

COURSE DESCRIPTION
BACHELOR OF SCIENCE IN PHYSICAL THERAPY (effective 2008-09)

ANA 1 - Histology, Embryology and Anatomy of the Limbs – 4 units (2 units lecture/4 units laboratory)

This course is a comprehensive study of the gross anatomy of the human body which covers the head, neck, thorax, back, abdomen, pelvic floor, upper and lower extremities. Emphasis is given to the musculoskeletal system. Cadaver dissection and practical correlation are performed during the laboratory sessions.

ANA 2 - Neuroanatomy - 4 units (3 units lecture/1 unit laboratory)

This course provides a basic learning experience in gross and microscopic human neuroanatomy. It focuses on the study of the central nervous system and peripheral nervous system and related neurological structures as preparatory for the rehabilitation management of different neurological conditions. An opportunity for first-hand dissection experience which includes brain-cutting and identification of neural structures on fresh brain specimens are provided during the laboratory sessions.

ANA 3 - Systemic Anatomy – 3 units (2 units lecture/1 unit laboratory)

The course is designed to provide a basic learning experience in human embryology, histology, genetics and systemic anatomy of the human body with emphasis on the study of the gross structures and functions of the different systems of the body namely: integumentary, respiratory, circulatory, endocrine, urinary, reproductive, lymphatic and cardiovascular. Models, cadaver dissection and histological slides are used for better understanding of the course.

ANA 4 – Kinesiology: Functional Anatomy – 4 units (3 units lecture/1 unit laboratory)

The course deals with the study of the biomechanics, physiology and anatomy of bodily motion as related to locomotion, activities of daily living and physical exertion in normal and disabled persons. Special emphasis is given to clinical application of the principles and techniques in physical therapy. Carried out through lectures, demonstrations, and practice of laboratory simulation.

PHYSIO 1 – Physiology of Musculoskeletal System and Neurophysiology – 5 units (4 units lecture/1 unit laboratory)

The course provides an introduction to cellular physiology, concerned with properties that characterizes all living cells. A thorough discussion is made on special cell types such as neurons and muscle fibers with emphasis on the musculoskeletal and nervous system. Laboratory sessions through experimentation are done.

PHYSIO 2 - General & Systemic Physiology - 3 units (2 units lecture/1 unit laboratory)

The course provides a continuum in the study of physiology of the human body with emphasis on systemic physiology in which the activity of the different tissues and organs subserve the various coordinated functions of the human body.

PATHO - Pathology and Pathophysiology - 2 units lecture

The course provides a background knowledge on general pathology, tissue/cellular reaction to inflammation and injury, regeneration, tissue repair and process of healing and immunity. It is also studies the relationship between the host, environment and pathogen in health and disease. The course offers a demonstration by audio-visual aids on the pathologic changes of cell, tissue and common pathogens.

MEDICAL FOUNDATION 1 - General Medical Condition, Pediatrics Conditions - 5 units lecture

The course offers a discussion of medical and surgical terminologies, disease entities in adult and pediatric patients with emphasis on conditions commonly encountered in occupational therapy practice in the following areas: cardiovascular and pulmonary conditions, brain injuries, immunological, traumatic or infectious, malignancy, genetic abnormalities and endocrine deficiencies. Pharmacology is also discussed with emphasis on generic names of different medications, its effects and contraindications in relation to the different conditions being handled by an physical therapist.

MEDICAL FOUNDATION 2 – Neurology - 3 units Lecture

An in-depth study of the nervous system and the pathophysiology underlying neurological conditions are included. Emphasis is given to the study of the different neurological conditions involving the central and peripheral nervous systems including its rehabilitation management.

MEDICAL FOUNDATION 3 – Orthopedics, Rheumatology & Surgical Conditions – 5 units Lecture

This course deals on surgical conditions that lead to transient or permanent disability-causing conditions and its sequelae. Includes topics on bone growth healing process, stages of bone maturity, radiological changes and correlation of various disease processes. Discussion on rheumatology and specific orthopedic conditions such as tumor amputation, congenital defects and abnormalities, fractures and prosthetic replacements of hip, knee, interphalangeal joints, etc., are taken up. Rehabilitation, evaluation and management are included.

PHYSICAL THERAPY 1 - Introduction to Physical Therapy and Patient Care – 4 units (3 units lecture/1 unit laboratory)

The course is an introduction to the procedures necessary for the basic care of the patient. It includes proper positioning and draping, proper body mechanics, first aid and basic life support, vital signs, basic wound care, bandaging, therapeutic massage, superficial heat and cold, hydrotherapy, traction, tilt table and intermittent compression.

PHYSICAL THERAPY 2 – Electrotherapy (High Frequency: Light and Thermal Agents) – 4 units (3 units lecture/1 unit laboratory)

The course deals on the basic principles of heat and radiation and their applications as to their therapeutic use in physical therapy. Principles, techniques and physiologic basis on the use of high-frequency current which include shortwave diathermy, microwave diathermy, infrared radiation, laser, ultrasound and ultraviolet radiation are covered in the course.

PHYSICAL THERAPY 3 - Principles of Clinical Evaluation in Physical Therapy – 5 units (3 units lecture/2 units laboratory)

The course is an application of the fundamental knowledge of the sciences of anatomy, physiology, neurophysiology, physics and biomechanics to measurement and movement. It deals with the basic evaluation procedures such as an integumentary, burn/wound, cardiopulmonary, orthopedics, neurological, geriatrics and pediatrics are also covered in the course including its application to clinical setting.

PHYSICAL THERAPY 4 – Electrotherapy (Low and Medium Frequency) – 3 units (2 units lecture/1 unit laboratory)

The course deals on the basic principles of electricity and their applications to as to its therapeutic and diagnostic use in physical therapy. This includes the principles, techniques and physiologic basis on the use of low frequency and medium frequency such as electrical stimulation, functional electrical stimulation, transcutaneous electrical nerve stimulation, iontophoresis, diadynamics, biofeedback and interferential current. Methods in performing and interpreting electrodiagnostic procedures were also discussed.

THERA EX. 1 - Basic Therapeutic Exercises – 5 units lecture (3 units lecture/2 units laboratory)

The course deals on the principles, physiology and techniques of basic therapeutic exercise such as range of motion, resistance, stretching, peripheral joint mobilization, aerobic and relaxation techniques. Discussion of functional training and the use of different assistive devices is also provided in the course.

THERA EX. 2 - Specialized Therapeutic Exercises – 4 units (2 units lecture/2 units laboratory)

The course covers sequential development of various exercise programs for specific entities in cardiopulmonary, orthopedics, geriatrics, obstetrics and sports rehabilitation. It deals with the design, planning and implementation of different exercise programs for clinical and home setting.

**THERA EX. 3 - Advanced Therapeutic Exercises (Neurodevelopmental Techniques)
– 4 units (2 units lecture/2 units laboratory)**

The course deals on the different neurodevelopmental techniques as it applies to different neurological conditions. This include Brunnstrom, Bobath, Rood, Proprioceptive Neuromuscular Facilitation, Eclectic Approach and Motor Relearning Program.

PSYCH - Psychiatric Foundations of Physical Therapy – 3 units lecture

The course provides an introduction to psychiatry, stages of psychological development, emotional reactions to stressors and various coping mechanisms, behavioral patterns, stages of psychological reactions to disability in both normal and abnormal and mechanisms of operant conditioning in the management of handicapped patients.

ORAD - Clinical Organization and Administration – 3 units lecture

The course deals with the direction and management of rehabilitation physical therapy units in hospitals, community centers, schools for handicapped individuals and public health agencies. It focuses on personnel selection, staff education, supervision, inter-departmental relationships and development and the use of resources and program planning. It also deals with policies and regulations that are of relevance to the physical therapy practice.

HUMAN DEVELOPMENT : Human Growth and Development - 3 units lecture

A study on various stages in life starting from prenatal period to old age. Emphasis is given on developmental changes (physical, psychological & emotional) expectations, task, roles as well as issues & stressors during each stage in life.

ETHICS - Professional Ethics in Physical Therapy – 2 units lecture

The course is designed to help physical therapy students to be familiar with professional issues both local and global using the process of ethical reasoning especially in medical situations.. It provides a systematic way of thinking about issues that have been raised with the goal in mind that the student as future physical therapist will be at a position to arrive at an ethical decision after considering the scientific, moral, legal and ethical aspects of the profession. Discussion of the policies and regulations affecting physical therapy practice in the Philippines is also provided.

ORTHOTICS & PROSTHETICS – 3 units (3 units lecture/1 unit laboratory)

The course deals with the study of the principles of splinting, casting, bandaging, bracing and use of artificial limbs. It includes their indications, contraindications, prescriptions, measurements, principle of fabrications, fitting and checking out of orthopedic shoes and appliances. Laboratory sessions include the design, fabrication and evaluation of the common static and dynamic upper extremity splints and selected lower extremity splints and the use of braces, crutches, etc.

**SEMINAR 1 - Clinical Orthopedic, Integumentary and Cardiopulmonary Correlations –
2 units laboratory**

The course integrates and correlates all knowledge acquired by the students with emphasis on selected orthopedic, integumentary and cardiopulmonary conditions. Emphasis is placed on writing evaluations using physical therapy assessment and procedures and the development of clinical reasoning skills such as interpretation of clinical findings.

**SEMINAR 2 – Clinical Surgical, Neurologic and Developmental Pediatric Correlations –
2 units laboratory**

The course integrates and correlates all knowledge acquired by the students with emphasis on selected clinical surgical, neurologic and developmental pediatric conditions. Emphasis is placed on writing evaluations using physical therapy assessment and procedures and the development of clinical reasoning skills such as interpretation of clinical findings.

SEMINAR 3 – Basic Sciences ad Orthopedic Clinical Correlations – 2 units lecture

The course is a review of topics from basic sciences to medical surgical correlations. It integrates the theoretical knowledge from basic sciences (anatomy and kinesiology) with the different medical conditions (orthopedic, rheumatology and integumentary conditions). Furthermore, the course prepares the interns for their licensure examination by developing their test - taking skills.

SEMINAR 4 – Physical Therapy Applications and Clinical Correlations – 2 units lecture

A comprehensive review of the pertinent knowledge on physical therapy evaluation, management and their correlations to specific neurological, musculoskeletal, cardiopulmonary and integumentary conditions. The course adopts individualized and self -directed learning approach through structured independent study. The course has two major sections : review of basic physical therapy evaluation and management and clinical correlations on neurological, musculoskeletal, cardiopulmonary and integumentary conditions.

PHARMA - Pharmacology for Allied Health Professions - 2 units lecture

The course is designed to provide physical therapy students with a comprehensive yet understandable survey of current pharmacology with special emphasis on the relationship of drug therapy to rehabilitation. It integrates and expands the student's knowledge in the basic sciences (anatomy, physiology, and pathology) while building on their concurrent studies on medical and surgical conditions, and exposing them to the importance and relevance of drug therapy in rehabilitation. It provides an overview of pertinent aspects of drug therapy in rehabilitation, including which drugs are used to treat specific problems, the rationale for their use, how specific drugs work, and more importantly, the manner in which these drugs may impact on various rehabilitation treatments.

RES METH - Research Methodology (Proposal Writing) - 3 units

The course deals with the principles, process, procedures and tools used in research, particularly, in health professions. It includes the discussion, the definition, types and process of research, problem identification and statement, identification and control of variables, formulation of hypotheses and assumptions, discussion of different populations and sampling methods and statistical tools. As a terminal output, the student creates a satisfactory research proposal.

THESIS 1 - Thesis Writing 1 (1 unit lecture)

The course deals with the conceptualization and construction of a research proposal based on an approved topic evolving on the field of occupational therapy. It includes the application of research methodology and statistical principles in an attempt to answer the questions under the study. Thesis Writing 1 requires the students to pass a thesis proposal.

THESIS 2 - Thesis Writing 2 – (2 units lecture)

A pre-requisite to graduation, and completion of a mature and original research in clinical setting. Studies responsible to problems in the clinics are encouraged. The course deals with the implementation of the research proposal and the presentation, analysis, and interpretation of the gathered data. It also includes the formulation of conclusions and recommendations based on the results of the study. Thesis Writing 2 requires the students to implement and defend the research paper.

CBR – PT in COMMUNITY - BASED REHABILITATION -Home Health Care – 3 units (1 unit lecture/2 units laboratory)

The course includes community diagnosis organization and participatory planning. Students are assigned in the field to obtain community profile and enjoin community in the planning, organization and implementation of community programs. Home environment and work place of identified persons with disability are also evaluated for rehabilitation planning.

ITC 1 – INTRODUCTION TO CLINICS 1 (Orthopedic, Integumentary and Cardiopulmonary Correlations – 2 units laboratory)

The course prepares the students for clinical internship through the integration of basic skills in evaluation and management specifically orthopedic, integumentary and cardiopulmonary conditions and correlations. It also introduces and provides an opportunity to observe and conduct actual evaluation and management of patients.

ITC 2 – INTRODUCTION TO CLINICS 2 (Surgical, Neurologic and Developmental Pediatric Correlations – 2 units laboratory)

The course prepares the students for clinical internship through the integration of basic skills in evaluation and management particularly with surgical, neurologic and developmental pediatric conditions and correlations. It also introduces and provides an opportunity to observe and conduct actual evaluation and management of patients.

CLINICAL EDUCATION 2 and 3 – Clinical Internship – 15 units laboratory each (800 hours each)

The final and most advanced phase in the series of clinical experiences. The students devote their full time and attention to the practice of their future profession under the guidance of qualified clinical educators/supervisors. Areas of specialized training include neurologic, pediatric, orthopedic, geriatric, obstetric, cardiopulmonary, sports-related and community-based rehabilitation. In addition, case studies are accomplished and presented so as to provide the Students an opportunity to apply his clinical reasoning skills.
