students with the general concept of Pathophysiology which will be discussed with appropriate reference to the general pathologic process due to cellular stress. An organized system review of the commonest diseases with adequate insight into causes, clinical manifestations, and diagnosis will be covered.
ISLM 114: Islamic Culture 4
The course explains the importance of studying the Prophet's biography, which is the practical application of understanding Islam correctly. Students meet through their study of the Prophetic Sacrament as much as legitimate knowledge whether in faith, judgment or morality.
CARD 410: Principles of Cardiac Disorders and it's Surgery
This course is designed for undergraduate physical therapy students to provide them with the basics of cardiac anatomy, physiology, hemodynamics and common cardiac disorders that are relevant to their field.
PHTH 401: Physiotherapy for Cardiac Disorders and it's Surgery
This course provides the physio therapy student the essential knowledges and skills to be able to assess and evaluate the cardiac patient, and put the program of rehabilitation and apply it for these patients. the student will be able to evaluate cardiothoracic surgery patients and put pre and post operative rehabilitation program

INTM 411: Principles of Internal Medicine and Geriatric Diseases
To provide students of applied medical science college with an up to date basic knowledge of internal medicine and geriatrics that is relevant to their future practice and that would help them best understand physiotherapy procedures that are related to this field.
PHTH 402: Physiotherapy for Internal Medicine and Geriatric Diseases
This course enables the students to evaluate and treat the geriatric patients and internal diseases, including diabetes, vascular, geriatrics and metabolic disorders in relation to physical therapy evidence based practice
PHTH 403: Pulmonary Rehabilitation
This course provides the students the main knowledge of the chest disease and give them the skills of assessment and physiotherapy for the most common chest disease and enable them to conduct effective pulmonary rehabilitation program for outpatients, inpatients and inside ICU.
PHTH 404: Clinical Practice 2
This course teaches the students how to evaluate and treat geriatric patients and internal diseases, including diabetic, vascular, metabolic patients, cardiac and pulmonary disorders from the physical therapy point of view. Insisting on updated physical therapy theories and modalities.
NEUR 411: Principles of Neuromuscular Disorders and it's Surgery
The course provides an overview on the basic knowledge, evaluation and management for commonly neurological disorders treated by physical therapists. The course discusses the etiology, pathophysiological changes, clinical manifestations, investigation, complications, and treatment of the neurological disorders.
PHTH 405: Physiotherapy for Neuromuscular Disorders and it's Surgery
The course provides an overview of the basic principles of physical therapy for neuromuscular disorders. This course is designed to provide the students with clinical practice of neurophysiological approaches to the evaluation and effective physical therapy management procedures. Also, teach the student how to evaluate, determine the patient problems, plan the treatment program, apply pre and post operatives care program.
PSYC 412: Psychology
This course will give an overview of topics developmental، social psychology، including the development of thought، language، personality، organizational psychology, abnormal psychological. The course also covers social issues including communication.
ARB 202: Arab writing Skills2
The course enables students to discover and avoid common mistakes in spelling and stylistic writing. It also helps them to achieve precision in expression and focused writing, and they can communicate with the official authorities in a proper and appropriate manner free of mistakes.
PHTH 407: Clinical Practice 3
This course enables the students to independently assess and treat patients with neurological diseases by obtaining a pertinent history from the patients with direct supervision from clinical instructor. Also, perform needed tests and measure in order to reach best differential diagnosis. Students will collect different information to apply best available intervention based on evidence-based practice.
PHTH 409: Evidence-Based Practice
This course is designed to provide students with the knowledge about the concept of evidence based practice in physiotherapy. The steps of evidence based practice in

physiotherapy are also discussed in this course. Moreover, the course describes the process of searching in internet and websites to improve the skills of students to select the most updated modalities in physiotherapy for treating patients
PHCL 413: Pharmacology
This course focuses on fundamental principles in pharmacology, pharmacokinetics and pharmacodynamics. This course covers the effects, therapeutic uses and side effects of the drugs acting on CNS. This includes: General anesthetics, local anesthetics, sedative-hypnotics, narcotic and non-narcotic analgesics.
RESH 414: Research Methodology 1
Research methodology course discuss the scientific method and research process. The course provides definitions of research, development of research skills, identifying the research problem and an understanding of common research terminology. This course also delivers the process of collecting and analyzing the data, interpreting results and forming Conclusions. It explains the methods of planning, designing, executing, evaluating and reporting research within the knowing and understanding all research stages.
PED 510: Principles of Pediatrics Disorders and its Surgery
Pediatrics is concerned with the health of infants, children and adolescents, their growth and development, and their opportunity to achieve full potential as adult. Pediatric surgery is a subspecialty of surgery involving the surgery of fetuses, infants, children, adolescents, and young adults Pediatric surgery arose in the middle of the 20th century as the surgical care of birth defects pediatric orthopedic surgery includes muscle and bone surgery in children.
PHTH 501: Physiotherapy for Pediatric Disorders and its Surgery
This course provides the students with information about understanding the normal growth and development in children, reflexive maturation in pediatrics and the difference in evaluation between pediatrics and adults. The course also provides different developmental physical disabilities, Neuro-pediatric cases as cerebral palsy, spina bifida, brachial plexus injuries, torticollis and how to apply different physical therapy modalities in pediatrics.
PHTH 502: Burn Rehabilitation
The course is designed to provide the students with appropriate management of different burn cases. The student will be trained on how to select the appropriate physical therapy procedures for different burn problems and how to plan the physical therapy programs for these cases. Implementation of physical therapy programs using therapeutic skills for each part.
PHTH 503: Clinical Practice 4
This course is designed to provide the students with the practical skills in evaluation of pediatrics and acquire the difference between evaluation in pediatrics and adults. The course also, provides the students with the practical skills in management of different pediatric cases such as cerebral palsy, brachial plexus injuries, facial palsy, spina bifida, Down syndrome, muscular torticollis and congenital deformities of the hip, knee and foot. Moreover, this course provides students with the practical knowledge about how to deal with pre and post-operative cases. In addition, this course provides information about some topics including balance, gait or transfer training; function training, facilitation of milestones, common faciliatory and inhibitory techniques.
PHTH 504: Principles of Occupational Therapy
This course explores the underlying concepts and principles associated with occupational therapy and its management procedures used in various conditions. The

course develops and promotes students' knowledge and skills required for safe, competent practice of occupational therapy within legal and ethical frameworks in existing and diverse areas of practice.
RESH 511: Research Methodology 2
This course designed to improve student knowledge, skills and capability to practice the research methods by recognize the methodology processes and strategies of research as well as to use the databases for obtaining the intended studies. As well as to learn student the process of research construction, literature review, critical appraisal, making questions, methods procedures and discuss the results with logical interpretation in small research at the end of course.
RAD 512: Radiology
This course will introduce the Physiotherapy program students to the field of radiology. It provides the student with the fundamental concepts and techniques relating to the production of x-rays and the basic concepts regarding MRI and CT scan. It is designed to provide students with a basis for analyzing radiographic images for diagnostic purposes. Students will become acquainted with the importance of minimum imaging standards. Students will be responsible for looking at radiographs to decide whether they are diagnostically acceptable and assure consistency in the production of quality images.